COMMUNICATING FOR DEVELOPMENT USING SOCIAL MEDIA: A CASE STUDY OF E-INCLUSION INTERMEDIARIES IN UNDER-RESOURCED COMMUNITIES

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Abstract

South Africa is committed to accelerating the roll-out of information and communication technologies (ICTs) to support development at all levels. E-inclusion intermediaries (e-IIs) are used in the country to bridge the digital divide and to create equal opportunities for citizens to benefit from using ICTs. E-IIs are established mainly in under-resourced communities by private, public and third-sector organisations to provide physical access to ICT services for free or at a very low cost. The aim of e-IIs is to make ICT services affordable for and accessible to marginalised and poor community members, who can use the ICT to support community development.

The debate is ongoing regarding the contribution of e-IIs towards community development due to, in part, the lack of quantifiable evidence to support the impact that the e-IIs have on development in the communities. Furthermore, despite the existence of e-IIs in communities, there still are community members who do not use the e-IIs. This has been attributed to the lack of awareness of the e-IIs and the services they provide. This lack of awareness is often blamed on the ineffective communication strategies of e-IIs. E-IIs are accused of relying heavily on traditional communication channels and conventional mass media, which do not share information and create awareness effectively in the communities.

The increased uptake of modern technologies, such as the Internet and mobile devices, in South Africa has created new opportunities to communicate with community members to share information and create awareness. Social media, for instance, which are mostly accessed through mobile devices, have made communication more accessible and inexpensive for community members with limited skills and resources. Social media have also become popular among development actors in their attempt to direct policy, create awareness and garner community members' support for development interventions. Arguably, e-IIs could also benefit from using social media, which have become popular in some communities, to communicate with community members in order to create awareness of the e-IIs, the services they provide and the benefits of using ICTs to support community development.

The investigation undertaken in this study was twofold. Firstly, the quick-scan analysis method was used to analyse fifty e-IIs. Using this method it was possible to explore the services that are provided by e-IIs as well as how e-IIs communicate with community members and other development actors. Secondly, using six in-depth case studies this study further investigated how e-IIs' services support community development and how the e-IIs communicate for development, paying special attention to their use of social media. The investigation focused on e-IIs in under-resourced communities of the

Western Cape Province of South Africa. This study used qualitative multiple case studies with site visits, interviews and focus group discussions with e-II representatives and community members.

The findings of this study indicate that e-IIs provide much-needed physical access to ICTs for marginalised community members in under-resourced communities. With the evolving needs of community members, e-IIs have also evolved to offer different services beyond providing ICT access. The e-IIs, however, face various challenges that hinder their ability to provide adequate and quality services that fulfil community needs. These challenges include a lack of adequate funding, staff and resources. E-IIs can struggle to make an impact in the communities if the development actors that establish them consider the provision of physical access to ICTs as the end goal. Community members' physical access to ICTs does not guarantee community development. In addition to physical access, equal attention should also be paid to the social context and environment to ensure that the technology is appropriate and that community members understand the need and value of the technology, as well as possess the digital skills to use them meaningfully.

The findings also show that e-IIs use different communication media. They rely heavily on traditional mass media such as community newspapers and radio, posters and word of mouth which is also considered a medium. E-IIs struggle to develop effective communication strategies that create awareness, share information, promote the use of ICTs and facilitate engagement with community members. The e-II staff often have little knowledge about their community members' information and communication needs, and the most appropriate and effective communication media, yet this knowledge is necessary to develop effective strategies.

Social media could be effective communication media to use in pursuing specific developmental goals. From this study, the e-IIs that used social media benefited from low-cost and participatory communication approaches that built networks to share information and create awareness. Social media were found to play the roles of information sharing and gathering, teaching, two-way engagement, relationship building, networking and awareness creation. This study also found that social media were most effective when they were appropriate for the e-IIs' target audience and were used strategically by digitally skilled and knowledgeable e-II staff. This study provides recommendations regarding how e-IIs and other development actors can use social media to communicate for development, particularly in under-resourced communities.

The findings of this study can be used by policy planners to inform broader national development policy and ICT policy and more specifically ICT4D interventions and communication for development

strategies. For example, regarding e-inclusion approaches in under-resourced communities, this study found that there is a need to shift from techno-centric driven approaches towards more participatory, community-driven and development-centric approaches. This will help to ensure that the e-IIs and the e-inclusion approaches they use are appropriate for the social environments and address existing development challenges in the communities.

This study also contributes that developing effective communication for development strategies requires e-II staff and any other development actors to know their community's communication landscape. This encompasses knowledge about community members' information and communication needs (sought gratification), and accessible, affordable and used communication media. This knowledge also includes information about possible power relations (based, for example, on socio-economic status, race, and religion) in the community. These relations can influence the formation of social networks, as well as the flows and ways through which community members communicate. Effective communication for development strategies would ideally enable the e-IIs to create awareness, share information, promote the use of ICTs, and facilitate participatory communication in their communities.

Keywords

Communication for development, Community development, E-inclusion intermediaries, Information and communication technology for development, Social media, Under-resourced communities

Declaration

I declare that "*Communicating for development using social media: A case study of e-inclusion intermediaries in under-resourced communities*" is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Natasha Katunga   Date

                                                                                                     August 2019
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Abbreviations and Acronyms

Abbreviation	Description
C4D	Communication for Development
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CBO	Community Based Organisation
CDWs	Community Development Workers
CV	Curriculum Vitae
ECD	Early Childhood Development
E-Centre	Electronic Centre
ECA	Electronic Commissions Act
E-Inclusion	Electronic Inclusion
E-II/s	Electronic Inclusion Intermediary/ies
GDP	Gross Domestic Product
ICDL	International Computer Drivers Licence
ICT/s	Information Communication Technology/ies
ICT4D	Information and communication Technology for Development
IDRC	International Development Research Centre
ITU	International Telecommunications Union
MPCC	Multi-Purpose Community Centre
MPCT	Multi-Purpose Community Telecentre
NAM	Non-Aligned Movement
NDP	National Development Plan
NGO	Non-Government Organisation
NPO	Non-Profit Organisation
NWICO	New World Information and Communication Order
PNC on ISAD	Presidential National Commission on Information Society and Development
QSA	Quick-Scan Analysis
S-M-C-R	Source Message Channel Receiver
SMSs	Short Message Services
UGT	Uses and Gratification Theory
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USAASA	Universal Service and Access Agency of South Africa
WC	Western Cape
WCG	Western Cape Government
WCP	Western Cape Province
WSIS	World Summit on the Information Society

Chapter 1

Introduction to the study

1.1   Introduction

This thesis reports on e-inclusion intermediaries in the Western Cape Province (WCP) of South Africa. It looks at how they use information and communication technologies (ICTs) to support community development and, more specifically, how they use social media to communicate for development. The development in question entails the enhancement of community members' opportunities and capabilities to help themselves achieve a better quality of life. This chapter presents a discussion of the background to and context of this study, which set the foundation for the research problem.

1.2   Background of the study

With the fourth industrial revolution now upon us more than ever before, ICTs are reshaping the way that we live, work, and communicate (Schwab, 2016). These technologies have transformed how development is done to address global challenges such as poverty, inequality, and unemployment which continue to plague nations (Heeks, 2008). ICTs are broadly defined as electronic technologies used to create, process, gather, distribute, and publish information in the form for example, of audio, data, text, video and images (Beckinsale & Ram, 2006; Kleine, 2015). These technologies include radio, television, mobile devices, personal computers, the Internet and digital communication networks.

Although the concept of 'ICT for development' (ICT4D) is relatively new, with research in the field only beginning in the early 1980s (Walsham, 2017), the use of ICTs to address development challenges such as poverty can be traced back to the early 1970s (Melkote & Steeves, 2001). In the 1970s television, for example, was used as a medium to propagate useful ideas and practices for development to people through instructional programmes (Melkote & Steeves, 2001). When interest peaked in the 1980s, it was largely multinationals and various key development actors who started to advocate for the use of ICTs to address development challenges (Heeks, 2008). Emphasis was placed on countries, businesses, and civil societies' use and adoption of these technologies to achieve development (Baller, Dutta, & Lanvin, 2016).

ICTs are capable of overcoming existing barriers that prevent participatory development by improving governance and increasing the capabilities and freedoms of community members to improve their

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well-being (Kleine, 2010; Pillay & Maharaj, 2014). Participatory development is associated with more bottom-up approaches to development where community members are involved in the process (Servaes, 2008; Waisbord, 2000). ICTs facilitate the building of networks and relationships that are used to share information and resources. Increased sharing of information and resources has led, among other things, to increased cultural enrichment, well-being and food security, as well as increased social and democratic development among community members in developing countries (Hoq, 2015; Nakasone & Torero, 2016). These technologies also support the economic growth and communication processes of small businesses (Donner, 2004, 2007), and help community members in under-resourced communities to save money and gain more financial independence (Chew, Ilavarasan, & Levy, 2010). By enabling community members to conduct business online, ICTs remove the barriers of geographic constraints associated with labour demands, and the miss-match of skills and resources in national economies (Mothobi, Schoentgen, & Gillwald, 2017).

The Internet, which is described broadly as a web of interconnected computer networks that transmit information through linked devices using Internet protocols (Stair & Reynolds, 2016), is one of the leading influencers of the ICT4D paradigm (Heeks, 2008). No other technology has had such a revolutionary impact, particularly on communication and socio-economic development (Breytenbach, De Villiers, & Jordaan, 2012; Ganju, Pavlou, & Banker, 2016; Heeks, 2007b; Huaroto, 2012). The Internet is an indispensable tool that accelerates development and human progress (United Nations, 2011). In developing countries, it was estimated that every ten percent rise in access to broadband connectivity would influence a 1.38 percentage growth in the gross domestic product (GDP) (Toure, 2015). In more mature economies, it was estimated that the Internet contributed about twenty-one percent towards the GDP between 2004 and 2009 (Dutta, 2012; Millard, 2015).

Interest in the capabilities of ICTs to facilitate socio-economic development led to massive investment by different development actors in ICT4D initiatives for people in developing countries particularly the marginalised, who lacked equal opportunities to access ICTs. One initiative that has been implemented globally is electronic inclusion intermediaries (e-IIs). E-IIs are considered one of the most successful ICT4D innovation in developing countries (Aji, Yusop, Ahmad, Azizi, & Jawad, 2016). These innovations enable the diffusion of ICTs into these countries, particularly to the marginalised and those in under-resourced communities (Aji et al., 2016). Some of the most prominent international development actors and donors supporting e-IIs include the International Telecommunications Union (ITU), the World Bank, the International Development Research Centre (IDRC), and the United Nations Development Programme.

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E-IIs are organisations that are found in three broad configurations: the public, third, and private sectors (Clark, Sey, & Sulllivan, 2012). The purpose of e-IIs is to eliminate the barriers between people and information, and between people and communication resources (Garrido, Sey, Hart, & Santana, 2012b). They achieve this by making ICTs more accessible and extending their benefits to all people, particularly those who are marginalised (Alao, Lwaga, & Chigona, 2017). The e-IIs offer physical spaces equipped with desktop computers and Internet connectivity in an attempt to provide equal opportunities for socio-economic development (Garrido, Sey, Hart, & Santana, 2012a; Gomez, 2014; Rissola & Garrido, 2013). Examples of e-IIs include Internet cafés, electronic offices, telecentres – which are also referred to as electronic centres (e-centres), public libraries, community technology centres, and digital hubs.

Communication plays an important role in how e-IIs operate, as it facilitates how they engage and collaborate with their stakeholders and partners, other development actors and community members (Adedokun & Adeyemo, 2010; Colle, 2000). Through communication, e-IIs share information, create awareness and promote the use of ICTs (Servaes & Malikhao, 2016b). Communication also facilitates aspects of community empowerment, participation and engagement, and relationship building, which are necessary for development (Lie & Servaes, 2015; Melkote & Steeves, 2001; Waisbord, 2015).

The debate about the contribution of e-IIs towards community development is ongoing, however, with some arguing that e-IIs actually further exacerbate e-inclusion inequality (Aji et al., 2016; Gollakota & Doshi, 2011; Lesame, Ratshinanga, & Seti, 2014). This argument is based on claims that only community members who possess an understanding of ICTs and the digital skills required to use them will use and benefit from the technology. In rural and remote, under-resourced communities in developing countries, marginalised community members are often among the non-users of e-IIs' services because, among others, they do not understand these technologies or possess the skills to use them (Alao et al., 2017; Amariles, Paz, Russell, & Johnson, 2007; Lorini, Van Zyl, & Chigona, 2014). This emphasises the importance of e-IIs to communicate effectively and build the capacity of community members to use the technology. This study will contribute information to this debate, on how e-IIs support community development and communicate for development, including implications for theory, policy and practice.

1.3   Context of the study

Like many developing countries in the global South, South Africa faces a diverse range of developmental challenges, which include poverty, unemployment and inequality. The South African

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government identifies these three challenges in particular as the country's 'triple threat challenges' (Dlamini, 2015). In 2015, 55.5 percent (about 30.4 million people) of the South African population lived in poverty (StatsSA, 2017), often lacking basic necessities associated with human dignity, namely food, water, shelter, medical care and safety (Bradshaw, 2007). The United Nations Development Programme's (2019) more recent report still puts the figure of South Africans living in poverty at 55.5 percent showing a possible lack of updated figures. The challenge of unemployment is also evident in the statistics for the first quarter of 2018, which showed that 26.7 percent of the population was unemployed (StatsSA, 2018d). South Africa also has one of the biggest inequality gaps in the world between the richest and the poorest people (World Bank, 2018), embodying both 'first' and 'third' world living conditions (Lorini et al., 2014; Molawa, 2009).

Since the first democratic elections in 1994, the South African government has continued to make tremendous strides towards addressing the three challenges, along with others. The focus is on rebuilding the country, particularly local communities that the Apartheid regime left in socio-economic disarray (Blessing & Klass, 2009; Lesame, 2008; Mutula, 2010; Oyedemi, 2009). The Constitution of the Republic of South Africa lays the foundation for this rebuilding and defines the rights and freedoms of every person. The Constitution states that rebuilding the nation requires the improvement of all people's quality of life, increased opportunities for growth and the healing of existing divisions caused by, among other things, race and social status (South African Government, 1996).

Against this background, four notable economic development programmes were introduced post-Apartheid. They are the Reconstruction and Development Programme (RDP), the Growth Employment and Redistribution Programme (GEAR), the Accelerated Shared Growth Initiative of South Africa (AsgiSA), and the New Growth Path (NGP) framework. These programmes were implemented as broad frameworks for socio-economic development, specifically job creation and poverty eradication (National Planning Commission, 2012). They had limited success and were ultimately replaced by the National Development Plan (NDP) 2030 in 2012.

The NDP is informed by the experiences of the previous programmes. It provides a long-term developmental roadmap for the country to eradicate poverty, create employment opportunities, reduce inequality, and build peoples' capacity (National Planning Commission, 2012). The NDP boldly identifies the leading role of ICTs in South Africa's socio-economic development. ICTs are expected to provide a lifeline for all people in the country, particularly those who are marginalised (Coelho & Segatto, 2013). The digital landscape of South Africa is discussed further in section 2.2.

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1.4   Statement of the research problem

Access to and use of ICTs is often greater in more affluent areas, among the more privileged in society (Alao et al., 2017). These technologies do not always reach the less affluent, disenfranchised, and vulnerable populations (Millard, 2015). Therefore, concerns in both developing and developed countries regarding ICTs have been in relation to access, skills, and the use of ICTs (Kleine & Unwin, 2009; Toure, 2015). Under-resourced communities still lack adequate infrastructure to fulfil the information and communication resource needs of community members (Furuholt & Øystein, 2018; Kassongo, Tucker, & Pather, 2018). Moreover, in other areas, community members lack the necessary information and digital skills to understand, adopt, and use the technology meaningfully for development purposes (Agupusi, 2007; Lorini et al., 2014; Maude, 2014; Uys & Pather, 2016).

These concerns emphasise the need for and important role of e-IIs in facilitating the e-inclusion of marginalised community members in under-resourced communities (Garrido et al., 2012b). E-IIs are one of the more popular strategies to distribute ICTs in these type of communities (Aji et al., 2016; Heeks, 2008). In addition to providing physical access to ICTs, e-IIs support the education, training, employment, and communication needs of community members (Clark et al., 2012; Cullen, Maes, Garrido, & Sey, 2012). E-IIs provide facilities that support the business activities of small business owners and entrepreneurs in communities (Tabassum, Kulathuramaiyer, Harris, & Yeo, 2017; Western Cape Government, 2014).

However, the reality is that, despite the existence of e-IIs in under-resourced communities, there are still some community members who are not using the technology provided (Alao et al., 2017; Uys & Pather, 2016). The lack of use of e-II services is attributed in part to community members' lack of awareness of the existence of e-IIs and the services they provide, and the lack of sufficient, accurate information and understanding of ICTs and their value (Chigona, Beukes, Vally, & Tanner, 2009; Mbatha, 2015; Sein, 2011). For instance, in the Western Cape (WC) under-resourced communities of Khayelitsha, Mitchells Plain and Saldanha Bay, more than half (61.8%) of community members do not use ICTs, specifically the Internet, because they do not know what it is and how they can benefit from using it (Research ICT Africa, 2015). Recent studies, for example by Furuholt and Øystein (2018), Gillwald, Mothobi and Rademan (2018) and Kassongo et al. (2018), still find the lack of awareness of e-IIs and ICTs among community members to be a barrier to their use of ICTs.

The lack of awareness of e-IIs among community members is blamed largely on the ineffective communication strategies of e-IIs, which fail to reach community members (Gcora, Gopeni, Tuswa,

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Lwoga, & Chigona, 2015; Research ICT Africa, 2015; Western Cape Government, 2014). E-IIs rely heavily on traditional communication channels and conventional mass media, which are monologues and do not allow for two-way engagement (Mbatha, 2015), and do not cater adequately for the information and communication needs of community members. While other development actors from education, business and civil society share the responsibility for facilitating community members' electronic awareness (e-awareness), e-IIs carry a lot of the responsibility because of their place in the communities and the type of services they provide.

The term e-awareness is commonly used in the ICT4D literature to refer to the awareness, appreciation and understanding of ICTs, including their relevance in society and developmental benefits (Romani, 2009). E-awareness is among the prerequisite digital competences a person requires to use ICTs meaningfully (Kassongo et al., 2018; Pokpas, 2014). Therefore, effective communication is necessary for community members to be e-aware. They need to have accurate information and gain enough knowledge to understand their realities, challenges, options, and the role of e-IIs (Roy, 2015). The term 'realities' relates to a person's current experiences due to his/her natural, cultural, economic, and socio-psychological circumstances. Community members, the intended beneficiaries of the e-IIs, cannot benefit from the ICT services provided if they do not know about the e-IIs or do not possess adequate information about ICTs and their benefits. The e-IIs become wasteful expenditure that, instead of bridging the digital divide and supporting community development, further exacerbate existing digital divides (Amariles et al., 2007).

Developing countries have seen an increased uptake of mobile devices, which are also used to access the Internet (GSMA, 2016). This has increased the opportunities for e-IIs to communicate with community members and create awareness. New technologies, such as social media, which are accessed mostly through mobile devices, have made communication more efficient and reliable, faster, relatively cheaper, and more accessible for people with limited skills and resources (Mbatha, 2016; Melissa, Hamidati, & Saraswati, 2015). Social media can serve as useful tools to address poverty and inequality (Oyedemi, 2009). The use of social media has become increasingly popular among development actors who use them to direct policy (Gillwald et al., 2018) and for communication with community members to create awareness and garner support for development interventions (United Nations, 2014).

There is literature and theory available on communication for development (C4D) (for example Lie & Servaes, 2015; Melkote & Steeves, 2001; Waisbord, 2000), including some empirical evidence of the different C4D strategies and practices of various development actors (for example Adedokun &
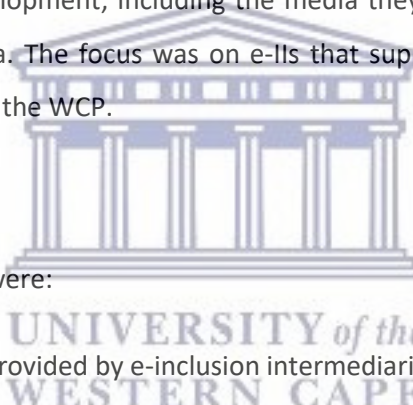
Adeyemo, 2010; Food and Agriculture Organization, 2005). However, there is limited literature that is specific to how e-IIs communicate for development and use the different media, including social media, to support community development. Most of what exists illustrates the lack of awareness among community members about e-IIs and/or ICTs and ICT benefits, and states the need for e-IIs to communicate more effectively to support community development, yet there are limited recommendations on how this can be achieved. Therefore, there is a need for a study that explores how e-IIs communicate for development and use communication media. This will help to understand concerns regarding e-IIs' poor communication strategies, and the challenges they face, and provide information on how e-IIs can incorporate social media and improve their communication.

1.5   Purpose of the study

Considering the statement of the research problem, the purpose of this study was twofold. Firstly, it sought to explore how e-IIs support community development. Secondly, this study sought to explore how e-IIs communicate for development, including the media they use. Special attention was thus paid to their use of social media. The focus was on e-IIs that support community development in under-resourced communities in the WCP.

1.5.1   Research objectives

The key objectives of this study were:

- To explore the services provided by e-inclusion intermediaries.
- To investigate how e-inclusion intermediaries support community development.
- To explore how e-inclusion intermediaries communicate for development in their communities.
- To explore, more specifically, how e-inclusion intermediaries communicate for development using social media.
- To investigate why e-inclusion intermediaries use social media to communicate for development.

1.5.2   Research questions

To achieve the above mentioned research objectives, this study was guided by an exploratory research question that asked: *How do e-inclusion intermediaries support community development and communicate for development using social media?* This question was broken down into the following sub-questions (SQ):

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- **SQ1:** How do e-inclusion intermediaries support community development?
- **SQ2:** How do e-inclusion intermediaries communicate for development in their communities?
- **SQ3:** How do e-inclusion intermediaries communicate for development using social media?
- **SQ4:** Why do e-inclusion intermediaries use social media to communicate for development?

1.6   Research methodology

This study sought to explore selected e-IIs in under-resourced communities of the WCP, specifically how they support community development and communicate for development, paying special attention to their use of social media. The investigation was carried out using a qualitative multiple case study approach to understand the research context in its natural, unmanipulated setting (Gable, 1994; Patton, 2002; Yin, 2009). This study was interpretive in nature as it aimed to understand the realities of the research context through the eyes of the relevant stakeholders that represent the e-IIs and the community members who experience these realities (Creswell, 2003; Walsham & Sahay, 2006).

This study was grounded in constructionist ontological assumptions that suggest that reality is the result of social processes and the interpretations that people assign to them (Tuli, 2011). Ontology relates to ideas about reality, namely how it came about and how it is interpreted (Crotty, 1998). Epistemology relates to knowledge, particularly how it can be obtained (Myers & Avison, 2002), and therefore influences the research design and methodology (Jansen & Steinberg, 1991). The ontological and epistemological assumptions of this study sought to investigate the reality of the research context based on the meanings and interpretations that the research participants assigned to them (Myers & Avison, 2002).

It is this understanding of the nature of the research context, coupled with theories of development and of communication, that help to explain the relationship between e-IIs and development, technology, and communication (Andoh-Baidoo, 2017). Development theories of modernisation, dependency and participation in particular, were used as foundational theories to understand and interpret development at a broad (national) level. After gaining this understanding mid-range theories of community development were used to conceptualise what is meant by development at the community level. This conceptualisation of development was necessary to conduct the investigation. Furthermore, theories of ICT4D and communication for development were also used at this level to understand the relationship to and influence of ICTs and communication on and with development in the communities. To further investigate the aspect of communication as it related to development the

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uses and gratification theory was used to understand community members media use and motivations at the individual level.

Both primary and secondary data were used as sources of relevant information. The secondary data were collected through the review of relevant literature, which included books, journal articles, conference papers, policy documents, and official government publications, as well as the e-IIs' social media accounts. The primary data were collected in two stages. The first stage was a quick-scan analysis (QSA) (small-scale case studies) of fifty e-IIs. The QSA was carried out to gain an overview of the landscape of the e-IIs in the WCP, particularly the different types of e-IIs, their ownership models, the services provided, and how they communicate. This was necessary because not much is known or documented about the different e-inclusion models that exist in the WCP and their e-inclusion approaches, including how they communicate for development. The data were collected from the e-IIs through a qualitative online questionnaire, email correspondence, as well as face-to-face and telephonic interviews.

The second stage was an in-depth investigation of six case studies. The respondents for each case study were grouped into two categories: experts and users. The experts were involved in the management and daily operations of the e-IIs; they possessed knowledge about how the e-IIs operate and communicate and the use of the services by community members. The user respondents were community members who used the e-IIs' services. Data collection methods included interviews (face-to-face and telephonic), focus group discussions, and non-participant observations. The two stages are illustrated in Figure 1. Thematic analysis techniques were used to analyse the data with the aid of ATLAS ti© version 8, a computer assisted qualitative data analysis software (CAQDAS) tool. The research methodology is discussed further in Chapter 4.
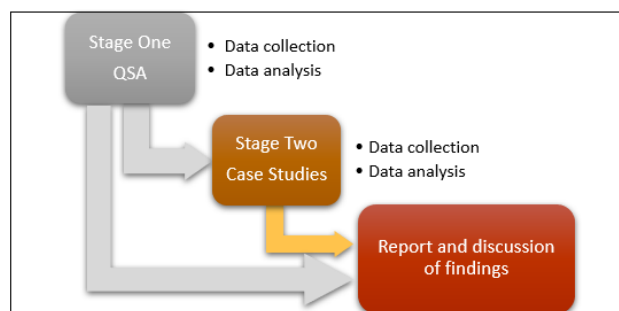
Figure 1: Stages in data collection

1.7   The scope of the study

The purpose of this study was to explore e-IIs and the services they provide to determine how they support community development and communicate for development, paying special attention to their use of social media. The e-IIs were therefore the main units of analysis, and the research area was the WCP of South Africa. This area was selected because the researcher is based in the WCP and possesses knowledge of the different communities and their realities. Furthermore, the researcher has been part of stakeholder engagements and initiatives regarding e-IIs and related e-inclusion interventions in the WCP, and therefore had access to networks of key development actors from different communities, local government, and other relevant third sector organisations. The WCP also outperforms other provinces in South Africa in a number of key ICT indicators and e-inclusion interventions (Research ICT Africa, 2015). The focus was on e-IIs operating in the public and third sectors because they purposefully support community development (Furuholt & Øystein, 2018). They often operate in under-resourced communities in rural, urban, and peri-urban areas to create equal opportunities for marginalised community members and help them address their socio-economic challenges using ICTs.

1.8   Contribution of the study

The discussion in the literature regarding the contribution of ICTs towards development and communication, particularly in developing countries, is ongoing (for example Choudrie, Zamani, & Al-Bulushi, 2017; Gigler, 2015; Kleine, 2010; Rylands & Van Belle, 2017; Walsham, 2017). The discussion includes claims that ICTs do not always yield the anticipated developmental result (Coelho & Segatto 2013). Moreover, the developmental impact of ICTs can also be uneven, for instance the more affluent and well-educated people often have convenient access to ICTs and possess the skills and competences to use them for socio-economic development, among other benefits (Millard, 2015). However, for people who lack the education, digital skills and understanding of ICT benefits, ICTs can exacerbate existing digital divides (Millard, 2015).

ICT benefits are also limited if the technology is not appropriate to address the challenges in the social and cultural environments where the ICTs are being introduced (Bourdeau de Fontenay & Beltran, 2008; Gurstein, 2000; Heeks, 2016; United Nations Development Programme, 2012). The impact of e-IIs is therefore also debated due to the lack of quantifiable supporting evidence (Aji et al., 2016; Benjamin, 2003; Gollakota & Doshi, 2011; Lesame et al., 2014). In this regard, this study adds valuable

empirical evidence that is grounded in theories of development and theories of communication to the ICT and development discourse.

This study contributes evidence that illustrates how e-IIs use ICTs to support different concepts of community development that result in both tangible and intangible benefits, for example economic development through access to information and communication resources for employment and business-related activities. Using ICTs, e-IIs also facilitate the empowerment of community members by building their awareness and capabilities, and increasing their opportunities and freedoms. E-IIs contribute towards the building of social capital in communities by facilitating the development and maintenance of powerful social and economic networks. These networks are both an intangible outcome and a process of community development, which help community members access support, information and other resources necessary for development.

In addition, this study contributes that the e-inclusion needs of marginalised community members in under-resourced communities are evolving, suggesting the need for a paradigm shift in the theories that inform most e-inclusion policy and e-II models. This is a shift from techno-centric approaches towards more development-centric approaches. Furthermore, the different needs of community members, beyond physical access to ICTs, are resulting in e-IIs playing different roles in the communities that they are not adequately equipped to play. These contributions are particularly relevant for development actors, policy makers and practitioners, who can use them to inform decision-making about service delivery in under-resourced communities, and budgeting.

Empirical Evidence is provided concerning how e-IIs communicate for development, their use of social media, and the challenges they face. The evidence is collected from both the experts who represent the e-IIs, and their community of users (community members). The perspectives of community members are valuable because they know best how they can be reached, which media they use and what they expect from that media. This information is relevant for policy makers, the e-IIs, as well as other development actors, who can use it to inform their C4D strategies.

Lastly, this study contributes relevant evidence to the discourse on social media, communication and development. This information is beneficial for e-IIs, who can use it to inform their social media plans and approaches to satisfy the communication, information, and other needs of community members more effectively. Since the Arab Spring in the Middle East and other North African countries between 2010 and 2012, social media have gained more international attention as communication and advocacy tools that can facilitate development activities. Guided by uses and gratifications theory

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(UGT) regarding C4D and communication this study explores and describes how the e-IIs use social media to communicate for development. UGT was useful to extract information from community members (intended audience) at the individual level in relation to their use of social media and sought gratifications.

1.9   Defining the key terms

This section provides descriptions of the key terms that are used in this study to enable a common understanding.

1.9.1   Communication

The communication process has evolved over the years, hence different definitions of communication exist, most of which have been built on definitions from the 1900s. During this time communication was defined as the dialogic relationships that exist between people (Pasquali, 2006). This definition was somewhat vague and did not provide enough detail about the conversation processes, the elements involved, or the expected outcome. Rogers and Agarwala-Rogers (1976) add that the dialogue process in communication entails the sharing of information between two parties. However, they also did not focus on the expected outcome of the communication. These definitions were based on linear communication models, where the information was transmitted from the sender to the receiver. Shannon's (1948) communication model, Lasswell's (1948) communication model and Berlo's (1960) source, message, channel, receiver (S-M-C-R) model were influential in this regard.

Due to their limited focus on 'feedback' loops (two-way engagement), the linear communication process was discounted (Rogers, 1976a). The one-way, top-down view of communication processes had minimal effect on social behavioural change (Hornik, 1988; Melkote & Steeves, 2001) – which was a desired outcome of the communication process. Communication scholars and social scientists therefore called for a communication process that created and stimulated mutual understanding (Agunga, 1997; Colle, 2008; Melkote & Steeves, 2001), as well as considered environmental, social, and cultural contexts (Waisbord, 2000). The definition of communication adopted for this study was therefore informed by some of the various definitions that exist, a few of which were mentioned above. Communication is defined as a process that involves dialogue between one-on-one, one and many, or many-to-many people to share, exchange, transfer, and interpret information for expected outcomes, which include decision-making, knowledge creation, relationship building, behaviour change and increased awareness.

1.9.2   Communication for development

Although, the concept of Communication for development (C4D) continues to evolve to adapt to the needs of changing development paradigms, the fundamental underlying principles remain the same. C4D is the application of communication strategies, processes, and media to support development objectives (Fraser & Restrepo-Estrada, 1998; Melkote & Steeves, 2001; Pasquali, 2006). C4D is used to promote development initiatives and to increase economic well-being, social justice, skills development and freedom of speech (Fraser & Restrepo-Estrada, 1998; Grimshaw, 2015; Melkote, 1991; Roy, 2015). C4D is also used to ensure that people have useful information and a clear understanding of their realities, challenges, planned changes, proposed development initiatives and the development actors behind them (Pasquali, 2006).

1.9.3   Communication landscape

For this study, a communication landscape encompasses community members' information and communication needs, the affordability and accessibility of communication media used in the community, the communication infrastructure available, the socio-economic statuses and challenges (for example illiteracy) of community members (target audience).

1.9.4   Development

Definitions of development have become more humanitarian, concerned with the 'who' and 'how' (Kivunike, Ekenberg, & Danielson, 2009), rather than the 'what', thereby shifting towards participatory social change that occurs after new ideas are introduced into current social systems for the purpose of improving quality of life (Andrews & Bawa, 2014). For this study, the term development is defined as the process of empowering people, particularly those who are marginalised, to enable them to participate in activities that transform their immediate realities and improve their quality of life (Choudrie et al., 2017; Gigler, 2015; Sen, 1999). This is achieved through improved equality, education, economic growth, freedom, control over the environment, as well as expanded social and e-inclusion.

1.9.5   Community development

Community development is both a process and an outcome. As a process, it entails enhancing the ability of community members to work together towards identifying challenges, solutions, and the actions needed for development (Phillips & Pittman, 2015). Community development as an outcome is twofold. Firstly, community members taking collective action to improve their overall quality of life is community development (Flora, Flora, & Gasteyer, 2016; Uhegbu, 2001). Secondly, the results of

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that collective action, particularly physical, social or economic improvements, are community development (Long, Anderson, & Blubaugh, 1973; Phillips & Pittman, 2015).

1.9.6 Development actors

Once a person, group or organisation develops an active interest or stake in an activity, project or intervention that has to do with development, specifically poverty eradication, they become a stakeholder (Swanepoel & De Beer, 2011). Development actors are global, national and local stakeholders that come from civil society and the public, private, and third sectors, to actively participate in processes of development through their activities or contributions. The actors include businesses, government, educational institutions, global organisation, faith-based organisations, community development workers and community organisations, among others.

1.9.7 Electronic inclusion (e-inclusion)

The term e-inclusion is often used interchangeably with the term digital inclusion. It is the effective and active participation of people and communities in any and all dimensions of a society and economy through their access and willingness to use ICTs (GSMA, 2016; Heeks, 2007; Kaplan, 2005). It is made possible by removing the barriers that hinder people from using ICTs meaningfully to reap, for instance, socio-economic benefits (Kaplan, 2005).

1.9.8 Electronic inclusion intermediaries (e-inclusion intermediaries)

The responsibility to remove e-inclusion barriers lies partly with e-IIs, which are supported by different development actors. E-IIs are public, private and third sector organisations that support community development using ICTs (Misuraca, Centeno, & Torrecillas, 2014). They create awareness about ICTs and offer physical spaces equipped with desktop computers and Internet connectivity. E-IIs promote the use of ICTs to enhance the well-being of people, especially marginalised community members in under-resourced communities (Garrido et al., 2012a; Gomez & Baron-Porras, 2010; Sein & Furuholt, 2009).

1.9.9 Information and communication technologies

Information and communication technologies (ICTs) are defined broadly as the digital technologies that are used to gather, process, distribute, create, publish, and communicate digital data as information in the form of audio, text, video, and images (Beckinsale & Ram, 2006; Kleine, 2015). Examples include radio and television, personal computers, mobile devices, and the Internet.

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1.9.10 Information and communication technologies for development

Information and communication technologies for development (ICT4D) include the processes and strategies of using ICTs specifically for development-related purposes (Ali et al., 2017; Heeks, 2014b; McLennan, 2016; Walsham, 2017).

1.9.11 Social media

Due to different underlying concepts with multi-layered meanings, and the rapid evolution of social media, there is no universally adopted definition of social media (Fuchs, 2017). However, one definition commonly used in the literature comes from Kaplan and Haenlein (2010), who define social media as a set of Internet-based applications that build on the ideas and technical foundations of Web 2.0 that enable the creation and exchange of content created by users. As social media have evolved and gained the ability to facilitate connections by building networks of relationships, they became more than Internet-based software applications (Hoffman, Novak & Stein, 2012). Stevenson and Xie (2014) stated that social media are communication tools that enable social interactions and the building of social capital. For this study, social media are defined as Internet-based applications that enable users to (co)create and share user-generated content (opinions, information, and multi-media) through two-way engagement channels. They are vehicles of mass communication that enable users to reach many people, virtually instantly and build networks as well as relationships.

1.9.12 Marginalised

The term marginalised is used to refer to persons or groups that are discriminated against, disadvantaged or underprivileged, based on, among other things, their geographies, income, education, religion, background, race, gender, or culture. For this study, the marginalised are also poor or living in conditions of poverty and facing socio-economic inequalities. These inequalities prevent them from being able to take advantage of opportunities that may be available to others in the community or society (Rahman, 2006).

1.9.13 Under-resourced community

The term 'under-resourced community' is used in this study to refer to communities that have insufficient resources, general public services and opportunities for community members to better themselves. These communities are also referred to as under-served, particularly if they have less than five percent penetration of electronic communications networks (International Telecommunication Union, 2013). In South Africa, under-resourced communities are mostly found in areas that were

disadvantaged during the Apartheid era (pre-1994). During this time, disenfranchised people were forced to relocate to areas where they faced unjust discrimination in terms of education, health, employment, public service resources, security, financial independence, and other forms of infrastructure (South African Government, 1998). Although Apartheid ended in 1994, the people and communities in these areas are still reeling from the effects (Department of Social Development, 2015). The community members often lack adequate opportunities, skills, literacy, and attributes that could facilitate personal and socio-economic well-being (Morrone, Scrivens, Smith, & Balestra, 2011). As a result, the conditions of poverty, inequality and unemployment are often greater in these communities (Helsper, 2008; Hoq, 2015).

1.10   Structure of the thesis

This thesis is made up of eight chapters, including this introductory chapter. The chapters illustrate the way this study was developed and conducted. The chapters are organised as follows:

Chapter 1 is the introductory chapter. It outlines the problem statement, discusses the purpose of this study, and includes the research objectives, key question and sub-questions. The chapter further presents a summary of the research method, scope of this study, and discussion on the contribution of this study and the definitions of the key terms.

Chapter 2 presents the literature review of this study. It discusses the digital landscape in South Africa and in the WCP, including the existing digital divide. This overview is followed by a descriptive discussion of e-IIs and their role in community development. This chapter also discusses the concept of communication in the age of social media.

Chapter 3 provides the theoretical framework that was used. This study drew from development theories of modernisation, dependency, and participation. Specific attention was paid to community-level theories of community development, ICT4D, and C4D, which provided a useful lens through which to conduct the investigation. In addition, this study used UGT to extract information at the individual level from community members regarding their media choices and sought gratifications.

Chapter 4 presents a discussion of the research methodology that was applied to this study. The discussion includes the philosophical underpinnings of this study and the choice and justification of a qualitative multiple case study approach. The chapter also discusses the data collection and analysis strategies that were employed, as well as how reliability, validity, and ethics concerns were addressed. The chapter concludes with the challenges that were faced during the collection of data.

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Chapter 5 is the report of the findings from the QSA. It presents a discussion of the findings from fifty e-IIs from across the WCP.

Chapter 6 reports the results of the analysis of six in-depth case studies.

Chapter 7 presents a discussion of the findings reported in Chapters 5 and 6. The discussion focuses on key themes that came to light during the data analysis in answering this study's main research question. Theoretical propositions that help to explain and support the findings are also discussed.

Chapter 8 is the concluding chapter. It revisits the objectives of this study to summarise how and where they were addressed. The chapter further presents the implications of this study for theory, policy and practice, as well as its limitations, and suggestions for future research.

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Chapter 2

Literature review

2.1   Introduction

This chapter presents a picture of South Africa's digital landscape, focusing on the readiness of, access to, and use of ICTs. This is necessary to understand the role that e-IIs play in promoting ICTs, providing access and preparing people to use ICTs. To understand clearly what e-IIs are and how they use ICTs to support community development, the chapter also describes e-IIs and discusses their intentions in the communities, the services they provide and the challenges they face. A description of the e-II landscape in the Western Cape Province (WCP) is also presented. The chapter concludes with a discussion of social media to understand how they differ from traditional media and the role that they can play in communication for development.

2.2   The digital landscape in South Africa

The South African government acknowledges the key role of ICTs in supporting different levels of development (Gomez, Pather, & Dosono, 2012; National Planning Commission, 2012a; Uys, 2015). The ICT sector is expected to facilitate the connected information society by 2030, where every person in the country will be able to participate equally in society (National Planning Commission, 2012). Since the two-phase World Summit on the Information Society (WSIS) conferences held in Geneva in 2003 and Tunis in 2005, South Africa has been under pressure to create enabling policies towards the reality of a connected information society (Toure, 2015; Uys & Pather, 2016).

The focus of a number of the South African government's ICT-related policies is therefore on improving ICT infrastructure and services, broadband networks, public access, and Internet connectivity (Uys, 2015). These policies are implemented through government structures at the national, provincial and local levels. Examples of these policies include the 2007 Information Society and Development (ISAD) plan, which was presented to the cabinet (top-level government) by the Presidential National Commission on Information Society and Development (PNC on ISAD) in 2007; the Electronic Communications and Transaction Act of 2005; the Electronic Communications and Transactions Amendment Bill of 2012; the 2016 National Integrated ICT Policy White Paper; and the 2013 Broadband Policy, which is also referred to as SA Connect.

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The aim of these ICT policies is to build an information society by promoting the use and adoption of the technology by government, business, and civil society (Department of Communication, 2013; Gillwald et al., 2018). The government intends to achieve this by, among others, providing universal access to affordable high-speed broadband infrastructure and services throughout the country (Khan, 2015; Western Cape Government, 2015). The government also aims to build the capacity of people through, for instance, digital skills training to ensure the active and meaningful use of the technology (Western Cape Government, 2015). E-IIs are identified in the ICT policies as key drivers of ICT awareness and access in the communities, and of community members' digital skills training (Western Cape Government, 2015). Figure 2 shows the main ideas of the WC provincial ICT policy.
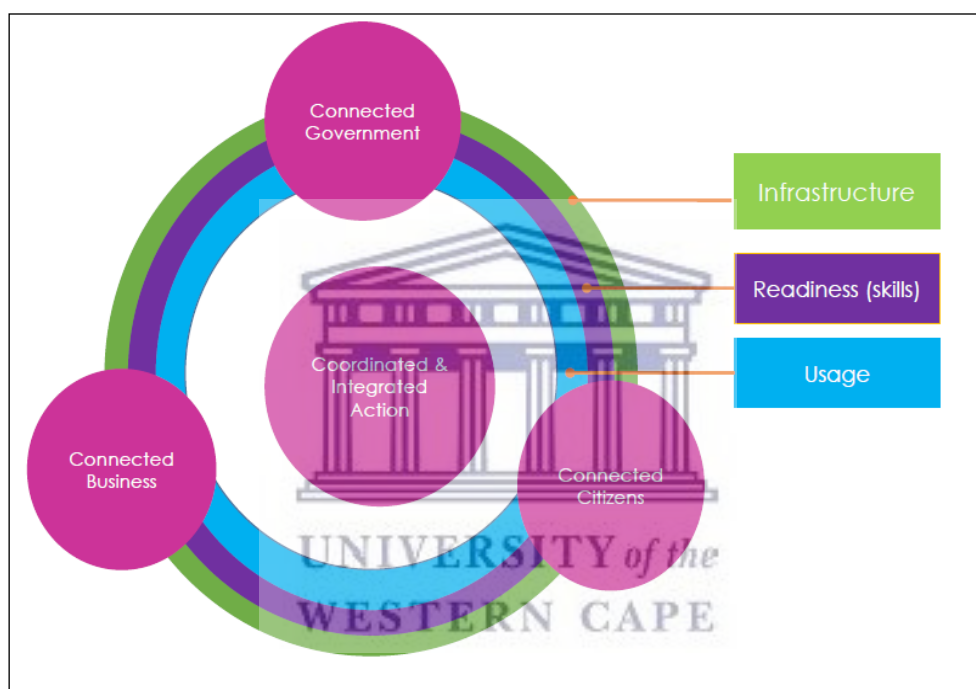
Figure 2: Broadband Strategic Framework (Dyers, 2018, p. 5)

The Global Information Technology Report can be useful to gauge South Africa's ICT-related performance and the degree to which the technology is being used for socio-economic development. This report includes the Network Readiness Index, which benchmarks the ICT access, use and readiness standing of different countries across the globe. Table 1 illustrates South Africa's standing on the Network Readiness Index between 2014 and 2016 in the four key indices of: a) environment, b) readiness, c) use, and d) impact. In 2016, South Africa improved drastically in terms of ICT infrastructure, moving up to 44th out of 139 countries, from 85th place out of 143 countries in 2015. However, the use of the technology at the individual level by citizens and by the government was still low. Globally, the poor use of ICT is often associated with the lack of access to ICT, digital skills and

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information, and of understanding of the technology's usefulness (Sein & Furuholt, 2009). It is evident in Table 1 that, for the three years, South Africa did not perform very well in the aspects of skills and affordability, which fall under sub-index b, 'readiness'.

Table 1: The performance of South Africa on the Network Readiness Index 2014 – 2016

Overall & Sub-index / Pillars	2016	2015	2014
Participating countries	139	143	148
Overall	65	75	70
A. Environment sub-index	33	31	31
1. Political & regulatory environment	26	24	20
2. Business & innovation environment	65	55	53
B. Readiness sub-index	69	102	98
3. Infrastructure	44	85	68
4. Affordability	74	107	112
5. Skills	95	95	97
C. Use sub-index	75	67	70
6. Individual use	77	68	78
7. Business use	32	30	30
8. Government use	105	105	103
D. Impact sub-index	93	92	89
9. Economic impacts	57	58	49
10. Social impacts	112	110	113

Source: Baller et al. (2016), Bilbao-Osorio, Dutta and Lanvin (2014), Dutta, Geiger and Lanvin (2015)

Lack of affordability is a very influential factor that results in low individual use of ICTs (Mbatha, 2015; Uys & Pather, 2016). Although the position of the country on the Network Readiness Index has improved over the years, affordability is an area were the country generally does not perform well. A recent study by Research ICT Africa (2018) found that affordability continues to be a barrier to ICT access and use in South Africa. Focusing on Internet access, South Africa has some of the highest mobile data charges among countries in Sub-Saharan Africa, which prevents many who are marginalised from being able to access the Internet on their mobile devices since they cannot afford it (Research ICT Africa, 2015). Despite the affordability challenges, there are low-income community members who are willing to sacrifice basic necessities to access ICTs, and this demonstrates the value attached to these technologies, specifically communication services (Research ICT Africa, 2015).

According to StatsSA (2018c), by 2017, 61.8 percent of households in South Africa and 70.8 percent of households in the WCP had at least one member who had access to the Internet. This access was either at home, work or through an e-II. StatsSA (2018c) further illustrates the type of locales (metropole, urban, and rural areas) where the homes, workplaces and e-IIs are located, and this is

shown in Table 2. Although there is no clarity on how access to the Internet is achieved and what infrastructure is used in these places, StatsSA (2018c) provides some statistics on the use of mobile devices to connect to the Internet in the different locales. What is also not clear is the different statuses of the households and the income of the residents. This is important to understand the impact of affordability, infrastructure and location on access to ICTs and therefore prove or disprove any existing claims.

Table 2: Percentage of households where at least one member had access to the Internet in 2015 and 2017 at county and province level based on locale

Place where the Internet is accessed	Geo-type of locale	WCP % (2015)	Country % (2015)	WCP % (2017)	Country % (2017)
At home	Metro	25.2	16.0	31.3	17.4
	Urban	14.4	7.5	14.5	8.4
	Rural	16.6	2.1	12.8	1.7
	Total	21.4	9.6	25.3	10.6
At work	Metro	22.7	23.1	22.3	25.3
	Urban	13.9	14.4	19.4	16.6
	Rural	4.7	3.7	9.8	4.1
	Total	19.1	15.0	20.7	16.9
Using mobile device	Metro	63.7	54.7	69.0	65.0
	Urban	39.4	51.1	51.5	61.5
	Rural	12.3	33.7	22.9	39.6
	Total	53.6	47.6	61.5	56.9
Through e-inclusion intermediary	Metro	15.5	14.9	12.0	17.2
	Urban	9.5	7.0	17.1	9.2
	Rural	0.8	3.1	4.0	4.5
	Total	12.9	9.3	13.2	11.5

Source: StatsSA (2016, 2018a)

At both the country and the WCP level mobile devices are the most used means to access the Internet in the different areas, while e-IIs are the least used for this purpose. It is possible the reason for the low use of e-IIs in some areas is due, among others, to a lack of awareness of the e-IIs in the area (Research ICT Africa, 2015; Western Cape Government, 2014). Nevertheless, comparing 2015 and 2017, the total percentage of households with at least one member (12.9% vs 13.2% respectively) accessing the Internet through an e-II had increased, especially in rural areas.

Not only in South Africa, but across the globe, there has been an increase in the penetration levels of mobile devices. They have become increasingly affordable due to different flexible pricing models and a large market of affordable, refurbished phones and imitations (International Telecommunication Union, 2016; Samii, 2009). In 2011, close to ninety-five percent of South African adults owned a mobile phone (Dutta & Mia, 2011). However, most of these were feature phones that could not connect to the Internet (PEW Research Centre, 2015). By 2015, the country had 165 mobile cellular subscriptions per one hundred people (The World Bank, 2017) and, in the WCP, 81.9 percent of people owned a mobile phone (Research ICT Africa, 2015). While The World Bank's (2017) figures might appear as evidence of mobile subscription saturation, the high number of subscriptions can be attributed to some people owning more than one mobile device.

The high availability and use of mobile devices means that there are more options available for people to communicate, and to access information and even basic services (for example government's e-services) (Chipidza & Leidner, 2017; United Nations Development Programme, 2012). The low physical infrastructure requirements of mobile devices makes it possible for them to reach remote areas at lower costs than other technologies, such as fixed phone lines (Chipidza & Leidner, 2017; United Nations Development Programme, 2012). For this reason, they have been central in bridging the digital divide (GSMA, 2016; Toure, 2015) and facilitating Internet access for community members in under-resourced rural and remote communities (Hassan et al., 2016; Matthews, 2015b; Walsham, 2017; Wyche, 2015). The impact of mobile devices, however, has not eliminated the need for e-IIs in these communities (Sey et al., 2013a). Furthermore, high data costs, connectivity problems, and old software that does not load websites properly on mobile devices make e-IIs significant. There is still a need for interventions and intermediaries that fulfil the different e-inclusion needs of community members (Bailur, 2015). E-IIs offer affordances such as social environments for community engagement and organising, printing and photocopying services, training in digital skills and other educational courses.

In this respect, the Western Cape provincial government (WCG) has an ambitious plan to develop broadband infrastructure in the WCP through its Broadband Strategy (Khan, 2015). By 2020, the WCG intends to achieve seventy percent Internet penetration through e-IIs to provide public access and build capacity, and through Wi-Fi hotspots (Western Cape Government, 2015). By 2030, the WCG envisions that *"every citizen in every town and village will have access to affordable high-speed broadband infrastructure and services …"* (Western Cape Government, 2015, p. 3). The WCP has therefore expended a large budget (South African Rand 2.89 million) on broadband infrastructure across the WCP (Western Cape Government, 2016). High speed Internet services have been delivered

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to over 1 414 strategic sites, which include schools, hospitals, emergency centres, clinics, rural libraries, e-IIs and government offices (Zille, 2017). In addition, 178 free access Wi-Fi hotspots have been set up across the WCP (Western Cape Government, 2017b).

Despite massive investments, the reality is that more interventions are needed to maintain the positive growth, specifically the availability of, access to and use of ICTs across the WCP (Uys & Pather, 2016). Furthermore, it is clear from the use and access statistics of the Network Readiness Index that there is still a large portion of the population in South Africa that does not have access to ICTs. In the WCP, the digital divide is a significant obstacle in addressing issues of socio-economic equality (Lorini et al., 2014). It is necessary to gain a better understanding of the unequal distribution, known commonly as the digital divide, and to explore the role and contribution of e-IIs in bridging this divide.

2.3   Understanding the digital divide

Over the past decade, tremendous progress has been made in bridging the digital 'access' divide. By 2013, about 2.7 billion people were using the Internet, a global penetration rate of almost forty percent (Toure, 2015). Despite this progress, some 4.4 billion people remain offline, digitally excluded, and unable to benefit from improved electronic government, commerce, health, education, and other digital programs (Toure, 2015). The challenge of the digital divide in its multi-faceted form is a serious barrier against successful development in third-world countries (Millard, 2015).

The digital divide is the gap that exists between people who have access to ICTs, such as computers, mobile devices, the Internet and other ICT infrastructure, and those that do not (United Nations, 2014). Grave inequalities have existed since the 1990s regarding access to and use of computers and the Internet (Castells, 2000). In developing regions, ICTs are out of reach for many marginalised people, and the technology is considered a luxury meant for more affluent people. The divide illustrates the imprint of pre-existing power relations (Coelho & Segatto, 2013; Kleine & Unwin, 2009). These power relations were in some cases co-determined, for example between either the civilised and those considers backward, the centres and the periphery, those in positions of power and those not, and also the colonisers and the colonised (Kleine & Unwin, 2009).

For over two decades, research on the concept of the digital divide has been interdisciplinary, featuring in communication sciences, sociology, psychology, economics, and education studies. However, investigations pre-2002 focused narrowly on physical access and Internet connectivity (Van Dijk, 2017). The physical access was influenced by demographics, such as education levels, age, gender, and race which were framed by socio-economic concepts (such as social capital, income, and

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technology diffusion) (Nemer, 2016). In recent years, the focus has shifted from being an issue solely about the lack of physical access to ICTs to being more about the capacity and capability of people to use the technology and to use it meaningfully (Nyahodza & Higgs, 2017; United Nations, 2014).

The issues influencing the digital divide are multidimensional (Nemer, 2016) and, basing the divide solely on the lack of physical access inadvertently simplifies the challenge, which in turn, undermines the grave nature of the problem (Gigler, 2015; Moyo, 2009; Pieterse, 2010). Moreover, suggesting that the divide is a technical problem implies that the solutions are technical. The problem of the digital divide is not solved when people get physical access to the technology; it arguably begins when that technology becomes incorporated into their daily lives (Van Dijk, 2017). It is necessary to focus on other aspects of the divide apart from narrow concepts of physical access, for example, skills and motivations to use ICTs (Alam & Imran, 2015; Buckingham, 2007; Hargittai, 2002).

To this effect, Millard (2015) identified five digital divide categories: access, socio-economic characteristics, skills, beneficial use, and participation and co-creation. The first category, *access*, is used in both a narrow sense, meaning physical access, and in a broader sense that describes and explains the other kinds and levels of the digital divide some of which are discussed below (Van Dijk, 2017). The second category, *socio-economic characteristics*, is multi-faceted in nature and therefore requires a more detailed explanation. It relates to education and literacy levels, occupation, income and demographics, such as gender and age, that influence ICT access and use. Differences in these aspects are common (Wyche, 2015) and can enhance some people's access to technology while at the same time limiting others (Moyo, 2009). Other characteristics in this category that influence the divide include the quality of the connection and the relevance of the information and language used (United Nations, 2014).

Inequalities in socio-economic characteristics, such as those mentioned above have notably influenced the digital divide in South African (Alao et al., 2017). The effects of the divide are evident at the community level (Harris, 2007) and are more pronounced among marginalised community members because they lack the means to buy computers and capable mobile devices, and to access the Internet (Gómez, 2012; Uys, 2015). As long as poverty exists there will be people whose socio-economic status limits them from having access to ICTs (Andreasson, 2015; Uys & Pather, 2016).

Van Dijk (2017) proposed that social behaviour aspects, like motivations and attitudes, also affect access to and use of ICTs, therefore they should be considered as social characteristics that influence the digital divide. Furthermore, phenomena such as computer anxiety – the fear a person experiences

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when they are confronted with a computer, and technophobia – the general fear of technology, receive less attention and yet, are major barriers to ICT use, particularly among the elderly, people with low education levels and some women (Van Dijk, 2017).

The third digital divide category goes beyond access and relates to *skills*. There are people who have access to ICTs but do not possess the digital skills to use them (Andreasson, 2015; Moyo, 2009; Van Dijk, 2017). This is a major challenge in South Africa, where the lack of digital skills among community members acts as a barrier to the use of ICTs (Alao et al., 2017; Benjamin, 2001; Sein & Furuholt, 2009; Western Cape Government, 2014). To bridge this divide, the roles of some e-IIs include providing digital skills training (Millard, 2015) and other capacity-building initiatives.

The fourth category is *beneficial use.* ICTs alone are just machinery, but when they are combined with motivations, goals and the user's digital skills for specific purposes, they become powerful tools for development (Millard, 2015). If people cannot reap any benefits from using the technology, they will find it meaningless. In South Africa, the lack of information and understanding of ICTs and their benefits among community members is one of the challenges (Research ICT Africa, 2015) associated with the lack of ICT use (Chigona et al., 2009; Mbatha, 2015), particularly in under-resourced communities. This divide category is not easy to address. It requires community members to shift their mindset through, for instance, education and exposure to ICTs. This critical transition is not traditionally addressed by the analysis of the digital divide (Millard, 2015). The last digital divide category relates to *participation and co-creation.* This category generally receives less attention than the other categories. It addresses the differences that exist among people regarding their contribution to the production of ICTs, their services and content (Millard, 2015).

In addition to the five categories, geographic location also influences the digital divide. That is, there are regions where the geographic divide mimics existing inequalities and historical imbalances between developed and developing countries in a 'digital form' (Diaz Andrade & Urquhart, 2009b; Moyo, 2009; Pieterse, 2010). A person's location can influence their access to ICTs such as computers, digital media and the Internet (Millard, 2015). These disparities can occur at a global level (developed vs developing countries), at a regional level (areas in the same country) (Moyo, 2009), and even locally in communities. South Africa presents a good case of how one's locale can influence either the availability of ICT infrastructure or one's ability to access it. The country has one of the largest disparities between the rich and the poor in the world, representing both first and third-world conditions (Molawa, 2009). People located in areas that are under-resourced, rural and/or remote are less likely to have access to ICTs than those in more affluent urban or metro areas (Molawa, 2009;

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Western Cape Government, 2014). As shown in Table 2, metropole areas have more people with access to the Internet than rural areas.

Needless to say, development strategies and policies need to prioritise socio-economic equality in South Africa to address the digital divide in its multi-faceted form (Uys, 2015). Moreover, e-inclusion innovations need to be coupled with capacity-building initiatives to address the skills, beneficial use, and participation barriers (Kleine & Unwin, 2009).

2.4 E-inclusion intermediaries: The use of ICTs for community development

2.4.1 Understanding electronic inclusion

E-inclusion is a proactive strategy to address the existing digital divide in its different forms and categories (Lanvin & Passman, 2008). It is defined as the effective participation of community members in any and all dimensions of a society and economy through their access to and use of ICTs (Heeks, 2006; Kaplan, 2005). The process entails facilitating the availability of convenient, free or affordable access to ICTs and digital skills training to ensure that the technology is used meaningfully (Gigler, 2015; Mancinelli, 2008; Sorrentino & Niehaves, 2010). Access to ICTs is possible through the combined efforts of public, private and third sector organisations, as well as the technology community (Bianchi et al., 2006). E-inclusion is about fostering participation by and empowerment of community members in a digital ecosystem (Dasuki, Abbott, & Azerikatoa, 2014). For e-inclusion to be effective, community members need to be willing and motivated to access and use the technology (Kaplan, 2005).

2.4.2 The concept of an intermediary

In development circles, the term 'intermediary' is commonly used to refer to a body that acts as a liaison between local community members and a group or source of information that originates from outside the community (Gigler, 2015). The intermediaries can be classified as either 'social intermediaries' or 'ICT intermediaries' (Gigler, 2015). Social intermediaries are trusted local institutions, such as community-based organisations (CBOs) that also have a good, strong relationship with community members. The high level of trust and strong relationships places these intermediaries in key positions to facilitate the communication and engagement process between development actors as well as community members (Dearden & Haider Rizvi, 2015; Gigler, 2015). Communication is an integral part of the process that facilitates participation by all the development actors (Keating & Vidal, 2004).

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The functions of social intermediaries and ICT intermediaries are similar. They both provide enabling environments for communication and participation in development. In the case of ICT intermediaries, they can be individuals, groups or organisations that provide enabling local environments where community members can gain improved access to ICTs (Gigler, 2015). ICT intermediaries are important role players in providing access to and creating awareness about ICTs (Andreasson, 2015). These intermediaries help community members to use ICTs meaningfully for improved human and social capabilities (Diaz Andrade & Urquhart, 2009a; Gigler, 2015). Interest in ICT intermediaries can be traced back to the idea of 'change agents', who had great influence over people and organisations in communities regarding the adoption of new products and services (Howells, 2006). Change agents could communicate and influence community members towards desirable actions for social change (Rogers, 1983).

For this study, the focus is on specific organisations in under-resourced communities within the WCP that act as intermediaries between people and their access to and use of ICTs. These organisations are referred to as electronic inclusion (e-inclusion) intermediaries, and they contribute towards bridging the digital divide (Andreasson, 2015) and supporting socio-economic development in the communities. The following sections present definitions of e-IIs and discussions of their make-up, origins, services and intended purpose.

2.4.3   Defining e-inclusion intermediaries

Due to the multi-faceted nature of mediation and e-IIs in particular, there is no universal definition of e-IIs in literature. However, three different lenses can be used to help define the boundaries of what constitutes an e-II: (i) the institutional arrangement, which relates to the operational model – for instance whether it is public or private, for-profit or not, (ii) the mission or objective in the community, and (iii) the services that are provided by the organisation (Cullen et al., 2012). In the context of this study, e-IIs are identified mainly by the services they provide, that is 'what' they do and their mission, and not necessarily by 'who' they are. An e-II is identifiable more easily by the type of services it provides and how it provides them. The name of an organisation, who owns it or manages it is not always enough information to determine whether the organisation is an e-II.

E-IIs are organisations that support community development using ICTs (Misuraca et al., 2014). The initial driving force behind the e-II movement was to bridge the digital divide and to disseminate accurate information. To help develop communities, e-IIs were considered trusted providers of accurate information (Colle, 2000). E-IIs aim to bridge the gaps that exist between community

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members, especially those who are marginalised, and ICTs; and between local community needs and global sources of information (Gomez & Baron-Porras, 2010; Sein & Furuholt, 2009).

E-IIs operate in the private, public or third sector (which also includes civil society). Private sector e-IIs operate for profit and therefore charge a fee for their services to be used, public sector e-IIs often provide their services for free, while third sector e-IIs' services are also for free, or at a low subsidised fee. E-IIs operating in the public and third sectors are established from the need for adequate access to ICTs, in terms of ICT access policy, and from the pressing need to communicate ICT benefits to different community members (Gomez, 2013; Haché, 2011). The purpose of e-IIs includes social innovation, which entails combining social elements with technological solutions to address community challenges (Bailey & Ngwenyama, 2010; Haché, 2011). Examples of third sector e-IIs include non-government organisations (NGOs), community-based organisations (CBOs), non-profit organisations (NPOs), informal networks, charitable and volunteer organisations, religious organisations and social enterprises (Haché, 2011; Rissola & Garrido, 2013). Examples of private sector e-IIs include Internet cafés, and examples of public e-IIs include public libraries and e-centres.

2.4.4   E-inclusion intermediaries: The historical context and brief global perspective

The concept behind e-IIs can be traced back to Scandinavia in the 1980s, when 'telecottages' were used to foster socio-economic development in the community of Vemudalen, a village close to the Norwegian border (Falch, 2000). These telecottages were e-IIs that provided information, access to ICTs and services related to training and employment seeking to the community (Etta & Parvyn-Wamahiu, 2003; Falch, 2000). They also provided distance education, telephony and photocopying services (Lesame, 2008). The telecottages were considered instruments in the fight for universal access to ICTs, especially in under-resourced communities of Scandinavia (Etta & Parvyn-Wamahiu, 2003).

The telecottages model has since been replicated in other countries globally to bridge the digital divide and help address the socio-economic challenges faced by community members. In the rural parts of Australia, for instance, e-IIs were introduced to support agriculture, tourism and fishing development in the communities (Madden, Savage, & Simpson, 1997). The e-IIs help community members by providing information, access to ICTs, education, and digital skills training (Garrido et al., 2012b). In Brazil, e-IIs were introduced to address the digital divide in the country and entailed installing ICT infrastructure in public community centres (Ferreira, Sayago, & Blat, 2016). The centres provide

community members with access to information and computer-mediated communication (email and social media) resources.

E-IIs that were introduced in Africa during the 1990s were based on the telecottage models developed in developed countries (Etta & Parvyn-Wamahiu, 2003). The e-IIs were initially developed and supported by international donor agents, for example the ITU, World Bank, IDRC, United Nations Development Programme, the International Institute for Communication and Development (IICD), and the Economic Commission for Africa, as well as local development actors in the different countries. The purpose of these e-IIs was also to provide access to information and communication resources, as well as digital skills training (Mbangala & Samzugi, 2014; Parkinson, 2005).

2.4.5   Types of e-inclusion intermediaries

The process of identifying and distinguishing between the different types of e-IIs is a complex task because different models, interventions and approaches exist to facilitate e-inclusion (Al-Sobhi, Kamal, & Weerakkody, 2009; Benjamin, 2001; Sciadas, Lyons, Rothschild, & Sey, 2012). A typology of e-IIs was introduced by Gomez, Hunt and Lamoureux (1999). The typology categorised e-IIs as being either a (i) basic telecentre, (ii) telecentre franchise, (iii) civic telecentre, (iv) cybercafé, or (v) phone shop. These e-IIs were all forms of telecentres, based on the premise that there is no single definition of a telecentre that would satisfy everyone. Gomez et al. (1999) used the term telecentre as an umbrella term that covered the different types of e-IIs. This typology was later built on by Colle (2000), who added three other types of e-IIs, which were (vi) multi-purpose community telecentres (MPCT), (vii) communication technology centres, and (viii) community communication shops. The typology and descriptions of the different types of e-IIs are presented in Table 3. Since the late-1990s, when this typology was introduced, e-IIs have continued to evolve. A number of the types that were identified by Gomez et al. (1999) either no longer exist or have morphed into a single e-II type that provides a combination of different services.

Recent typologies identify three common types of e-IIs, namely (i) telecentres, (ii) cybercafés, and (iii) public libraries (Clark et al., 2012; Gould & Gomez, 2010; Sey et al., 2013b). In South Africa, these three are also recognised as the most common overarching types of e-IIs (Gomez, Ambikar, & Coward, 2009; Pather & Gomez, 2010).

Table 3: Typology of e-inclusion intermediaries

Type	Description
Basic telecentre	A community enterprise that was generally small and independently operated. It had a few computers with access to the Internet. The services were often provided for free or at a low subsidised cost.
Telecentre franchise	The franchises were centrally coordinated and managed enterprises that functioned similarly to basic telecentres.
Civic telecentre	These enterprises were housed on the site of public organisations such as public libraries, schools, and community centres. The host organisations did not provide ICT services, therefore these civic telecentres provided the ICT services that then become part of the hosts' daily services.
Cybercafé	Cybercafés offered ICT services that were similar to basic telecentres; however, the cafés were strongly for-profit organisations, focused on selling the ICT services.
Multi-purpose community telecentre (MPCT)	MPCTs provided a wide array of ICT-related services and other public services. These telecentres sought to provide community members with access to information, training and ICT resources to address community needs.
Phone shop	Phone shops offered a much smaller array of services, which include telephony. They were predicted to become broader-service telecentres built on a business model.
Communication technology centre	Similar to MPCTs these technology centres provided access to a variety of ICT services beyond computers and the Internet; however, they placed more emphasis on the use of ICTs for work or education.
Community communication shop	These shops were based on an entrepreneurial model that provided access to a range of communication-related technologies and services for a fee.

Source: Adapted from Colle (2000, p. 426) and Gomez et al. (1999, p. 15)

(i)   Telecentres

Since the typology of e-IIs was initially introduced in the 1990s, telecentres are still arguably the most common and well-known type of e-II. A telecentre is a key vehicle in introducing ICTs to people, particularly those that are marginalised and in under-resourced communities (Amariles et al., 2007). Telecentre is a generic term that describes a shared and centrally located public access facility where people can access ICTs such as computers, the Internet and other ICT services for free or at a low subsidised fee (Arellano et al., 2005; Gcora et al., 2015; Gomez, 2014; Nemer, 2015; Sey et al., 2013b). The term telecentre is often used interchangeably with electronic centre (e-centre).

By 2016 there were an estimated 550 000 telecentres around the world, operating in over 135 countries and providing services to over one billion users on a regular basis (telecentre.org, 2016). Telecentres have been established globally through international donor funds, third sector organisations, government agencies and civil society (Avgerou, 2008; Lesame, 2008; Uys & Pather, 2016). Telecentres intentionally support community development (Dalvit, Kromberg, & Miya, 2014; Menou, Poepsel, & Stoll, 2004) by facilitating socio-economic development through the meaningful use of ICTs (Gomez, 2014). They also bridge the digital, communication, information, knowledge, and

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skills divides (Bailey & Ngwenyama, 2010; Zinnbauer, 2007). Beyond the common element of providing access to ICTs, what differentiates telecentres is how they are funded, who owns them, how they operate and the specific services they provide (Chilimo & Ngulube, 2008).

(ii)   Cyber (Internet) café

Within this study, the terms cybercafé and Internet café are used interchangeably. These types of e-IIs originated in the early 1990s as shops or cafés where people could go and pay for time to use a computer to access the Internet, type documents or play games (Stewart, 2000). Cybercafés are for-profit organisations (Sey et al., 2013b). They often have more funding than the other types of e-IIs (public and third sector) to offer fast and reliable Internet connections, up to date equipment and computer accessories (for example headphones and webcams) (Gomez & Baron-Porras, 2011; Sciadas et al., 2012). The idea of placing a computer and Internet access within cafés extends the existing facilities of the café (Gomez & Baron-Porras, 2011). The amount of time that people can spend at the café is limited by how much they can afford within the operating hours of the cafés.

Cybercafés are found in well-resourced and affluent urban areas (Amariles et al., 2007), where there is a wider market of people who can afford to pay for the services (Alao et al., 2017; Sey et al., 2013b). Unlike telecentres, cybercafés do not purposefully support community development (Amariles et al., 2007; Sey et al., 2013b); they aim to make a profit (Furuholt & Øystein, 2018; Gomez et al., 2009). However, by virtue of these cafés providing public access to ICTs, they indeed facilitate the e-inclusion of community members who can afford to use the ICT services (Gomez & Baron-Porras, 2011; Gould & Gomez, 2010).

(iii)   Public libraries

Public libraries are well-respected globally as places to gain knowledge and information (Sey et al., 2013b). To remain relevant libraries need to be proactive, anticipate the demands of community members, and be capable of providing innovative services (Hoq, 2015). The changing information and communication demands of community members have led to many public libraries providing ICT services in the form of access to computers, the Internet as well as printing and photocopying services (Gomez & Baron-Porras, 2011; Hoq, 2015). Since libraries now function as technology-based information places, they have become essential in the public ICT-access ecosystem, particularly in developing countries (Clark et al., 2012), just like telecentres (Bailur, 2015).

Public libraries enable millions of people globally, especially in rural and other under-resourced communities, to share and access information resources and communicate using computers and the Internet (Clark et al., 2012; Molawa, 2009; Sey et al., 2013b). For many people, these libraries are their only source of (free) Internet access (Hoq, 2015; Sey et al., 2013b). Globally, there are over 230 000 libraries providing access to ICTs, most of them in developing countries (Clark et al., 2012).

The ICT based services provided by public libraries are often limited (Gould & Gomez, 2010), and the librarians are often not well trained and therefore do not possess adequate digital skills to use the technologies themselves (Gould & Gomez, 2010). The library ICT services are mainly used to facilitate the library's mandate of development in areas of culture, language, health and government services, while telecentres have a greater development mandate reaching areas of economic development, education and communication-related activities (Clark et al., 2012). However, despite having limited resources, public libraries fulfil different ICT-related needs, especially information dissemination, of all population groups in their communities (Hoq, 2015; Sey et al., 2013b).

2.4.6   The landscape of e-inclusion intermediaries in the Western Cape Province

The 2030 vision of an information society in South African requires every person to have equal access to ICTs in order to participate in society (National Planning Commission, 2012). To achieve this, adequate ICT infrastructure, services and content of the highest quality must be available to the wider community at the lowest cost (National Planning Commission, 2012). E-IIs are key actors in expanding the reach of ICTs to all people, specifically marginalised community members in under-resourced communities, in order to achieve universal access and use of ICTs in South Africa (Uys & Pather, 2016). E-IIs, particularly those operating in the public and third sectors, have been facilitating this role since the early 1990s (Alao et al., 2017; Benjamin, 2001; Uys & Pather, 2016). E-IIs operating in these sectors are often located in under-resourced communities and they purposefully support community development, which makes them more relevant for this study.

To facilitate the extension of ICT access to citizens, statutory bodies such as the Universal Service Agency (USA) were established – as directed by the South African Telecoms Act No 103 of 1996. This Act later became the Electronic Communications Act (ECA) No 36 of 2005 and, under the ECA, the Universal Service Agency was renamed the Universal Service and Access Agency of South Africa (USAASA). Under the ECA (section 82. (1)), the USAASA is mandated to:

> (a) Strive to promote the goal of universal access and universal service; (b) encourage, facilitate and offer guidance in respect of any scheme to provide, (i) universal access or

universal service; or (ii) telecommunication services … and (c) foster the adoption and use of new methods of attaining universal access and universal service (South African Government, 2005).

Through the ECA, USAASA is obliged to establish e-IIs with the objective of promoting universal services, universal access and affordable telecom services across rural and peri-urban under-resourced communities in the country (Molawa, 2009; Oyedemi, 2009; Uys & Pather, 2016). There are conflicting reports on the actual number of e-IIs the USAASA has established across the country to date. Oyedemi (2009), for instance, suggests that the USAASA had established 140 telecentres by 2009. However, USAASA (2014) claims that, by 2007, it had established a total number of 154 telecentres, up from 71 in 2002. Moreover, the Department of Communication (2014) states that, by 2010, the number of telecentres was 154, which suggests there was possibly no development after the USAASA's 2007 claim.

The e-II landscape also includes multi-purpose community centres (MPCCs), which were rebranded and are now referred to as Thusong centres. These centres are a national government initiative established in the late 1990s to foster government services to all people. Thusong centres are one-stop service centres (Government Communication and Information System, 2017) that have political motivation to aid in the upliftment of marginalised community members by providing access to communication and information resources for educational, personal and socio-economic development (Van Belle & Trusler, 2005). By 2017, there were twenty-four Thusong centres and five satellite centres across the WCP (Government Communication and Information System, 2017).

In addition to the efforts of the USAASA, the WCG has contributed tremendously towards the e-II landscape in the province. The government has achieved this through various partnerships, specialist departments and international, provincial and local donor agencies. Since the WCG's interventions are on public record, they are easier to identify. Prime examples include a local government project to equip public libraries located within Cape Town with desktop computers and Internet access. As of September 2017, ninety-eight public libraries are part of the project and there are over 454 000 registered computer users. Another example is provincial government's rural libraries initiative, which focuses on installing desktop computers with Internet access in public libraries outside of the Cape Town Metropole area. As of 2018, 223 libraries are part of the initiative.

The provincial government also established Cape Access, a project that entails setting up public venues that offer access to computers and the Internet, and as of 2018 there are seventy dedicated public

access venues across the province (Western Cape Government, 2017a). Through the WCG Department of Social Development, seven youth cafés have also been established in under-resourced communities across the WCP to provide marginalised youth with access to ICTs and capacity-building opportunities.

It is challenging to identify third sector e-IIs in the WCP. Many of the e-inclusion interventions that exist are not on public record and many do not have an online (Internet) presence, despite working with technology. There is no documentation that has accurately captured, counted and described the existing e-IIs landscape in the country, let alone in the WCP. Yet this type of information is imperative for policy and decision-making about ICT4D interventions. While it is known that different types of e-inclusion organisations, projects and initiatives exist that fall within this sector, they are often repetitions of each other, since development actors lack accurate information on what exists.

To address this grave limitation the Western Cape CoLab for e-Inclusion and Social Innovation (CoLab) started a continuous Environmental Scan project in 2018 to develop an e-Inclusion Data Portal that will be part of the ecosystem literature on e-inclusion in the WCP. The data portal is maintained by the CoLab and is accessible to the public through the CoLab's official website. Although the portal is constantly being updated, fifty-five e-IIs that are operating in the third sector in the WCP had been captured and documented by the end of 2018. The e-IIs include training institutions, youth development centres and religious institutions. These e-IIs use ICTs in some form to facilitate the e-inclusion of community members and create equal opportunities for them to participate in an information society.

Noteworthy e-IIs in the third sector include the Interactive Community Access Network (ICAN) centre project, which is a proof of concept and therefore currently the only one of its kind in the WCP and in the country. However, there are plans to franchise the ICAN centre across the WCP. The purpose of the centre is to facilitate public access to digital technologies. The Reconstructed Living Labs (RLabs) is also a noteworthy project. RLabs combines education, technology and innovation to facilitate the socio-economic empowerment of people. The RLabs model has been franchised in different under-resourced communities in the WCP, and even in other African countries. Lastly, the Cape Innovation and Technology Initiative (CiTi) established the Bandwidth Barn, which has two branches – one in Khayelitsha township and the other in the Cape Town central business district. These provide access to desktop computers, the Internet and ICT-based training for those in the community, often targeting entrepreneurs, small business owners and informal traders.

The different e-IIs in the public and third sectors are working towards bridging the existing digital divide by bringing ICTs closer to the community members who need them. The question of whether these efforts are enough can be raised, considering that there are still marginalised community members in the WCP who do not have access to and/or the skills to use the ICTs. In some areas, the challenge is not that the e-IIs are not enough but rather that more emphasis is placed on the technology aspect than on the development aspect (Sein & Furuholt, 2009). Access is provided, and community members are encouraged to visit the e-IIs, but less emphasis is placed on the relatability of the ICT to the daily realities of community members for them to understand the value of ICTs. Moreover, the lack of awareness also plays a role in community members' use and adoption of the technology.

2.4.7   E-inclusion intermediaries and the services they provide

The rationale for e-IIs is that they create opportunities for economic growth by providing access to information and communication resources that are necessary for development (Avgerou, 2010; Mishra, 2013). Although the e-IIs facilitate development at different levels, their greatest impact is felt at the level of the community and individual (Johansson-Hedberg, 2010; Misuraca et al., 2014; Uys & Pather, 2016). It is at these levels that community members experience the realities of their development (improved quality of life) and face specific development challenges (for example unemployment and poverty) (Melkote & Steeves, 2001). Introducing e-IIs in the communities gives community members physical access to information and communication resources and other support services, which can help them address the challenges they face.

There is some debate and concern among development actors about the relevance of e-IIs and their actual impact on community development (Dasuki et al., 2014; Garrido et al., 2012b). Garrido et al. (2012b) argue that e-IIs often achieve less than the anticipated outcomes, particularly in facilitating effective social and e-inclusion to support the well-being of community members. Although there is a lack of evidence to support the impact of community members' access to ICTs on community development, this does not mean e-IIs do not support development, as the development is often difficult to measure (Gomez & Baron-Porras, 2011). E-IIs facilitate the education, connectivity, and digital skilling of community members, which helps them to develop themselves and their communities (Clark et al., 2012). Evidence of this type of impact is in the records collected by the e-IIs regarding, for example, training courses provided, attendance and completion numbers, and details of community members who became employed, promoted or entrepreneurs within specific time frames. In addition, e-IIs contribute unmeasurable and intangible benefits to community members,

which include increased confidence, self-esteem and empowerment (Tabassum et al., 2017). E-IIs' effective support of community development depends largely on community members' use of the services provided to achieve their individual and community development goals (Dasuki et al., 2014).

To determine whether e-IIs support community development it is helpful to explore the services they provide. Certain factors influence the type, quality, and variety of services provided by different e-IIs. These factors include the e-IIs' capacity, number of staff members involved in daily operations, the network of affiliates, available resources, operating budget and source of funding (Rissola & Garrido, 2013). The discussion of the services provided by e-IIs is grouped into the following themes: (i) access to information and communication resources, (ii) training, (iii) information hub, (iv) facilitation of social interaction, (v) job search support, (vi) social services, and (vii) business support services.

(i)   Access to information and communication resources

The main objective of e-IIs is to make ICTs more widely accessible, and thus extend the benefits of ICTs to all people regardless of socio-economic statuses (Alao et al., 2017; Gomez & Baron-Porras, 2011; Lemos & Martini, 2010). Affordable and convenient access to computers, and especially the Internet is one of the main reasons many community members visit the e-IIs (Uys & Pather, 2016). Community members want to search, create, share and receive information (Gomez, 2012; Research ICT Africa, 2015). The Internet is also used to facilitate communication through email, social media, instant messaging and voice-over IP services (for example Skype) (Gomez & Baron-Porras, 2011; Nemer, 2016; Rylands & Van Belle, 2017). Improved access to information and communication resources creates opportunities and helps community members to make better, more informed decisions about their well-being (Mbangala & Samzugi, 2014; Mbatha, 2016).

(ii)   Training

E-IIs that provide digital skills training coupled with access to ICTs are more likely to be successful in contributing towards community development (Gigler, 2015). The free courses are beneficial for marginalised community members, who need the training but cannot afford to pay for it (Alao et al., 2017). The training courses provided by e-IIs include the basic computer literacy skills that are fundamental in participating in an information society (United Nations, 2014). E-IIs also offer advanced digital skills training courses, for example programming courses and web design (Rissola & Garrido, 2013). E-IIs empower community members by equipping them with the skills and capacities that make them more employable, entrepreneurial and capable of generating an income to improve their quality of life (Cullen et al., 2012; Rissola & Garrido, 2013; Torrecillas, Centeno, & Misuraca, 2014).

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E-IIs offer alternative educational options to community members who cannot afford to further their education at traditional educational institutions (Bailey & Ngwenyama, 2010b; Gómez, 2012; Sein & Furuholt, 2009). Some e-IIs in South Africa are affiliated with tertiary education institutions and, as a result, offer a wider assortment of training services and certified courses. The University of Witswatersrand, for example, offers an Information Literacy Training Course (InfoLit) through several telecentres. Community members who complete the course receive formal computer training certificates from the university (Lesame, 2008). Another example is the University of South Africa (UNISA), which continuously works with a number of telecentres to provide educational services to UNISA students studying through correspondence (Gcora et al., 2015).

Educational services provided by e-IIs in South Africa help community members to secure employment and promotions (Lesame, 2008). The e-IIs in more resourced communities are greater contributors towards education associated development than those located in under-resourced rural and remote communities. E-IIs in more resourced areas have access to resources and infrastructure that enable them to offer community members more support, including a wider variety of services and different types of training courses (Lesame, 2008).

(iii)   Information hub

Access to accurate information is a necessary resource for development (Harris, 2007; Sein & Harindranath, 2004; Unwin, 2009) and poverty eradication (United Nations, 2014). Over time, 'information' has shifted from being a 'need' to a 'right' (Kleine & Unwin, 2009). E-IIs are key role players in fulfilling the information needs of communities in both developed and developing countries (Falch, 2000). They act as catalysts of information and knowledge that can create choices and opportunities for community members in under-resourced communities (Alao et al., 2017; Hoq, 2015; Menou et al., 2004; Uys & Pather, 2016). Community members gain a sense of empowerment when they are informed enough about the available opportunities and able to take advantage of them (Mbangala & Samzugi, 2014).

(iv)   Facilitation of social interaction

E-IIs are considered safe venues (safe havens) (London, Pastor, Servon, & Wallace, 2010) that provide a space where community members, particularly women (Kleine, 2013) and the youth, can access ICTs and connect with each other. In under-resourced communities, where gang violence, drug and alcohol abuse are rife, e-IIs act as neutral grounds (Bailey & Ngwenyama, 2010; London et al., 2010) where community members are afforded a relatively safe and enabling environment for socialisation,

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networking, and engagement (Cullen et al., 2012; Garrido et al., 2012b; Harris, 2007; Sciadas et al., 2012). However, this is not to say that e-IIs are free from crime; they can be drawn in and affected by the violence that happens around them.

Community members interact with each other and discuss positive and negative events, challenges in the communities and possible solutions. This enables the building and strengthening of social networks (Prado, 2010), which are useful for sharing information (Tabassum et al., 2017). The e-IIs' facilities are also used for entertainment purposes. Community members play computer games, listen to and download music, and watch videos and movies (Lemos & Martini, 2010; Uys & Pather, 2016). Playing computer games is a useful way for young people to learn various digital skills that prepare them for their future use of ICTs for development (Lemos & Martini, 2010; Nemer, 2016; Ochsner, Ramirez, & Steinkuehler, 2015; Sey et al., 2013a).

(v)   Job search support

E-IIs facilitate the employment and income-generating activities of community members in several ways. Although only to a small extent, the establishment of e-IIs in communities creates employment, since the e-IIs employ people from the community (Falch, 2000). The e-IIs also play the role of job placement centres (Garrido et al., 2012b). They provide information on existing vacancies and offer services that help community members progress towards getting jobs or advancing in the workplace (Garrido et al., 2012b). By providing access to the Internet, e-IIs also enable community members to search and apply for vacancies advertised online (Rissola & Garrido, 2013; Uys & Pather, 2016). Community members also use the computers to type and print their curricula vitae (CVs), motivation and application letters (Alao et al., 2017). In South Africa, searching and applying for employment are still among the leading activities of community members who make use of e-IIs' services (Kassongo et al., 2018).

(vi)   Social services

There are e-IIs in the WCP that also play the role of activists and advocate for the empowerment of marginalised people in their communities, especially women and children (Choudrie et al., 2017; Sein & Furuholt, 2009). The e-IIs work with other development actors in the communities to run awareness campaigns to educate community members on social issues such as gender and domestic violence, including where and how to get help. There are also selected e-IIs in the WCP that provide community members with social services, such as counselling, legal advice and healthcare information resources (Benjamin, 2001; Garrido et al., 2012b).

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(vii)   Business support services

E-IIs support local (formal and informal) small businesses in the communities (Western Cape Government, 2017b) by providing information on, for instance, business and networking opportunities (Falch, 2000; Tabassum et al., 2017). Small business owners use the Internet as a source of information (Kleine, 2010) and to search and apply for tenders and business loans (Alao et al., 2017; Harris, 2007). Furthermore, they use the computers to type business documents, such as business plans, invoices and quotations, which they also print for free or at a low cost. In this context, informal businesses are not formally registered with government authorities as trading businesses, and therefore do not pay taxes. These businesses are often the result of a community member's need for survival from conditions of poverty and unemployment (Ligthelm, 2011).

While e-IIs are essential for development, in under-resourced communities they are not the solution for community development challenges (Bailur, 2015; Benjamin, 2001). The existence of e-IIs does not guarantee that community members can or will use the ICTs for community development (Gigler, 2015; Gurstein, 2000; Walsham, 2017). Physical access to ICT alone will not automatically lead to the realisation of its benefits (Gomez & Camacho, 2011). In addition to access, community members need the support of skilled people who can educate them on the effective use and appropriation of ICTs for development (Gomez & Baron-Porras, 2010). The e-IIs only support community development to the extent to which the community members understand the value of information and communication resources (Rothenbergy-Aalami & Pal, 2005).

2.4.8   Challenges faced by e-inclusion intermediaries

Since they were introduced, e-IIs have been facing different challenges that have led to their varying degrees of success (Avgerou, 2010; Madon, Reinhard, Roode, & Walsham, 2009; Uys & Pather, 2016). These challenges often touch on economic, social and in some cases political influences, some examples include insufficient funding, staffing and digitally skilled staff, unstable electricity supply, and ineffective communication strategies.

Financial instability is a challenge that e-IIs constantly face (Falch, 2000; Samii, 2009; Uys & Pather, 2016). Without adequate funding, maintaining and servicing the ICT equipment (Samii, 2009), buying more resources and paying staff wages (Gcora et al., 2015) become challenges that affect the e-IIs' ability to operate efficiently. The expectation was largely that, after development actors invested some capital, the e-IIs would become viable, profitable enterprises able to cover their own operational costs (Avgerou, 2010). However, the profit-making potential in some of the communities where e-IIs

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are placed is limited, as the community members are already struggling financially or they have little appreciation for ICTs (Madon et al., 2009).

Limited funding also affects the ability of e-IIs to hire adequate staff, often resulting in understaffing (Gcora et al., 2015). The existing e-II staff work under pressure and are unable to adequately address the needs of community members who lack sufficient knowledge of ICTs and the digital skills to use them without assistance (Gcora et al., 2015; Sein & Furuholt, 2009). This challenge is greatly felt by South African e-IIs, since they are often understaffed and serve community members who generally lack adequate ICT knowledge and skills (Pather & Gomez, 2010). The overwhelmed nature of e-IIs is further exacerbated by the lack of sufficient staff with digital skills (Bailey, 2009; Falch, 2000; Uys & Pather, 2016). It is necessary for e-II staff to be adequately skilled, informed and knowledgeable about ICTs so that they can assist community members that come to the e-IIs and need information or help using, for instance, the computers (Hoq, 2015).

The challenge of fluctuating electricity supply due to unstable power grids also affects how e-IIs operate in communities that have limited infrastructure (Prado, 2010). This results in the e-IIs' services becoming unreliable, affecting community members who depend on the e-IIs to access ICTs.

The last challenge is related to e-IIs' ineffective communication methods and media, which have been blamed in part for community members' lack of awareness of e-IIs and their services (Gcora et al., 2015; Sein, 2011; Sein & Furuholt, 2009). Some community members further lack accurate information about the value of ICTs. This lack of awareness is cause for concern because community members cannot use the services if they do not know they exist. The e-IIs become wasteful expenditure that fail to bridge the digital divide and support community development. Hence, e-IIs need to communicate better through more effective communication strategies.

2.5   Communication in the age of social media

The increased uptake of mobile devices and the Internet has created more opportunities for e-IIs to reach community members, particularly through social media (Choudrie et al., 2017). Social media are considered objects of development (Nicholson, Nugroho, & Rangaswamy, 2016), social artefacts rooted in multiple aspects of everyday use that are capable of supporting community development in different ways (Afridi, 2011; Hassan et al., 2016; Lie & Servaes, 2015; McLennan, 2016; Melissa et al., 2015; Wang, Min, & Han, 2016). This is largely due to their contemporary participatory development features, namely two-way engagement, information co-creation and sharing (Akashraj & Pushpa, 2014; Dhar & Chang, 2009; Kaplan & Haenlein, 2010; Mosconi, 2018). The social media themselves

are quite complex, with multi-layered meanings (Fuchs, 2017) and no universally accepted definition (Choudrie et al., 2017).

Social media are associated with various concepts, the most common being web 2.0 (Constantinides, 2009; Lindmark, 2009), user-generated content (Dhar & Chang, 2009; Kaplan & Haenlein, 2010), user-generated media (Shao, 2009), consumer-generated media (Praveen, Jaafar, & Sulaiman, 2015) and social networking (Boyd & Ellison, 2008), among others. Social media are online applications that are used to share opinions, experiences, pictures, videos, music, insights, and perceptions (Lai & Turban, 2008). While this definition does not clarify what is meant by online applications, it illustrates the capabilities of social media to facilitate information creation by users and for self-expression. Social media are Internet-based applications that build on the ideological and technological foundations of Web 2.0, which allow for the creation, distribution, exchange and publishing of content that is created by the users (Akashraj & Pushpa, 2014; Kaplan & Haenlein, 2010).

Hoffman et al. (2012) go beyond seeing social media as simply software applications and include 'connection facilitators' as a key characteristic of these media. Hoffman et al. (2012, p. 29) define social media as a set of *"web-based and mobile tools and applications that allow people to create (consume) content that can be consumed (created) by others and which enables and facilitates connections"*. They emphasise that the allure of social media is not the technology itself, but more so what it affords users, particularly in creating and maintaining connections. Stevenson and Xie (2014) agree with Hoffman et al. (2012) that social media are more than Internet-based applications; they are also media of communication that facilitate social interaction and the building of social networks.

What differentiates social media from traditional media such as newspapers and television is that social media allow for any user to create, share, change and publish public or private content (Akashraj & Pushpa, 2014; Clement & Shade, 2000; Yamamichi, 2011). Social media facilitate (real-time) two-way (Mosconi, 2018; Van Der Graaf, 2015) communication channels that also shift the position of community members (users) from passive recipients of information to creators and co-creators (Yamamichi, 2011). Social media facilitate large-scale flexible, virtually instant and interactive participation by users, who can be in different geographical locations (Choudrie et al., 2017; Yamamichi, 2011).

Social media represent the significant leap forward that ICTs have taken in facilitating collaborative content creation and interactive participatory information sharing (United Nations, 2011). Users create and publish content to many other users, and this ignites debate, comments, and feedback

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from and amongst the users, which can occur simultaneously (Mosconi, 2018). The co-creation feature of social media enables users to come together to create content, and to share ideas, experiences, and possible solutions to development challenges in their communities (Weeks, Ardèvol-Abreu, & Gil de Zúñiga, 2017; Yamamichi, 2011). Based on the definitions discussed, the definition of social media adopted for this study is that, social media are Internet-based applications that enable users to (co)create and share user-generated content (opinions, information and multi-media) through two-way engagement channels. They facilitate real-time communication as well as self-expression and the building and maintaining of networks and relationships.

2.5.1 Types of social media

A brief description of the different types of social media is presented in Table 4 to facilitate an understanding of how e-IIs can use them for development purposes.

Table 4: Descriptions of different types of social media

Type of social media	Description	Source
Blogs	Webpages used to create content (images, videos and links to other websites) using plain text. The content is presented in reverse chronological order. Blogs are used to share information, ideas, thoughts and opinions.	Constantinides (2009) Fotis (2015) Kaplan and Haenlein (2010) Pillay (2012) Pascu (2008)
Microblogs	Microblogs are a variation of blogs that allow users to exchange small elements of content at a time with groups, selected individuals or the public. Twitter is an example of a microblogging site that allows users to send tweets – short messages limited to 140 characters per message.	Fotis (2015)
Social networking sites	Web-based services used to create public or semi-public profiles within a bounded system in which users can articulate lists of other users with whom they share common interests. Users can view and traverse each other's lists of connections and interests within the system. Examples of these sites include Facebook, Google+, and LinkedIn. They are used to create and maintain networks of connections, facilitate engagement and share interests, opinions and other content.	Boyd and Ellison (2008) Constantinides (2009) Gil de Zúñiga (2012) Kaplan and Haenlein (2010) Pascu (2008)
Wikis	Wikis are online encyclopaedias built through ad-hoc collaboration between people around the globe. They are applications used to provide categorised information on specific topics.	Constantinides (2009) Fotis (2015) Pillay (2012)
Online forums	Interactive webpages used to share and exchange ideas and information that usually revolve around a specific topic or set of interests. Also known as Internet forums, web forums, discussion groups, discussion boards, discussion forums, bulletin boards or digital forums.	Constantinides (2009) Laughlin and MacDonald (2010)

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Type of social media	Description	Source
Content aggregators	They are used to collect content from multiple different sources using real simple syndication (RSS) technologies and create new customised products and services that can be presented on a single platform.	Constantinides (2009) Pillay (2012)
Content communities	Web-based applications that enable the sharing and exchange of multi-media content such as pictures, videos, presentations, documents and music. Examples include YouTube and Vine for videos, Flickr and Instagram for pictures, and SlideShare for presentations.	Constantinides (2009) Fotis (2015) Kaplan and Haenlein (2010) Pascu (2008)
Podcasts	The term 'podcast' refers to the content (recorded audio of interviews, discussions, lectures, or other types of programs, and music or videos), while podcasting refers to the method through which the content is distributed. Podcasts can be accessed and downloaded through devices that can connect to the Internet.	Pascu (2008)
Social bookmarking	Use of web-based applications to remotely or centrally save 'bookmark' uniform resource locators (URLs) to one website to access later or share with others. The process is also referred to as collaborative tagging, social indexing, or social tagging. Examples include del.icio.us and Stumble-Upon.	Constantinides (2009) Pascu (2008) Pillay (2012) Yanbe, Jatowt, Nakamura and Tanaka (2009)
Gaming	Online social gaming or virtual gaming worlds are the definitive manifestation of social media that enable high levels of social presence and media richness. The connectivity of the games allows many users in different locations to form 'virtual communities' and connect based on shared interests towards common goals.	Bell (2009) Kaplan and Haenlein (2010) Pascu (2008)

2.5.2   Social media and community development

The ability of social media to be transformative in community development is evident in the literature, where the capabilities of community members have been increased to improve their quality of life (Matthews, 2015b). Social media have been used to support, for instance poverty eradication, income equality, employment (Choudrie et al., 2017; Matthews, 2015b; Wyche, 2015), activism (McLennan, 2016; Yamamichi, 2011), civic engagement and political participation (Gil de Zúñiga, 2012) in under-resourced communities in developed and developing countries. More specifically, social media are used to facilitate relationship building and networking, participatory communication, community organising and activities to help generate income.

Social media such as Facebook are used to create and maintain networks of community members who know each other, as well as other people and groups from outside the community (Matthews, 2015a). The features of social media extend the capability of forging network ties to people outside the physical boundaries of a community so as to create multiple networks (Castells, 2000). The networks are often used to share information and create awareness, for example about community challenges,

and to elicit discourse and community action to address the challenges. As networks grow stronger, it is also possible for the levels of trust, friendship, partnerships, equality and willingness to share resources to become stronger (Hustedde, 2009; Matthews, 2015b). Social media networks enable members of the networks to teach, learn and develop new skills from each other (Gruzd & Goertzen, 2013; Harris, 2007; Ngai, Tao, & Moon, 2015; Whiting & Williams, 2013). Matthews (2015b) found that community members who were part of a Facebook network with the objective of addressing community challenges gained information resources and helped each other build capacity to devise interventions that addressed their community challenges.

Social media have the potential to increase social capital in a community due to their facilitation of networks and relationship-building processes (Brusilovskiy, Townley, Snethen, & Salzer, 2016; Leavy & Howard, 2013; Phua, Jin, & Kim, 2017; Weeks et al., 2017). Quality and strong relationships are useful for building solidarity among community members towards common community development goals (Hustedde, 2009). Social media are catalysts that bring community members together based on common interests (Boyd & Ellison, 2008; Castells, 2000), such as social history and shared development goals (Matthews, 2015a).

The features of social media enable participatory communication, which entails two-way engagement between users such as community members and development actors. The use of social media has become common practice for international and local development actors. The United Nations (UN), for instance, uses social media within managed expectations to support their development objectives (United Nations, 2011). More specifically, the UN uses social media to facilitate two-way engagement and the participation of community members, and to help inform and build public support for development initiatives (Servaes & Malikhao, 2016b). Social media are also used by community members and those in authority to create networks designed to report and share information related to criminal activity. Social media are particularly useful for the police, who use them to reach communities that were traditionally difficult for them to reach (Copitch & Fox, 2010).

Social media enable a sense of togetherness (Servaes & Malikhao, 2016b) and empowerment for community organising and action, and for activists, providing them with resources and options that were previously not possible or available (Ali, 2011). Community members use social media to plan community events to raise funds or awareness about the challenges and needs in the community. Furthermore, social media have the capability to mobilise people who call for justice, equality, accountability and action towards development (United Nations, 2011). Social media are used as a virtual voice in the fight for democracy and against violence in the hope for a better quality of live and

improved standard of living (Afridi, 2011; Choudhury, 2011; United Nations, 2011; Yamamichi, 2011). Social media enable community members to participate in activities for change and to articulate their views (Kenny, 2016). A good example is the 2011 pro-democracy protests in the Middle East (popularly known as the 'Arab Spring'), which were largely facilitated by social media (Yamamichi, 2011). Social media were a source of real-time information, footage of protests, news and exhortations shared independently from the mainstream media, which enabled the activist leaders to organise their followers and plan strategies (Cammaerts, 2015; Harindranath, Bernroider, & Kamel, 2015; Yamamichi, 2011).

During times of crisis (Reuter & Kaufhold, 2018), natural disaster and public events, social media have proven useful to provide real-time updates and information, and responses to queries (Yamamichi, 2011). Examples include the excessive use of Twitter during the floods in Louisiana, The United States of America in August – September 2016, and the use of Twitter and Facebook during the 2016 Roanu cyclone in Sri Lanka, to communicate with flood-affected victims. Social media are used to access a range of support services and potentially life-saving information, such as early warnings and medical services (GSMA, 2016; Reuter & Kaufhold, 2018). Social media also enable proactive planning, and support for decision-making, mitigation, and response (Choudrie et al., 2017; Purohit & Chan, 2017). For many marginalised and vulnerable community members, the ease of access to social media and relatively low cost of mobile devices makes social media a viable option to access and share information and communicate compared to other traditional media (United Nations, 2014).

Social media are also used to help generate income by sharing information of employment opportunities (Afridi, 2011; Nicholson et al., 2016) and business ventures (Ngai et al., 2015; Wyche, 2015). Social media enable people to create online businesses that they can manage using a mobile device and earn an income (Melissa et al., 2015). This leads to the intangible benefits of self-worth, increased self-esteem, and empowerment, as well as tangible benefits for people who use their earnings to support their families (Melissa et al., 2015).

Although social media are capable of supporting community development, caution is encouraged against expecting only positive results (Walsham, 2017). Moreover, it is ambitious to expect that social media alone have the power to solve community challenges and lead to drastic improvements in the quality of life in under-resourced communities (Lie & Servaes, 2015; Matthews, 2015b). Community development initiatives facilitated by social media sometimes yield limited and underwhelming results (Lie & Servaes, 2015). The solutions provided by social media are not always immediate (Matthews, 2015b); they are small steps over time that can give rise to and facilitate effective communication (Lie

& Servaes, 2015). For social media to be effective, development actors from inside and outside the community need to understand social media and how best to use them for the intended purpose (Kenny, 2016).

There are also some challenges associated with using social media to communicate for the purposes of supporting community development (Walsham, 2017). Access is still a challenge for many marginalised community members (Wyche, 2015), who are usually the intended beneficiaries of social media-facilitated development initiatives. High levels of mobile subscriptions are often interpreted as meaning that everyone in the noted area owns a mobile device, and this is not the case (Dutta et al., 2015). Some community members also lack the digital skills to use social media, thus limiting the effectiveness of social media (Wyche, 2015).

There is also evidence of 'discriminatory' and 'segregatory' practices in the community networks on social media. For example, when marginalised community members in the urban slums of Brazil gained access to ICTs and became well versed in social media, they joined various community groups to engage with other community members. However, the 'well-up' social media users who lived in more upper-class and affluent communities cyber-bullied the poor users' online and offline habits and referred to their posts as 'low educated' (Nemer, 2016). As a result, some of the poor users left the community groups, while others refrained from using social media altogether out of fear of being mocked because of their socio-economic status and the community from which they came.

Similarly, in Namibian slums, people from specific ethnic groups were often victimised in community networks on social media (Wyche, 2015). As a result, some opted to post content in languages of the more accepted groups and distanced themselves from their own ethnic groups when participating in any activities on social media. It was often the women who were harassed by men by being tagged in pornographic images, and by receiving unsolicited friend requests and messages, and unwanted posts on their social media profiles (Wyche, 2015). As a result, the affected women either withdrew from social media, removed pictures that showed their faces, or posted pictures of their children and husbands to deter any unwanted male attention.

These challenges greatly impact community members' ability to engage with each other and work together. Yet they are often overlooked when community members, both men and women, are encouraged to participate in community development initiatives facilitated by social media (Wyche, 2015). It is necessary to consider the positive and negative consequences that can result from using social media to support community development efforts, and to devise a plan to address them. While

the literature on the use of social media to support community development is growing, there is still debate regarding the actual contribution of social media, along with calls for more empirical findings (Choudrie et al., 2017; Nemer, 2016) grounded in theory (Matthews, 2015b; Nicholson et al., 2016). This call is particularly at the organisation and community level, which is where e-IIs are located (Nah & Saxton, 2013). Therefore, this study provides useful information that is grounded in theories of development and theories of communication to add to the 'social media and community development' discourse.

2.6   Summary of the chapter

Access to ICTs is still a challenge for many marginalised community members in under-resourced communities in the WCP. There is a need for improved interventions and a shift in focus from the technology aspect towards the 'for development' aspect. Although e-IIs are leading strategies in bridging the digital divide, having access to ICTs alone does not guarantee their meaningful use by community members nor the outcome of community development. Community members need to find the technologies relatable and useful in their everyday life. Moreover, they need to possess the digital skills to use them.

Equally important is the aspect of communication; community members cannot use the technology and services provided by e-IIs if they do not know about them. The e-IIs need to communicate more effectively to achieve their communication objectives and support community development. Social media possess the capability to facilitate information sharing, the building of networks, and the strengthening of relationships. They also facilitated the creation of online businesses that generate income and give rise to acts of activism for improved quality of life.

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Chapter 3

Theoretical framework

3.1   Introduction

To achieve the objectives of this multidisciplinary study it was necessary to use theories from the disciplines of development, technology and communication to guide the investigation. Three leading theories that have influenced development paradigms and the role of communication in development are discussed, namely modernisation, dependency and participation. Since the focus of this study is on development at the community level, it was necessary to also include and discuss 'mid-range' theories of (i) community development, (ii) information and communication technology for development, and (iii) communication for development.

To understand and explain the communication media choices, motivations, and sought gratifications of community members at the individual level UGT is used as a lens to analyse the data collected from community members regarding their use of social media. The chapter concludes with the key insights that were gained from the different theories and explains how they were used in and benefited this study. Within the discussions of the different theories, the term 'locals' is used to refer to the native population of the particular country or region, while the term 'community members' is used to refer to the people of a given geographic community or society.

3.2   Understanding the role of a theory

Theories have existed for decades providing a lens or perspective to guide the identification of issues to investigate (Anfara & Mertz, 2014). Theories illustrate the responsibilities of a researcher in designing a study, determining the investigative approach and communicating the findings (Henstrand, 2014). A theory constitutes systematised sets of assertions about the generic behaviour or structure that is expected to remain constant throughout a significantly wide range of specific instances (Sutherland, 1975). These assertions, behaviours, and structures relate to each other and work together to explain specific phenomena (Boettke & Coyne, 2015). The assertions are statements of the relationships between concepts within a set of boundary assumptions and constraints that aim to organise and clearly communicate the events and relationships (Bacharach, 1989).

Theories help to define the terms of the phenomenon's domain, sets of variables, and specific predictions or factual claims (Wacker, 1998). The definitions are precise (Van de Ven, 1989) and clearly

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explain how and why particular relationships lead to particular events (Wacker, 1998). Unlike objectives, which answer what or who questions to describe a phenomenon, theory answers how, when, why and where questions. This helps to decide what to research and how to go about the investigation by guiding the process of measuring and explaining issues and findings (Gorard & Taylor, 2004). In this study, the theory provides a lens that guides the investigation of how e-IIs in under-resourced communities in the Western Cape Province (WCP) of South Africa support community development and communicate for development.

3.3   Defining and understanding the concept of development

The term development is quite complex and has various definitions grounded in different philosophies of how development is interpreted and practised (Melkote & Steeves, 2001; Pieterse, 2010). The concept of development is often debated, both in practice and as a discipline (Andrews & Bawa, 2014; Kleine, 2010). In the 1800s, development was associated with capitalistic, economic, and political philosophies in response to development challenges and social dislocation (Pieterse, 2010). Rogers and Svenning (1969) define development as social change that occurs through increased, higher per capita income, modern production methods, and improved social organisations, after new ideas that improve standards of living are introduced into a society. Mowlana and Wilson (1988) broadly define development as the transformation of rural, communal and agrarian societies into urban, rational, contractual and industrial nation-state systems. Over time, these capitalistic, economic, and political philosophical underpinnings of development have shifted towards alternative, structural, human-centred reforms, and this can be seen in the different contemporary definitions of development.

Changes in people's circumstances and sensibilities, or a lack of change, have necessitated more humanitarian-centred development concerning the 'who' and the 'how' (Kivunike et al., 2009). This shift is evident in the work of scholars such as Rogers (1975), who found it necessary to redefine development as the participatory processes of social change that brought about social and material advancement, equality, and freedom for people to have control over their environments. The difference between Rogers and Svenning's (1969) and Rogers's (1975) definitions of development is the change in focus from capitalistic, economic, and political philosophies of development to participatory human social development philosophies.

Development entails the empowerment of all people to transform their immediate realities and to improve their quality of life through structured processes (Andrews & Bawa, 2014; Gomez & Baron-Porras, 2010). However, what constitutes 'improved quality of life' and how it can be achieved are

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highly contested (Cook, 1994; Melkote & Steeves, 2001). Moreover, the measure of such improvement is a subjective judgement that can only be made by the people affected, based on their own values, aspirations and expectations (Cook, 1994). Pieterse (2010) suggests that equality, poverty eradication, enhanced capabilities, and empowerment constitute improved quality of life or better living.

Sen (1992, 1999) introduced alternative philosophies of evaluating and seeing development that are grounded in aspects of participation, empowerment, and freedom. These philosophies are evident in Sen's (1999) capabilities approach, which evaluates improvements in the lives of people as explicit development objectives. The achievement of these objectives is the leading indicator of developmental progress through expanding the range of things a person can do or be (Sen, 1992), including that people have the freedom to pursue whatever goals they desire (Heeks, 2014b).

Unlike philosophies that consider economic growth as development, financial gains are rather a means to enhance a person's capabilities to achieve development (Fukuda-Parr, 2003). For instance, if someone is employed and earns a monthly income, this is not the end goal; the income increases the person's capabilities and options to act towards his/her desired development goals. The capabilities approach is unique in its emphasis on evaluating development by how well the capabilities of all people are expanded (Fukuda-Parr, 2003). Sen (1999) focuses on functionings and capabilities, with functionings being associated with a person's well-being, and her/his beings and doings, for example eating for nourishment and reading to gain knowledge. Capabilities relate to opportunities and freedoms available to achieve the functionings (the individual well-being) (Sen, 1992), and to choose between them (Devinder & Øystein, 2014).

Despite being philosophically profound, the capabilities approach is criticised for being methodologically difficult to apply (Dasuki et al., 2014; Kleine, 2010). Moreover, it is not specified in which contexts the approach can or should be used, nor how to evaluate or measure the development (Zheng & Walsham, 2008). Sen (1999) did this purposefully to enable the approach to be adaptable to a wide range of purposes. For instance, some researchers (for example Perez & Ben-David, 2012; Walsham, 2017) in the ICT4D field state that, while the approach does not specify the role of ICTs in development, it guides the identification of the functionings and capabilities, which are two important features of people's well-being.

Aspects such as ICTs are not an end goal (Hoq, 2015; Melkote & Steeves, 2001; Perez & Ben-David, 2012), but commodities that create opportunities for people to increase their capabilities and

freedoms to achieve their functionings (Hatakka & De, 2011; Kivunike, Ekenberg, Danielson, & Tusubira, 2011). Sen's philosophy of development has been used in studies of e-IIs (For example Garrido et al., 2012b), ICTs and poverty reduction (for example Heeks, 2014b) and ICT4D (for example Bass, Nicholson, & Subrahmanian, 2013; Dasuki et al., 2014; Devinder & Øystein, 2014; Hamel, 2010; Kleine, 2010; Zheng, 2009).

Economic development is therefore no longer sufficient to describe the holistic nature of development (Servaes, 1999). The need for more human-focused development calls for a shift in concern towards the 'who' and 'how' aspects of development (Kivunike et al., 2009), rather than the 'what'. For people, particularly those who are marginalised, to transform their realities (outcome of development) they need to be empowered. This can be achieved through, among others, development processes of equality, economic growth, freedom, control over the environment and expanded digital and social inclusion (Rogers, 1975; Sen, 1992, 1999).

Based on the discussion above, this study adopted the definition of development as being the process that sees people, especially those who are marginalised, empowered to transform their immediate realities to improve their quality of life (Choudrie et al., 2017; Gigler, 2015; Sen, 1999). This empowerment entails community members access to expanded social and e-inclusion, as well as enabling environments of improved equality, economic growth, increased freedoms and control over the environment.

3.4   Development theories

Theories of modernisation, dependency and participation are considered foundational theories that provide different perspectives within the development discipline about what development has meant, including how it has been practised and interpreted over the years. These three theories play an important role in understanding development and thus the philosophical underpinnings that have, and continue to influence the roles and ways in which ICTs are used to facilitate development at a national level. This understanding is necessary to determine e-IIs' position on the development agenda, the philosophical underpinnings that influence their design and e-inclusion approach, and to explore their role in supporting development at the community level.

3.4.1   Modernisation theory

The end of European colonialism in the 1950s and 1960s in Africa, Asia, and the Middle East triggered intensified studies of the politics and economics in these and similar third-world regions, revealing a

complex model of development known as modernisation theory (Handelman, 2009; Mowlana & Wilson, 1988). The premise of modernisation theory is that development challenges are due to a lack of modern cultural values, as well as political and economic institutions associated with wealth and development (Handelman, 2009). These limitations are attributed, in part, to the lack of information among locals.

The traditions and cultures that shape the social behaviour of locals in developing countries are considered anti-modernisation 'bottlenecks' that hinder the flow of information, the adoption of modern attitudes and the behaviours necessary for development (Waisbord, 2000). Locals trust their traditions and communication media that promote their values and shape their way of life (Ugboajah, 1972). Their traditions and cultures are grounded in customs, beliefs, and values that continue to be passed down from generation to generation, shaping a way of life and of doing things. The traditions and cultures are often associated with resistance to outside innovation and influences, which makes it difficult for Western media and information to penetrate and influence their social behaviour (Ugboajah, 1972). Since the traditions and cultures often differ from those in developed Western countries, they are considered anti-development (Hagen, 1963; McClelland, 1961).

The solution to the development challenges in third-world regions between the 1950s and 1960s was the adoption of Western economic and political systems that were promoted by Western media (Servaes, 1986). The 'welfare state', for instance, was considered the ultimate goal of development (Servaes & Malikhao, 2008). Therefore, developing countries needed to change from cultures and innovations influenced by anti-development traditions to those influenced by the modern cultures of developed countries (Servaes, 1986).

Modernisation theory is rooted in capitalistic, economic, and political philosophies that associate development with aspects of economic growth (Rogers, 1976a). The gross national product, for instance, was considered as the measure of a country's development at any given point. Rogers (1976a) identified four key factors that influence capitalistic, economic, and political philosophies. The first is *the industrial revolution*: economic growth in the Western regions is attributed to industrialisation and translated into development, or at least, its driving engine. Developing countries are therefore advised to industrialise, focusing mainly on technology and capital (Owens & Shaw, 1974). Second is *capital-intensive technology*: introducing technology from external sources into developing countries is anticipated to lead to development. Third is *economic growth*: assumptions by economists that people are 'economic' lead to expectations that the prospects of financial gain are sufficient to persuade the large-scale behaviour change needed for development. Lastly,

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quantification: the reliance on the gross national product as a measure of development, particularly the per capita income, is due to its deceitful simplicity as an instrument to measure development.

The failure of economic growth-centred development strategies to facilitate development and recognise other humanitarian elements of development lead to non-economic variables being introduced. In this respect, three alternative approaches can be used to interpret modernisation while emphasising the value of people and changes in attitude: (i) the psycho-sociological or behaviouristic approach, (ii) the technology determinism approach, and (iii) the institutional approach (Servaes, 1999).

Psycho-sociological approaches to development focus on non-economic elements to influence social behaviour towards cultures and beliefs that encourage development. Behaviourism (functionalism) philosophies focus on attitudes and effects other than political and economic structures, which often are development barriers. The main ideas behind the psycho-sociological (behaviouristic) approach are associated with Lerner's (1958) study of development in the Middle East which emphasises empathy – the capability to project oneself into the situation of another person. Empathy is an essential skill for people to function in and adapt to societies that are shifting from traditional to modern cultures (Baelden, 2013). Lerner (1958) argues that empathetic people can be more future-orientated and rational, making them more inclined to embrace change.

The technology determinism approach is one in which technology is considered a value-free, politically neutral tool to use in social and historical contexts of everyday life (Servaes, 1999). International development organisations therefore focus on technology and pursue it as the solution for development challenges in third-world regions. These organisations are criticised for pursuing a one-track agenda that calls for modernisation based on technology and its ability to trickle down into developing countries (Sahay, 2016), and further assuming that technology can operate independently of social realities. The ideas behind this approach are similar to the ideas regarding *capital-intensive technology* that Rogers (1976a) claimed influenced modernisation philosophies. Rogers's (1976a) philosophies are that developed countries have technology and developing countries do not, hence to develop the developing countries the solution is to introduce technology.

The institutional approach is based, in part, on Schramm's (1964) ideas regarding the relationship between modernisation, mass media communication and institutions. Mass media are believed to be facilitators of change and modernisation with the capacity to influence mobility and economic

development. Developing countries are encouraged to adopt mass media communication as a means of spreading the information necessary for development (Schramm, 1964).

During the 1970s, the initial principles of modernisation, mass media communication, and development institutions were re-evaluated due to criticisms from other development theorists (Huesca, 2008; Rogers, 1983; Servaes, 1986). Avgerou (2010), for instance, argues against modernisation theories that focus on ICTs as the solution for development challenges in third-world regions, because they are based on innovations and models that originated in and for developed countries. The technology is expected to have the same effect of pioneering socio-economic improvements that led to prosperity and an improved quality of life in developed countries. Limited attention is paid to recognising the possible 'disruptive' nature of the technologies (Zheng, 2015). This results in the failure of the approaches to penetrate the strong opposition from existing traditional structures of local power (Van Audenhove & Fourie, 2014) and strong non-Western cultural values (Avgerou, 2010).

The principles of modernisation theories focus on narrow and limited understandings of development as a top-down process (Frank, 1969). Modernisation theory is criticised for claiming that developing countries are responsible for their development challenges (Frank, 1969). In addition, modernisation is accused of being theoretically insufficient, empirically unsound, and incapable of promoting development in the third-world (Servaes, 1986). Developing countries also argue that their development challenges are not caused by internal factors, such as tradition or a lack of information. They believe their challenges are consequences of the unequal distribution of wealth and power between colonies and their colonisers, which form a dependency of the former on the latter and their economies, expertise, and culture.

3.4.2 Dependency theory

Dependency theory is influenced by Latin American scholars, who were not satisfied with the modernisation approach towards development. Intellectual traditions that inform dependency analysis include the Neo-Marxist approach and the Economic Commission for Latin America (ECLA) traditions (Servaes, 2008; Servaes & Malikhao, 2008). Dependency theory criticises philosophies of modernisation theory which claim that the locals of third-world regions are the cause of their own development challenges due to their 'anti-development' traditions and cultures. Dependency theories argue that development challenges in the third-world regions are a direct consequence of external factors (Colle, 2008), in aspects such as trade, technology, and industry (Nicholson et al., 2016).

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Developed countries possess the skills to use the technology (Sein & Harindranath, 2004), superior resources and economic and political power to dominate developing countries, whose role is still that of supplying raw materials and cheap labour.

Dependency theorists state that development challenges such as poverty are caused by the same processes that make developed countries wealthy. These processes include the exploitation of poorer, developing countries through colonisation and trade (Sein & Harindranath, 2004; Servaes & Malikhao, 2005). Development challenges in third-world regions are therefore consequences of development in the global West (Frank, 1969; Hornik, 1988), where economic and political power keep developing countries dependent on the West (Handelman, 2009).

Although it provides alternative schools of thought, dependency theory does not provide specific ways of addressing development challenges (Handelman, 2009; Servaes & Malikhao, 2008). Both modernisation and dependency theory focus on the macro-level of national and regional states, therefore their view of development is from a vertical standpoint that results in development approaches plagued with theoretical and programme failures, as well as incorrect assumptions that predetermined solutions can be linked to particular challenges (Hornik, 1988). These theories oversimplify development and scarcely focus on the individual as the agent of change. Western-inspired development innovations fail over time to address social and structural challenges, such as poverty in developing countries (Colle, 2008; Rahnema, 2010; Waisbord, 2000).

Moreover, as communities, regions, and nations grow more interdependent (globalisation), with social and economic relations being reorganised (Avgerou, 2010), it becomes difficult to continue supporting dependency views (Huesca, 2008; Servaes & Malikhao, 2016b). The blurring of globalisation boundaries emphasises the need for a new, multidimensional concept of development that promotes cultural identity (Servaes, 1999; Servaes & Malikhao, 2008).

3.4.3   Participatory theory

The failures of previous development approaches and interventions are associated with the lack of inclusion and participation of the locals in development interventions (Anyaegbunam, Mefalopulos, & Moetsabi, 1999; Fraser & Villet, 1994; Waisbord, 2000). Early top-down development approaches of persuasion models are based on assumptions that the locals have little to contribute (Grimshaw, 2015; Waisbord, 2000). They cannot voice suggestions, recommendations or modifications (Melkote & Steeves, 2001), and therefore have no choice but to accept the innovations brought to them. Participatory theorists call for more inclusive development programmes that acknowledge and

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accommodate the participatory process in development (Anyaegbunam et al., 1999; Huesca, 2008; Rahnema, 2010; Rogers, 1976a).

Development organisations benefit from the knowledge and experiences of the locals who participate in the development process (Vincent, 2009). This also helps them to avoid the pitfalls and failures of previous initiatives (Rahnema, 2010; Talbot & Verrinder, 2010). Furthermore, locals contribute existing networks, institutions, and an understanding of the opportunities and challenges that local traditions will have on the projected social change (Leavy & Howard, 2013). The locals can also use their participation to advocate for more humane and effective development interventions that ensure that social, cultural, and economic objectives are achieved peacefully (Rahnema, 2010).

Participation is intertwined with ideas of sustainable development, particularly human-centred development. Rahnema (2010) identifies four functions of participation in this regard: (i) *in cognitive terms*, participation revives the development discourse due to new understandings of the challenges and cognitive foundations of conventional development based on claims that modernisation and dependency theories fail to deliver sound development; (ii) *the political function*, to provide a voice for the voiceless to advocate for themselves and enable equal opportunities, even for those opposing popular views; (iii) *the instrumental function*, to engage with development actors and provide solutions for past failures and propose alternative inclusive development strategies; (iv) *in social terms,* to facilitate the engagement of all development actors and provide new hope in development efforts to address challenges.

Sensitivity towards social diversities and structural contexts is emphasised (Colle, 2008) to avoid the consequences of introducing interventions into environments dominated by local cultures (Servaes, 2008; Waisbord, 2000). Theories of participation therefore influence the discourse and shift in the focus of ICT4D interventions towards empowerment and human-centred sustainable development. This discourse is also motivated by the work of Sen (1999), who emphasises the participation and empowerment of people for long-term sustainable development.

The shift in ideas also influences the role of and approach to communication, and how international and local organisations use it to enhance the participatory role of locals in development at the grassroots level (Agunga, 1997). Freire (1970), a Brazilian educator, also contributes to this shift through ideas based on his challenge of dominant conceptions shaped by previous theories. Freire (1970) emphasises the need for interpersonal channels in human-centred communication initiatives at the community level. Interpersonal communication channels and face-to-face communication are

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preferred by the locals, particularly those who are marginalised and/or illiterate (Melkote & Steeves, 2001; Okunna, 1995). The source can be relatives, friends, teachers, and trusted religious and tractional leaders of the community, among others (Hoq, 2015).

Participatory theories are often used in studies of ICTs and development to gain an understanding of rich concepts and provide narratives that facilitate the design of more specific theories about the phenomena being investigated (Dearden & Haider Rizvi, 2015; Harris, 2016; Walsham, 2017). While modernisation and dependency theories provide a useful lens and perspectives to position e-IIs, particularly technology, participatory theories also direct focus on to the community and development. This makes participatory theories quite relevant to explore, understand, and explain the relationships between e-IIs, ICTs and community members in community development.

3.5   Understanding community development and participation

Development is multi-level, taking place simultaneously at the national, community, individual and other micro-regional levels (Pieterse, 2010). Development at the level of the community is the key focus of this study. For development to affect the marginalised, it must start from where the people are and where the real problems exist, and this is in the communities (Cibangu, Hepworth, & Champion, 2017; Melkote & Steeves, 2001). It is at this level that people experience specific development challenges that affect their quality of life (Melkote & Steeves, 2001). E-IIs are also introduced at the community level to facilitate e-inclusion and support community members in addressing their challenges (Bailey & Ngwenyama, 2010; Dalvit et al., 2014). To explore and understand how e-IIs support community development, it is necessary to first understand what development means at this level. The following sections present an overview of the concept of community, and a discussion of the key concepts of community development and their relationship with participation.

3.5.1   The concept of community

The concept of community contains a multitude of 'overlapping concepts' that are also fragmented by different inequalities and competing interests (Kenny, 2016) that are often based on collectives, groupings and subject categorisations (McCabe, Keast, & Brown, 2006). Geographical and social are two common classifications of community used in the literature (Chaskin, Brown, Venkatesh & Vida, 2001). A community can be identified based on geographical attributes that are related to a physical location or appearance and its associated demographics, for example national boundaries and recognised historical contexts (Chaskin et al., 2001; McCabe et al., 2006; Phillips & Pittman, 2015).

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The social context is based on common attributes and shared interests, for example language, culture, religion, traditions and ethnicity, among the united community (Chaskin et al., 2001; McCabe et al., 2006; Phillips & Pittman, 2015). Social attributes are sometimes used to designate the community as a collective unit without taking their geographical proximity into account (Chaskin et al., 2001; Vincent, 2009). Geographically distinct locations can also possess unique social characteristics (Chaskin et al., 2001), which necessitate the use of both geographical and social classifications.

Some researchers (for example Uhegbu (2001)) place more emphasis on social attributes and consider a community as a social system or a small, localised, political, economic and social unit whose members share common values. In the literature, the term community is also used to refer to a general notion of cohesion and unity among people (Howard & Wheeler, 2015; Nemer, 2015) that is brought about by shared goals, values and behaviours (Gurstein, 2007). Some individuals or groups might not consider the fact that they are located in tightly defined geographic areas as making them part of a community (Kamando, 2014). Their concept of community is based more on common goals and values that bring people like them together.

The 21st century has become more fluid, and the changes taking place are challenging the original premises of community based on geographic classifications. Kenny (2016) refers to this blurring of traditional boundaries in culture, identity and community as a consequence of global interconnectedness, which is influencing human societies and cultures today. The Internet and mobile devices have made it possible to break through geographical boundaries. People from different backgrounds, cultures and geographical locations are using modern technologies such as social media to become part of communities (social networks) based on shared interests and goals. In today's communities, some people are focused more on achieving a sense of belonging than preserving the geographical boundaries of the community (Kamando, 2014). Definitions of community have become slightly more focused on people and their social ties, rather than their geographical location. This highlights the importance of people and connections, without which a community would just be a lifeless space with buildings (Phillips & Pittman, 2015).

In this study, both geographical and social classifications are used to contextualise the concept of community. The focus is on under-resourced communities, which are the geographic locations where the e-IIs support development. In addition, in these communities (geographic locations) the focus is also on the people, particularly those who are marginalised, and this relates to their social contexts.

3.5.2 Community development

Early social movements and activism for the benefit of the poor used forms of participatory approaches to achieve community development (Leavy & Howard, 2013; Phillips & Pittman, 2015). These movements used these approaches to encourage community members to be active in programmes that sought to improve the quality of life in the community (Attouni & Mustaffa, 2014). It was not until the 1960s, however, that community development emerged as a method to address social, economic, political, and environmental challenges faced by marginalised community members (Jackson, Mitchell, & Wright, 1989; Phillips & Pittman, 2015) in under-resourced communities of Asia, Africa, and Latin America (Edwards & Jones, 1976).

Community development is both a process and an outcome. As a process it entails enhancing community members' opportunities and capabilities to work cohesively (Phillips & Pittman, 2015). As an outcome, community development is recognised as both active collective action to improve quality of life (Flora et al., 2016; Phillips & Pittman, 2015; Uhegbu, 2001), and the results of that collective action, for example physical, social or economic improvements (Long et al., 1973; Phillips & Pittman, 2015). Edwards and Jones (1976) refer to collective action as 'community action' which can be initiated at different levels by development actors and/or community members. The success of collective action, however, requires the participation of all the relevant actors in the community development initiative (Swanepoel & De Beer, 2011).

The active participation of community members helps to balance the power and ownership of development interventions and practices between community members, their communities, institutions and other development actors (Leavy & Howard, 2013). Through engagement with the different development actors, community members gain negotiation, organisation and networking skills, which help them facilitate community development (Brocklesby & Fisher, 2003; Harris, 2007; Talbot & Verrinder, 2010). Community members gain empowerment (Dasuki et al., 2014) when they are involved in decision-making regarding development interventions to improve their economic, social, cultural and environmental well-being (Christenson & Robinson, 1989; Howard & Wheeler, 2015).

The poverty-reduction initiatives of international development actors such as the International Monetary Fund and the World Bank often emphasise the participation of community members at the grassroots level (Waisbord, 2015). The participation of community members can happen at different levels and in different ways (Tufte & Mefalopulos, 2009). For instance, volunteering for projects,

attending public meetings (Vincent, 2009), training and workshops, or applying for jobs. The ladder of citizen participation in Figure 3, developed by Arnstein (1969), helps to illustrate the different levels of participation and their contexts.
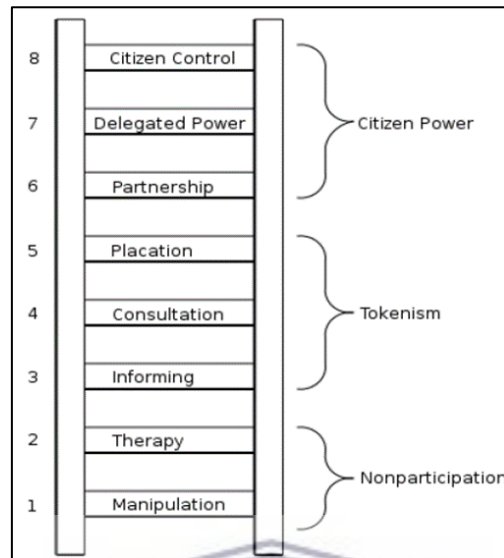
Figure 3: The ladder of citizen participation (Arnstein, 1969, p. 217)

The ladder presents a typology of different levels of participation. It shows that, as community members' level of power changes, they ascend to the next participation category on the ladder. At the first (bottom) category, 'nonparticipation', power-holding development actors have control and the participation of community members is not entirely genuine. The situation changes slightly in the second category up the ladder, 'tokenism', when the degree to which community members have their voice heard or gain the power to influence decision-making increases. Arnstein's (1969) use of the term 'tokenism' for a participation level on which community members have a degree of power can be misinterpreted. This is because, in other literature, the term is also used to refer to levels where community members have no power, and their participation is non-existent. This is often the case when it comes to the poorest of the poor, living in extreme poverty, that their participation is tokenistic, meaning manipulated or non-existent (Hassan et al., 2016; Howard & Wheeler, 2015).

Other participation ladders and processes (for example those of Pretty (1995) and White (1996)) also associate tokenistic participation with manipulative and passive participation by community members (Cornwall, 2008). Their presence (participation) is for display purposes. Community members are asked to participate and contribute towards initiatives when the ultimate goals are already set and predetermined (Oakley, 1991). Therefore, while community members are led to believe they are

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participating in decision-making their contribution does not have any impact on decision-making or any outcomes.

The top category of Arnstein's (1969) participation ladder is 'citizen power', where community members work with other development actors and have increased levels of power and control in the decision-making process and its outcomes. At this level, community members are also provided with opportunities to build their capacity to address their own current and future challenges (Oakley, 1991). While it is unrealistic to aim for every community member to participate in all aspects of the development interventions, diversity among those who do participate is necessary. This helps to avoid situations where decisions are made and action is taken for the benefit of some more than others (Burkhart-Kriesel, 2005). It is useful to identify leaders or representatives who are trusted by the community to participate on the behalf of community members (Cary, 1973).

The discussion above regarding community development highlights four overarching concepts, in addition to participation that require further discussion to contextualise community development: (i) community organisation, (ii) economic development, (iii) empowerment, and (iv) social capital.

(i)   Community organisation

In the context of community development, community organisation is a participatory approach to problem-solving in which community members are empowered with knowledge and skills to determine challenges, possible solutions, and the required collective action (Cadiz, 2005). It is a community-initiated process of community members mobilising themselves to advocate on their own behalf for positive change and an improved quality of life (Hustedde, 2009; Melkote & Steeves, 2001; Pyles, 2014). This community-initiated process strengthens inclusiveness and participation by community members towards achieving their own community development (Kwan & Drolet, 2015; Waisbord, 2000). A trusted and respected community leader or representative is often used to play the key role of facilitating the process (Cadiz, 2005).

Three models influence the understanding and practice of community organisation: (i) locality development, (ii) social planning, and (iii) social action (Rothman, 1970). The main premise of locality development is that social change, or as Rothman (1970) refers to it, 'community change', is possible through the participation of diverse community members in the identification of problems and the required community action (Christenson & Robinson, 1989; Rothman & Tropman, 1987). The social planning model uses more technical processes facilitated by expert planners for complex social problems (Christenson & Robinson, 1989; Rothman & Tropman, 1987). This approach emphasises

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outside expertise, infrastructure, and solutions to solve local community development challenges, which is reminiscent of modernisation and dependency theories.

Although community members can organise and mobilise themselves through a community leader or representative, they generally lack the power and control to take the necessary action; these are often not given freely to community members by those in power (Flora et al., 2016). Effective social action therefore requires the redistribution of power, resources and decision-making to community members, as well as the collective and unified efforts by community members (Christenson & Robinson, 1989; Rothman & Tropman, 1987).

(ii)   Economic development

Community development also involves ambitious schemes of economic development (Sanders, 1958). Both community organisation and economic development are powerful approaches grounded in the philosophies of sustainable development towards the participation and empowerment of people (Kwan & Drolet, 2015). The terms 'community development' and 'economic development' are often used interchangeably (Flora et al., 2016; Green & Haines, 2015). The term community economic development is used by Shaffer, Deller and Marcouiller (2006) to emphasise the interwoven nature of community development and economic development.

Economic development means increased opportunities to get jobs, generate income, as well as to grow businesses (Shaffer et al., 2006) in order to address poverty (Phillips & Pittman, 2015). It entails community members analysing the economic conditions of their community, determining the economic needs and unfulfilled opportunities, and cohesively deciding on what can and should be done (Shaffer et al., 2006). What follows is a planned effort to build the necessary assets, such as community capital (physical, human, social, financial, environmental, political and cultural), to increase the capacity of community members (Green & Haines, 2015). The process of community development therefore mobilises these assets to improve the quality of life (Phillips & Pittman, 2015).

The focus of economic development is often on creating more employment opportunities, and less attention is placed on aspects such as job security and level of income, yet poor job security and low income do not necessarily assist community members to escape their conditions of poverty (Afridi, 2011). Therefore, while economic development entails creating employment opportunities, these opportunities need to be of quality to help community members to escape their conditions of poverty. Moreover, community members need to gain the necessary skills and social networks that can help them to find reasonably paying and secure jobs with room for growth (Afridi, 2011).

(iii)   Empowerment

Empowerment is an intangible concept that is necessary for any social change to occur in a community (Kenny, 2016; Phillips & Pittman, 2015). Theories of empowerment include both processes and outcomes that are usually community and/or development centred. These theories propose that actions and activities, for example, can be empowering and, at the same time, the outcomes of these actions and activities can result in a state of being empowered (Perkins & Zimmerman, 1995). Empowerment entails processes through which communities and community members gain mastery over issues that concern them (Servaes & Malikhao, 2016a; Zimmerman, 1995). Therefore, empowerment is often associated with participatory community development (Brocklesby & Fisher, 2003) and involves enhancing the capabilities and freedoms of community members (Tabassum et al., 2017).

The concept itself is broad and multi-level, with researchers such as Pigg (2002) proposing three concepts of empowerment, namely self-empowerment, organisational empowerment and social action. Zimmerman (2000) also argues that empowerment can be conceptualised at the level of an individual, organisation and community. These levels are mutually interdependent, however, as they are both a consequence and cause of each other (Zimmerman, 2000).

An empowered community has the capacity to initiate efforts to improve the quality of life in the community and the well-being of community members, as well as to provide opportunities for community members to participate in community development (Zimmerman, 2000). Empowered communities have the power to engage with, participate in, influence and hold institutions that affect them accountable (Gil de Zúñiga, 2012; Malhotra, Schuler, & Boender, 2002). Community members therefore have access to resources and can influence decision-making regarding interventions that either affect them or are designed for them. At an individual level, empowerment is also referred to as psychological empowerment and can be conceptualised to include key intrapersonal, interactional, and behavioural components (Zimmerman, Israel, Schulz, & Checkoway, 1992). Intrapersonal components are associated with personality, cognition and motivation; interactional components relate to the use of analytical skills, such as problem-solving to facilitate community development; and behavioural components relate to taking action through, for instance, participation in developmental interventions (Perkins & Zimmerman, 1995).

Empowered community members possess the skills, capacity, knowledge, and resources necessary for aspects related to information, psychology, economics, society, politics and/or culture (Gigler, 2011).

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They use these to make informed decisions regarding the meaningful use of resources, such as ICTs, to support community development (Alao et al., 2017). These individuals gain the ability to influence the wider system, take control of their own lives and gain proficiency over their social, economic, and physical environments (Melkote, 2000; Servaes & Malikhao, 2016a). Empowerment also has the potential to increase community members' confidence levels, self-esteem and feelings of self-efficacy (Alao et al., 2017; Pyles, 2014). However, not all agree with this perception. Dasuki et al. (2014), for instance, believe that empowerment does not lead to increased feelings of self-confidence, but rather that people gain the capability to take action and participate.

Empowerment is not gained overnight; it is a continuous process that community members cannot achieve on their own (Schuftan, 1996). Empowerment is achieved through the collective actions of communication, critical education and participatory processes that encourage the questioning of realities (Ledwith, 2011; Melissa et al., 2015; Pyles, 2014). Zimmerman (1995) adds that the process of empowering community members requires (i) their involvement in developmental interventions, including some level of power in decision-making; (ii) collective, cohesive participation by development actors and community members as coequal partners; and (iii) the creation of opportunities for community members to gain mastery and therefore reduce their dependency on development actors.

(iv)   Social capital

Social capital is the investment in social relationships with the expectation of gaining economic, political, labour or community-based returns (Lin, 2001) through community organising, resource mobilising and collective action (Mattessich, 2009; Melissa et al., 2015). Social capital is made up of social networks within communities that create environments to promote the building of strong relationships and connections (Phillips & Pittman, 2015). The degree of social capital that exists depends largely on the number and strength of ties or bonds within the networks (Mattessich, 2009). While community members can contribute towards social capital and use it, they cannot own it, since it is a 'common good' (Warren, Thompson, & Saegert, 2005).

Development initiatives are taken up much more easily in a community where the degree of social capital is high (Phillips & Pittman, 2015) because the necessary relationships and connections already exist. When the level of social capital is too low for collective community development work, community development processes can be used to improve it (Kamando, 2014). Social capital within the community influences structural and cognitive development (Mattessich, 2009). Structural

development is associated with the interconnectedness amongst community members that enables the flow and exchange of information, ideas, products, and services.

Cognitive development relates to interconnections, which lead to a shared sense of purpose, increased commitment, mutual trust and strengthened norms of reciprocity among community members (Mattessich, 2009; Putnam, 2000). Increased mutual trust is necessary to build strong, reliable relationships and networks (Dearden & Haider Rizvi, 2015; Warren et al., 2005). Gil de Zúñiga (2012) however, believes that trust is a consequence of social capital and not an element necessary to build it. Reciprocity, on the other hand, relates to the climate within which community members who gain from their networks and relationships are most likely to give back to other community members in their networks in the same manner (Hustedde, 2009).

Social capital is particularly important in under-resourced communities with limited assets and other capitals. The networks within them are an asset in the fight against vulnerability and poverty (Ohmer & DeMasi, 2009). Community members rely on the support of extended family relationships, friends, and other formal development actors such as government, churches, and donor agencies to survive (Warren et al., 2005). However, the same argument is made, that in more affluent communities where community members are more well-to-do, social capital is more effective (Warren et al., 2005). The public institutions, human and financial capital are readily available in large qualities to reinforce the social capital, which leads to greater benefits.

Two types of social capital exist at the community level: 'strong' intra-community ties, referred to as bonds, and 'weak' extra-community ties, referred to as bridges (Woolcock & Narayan, 2000). Both bonding and bridging social capital – as they relate to the networks and ties among community members are necessary to facilitate social change and successful community development (Gilchrist, 2009; Ohmer & DeMasi, 2009). 'Bonds' relate to dense social networks among small groups of community members that bring them closer together (Afridi, 2011; Ohmer & DeMasi, 2009). Strong bonding ties are useful for providing emotional and social support (Phua et al., 2017). This social capital accumulates among community members that have a degree of trust and interact informally on a daily basis, reinforcing exclusive identities and homogeneous group networks (Ohmer & DeMasi, 2009). Bonding types of social networks are good for 'getting by' (Putnam, 2000). Combined with community organising, these networks enable the foundation on which community members can build the capacity to address challenges and gain more control over their lives (Warren et al., 2005).

'Bridges' are loosely connected networks among many people across diverse social groups and localities through indirect ties (Ohmer & DeMasi, 2009). The bridge represents the path between the people in the network – the route along which information or influence flows (Granovetter, 1973). Bridging networks are vital for 'getting ahead' (Afridi, 2011; Putnam, 2000) and exchanging information (Phua et al., 2017). These networks can facilitate the process of creating opportunities to bring more resources into under-resourced communities (Warren et al., 2005).

(v)   Community and economic development chain

The community and economic development chain presented in Figure 4 illustrates the relationships between the different concepts of community development. The process of community development entails community members organising themselves and building their capacity with the help of other relevant development actors to act towards achieving their own development. Capacity-building includes community members engaging with each other to identify community challenges and being empowered with the appropriate knowledge, skills and resources that strengthen their capability to overcome their own challenges (Eade, 1997; Green & Haines, 2015; Hustedde, 2009).
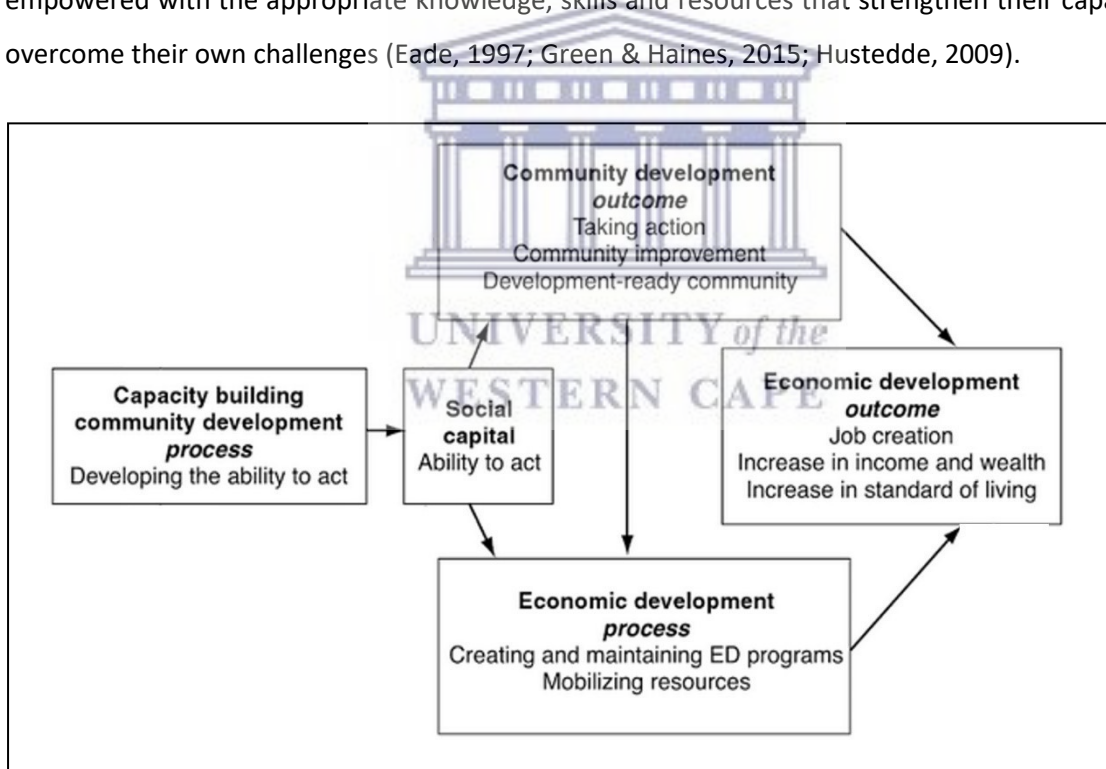
Figure 4: Community and economic development chain (Phillips & Pittman, 2015, p. 17)

When community members possess the capacity and ability to act cohesively towards their development, this comprises the process of building and using social capital. This process emphasises community participation (community action) to achieve community development as the outcome

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(Phillips & Pittman, 2015). The community and economic development chain also shows how social capital leads to activities that facilitate economic development processes which entail creating and maintaining the necessary programmes and mobilising resources. Economic development processes lead to economic development outcomes, such as job creation and increased wealth. In communities where the ability and active level of participation are high, community members are more capable of successfully delivering economic development outcomes (Green & Haines, 2015; Phillips & Pittman, 2015).

3.6   Information and communication technology for development

The use of ICTs for development purposes, with an emphasis on marginalised community members and under-resourced communities, is known as information and communication technologies for development (ICT4D) (Choudrie et al., 2017; Heeks, 2009; McLennan, 2016; Walsham, 2017). In the 1980s, multinationals and other key development actors came to the fore and determined that ICTs were useful for developing people living in third-world regions (Coelho & Segatto, 2013; The World Bank, 2015; Unwin, 2009; Walsham, 2017). The World Summit on the Information Society (WSIS) was instrumental in promoting ICTs for development and shaping the movement (Grunfeld, 2011; Heeks, 2014a). The 2005 WSIS summit, in particular, emphasised more in-depth discussions on ICT innovations and their impact on development (Gomez, 2013). ICTs transformed the models and processes of development, particularly at the grassroots level (Heeks, 2010).

The field of ICT4D evolved as a distinct area of research and practice at around the same time that discussions about the digital divide began (Stilz, 2014). Scholars of ICT4D come from a wide range of different disciplines, for example communication, information systems and economic studies. Other acronyms used for this field are ICTD, ITD, and ICTforD. The term ICT4D is interpreted as a hierarchy of concepts, where 'D' for development is the end goal, 'ICT' is the means, and '4' draws attention to what is meant by 'D' (Kleine & Unwin, 2009). Discussions of using ICTs to foster development in the form of economic growth (Heeks, 2008), poverty reduction, gender equity, improved health, and education services in developing countries became more common in the 1990s (Research ICT Africa, 2015; Uys, 2015). The basis of ICT4D was determined as being to contribute towards improved conditions of development in third-world regions (Avgerou, 2010). ICT4D initiatives therefore possess a moral agenda that seeks to empower community members and their communities (Choudrie et al., 2017).

ICTs generally play a number of different roles (Harindranath & Sein, 2007) and have a permanent place on the development agenda, where they are intertwined with most development efforts within the third-world region (Dutta et al., 2015; Sein & Harindranath, 2004; Toure, 2015). In the development context, ICTs are made up of diverse products and processes which are often contested (Heffernan, Lin & Thomson, 2016). However, they can be contextualised into two broad categories: processing and communication. Processing entails changing data with potential value into information that has actual value, and communication entails the transfer and exchange of the information (Heeks, 2002). The outcomes of these would be learning through the transformation of information into knowledge to facilitate decision-making (Heeks, 2002).

Avgerou's (2010) 'four discourses on the ICT4D model', shown in Figure 5, is useful to understand how ideas of ICT innovations in the development context are systemised and contextualised. The use of the model does not suggest that ICT4D projects can be classified unambiguously using the model. The model is informative and helps to put ICT interventions and developmental transformation into perspective. The focus is placed on the approach of the ICT *innovation* and the developmental *transformation* process within which the innovation will deliver potential benefit. By presenting 'transformation' on a continuum on the vertical axis – from progressive to disruptive, and innovation on a horizontal axis – from transfer and diffusion to socially embedded, four quadrants are presented. Each quadrant represents discourse explaining the possible relationship between particular ICT innovations and their potential developmental transformation. An understanding of the different relationships also makes it easier to determine the related theoretical underpinnings.
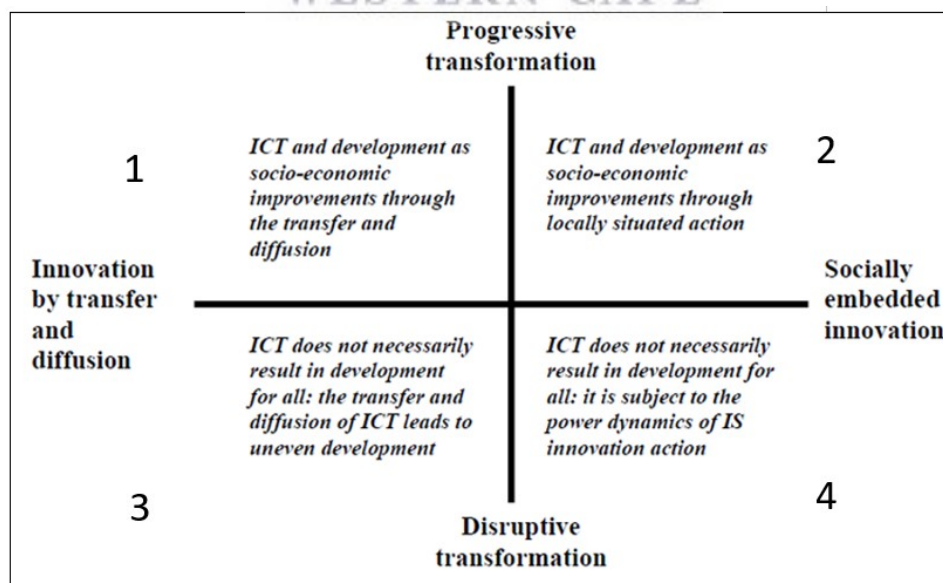
Figure 5: Four discourses on ICT4D (Avgerou, 2010, p. 9)

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ICT innovation by transfer and diffusion can be described as the dissemination of ICT-related knowledge that has been transferred from more advanced economies and adapted to conditions in developing countries (Avgerou, 2008). Socially embedded ICT innovations can be described as focused on the developing-country context because the assumption is that the innovation is about the construction of new techno-organisational structures that are within a given local social context. The research emphasis is therefore placed on exploring local meanings and working out locally appropriate ICT innovations (Avgerou, 2008). In this context, transformation is described as the creation of possibilities for an improvement in the quality of life of particular communities amidst the global socio-economic and political order. The transformation can be progressive or disruptive through uncovering the distorting effects of ICTs, power biases and inequalities (Avgerou, 2008, 2010).

Quadrant 1 presents a scenario where ICT innovations are introduced through the transfer and diffusion of knowledge and technology from developed countries to developing countries. The premise of this approach is that ICTs will have the same positive socio-economic impact on development in developing countries as they did in developed countries, regardless of the social context. The development transformation is mostly progressive, as the technology is used to facilitate different areas of human activity for human development. The ideas of the development actors who implement ICT innovations in this quadrant are similar, and possibly informed by those of modernisation theorists they can be associated with technology-determinism. In this manner, the limitations and failure of modernisation theory are also possible, since the focus is still on external (Western modernisation) ideas, ICT resources, and skills introduced into developing contexts.

Quadrant 1 is also similar in conceptualisation of ICT innovation for development to Heeks's (2008) 'pro-poor' ICT innovation model. This is largely due to the pro-poor model highlighting that ICT innovations are done through the transfer and diffusion of ideas, ICT resources and solutions from external international development actors. The innovations have the potential to bring different resources together for progressive transformation. However, since the innovations are from external sources, they risk disparity between the actual realities of under-resourced communities in developing countries and the innovators' assumptions and designs for these realities (Heeks, 2008).

E-IIs are among the first examples of ICT innovations prompted by national policies to diffuse ICTs that can be used for socio-economic development to marginalised community members in developing countries (Bailur, 2015). Due to current different ownership models, ICT services provided and approaches towards developmental transformation there are different types of e-IIs which then fall under different quadrants (namely quadrants 1, 3 and 4). However, the initial model of public-access

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e-IIs introduced into developing countries by international development actors falls into quadrant 1. The ICT innovation ideas and designs were based on external sources and designs that were expected to lead to progressive socio-economic developmental impacts, as they did in developed countries.

In quadrant 2, the scenario is that the ICT innovations are socially embedded and still possess the potential for progressive transformation, such as socio-economic improvements through action that is situated locally. This quadrant presents an alternative view of the ICT innovation ideas of many international development actors and governments in quadrant 1 (Nulens & Van Audenhove, 1999). ICT is seen as having the capacity to support improvements in community members' quality of life. The process is managed and controlled locally, and power relations and traditional cultures are taken into consideration.

The scenarios of this quadrant have similar ideas to Heeks's (2008) 'para-poor' ICT innovations for development model. Although the model does not specify whether the potential for development is progressive or disruptive, the innovations take place at the local level. Community members participate in and engage with the other development actors during the process. Heeks (2008) highlights the shift from top-down ICT innovation approaches towards more participatory and user-engaged design approaches. In the case of Avgerou's (2010) quadrant 2, there is a change in focus towards technological innovations that are based on the knowledge embedded in the social and economic context (culture) where the innovations are introduced. This reflects a change in focus from only economic growth as the goal of development, to more socio-economic gains. This is in line with the perspectives of Sen (1999), who considers economic gains as enablers of choice and individual freedoms to achieve development, and not as the ultimate end objective.

The limitations of the associated ICT innovations are that, in communities where public administration is over-centralised or where there are authoritarian hierarchies of power, harnessing developmental potential is a challenge (Avgerou, 2010; Heeks, 2008). Overcoming these obstacles requires individual and community empowerment through democratic ICT policies, appropriate professional practices of the development actors, and community members' active participation (Avgerou, 2010).

Quadrant 3 presents the scenario where ICT innovations are also introduced through transfer and diffusion. However, the potential developmental transformation is disruptive. International development actors and governments' perspectives of disruptive transformation in the context of development are highly contested and burdened with conflicts due to the unequal effects of ICT innovations on different population groups (Avgerou, 2010). These conflicts and power struggles are

nevertheless a necessary part of ICT innovations. Failure to recognise them can lead to the poor performance of the innovations due to strong opposition that arises from existing traditional authorities (Van Audenhove & Fourie, 2014). Development efforts that claim to be truly inclusive and participatory will strive for disruptive transformation (Smith, Edler, & Emdon, 2011). The ICT-innovation ideas of development actors in this quadrant also resonate with those of dependency theorists, in that the diffusion of ICTs leads to uneven development. This is a limitation because those with power and access gain the benefits (Ciborra, 2005). In this context, the ICT innovations also have the potential to widen the existing inequality gaps.

The last quadrant (4) reflects scenarios in which the ICT innovation is socially embedded in the socio-economic context of the environment within which it is introduced, and has the possibility for disruptive developmental transformation. In this scenario, the ICT innovations do not necessarily result in developmental outcomes for all. The transformation is subject to the power dynamics of the innovation action and the influence of socio-economic inequalities. While participation is not highlighted in the four different quadrants, donor organisations can only become aware of the specific needs and contexts of where the innovations will be established through the engagement and participation of community members and local organisations.

Although Heeks (2008) does not present a model that is similar to Avgerou's (2010) quadrants 3 and 4, an alternative perspective is provided, called the 'per-poor' model. In this model, community members themselves design and develop ICT interventions for their communities with outside support. Their efforts represent 'bottom-up' ICT innovations driven from within local communities (Vannini, 2014). Community members have control and power over the interventions. This can be viewed as the ultimate level of participation (people's control) on Arnstein's (1969) ladder of participation. However, the ICTs and other infrastructure that they use are usually from external sources. Although the ICT innovations do not take place in a more traditional sense, community members adapt and learn to use the ICTs and other resources they can access for development (Heeks, 2008). Some e-IIs operating in the third sector are ICT innovations of community members, who also own and control them. However, they depend greatly on funding and refurbished ICTs from local and international donor agencies and other development actors.

While ICT innovations can contribute to progressive or disruptive developmental transformation in under-resourced communities of developing countries, caution is encouraged against seeing technology as the only solution for development challenges (Grimshaw, 2015). The efficacy of ICT innovations as facilitators of development is not viewed unanimously in the literature. In some remote

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rural communities, ICT innovations through transfer and diffusion have led to minimal progressive developmental transformation (Conradie, Morris, & Jacobs, 2003; Devinder & Øystein, 2014).

Moreover, socially embedded ICT innovations are most effective when they are appropriate for the socio-economic contexts into which they are introduced, and if they are driven by the specific needs of community members (Cibangu et al., 2017). ICTs alone cannot eliminate poverty and inequality or equalise the distribution of power and economic resources in society (United Nations Development Programme, 2012). It is overly optimistic and unrealistic to think otherwise without evidence grounded in rigorous empirical analysis of the actual impact on a particular phenomenon (Coelho & Segatto, 2013; Gigler, 2015; Unwin, 2009).

The ICT4D field has also been criticised for emphasising the application of technology while neglecting the theory that explains the relationship between ICTs and development (Chipidza & Leidner, 2017). Despite being 'for development – 4D', the ICT4D field does not always draw from development theory (Heeks, 2007). There is minimal discussion on what development actually is and means (Zheng, 2015), hence the researcher's decision to discuss community development to set the foundation and to understand the underlying concepts of what development is at the community level, and how it is interpreted.

On the other hand, Heffernan et al. (2016) argue that there is no lack of theory in ICT4D research per se, but rather a lack of theory and practice integration. While there have been attempts to address the criticisms (for example Chigona & Licker, 2008; Hafezieh & Eshraghian, 2017; Kleine & Unwin, 2009; Omland & Thapa, 2017; Teles & Joia, 2011), the studies are often narrow in focus and demonstrate the relevance of a specific theory using a particular ICT context or case study (Heffernan et al., 2016; Zheng, 2015). In theory, the intensive application of ICTs can lead to more questions than answers (Heeks, 2002), particularly if the role of the technology in the development context is not clearly contextualised (Sein & Harindranath, 2004).

3.7   Communication and development

Communication is a human need that is as equally essential as health, housing, education, and nutrition (Servaes & Malikhao, 2005). It is a critical component of community development that facilitates information sharing and engagement among development actors, and among community members (Colle, 2000; Servaes & Malikhao, 2016b). Before discussing C4D theory it is necessary to understand the concept of communication.

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3.7.1   Defining communication

Defining communication is a challenge due to the commonality and overworked nature of the term 'communicate', which is used to refer to different contexts in different disciplines. A good place to start arguably is understanding the various concepts that have been associated with communication over the years. In a 1963 definition of communication, Pasquali for instance, touched on the relationship aspect and refers to communication as the dialogic relationships that exists between people (Pasquali, 2006). Rogers and Agarwala-Rogers (1976) go further and add that it is the sharing of information between two parties. From these definitions, communication is understood as a dialogic relationship between two parties to share information. The expected outcome of these linear communication models was knowledge acquisition and exchange, or persuasion (Melkote & Steeves, 2001).

In the 1960s, communication was associated with the concepts of 'process' (Berlo, 1960), 'dialogue', 'participation' and 'relationships' (Pasquali, 2006). During this time, the social aspects of participation and relationships, and their effect on communication behaviour were largely underestimated (Rogers & Agarwala-Rogers, 1976). Communication studies prior to 1970, for example the work of Miller (1966) and Schramm (1964), relied on linear communication models, such as the S-M-C-R model of Berlo (1960), which did not focus on the relevance of social relationships between the sender and receiver.

Linear models of mass media communication are used by country and political party leaders and others with power to disseminate information about development innovations to people through one-way, top-down communication processes (Melkote & Steeves, 2001). Mass media are believed to have a powerful and direct influence on the behaviour and decision-making of people, yet the success of mass media to achieve actual benefits in this regard is minimal (Hornik, 1988; Melkote & Steeves, 2001). The belief in mass media's effect on behaviour change is premised on a weak theoretical foundation that does not link the challenges at hand with the design and implementation of the proposed solutions (Hornik, 1988). Furthermore, the premise neglects the social and interpersonal aspects of the relationships, which are more influential in decision-making and behaviour change (Melkote & Steeves, 2001).

It became necessary to shift from linear models of communication towards multidirectional communication models and processes that create and stimulate understanding beyond simply transmitting information (Agunga, 1997) and that consider the environment, social and cultural

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contexts (Waisbord, 2000). Multidirectional communication models include a feedback loop, which is neglected by linear, top-down communication models (Rogers & Agarwala-Rogers, 1976). Based on the definitions discussed above, for this study communication is defined as: a process that involves dialogue between one on one, one and many or many to many people to share, exchange, transfer and interpret information for expected outcomes which include knowledge-creation, decision-making, relationship building, behaviour change and increased awareness.

3.7.2   Communication for development

Communication for development (C4D) is a social process in which various communication media and strategies are used to address development-related challenges (Melkote & Steeves, 2001; Servaes, 2008). These challenges include poverty, poor health and economic infrastructure, high child mortality and the lack of universal access to education, political participation and agricultural productivity (Waisbord, 2015). C4D is intended to help people understand their realities, share information to create awareness, promote development initiatives, and increase economic well-being, social justice and freedom of speech (Fraser & Restrepo-Estrada, 1998; Grimshaw, 2015; Melkote, 1991; Roy, 2015).

What differentiates C4D from communication as we know it is the intended purpose; C4D seeks to advance development (Pasquali, 2006). It is 'emancipatory communication' that informs people and gives them the freedom to determine their own futures and to challenge oppression (Freire, 1970; Melkote & Steeves, 2001). C4D is arguably a social and nurturing process that seeks to foster meaningful engagement and to create consensus for action towards social change by facilitating social equality (Quebral, 2006), generating public interest, and placing issues on the public agenda (Servaes & Malikhao, 2016b). The process requires equitable, appropriate, and affordable access to information and communication (United Nations Development Programme, 2011).

The theories of modernisation, dependency and participation, as well as the (r)evolution in thinking and the development of theory (Lie & Servaes, 2015), have greatly shaped how C4D is done at the national and community levels (Sein & Harindranath, 2004). At the community level, there arguably are two ideal-typical communication models on a continuum – the top-down diffusion model and the bottom-up participation model (Lie & Servaes, 2015). Diffusion (top-down) models aim to produce a common understanding about a particular development initiative. Participatory models (bottom-up) aim for engagement at the grassroots level to enable community members to make decisions about their own development (Melkote & Steeves, 2001; Servaes & Malikhao, 2016b).

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3.7.2.1 Modernisation theory and communication for development

Modernisation is interpreted as the process of information and technology diffusion that sees people shift from traditional ways towards more complex, technically developed and rapidly changing ways of life (Servaes, 1999). Modernisation theory informed the epistemological foundations of the initial ideas and underlying philosophies of C4D, as it has done in other areas of development (Melkote, 2003). It is the belief of modernisation theorists that, for development to occur, the ideas of the locals in developing countries need to change to transform their behaviour away from their traditional and cultural practices (Waisbord, 2000). For this broad transformation to occur, mass media were identified as the catalysts to mobilise the necessary resources (Schramm, 1964). Mass media communication was seen as the foundation for the cooperation, industrialisation, education, and skills development necessary for a modern industrial society.

Mass media were considered agents of change (Lerner, 1958) that could transfer knowledge that promotes Western (modern) attitudes and values (Rogers, 1976a; Roman, 2005) as well as disseminate information on politics, education, health and the economy. The mass media adopted for C4D included radio, cinema, newspapers and magazines, and later television and film (Handelman, 2009; Melkote & Steeves, 2001). These mass media were therefore used to transmit persuasive messages and information that usually came from government (or other authority bodies) to people through one-way, top-down hierarchical channels (Rogers, 1976a). Importance was placed on persuasive, media-centred activities that could improve literacy, which was expected to empower people in developing countries to break free from their traditions and cultures and to embrace cultures inspired by modernisation (Waisbord, 2000). It was claimed that mass media had the 'magic bullet' effect when it came to changing attitudes and behaviours (Herman & Chomsky, 1988; Waisbord, 2000), which is what was needed to facilitate modernisation, and in so doing, development.

Rogers's (1983) theory of the diffusion of innovation is one of the main theories used to provide the parameters to measure and scale modernisation through media penetration. For example, the number of television and radio sets, along with newspaper consumption, were accepted as indicators of modern attitudes (Inkeles & Smith, 1974; Lerner, 1958). The evidence provided by international development actors such as the United Nations Educational, Scientific and Cultural Organisation (UNESCO) gave rise to television, radio and newspaper penetration becoming the representation of development. A country's level of development was therefore determined by how much media had diffused and less on evidence of social impact or change in behaviour.

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Attempts to measure the success, effects, or impact of mass media initiatives, however, lacked firm supporting evidence (Hornik, 1988; Rogers, 1976a). Subsequent theories also challenge the magic bullet and media-central theory of effects that influenced earlier mass media approaches and initiatives (Waisbord, 2000). In these theories, mass media are criticised for their inability to influence the behaviour of the locals, as expected. Although people consume information pushed at them through mass media, this does not guarantee behaviour change. Interpersonal communication and personal sources of information (friends, family, and neighbours) are found to have a greater influence on behaviour and attitude change, as well as on decision-making (Granovetter, 1973; Servaes & Malikhao, 2005), than mass media communication. Specifically, if the intention is to persuade people in developing countries to access ICTs and gain the digital skills to use them (Heffernan et al., 2016; Van Dijk, 2017).

Despite the failure of mass media communication to change behaviour, the techniques are still used today, through for instance, radio, television and social media. Social media are a form of mass media used to disseminate specialised information to targeted mass audiences (Gruzd & Goertzen, 2013). What differentiates social media from previous mass communication media is their capability of interactive and participatory practices. In addition, social media enable consumers of the information to also be creators (and co-creators) of information (Cover, 2004).

3.7.2.2 Dependency theory and communication for development

Dependency theorists provide alternative perspectives to those of modernisation theorists regarding the causes of and solutions for development challenges in the third-world region. A large part of their argument is that solutions are political, rather than simply informational (Waisbord, 2000). Although information and communication media are an important part of achieving the change, more appropriate policies are necessary to address the challenges of past communication approaches (Servaes & Malikhao, 2005).

Dependency theorists caution that communication media are part of the system employed by the global West to increase and reinforce the condition of dependency (McQuail, 1983). C4D approaches imported from the West are considered detrimental to social contexts (Huesca, 2008) due to their focus on commercial principles and foreign interests (Waisbord, 2000). A change in the balance of power is needed in societies to shift and transform the distribution of resources (Waisbord, 2000). Consequently, some developing countries came together to balance the power with the developed countries by increasing trade, communication, and information sharing. These developing countries

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formed movements such as the Non-Aligned Movement (NAM) to focus attention on policies to ensure that communication media, for instance, are in the service of local and not foreign interests (Waisbord, 2000). The movements were part of the New World Information and Communication Order (NWICO) UNESCO debates in the 1970s and 1980s on media representation in developing countries (Servaes & Malikhao, 2005).

The NWICO generally defined communication channels, including their scale and objectives within the developing context (Inagaki, 2007). With the fall of the Soviet Union, which supported the initiatives, the demands of the NWICO were no longer relevant and the NAM was greatly reduced. Nevertheless, organisations and movements such as the NAM encourage developing countries to embrace communication media and advocate for their own development. Developing countries therefore propose 'national communication policies' that strongly advocate for their control of media structures that are dominated by foreign interests for their financial gain (Waisbord, 2000). However, the role, relevance and impact of interpersonal communication and two-way engagement in the C4D strategies are not the focus of the discourse. The governments of developing countries still mostly use top-down approaches, facilitated by some types of mass media, to get information to their people (Melkote & Steeves, 2001; Waisbord, 2000).

3.7.2.3 Participatory theory and communication for development

To help development actors gain different understandings of communication and development in third-world regions, C4D was further explored (Melkote & Steeves, 2001). This provided explanations of the unique contributions that communication can make towards theorising participation and social change (Waisbord, 2015). It became evident that C4D strategies that incorporate mass communication media and facilitate one-way, top-down flows of information had to change (Obregon & Tufte, 2017). This is further supported by the rise in alternative models and theories that inform development and communication, including the growth of people's participatory role in their own development. The role of communication needed to focus on facilitating information exchange, knowledge creation (Servaes & Lie, 2015) and participatory development (Choudhury, 2011).

Participatory communication for development became an established subdiscipline of C4D in the early 1990s (Lie & Servaes, 2015). Different terms, such as 'participatory communication for development' and 'communication for social change', are used to refer to this type of C4D approach. Bessette (2004) used the term 'participatory development communication' and described it as a planned activity that possesses three key elements: (I) participatory processes, (ii) media, and (iii) interpersonal

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communication, which work together to facilitate dialogue among different development actors. The dialogue is usually on common challenges, with the objective of developing solutions and implementing supportive interventions (Harris, 2007; Hustedde, 2009; Tufte & Mefalopulos, 2009).

Servaes and Malikhao (2005) define participatory communication as a social process that is designed to bring different groups together as equals to share information through two-way channels. It is a dialogue process that helps community members to clearly express themselves regarding the development of their communities. What differentiates participatory communication from other C4D approaches is the emphasis on horizontal and participatory approaches towards development, rather than one-way, vertical approaches that are present in the modernisation theories of development (Lennie & Tacchi, 2011). The departure point is the community (Cadiz, 2005). It is at this level where discussions about challenges in the community are elicited by either development actors offering support or the community members experiencing the challenges (Servaes, 2008; Servaes & Malikhao, 2005, 2008).

The ways in which participatory communication is done have been greatly influenced by ICTs. In this era of 'development 2.0', technology-enabled communication has transformed how people engage and participate in development initiatives (Heeks, 2010; Thompson, 2008). Social media in particular are effective participation architects that transcend barriers of geographic isolation and power dynamics to create new possibilities for interpersonal communication and community engagement (Thompson, 2008). Social media are associated with the building of social capital, specifically networks of weak ties that are sources of valuable information (Butler & Matook, 2015; Pittman & Reich, 2016; Servaes & Malikhao, 2016b) and immediate access to resources (Wheeler, 2016). Social media have the capacity to foster interaction and democratisation due to their ability to shift the role of users from passive recipients of information to active content creators (Matikainen, 2015; Stork, Calandro, & Gillwald, 2013). Social media help people participate in defining their own problems and devising possible solutions (see section 2.5.2).

Participatory communication is not above criticism. While it justifies a number of underlying principles of the participatory theories, the justifications are very theoretical and do not provide specific guidelines for interventions (Waisbord, 2000). Participatory communication approaches of C4D are also criticised for failing to accommodate demand-led development. They focus more on what community members say and this is not always what is needed for successful development (Dearden & Haider Rizvi, 2015). Limited attention is placed on the context of the input from community members, in addition to what they say is needed for their development (Heffernan et al., 2016).

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The discussion of how C4D has been influenced by the different development theories shows that approaches have shifted from being information-motivated, one-way, vertical approaches, to more inclusive, two-way, bottom-up participatory communication processes (Obregon, 2012). These recent approaches of C4D facilitate the inclusion of community members in development efforts and the engagement and information exchange between all development actors. C4D approaches have therefore adapted from ethnocentric views of the development process, which were limited to ideas of modernisation (Rogers, 1976a), to more people-centric ideas that consider local voices, cultures and traditions. While participatory C4D approaches might currently be considered the dominant paradigm, the initial modernisation and dependency paradigms have not been completely displaced (Lennie & Tacchi, 2011).

3.8   Communication theory: Understanding media choices using the uses and gratification theory

The different theories discussed in the previous sections provide the necessary perspectives and lens to understand and explore how e-IIs support community development and communicate for development. The theories also offer a useful guide to collect and analyse relevant empirical data. It was during the analysis of the data collected from e-IIs (expert respondents) and community members (user respondents) that it became clear to the researcher that something was missing; there was a gap at the level of the findings and of the theory. Development theories alone were not enough to achieve this study's multidisciplinary objectives, particularly regarding e-IIs' use of social media to communicate for development.

For this study, development theories provide an interpretation at the national and community levels and facilitate the focus on e-IIs. Since e-IIs were the unit of analysis, community members received less attention, however, regarding e-IIs' use of social media to communicate for development in the communities, community members' perspectives are important. Community members are the intended audience of the e-IIs' communications and the intended beneficiaries of the developmental interventions that are being communicated. Community members know best how they can be reached – their preferred and accessible communication media, including what they expect of the media. Moreover, knowing the community members' sought social media gratifications and social media behaviour can help e-IIs to develop more appropriate and effective ways of using social media to communicate for development.

To address the gap and further inform this study, it was necessary to incorporate theory from the communication discipline, specifically the uses and gratification theory (UGT), which proved adequate.

However, the theory was applied during the data analysis process and not during data collection. In qualitative research, the stage where theory is applied is not always fixed. A theory can (i) be absent from a study, with the focus simply on descriptions of the case and phenomena being investigated; (ii) used as an explanatory lens throughout a study; or (iii) used at the end of the case study (Creswell, 2013).

The uses and gratification variant came about during a time when communication scientists and social psychologists were using experimental and quasi-experimental approaches to improve communication processes. This included the effects and persuasive nature of media messages (Katz, Blumler, & Gurevitch, 1974). Communication media were intended to serve people's different needs based on their personal and social situation (McQuail, 1994; Rubin, 2009). UGT is therefore used to interpret and explain the motivation behind people's choice of communication media (Katz, Blumler, & Gurevitch, 1973).

The assumptions made by UGT challenge the modernisation notion of communication that the audience comprises passive recipients of linear-inspired communication processes. UGT focuses more on the individual audience member than on the message or the media. The audience is active and goal orientated in its choice of media (McQuail, 1983) from which its members interpret messages within their daily lives to achieve favourable levels of gratification (Rubin, 2002). Studies that apply UGT were originally functionalist in form and concerned with explaining:

> (1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of media exposure or engagement in other activities, resulting in (6) need gratifications and (7) other consequences, perhaps mostly, unintended ones (Katz et al., 1974, p. 20).

Since UGT research on communication media and their effects began, various typologies have been presented to understand and classify uses and gratifications. The typologies focus on understanding and explaining why people are drawn to different media (McQuail, 2012). Herzog (1944), for example, used UGT to understand and explain why women were selecting radio as their preferred communication media of choice. Using UGT, Herzog (1944) found that radio fulfilled important entertainment, escapism, and time-filling needs of the women sampled.

Initial classifications were based on mass communication media, namely television, radio, books, cinema, and newspapers, which facilitated one-way, top-down communication. The classifications were significantly fantasist-escapist or informational-educational (Weiss, 1971), with the gratifications

occurring either immediately or over a specific period of time (Katz et al., 1974). Lasswell (1948) set the precedent and proposed that, at the macro-sociological levels, media satisfy functional needs that can be categorised as (i) surveillance, (ii) correlation, (iii) entertainment, or (iv) cultural transmission (information transfer).

Socio-psychological circumstances are different for each person and therefore lead to differences in the needs that mould individual motivations. Ruggiero (2000), however, suggests that an individual-focused approach to investigating audiences' sought gratifications makes it challenging to explain or predict beyond the people that participate in a study. This further makes the empirical findings insufficient to highlight the societal implications of media use or affect policy decisions. Nevertheless, individualistic approaches on the micro-sociological level are sometimes more useful than those at the macro-sociological level to understand and explain communication media use and effects in a given context (Rubin, 2009). The context is often informed by socio-psychological circumstances, for example societal structure, social groups and relationships. Where these circumstances are experienced as challenges, communication media are problem-solving tools (McQuail, 1994). Communication media facilitate the information seeking, social contact, diversion, and social learning components of community development applied at the level of the individual (McQuail, 1994).

Lasswell (1948) and other researchers (for example Finn & Gorr, 1988; Katz et al., 1973; Lull, 1980; McQuail, Blumler, & Brown, 1972; Wright, 1960, 1974) introduced elaborate empirically founded classifications of uses and gratification at the individual level. They encompass notions of companionship, connectedness, entertainment, escapism (watching television to forget problems or emotional release), information seeking, network and relationship building, personal identity and stimulation.

In studies conducted in the current era of development 2.0, social media have revealed more information about the nature of people's motives, uses and gratifications, necessitating a review of the underpinnings of UGT. The nature of media types today is different from that of traditional (mass) media. New media today are interactive, and the audience has more choice, power and control over the media and content, which has shifted the roles of the supplier of the communication and the audience (McQuail, 1994; Quan-Haase & Young, 2010). In light of these changes in the features and capabilities of communication media, McQuail (1994) proposed that UGT should focus on specific links that incorporate changes in media efficacy between social conditions, which include (i) experiences and expectations of media, (ii) prior expectations and media use, and (iii) expected satisfactions and

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those obtained from the media, with consequences for continued use. This is explained in the following statement:

(1) Personal social circumstances and psychological dispositions together influence both (2) general habits of media use and also (3) beliefs and expectations about the benefits offered by the media, which shape (4) specific acts of media choice and consumption, followed by (5) assessments of the value of the experience (with consequences for further media use) and, possibly, (6) applications of benefits acquired in other areas of experience and social activity (McQuail, 1994, p. 319).

The explanation of the UGT is wider in focus and therefore applicable to any type of communication media. The statement highlights the evolution of UGT, from linear and functional approaches towards approaches that emphasise the individual audience members and their expectations. From this view, this study gains three key insights. Firstly, when e-IIs are selecting the communication media to use, they need to consider the socio-economic circumstances and, where possible, the psychological dispositions of their audience (individual community members). This prevents investing resources in media that community members do not have access to (or do not use), and from which they therefore do not gain any gratification (Rubin, 2009).

Secondly, UGT informs us that, if the individual audience obtains its sought gratifications from the content and/or medium, they are more likely to continue using that medium (Whiting & Williams, 2013). Hence, e-IIs that know the type of content, medium and approach to use for high audience satisfaction will develop more effective C4D strategies for their target audience. Lastly, a communication medium can satisfy more than one category of needs. Therefore, an e-II can use one medium that satisfies multiple needs rather than multiple communication media. The audience can also gain gratifications that were not initially sought from that specific medium (McQuail, 1994). For instance, social media can provide multiple gratifications, whether sought or unintentional, relating to information, entertainment, engagement, and relationship building.

Understanding the differences between gratifications sought and gratifications gained can also inform e-IIs' selection of communication media and how they use them. Gratifications sought refers to the needs that people expect to satisfy before they start using a communication medium, while gratifications gained refers to the gratifications experienced from the selected medium. A mismatch between the gratifications sought and those experienced can predict the level of satisfaction or dissatisfaction a person will experience from the selected medium (Quan-Haase & Young, 2010).

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When the level of satisfaction caused by a medium is high, surpassing the sought gratifications, the likelihood of the medium being reused increases. In the same vein, if the level of satisfaction is low, the use of the medium decreases in favour of another medium that can satisfy the sought gratification.

UGT has been used in previous studies to understand and explain people's choice and use of social media, particularly their motivations, media behaviour, and gratifications. Examples of these studies are Chen (2011), Gruzd and Goertzen (2013), Phua et al. (2017), Smock, Ellison, Lampe, and Wohn (2011), and Whiting and Williams (2013). Table 5 presents eight classifications of social media gratifications based on the synthesised findings of ten social media and UGT studies conducted between 2008 and 2017. The classifications include (i) building and maintaining relationships, (ii) entertainment (escapism), (iii) impression management, (iv) romantic companionship, (v) information seeking, (vi) self-expression, (vii) social engagement, and (viii) surveillance. Most of these studies identify and explain the gratifications obtained, neglecting gratifications sought, which help to explain why social media are chosen among the other available communication media. Although these studies are holistic in their use of UGT, what is still generally lacking in the literature is the developing countries context. Most of the studies available focus on users in developed countries and economies (Gao & Feng, 2016).

Table 5: Classifications of social media gratifications

Category	Description	Source and context
1. Building and maintaining relationships	Making new friends, maintaining existing relationships with colleagues, friends, and family.	Gao and Feng (2016) – Chinese users. Joinson (2008) – UK users. Orchard, Fullwood, Galbraith, and Morris (2014) – UK users. Pai and Arnott (2013) – Taiwanese users. Phua et al. (2017) – American university students. Quan-Haase and Young (2010) – Canadian university students. Raacke and Bonds-Raacke (2008) –American university students. Shao (2009) – Theoretical work, no samples.
2. Entertainment (escapism)	Watching videos, listening to music, playing games, reading and spreading/sharing gossip.	Dunne et al. (2010) – Young Irish females. Gao and Feng (2016) – Chinese users. Krause, North, and Heritage (2014) – UK, USA, and Australia Users. Orchard et al. (2014) – UK users. Pai and Arnott (2013) – Taiwanese users. Quan-Haase and Young (2010) – Canadian university students. Shao (2009) – Theoretical work, no samples.

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Category	Description	Source and context
3. **Impression management**	Deliberately shaping other people's opinions of oneself by posting specially selected personal information. Associated with concepts of self-enhancement and self-esteem building.	Dunne et al. (2010) – Young Irish females. Gao and Feng (2016) – Chinese users. Pai and Arnott (2013) – Taiwanese users. Raacke and Bonds-Raacke (2008) – American college students.
4. **Romantic companionship**	Specifically seeking to engage with someone of the opposite sex for companionship. To relieve the feelings of loneliness. Online dating and flirting considered safer and less embarrassing if one is rejected.	Dunne et al. (2010) – Young Irish females. Raacke and Bonds-Raacke (2008) – American college students.
5. **Information seeking**	Gaining (consuming) different types of information from different sources, in various formats. For example, news, events, services, product reviews, employment opportunities, and health advice.	Dunne et al. (2010) – Young Irish females. Gao and Feng (2016) – Chinese users. Joinson (2008) – UK users. Orchard et al. (2014) – UK users. Raacke and Bonds-Raacke (2008) – American college students. Shao (2009) – Theoretical work, no samples.
6. **Self-expression**	Posting (sharing) information about themselves to express who they are, what they do, what they like in the form of pictures and/or videos.	Gao and Feng (2016) – Chinese users. Joinson (2008) – UK users. Orchard et al. (2014) – UK users. Pai and Arnott (2013) – Taiwanese users. Shao (2009) – Theoretical work, no samples.
7. **Social engagement**	Communicating with friends and family, networking.	Joinson (2008) – UK users. Krause et al. (2014) – UK, USA, and Australia Users. Pai and Arnott (2013) – Taiwanese users. Quan-Haase and Young (2010) – Canadian university students.
8. **Surveillance**	Seeing what other people are posting, for example pictures, links, videos, new developments in their lives (babies, weddings, new jobs, cars).	Joinson (2008) – UK users. Pai and Arnott (2013) – Taiwanese users. Raacke and Bonds-Raacke (2008) – American college students.

Although the classifications provided in Table 5 are of gratifications gained, they still provide useful information about why people choose social media. Since the early 1940s, when UGT was used to study media choice and the initial classifications were introduced, the pattern of needs arguably is still the same. For instance, the need to connect, to be entertained, and escapism. This conclusion was also reached by Sundar and Limperos (2013), who stated that classifications of new communication media possess similarities to those of traditional media. Consequently, as technology continues to evolve, more opportunities and media become available, changing the ways in which needs can be satisfied, but not necessarily changing the needs.

The use of UGT in studies of a qualitative nature enables the adoption of more holistic methodologies that have the potential to explore interpersonal aspects regarding the use of communication media

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in the developing context (Ruggiero, 2000). UGT helps to draw rich empirical data in the form of statements from people about their motivations, uses and gratifications (Dunne et al., 2010; Katz et al., 1973; Pai & Arnott, 2013). These are concepts that only the person experiencing them can articulate (Rubin, 2009; Whiting & Williams, 2013). A qualitative approach can be adjusted at any level during the data collection or analysis process to incorporate changes resulting from new developments (Creswell, 2013; Yin, 2009) – as was the case in this study.

Despite its usefulness, UGT is not without criticism. Early assumptions of the theory are restrictive, behaviouristic, and functionalist (McQuail, 2012). It is a challenge to explain effects based on distinctions made between the use of media and needs gratification, as it is also difficult to measure motivations and needs. The link between media-use behaviour and attitudes to the media is also considered quite weak and the direction of the relationship often unclear (McQuail, 2012). UGT presumes that people have a choice of which media to use, and this is criticised, casting a shadow of doubt on the reliability and validity of some findings (McQuail, 1983). Among marginalised people, it is often more about the media available and accessible, rather than personal choice. People can become dependent on specific communication media when there is uncertainty in the societal and media environment, poor strategies for seeking and obtaining gratification, and limited or restricted access to alternative media (Rubin, 2009). Limited awareness can also influence the choice of media (McQuail, 1994). This is an existing challenge in this study's research areas, where some community members do not know the different communication media available and accessible to them, and this limits the information they consume and gratifications they are able to satisfy.

3.9   Using a multi-theory framework

This study focuses on three key domains: development, technology and communication, with the emphasis on under-resourced communities. The objectives of this study are multidisciplinary hence achieving them requires the use of multiple theories (Nicholson et al., 2016; Tufte & Hemer, 2014; Zheng, 2015) from the three domains. Applying one theory from either domain narrows the focus of this '4D' study. This study is informed by development as well as communication theories, which provide different perspectives to understand the affordances, challenges, and risks associated with using ICTs in the development (Raiti, 2007) and communication contexts (Heeks, 2018; Heffernan et al., 2016).

When conducting research that focuses on development and technology, it is beneficial to use theories at different levels of abstraction (Avgerou, 2017). This study uses theories that provide useful

explanations of the social and psychological processes that occur at the national, community and individual levels (Anfara & Mertz, 2014) – regarding development, technology and communication. Since this study is based at the community level, to understand development at this level – including the role of technology and how communication is done – it is necessary to understand development at the national level where the precedent is set. Development theories of modernisation, dependency and participation are useful in this regard. As general foundational theories, they help to explain the nature of development and how it is done.

To conceptualise development at the community level, 'mid-range' theories of (i) community development, (ii) recent theories of ICT4D and (iii) C4D are used to guide attention and explain specifics of development, technology, and communication (Avgerou, 2017). Moreover, the investigation of how e-IIs communicate for development using social media requires information from community members at the individual level. Community members are the intended audience of the communication and they possess their own perspectives on how e-IIs use social media, and of the effectiveness of social media as they are used by the e-IIs to communicate for development. Furthermore, community members know best how they themselves use social media and the gratifications they seek. UGT from the communication domain is useful to explore and gain this type of information from community members.

The use of these theories to explore the different levels (national, community, individual) and the domains being investigated (development, technology, communication) is shown in Table 6. At the national level, modernisation theory of development provides a useful lens to understand the initial schools of thought regarding development. Development is defined broadly as economic gains through the adoption of modern ideas, infrastructure, and traditions from developed countries (Handelman, 2009). Key perspectives of modernisation theory help us to understand the initial roles of technology and communication in development, particularly since theories of modernisation have re-emerged since the 1990s with the development of ICTs and their emphasis on community development. This makes it possible to position e-IIs on the development agenda within third-world regions.

Table 6: Multi-theory framework

Domain	Development level		
	National	**Community**	**Individual**
Development	Modernisation Dependency Participation	Community development	
Communication	Modernisation Dependency Participation	Communication for development	Uses and gratification
Technology	Modernisation Dependency Participation	Information and communication technology for development	Uses and gratification

From dependency theory, insights are gained that explain possible reasons for the failure of the initial ideas and models of e-IIs to address development challenges in third-world regions (Bailur, 2015). These initial models were informed by Western ideas and e-inclusion models that were not appropriate for third-world regions. The major culprit was the lack of concern for the appropriateness of the ICTs to address the existing development challenges in the specific social contexts (Nulens & Van Audenhove, 1999).

On the other hand, theories of participation provide insights that reflect a paradigm shift regarding how development should be done. These theories greatly influence current '4D' efforts at the community level (Leavy & Howard, 2013; McCabe et al., 2006), and consequently how e-IIs in developing countries should operate to support development. Participation theories call for more bottom-up, inclusive development approaches. This entails e-IIs providing more community-driven ICT services that address specific development challenges in the community, such as poverty and unemployment.

In line with the contributions of various researchers (see section 3.5.2), community development is understood as both a process and an outcome. When community members' capabilities and opportunities to come together and discuss community challenges and possible solutions are enhanced, this is community development as a process (Phillips & Pittman, 2015). Community development as an outcome is the collective action of community members to devise the actions necessary for development, including delegating responsibility and engaging with the relevant development actors, usually government (Flora et al., 2016; Phillips & Pittman, 2015; Uhegbu, 2001). In addition, the results of this collective action (for example increased capital and assets) are also community development.

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In addition to participation, community development comprises four other key concepts: (i) community organisation, (ii) economic development, (iii) empowerment, and (iv) social capital. Therefore, to explore and understand how e-IIs support community development, these concepts provide more refined and necessary parameters of investigation. For example, how e-IIs use ICTs to support community members' job searching and business processes, which would fall under economic development and also touch on empowerment.

E-IIs eliminate the barriers that exist between community members and ICTs to facilitate the meaningful use of the technology for development. The mediation process of e-IIs is necessary for community members to benefit from ICTs (Gigler, 2011). ICT4D theory therefore facilitates an understanding of the relationship between ICTs and development at the community level, and of the theoretical underpinnings that influence how this relationship continues to evolve, including the role of mediation. This helps to explain how e-IIs use ICTs to support community development, and how the e-IIs promote the use of ICTs in the communities. Avgerou's (2010) four discourses on the ICT4D model enables a more in-depth understanding of e-IIs as strategies of ICT4D, including the e-IIs' e-inclusion approaches.

C4D theory enables a more holistic understanding of the role of communication and the different approaches of using it for development in communities. C4D theory helps to explore how the e-IIs communicate for development, particularly how they promote the use of ICTs, share information, create awareness, and facilitate two-way engagement (participatory communication). Participatory communication is intended to facilitate community members' participation in their own development, including the engagement of all relevant development actors through two-way channels and interpersonal communication.

 As argued previously, development theories (including C4D) alone do not provide an adequate lens to explore and understand the equally important perspectives of the target audience (community members) at the individual level. This is particularly in relation to e-IIs' use of social media to communicate for development, and community members' social media behaviour and sought gratifications. The design of appropriate and effective communication strategies to reach community members, particularly those in under-resourced communities, will be lacking without this type of relevant information.

UGT therefore benefits this study in three key ways. Firstly, UGT provides an effective lens to identify the relevant parameters to investigate, which are grounded in socio-psychological characteristics.

Secondly, although e-IIs are the unit of analysis for this study, community members are the target communication audience and UGT enables the extraction of rich information from community members at the individual level. This information relates to how community members want e-IIs to communicate with them, and the gratifications community members seek and gain from different communication media. Lastly, although special attention is paid to social media, UGT provides a lens to explore the same parameters across the different communication media used to communicate for development by the e-IIs.

Through the combination of theory from different domains (development, technology, and communication), and context and rich data, the researcher provides enhanced explanations of the e-IIs being investigated, particularly how they support community development, communicate for development and use social media.

3.10   Linking the multi-theory framework to the empirical work

Table 7 provides an overview of how the different theories in the theoretical framework inform the empirical work of this study. The table also highlights how the links between the theories and empirical work relate to the objectives of this study.

Table 7: Linking the multi-theory framework to the empirical work

Theory	Link to empirical work	Link to research objectives	Focus area
Modernisation, Dependency, Participation *(Foundational national level)*	• Interpretation of development (national level – precedent for other levels, i.e. community level), • The role, approach and impact of using ICTs to facilitate development, • Approach to and media choice for C4D	• Understanding the position and role of e-IIs on the national development agenda, • Understanding development approaches (how it is done) and the role of development actors and community members (intended beneficiaries), • Understanding e-IIs, particularly their ownership models, operating sector, services provided, resources available, approach towards using ICTs and communication to support and facilitate community development	• The organisations and the e-IIs, • Development, • Communication • ICT4D
ICT4D *(Mid-range community level)*	• The conceptualisation of the digital divide, • The conceptualisation of e-awareness, • The role, approach and impact of using ICTs for community development	• Identification of boundaries, ownership model and types of e-IIs, • Identification of services provided by different types of e-IIs, • Understanding of e-awareness, ICTs and community development, • Understanding of the characteristics of the users, their needs, motivations and use of the (ICT) services, • Understanding of how ICT innovations in developing contexts are systemised and contextualised	• E-IIs, • Community members, • Social media, • Community development, • E-inclusion, • ICT4D

Theory	Link to empirical work	Link to research objectives	Focus area
Community development *(Mid-range community level)*	• Interpretation/ context of development (community level), • Operationalisation of five key concepts - community organisation, economic development, empowerment, participation, social capital	• Understanding the characteristics and needs of community members and communities for community development, • Understanding the users of the e-IIs' services and the impact of the (ICT) services on community development, • Investigating e-IIs' empowerment of community development, • Investigating existing relationships between e-IIs and community members and other development actors, • Investigating e-IIs' capabilities and facilitation of social capital in the communities, • Understanding the relevance and/or impact of the relationships on the quality and use of the services provided, sustainability and community development, • Investigating the type and level of community members' involvement in decision-making regarding the e-IIs and their developmental interventions, and the impact thereof, • Investigating e-IIs' facilitation of community engagement and organising	• Community members, • E-IIs, • Relationship building, • Participation in decision-making, • Empowerment, • Community development, • Engagement, • E-inclusion
C4D *(Mid-range community level)*	• The conceptualisation of communication for development	• Understanding e-IIs' (i) views on the relevance of communication, (ii) awareness among community members (intended beneficiaries), (iii) awareness of the communication landscape of the community, (iv) motivations and strategies (media choice) for C4D, and (v) communication challenges faced, • Investigating (i) whether social media (Internet-based mass media vs traditional media) can facilitate C4D, (ii) the roles that social media can play, (iii) e-IIs' motivations, approaches and challenges faced when using social media, and (iv) whether there is a link between the affordances of social media and community development, • Identifying and investigating existing and potential communication barriers faced by community members	• E-IIs, • Communication strategies and challenges, • Social media, • Communication media choice, • Engagement, • ICT4D
UGT *(Individual level)*	• The conceptualisation of communication media gratifications	• Analysing social media types and affordances, • Understanding social media gratifications, • Understanding the link between social media gratifications and the design of communication strategies	• Community members, • Communication media and strategies, • Social media, • Gratifications, • ICT4D

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Chapter 4

Research methodology

4.1   Introduction

The design and methodology of this study were greatly shaped by (i) the theoretical underpinnings of development, communication and technology, (ii) philosophical assumptions about how and what the researcher wanted to learn during the investigation (Creswell, 2003; Myers & Avison, 2002), and (iii) the research objectives and questions (Maxwell, 2009). An exploratory qualitative research design was adopted (Maxwell, 2012), using a descriptive multiple case study methodology. An exploratory and descriptive design was necessary to investigate e-IIs, focusing on the concepts of technology, development, and communication. The descriptive nature of the design was appropriate to communicate findings that illustrate accurate and valid representations of e-IIs (Van Wyk, 2012). These findings contribute to bridging gaps in the literature regarding how e-IIs support community development and communicate for development, and how they use social media.

The nature of the research design enabled the analytical identification of the environment boundaries and relevant variables (Van Wyk, 2012). The design also informed the selection and application of data collection techniques, namely interviews, focus group discussions, non-participant observations, document and social media account reviews, as well as thematic analysis methods (Meyer, 2001). This chapter presents a discussion of the philosophical underpinnings and motivation for using the case study methodology, including the strategies used to collect, manage, and analyse the data. The chapter also discusses how issues of validity, reliability, and ethics were addressed, and concludes with a description of the challenges that were faced during the empirical investigation.

4.2   Research philosophy

A research paradigm comprises philosophical assumptions (Creswell, 2003; Denzin & Lincoln, 2012; Sarantakos, 2013) that deal with ultimates or first principles that define the nature of the world and a person's place in it, including the series of possible relationships to that world and its different parts (Guba & Lincoln, 1994). Mingers (2001) defines a paradigm as being a construct in which a general set of philosophical assumptions are specified. While different paradigms exist, there are three common research paradigms: positivist, interpretive and critical research (Myers & Avison, 2002; Orlikowski & Baroudi, 1991). While these paradigms are philosophically distinct, they are not always clear cut, particularly in the practice of social science research (Myers & Avison, 2002). What differentiates them

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is mainly their underlying philosophical assumptions (Creswell, 2003). These assumptions often relate to ontology, epistemology, and methodology. The assumptions are summarised in Table 8 for each of the three paradigms.

The ontological assumptions relate to beliefs about the nature of humanity and reality (Creswell, 2013; Crotty, 1998). The assumptions inform claims about social reality, namely its existence, characteristics, and interactions (Myers, 2013). Two broad and contrasting ontological positions on the nature of reality are objectivism and constructionism (Tuli, 2011). Instead of constructionism, other researchers such as Grix (2002) propose constructivism as the other ontological position, which is arguably a branch of the same tree. Objectivism proposes a reality that is independent of social actors. This view of reality has a similar premise to Archer's (1988) 'external realism', which proposes that reality exists independent of our construction. Constructionism proposes that reality is the product of social processes and meanings that people (social actors) assign to them. This position has some similarities to Archer's (1988) 'internal realism', which considers reality as an intersubjective construction of the shared human cognitive apparatus, and 'subjective idealism', in terms of which each person constructs his/her own reality. In both internal realism and subjective idealism, reality is a construct of human thinking and experience. Since ontology relates to what we may know, it follows that epistemology relates to how we come to know that which we know (Grix, 2002).

Epistemological assumptions relate to knowledge, its scope, how it can be obtained and criteria to evaluate knowledge claims (Khazanchi & Munkvold, 2003; Myers & Avison, 2002). These assumptions guide how an investigation should be conducted and the methods that should be used to achieve the investigations' objectives (Crotty, 1998; Jansen & Steinberg, 1991). Examples of three types of epistemologies that exist in social sciences are objectivism, subjectivism, and constructionism (Crotty, 1998; Khazanchi & Munkvold, 2003). Objectivist epistemology proposes that meaningful reality exists distinct from the operation of any consciousness. Constructionism, which opposes the objectivist views of human knowledge, suggests that there is no objective truth that is waiting to be discovered. It is constructed by people as they interact with the world. However, different people may construct meaning differently, even when it comes to the same phenomenon. This interaction is guided by cultural, historical, and social perspectives. Since we are born into a world of meaning, we inherit a system of significant symbols which we use as a lens when we first view the world (Crotty, 1998). In subjectivist epistemology, meaning is not derived from the interplay between a subject and object, but is imposed on the object by the subject; the object makes no contribution to generating meaning (Crotty, 1998).

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Table 8: Philosophical assumptions of positivist, critical and interpretive research paradigms

	Ontological assumptions	Epistemological assumptions
Positivist	Reality is objective. It can be described by measurable properties independent of a researcher and his/her research instruments. Focus is on testing theory to add to the predictive understanding of a phenomenon.	Peoples' experiences of the world reflect a reality that is objective and independent and forms the basis for human knowledge. The researcher is independent of the phenomenon being researched.
Critical	Rooted in historical realism that accepts a single reality. Social reality is historically shaped by ideological, political, economic, ethnic, and gender forces and is produced and reproduced by people.	Researchers' values are interactively linked to the subject of investigation, therefore result in value-mediated findings.
Interpretivist	Reality is subjective, intertwined with the person who is observing it. Access to reality is through social constructs such as language, consciousness, and shared meanings.	Researchers' interpret the data by developing a description of the participant and the natural setting, as well as analysing the data for themes and meaning, lessons learnt, and determining the need for further research.

Source: Adapted from Creswell (2013), Guba and Lincoln (1994), Myers and Avison (2002) and Weber (2004)

For this study, the research paradigm was based on ontological, epistemological, and methodological assumptions that construct an interpretive research paradigm (Creswell, 2003; Sarantakos, 2013; Tuli, 2011). The perceptions of reality are premised on constructionist ontological positions and epistemological views, which are common when dealing with human interpretations and meanings associated with technology (Choudrie et al., 2017; Walsham, 2002). This study sought to explore and understand e-IIs as they relate to development, technology, and communication through the meanings that people assign to them and guided by a theoretical lens of development, communication and of technology (Myers & Avison, 2002). Development theory in particular asserts that the people experiencing development-related challenges and interacting with the phenomenon that is expected to address the challenges are in the best position to articulate their realities (Servaes, 2008; Servaes & Malikhao, 2005, 2008). Their interpretations of development are arguably based on subjective judgements (through knowledge, experience, associated characteristics and meanings) that only they can make (Cook, 1994; Crotty, 1998).

These assumptions of an interpretive paradigm challenge positivist assumptions that reality is objective and can be reduced to its component parts. The research participants were from different areas in the WCP (urban, peri-urban, and rural) and they possessed diverse cultural, traditional, and socio-economic backgrounds that resulted in different subjective and multiple views of reality. The researcher therefore embraced and reported on the multiple realities that resulted from the investigation of the e-IIs and their community of users (community members). The different realities

are illustrated using quotations that represent the exact words of respondents and express their views.

Interpretive approaches are fundamental to qualitative research (Creswell, 2003) and are predominant epistemology in ICT4D studies (Lin, Kuo, & Myers, 2015; Myers & Avison, 2002). The research context and theories discussed in Chapters 2 and 3 are combined to provide an explanation of the e-IIs being investigated, particularly how the e-IIs use ICTs to support community development and communicate for development (Andoh-Baidoo, 2017). The interpretive research paradigm influenced the adoption of a naturalistic (Denzin & Lincoln, 2012; Weber, 2004) multiple case study method, which was appropriate to investigate the e-IIs and thus achieve the multidisciplinary objectives of this study (Maxwell, 2009).

4.3   Research methodology

A research methodology is a plan of action (Crotty, 1998) that shows how a study will be done (Sarantakos, 2013). Broad fields of research, such as information systems, have a wide and diverse array of research methodologies that can be used (Myers & Avison, 2002). The more common distinctions are made between qualitative and quantitative research methodologies, which are also referred to as approaches. Both approaches have different strengths and logics that are used to address different research questions (Maxwell, 1996). Examples of qualitative research methodologies include action research, case study, grounded theory, and ethnographies. Data sources for these methodologies include observations, field work, interviews, questionnaires, documents, and texts (Myers & Avison, 2002). Examples of quantitative methods that are popular in social sciences research include survey methods, laboratory experiments, and numerical methods such as mathematical modelling (Myers & Avison, 2002).

Qualitative and qualitative approaches can be used in the same research project. This approach is commonly referred to as mixed-methods (Sarantakos, 2013). An example is combining observations and interviews (qualitative) with traditional surveys (quantitative) (Creswell, 2003). Qualitative methods can be used to interpret the complex reality of a given situation and the implications of the quantitative data (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). A key premise of the mixed-methods approach is that triangulation occurs (Bryman, 2004) by using several different research methods and data sources (Sarantakos, 2013).

This study adopted an interpretive qualitative approach to both the data collection and data analysis (Creswell, 2003). This qualitative approach was appropriate to investigate e-IIs through the social

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realities of the research participants (Bryman, 2004; Mack et al., 2005). It enabled the investigation of social phenomena within their natural setting (Myers, 2013; Myers & Avison, 2002) and facilitated a holistic understanding of rich, contextual, and unstructured data (Mason, 2002) that were collected through engagement with the research participants (Myers & Avison, 2002).

While quantitative approaches favour the premise that (i) reality can only be measured by the right research instruments and (ii) objective facts can only be understood through statistics and experiments, qualitative approaches favour interpretations of social phenomena from the point of view of the people who are being studied (Denzin & Lincoln, 2005; Myers, 2013). This study relied on the experiences and interpretations of the research participants to build knowledge (Creswell, 2003).

The appropriateness of a qualitative approach for this study was threefold. Firstly, an investigation to explore and describe how e-IIs support community development and communicate for development, with special attention being paid to the e-IIs' use of social media, necessitated an interpretive approach (Creswell, 2013). The perspectives, observations, experiences, and feelings of the different research participants were valuable. They enabled a holistic interpretation of the research context. This would not have been achieved sufficiently using quantitative methods. Secondly, the approach enabled the collection of the rich, detailed descriptions that are necessary to answer the main research question and contribute meaningfully to bridging knowledge gaps in the literature (Creswell, 2003). A qualitative approach is warranted when a research phenomenon or concept needs to be explored because not much research has been done on it (Creswell, 2003).

Lastly, the approach was flexible and adaptable to understand the research participants and their realities (social and cultural worlds) (Creswell, 2013; Maxwell, 2012; Myers, 1997). Quantitative approaches that quantify textual data would not have accommodated the interpretive nature of this study appropriately to answer the main research question (Kaplan & Maxwell, 2006). A qualitative approach enabled the necessary investigation of e-IIs to gain a vivid understanding of how events, actions or meanings are developed in the circumstances within which they occur (Maxwell, 2009). It was possible to capture the voices of the respondents and convey their experiences through the use of narratives and situational descriptions of case activity (Creswell, 2013; Stake, 2005). These narratives are presented in the reports on and discussions of the findings in Chapters 5, 6 and 7.

4.4   Multiple case study as a method of choice

The case study method has gained acceptance in information systems research (Orlikowski & Baroudi, 1991; Ponelis, 2015) due in part, to the method's facilitation of research that yields useful and novel

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conceptual and theoretical models grounded in literature and empirical findings (Ponelis, 2015). A case study is an empirical method that (i) investigates a contemporary phenomenon in-depth and within its real-life context, especially when (ii) the boundaries between the phenomenon and context are not evident, and (iii) in which multiple sources of evidence can be used (Meyer, 2001; Yin, 2009).

A case study can be approached, discussed, and presented using single or multiple cases. A single case study employs a single-focus strategy that applies a holistic approach to gain an in-depth understanding of the phenomenon (Yin, 2009). A multiple case study entails the investigation of the same phenomenon across a number of different or similar cases (DePoy & Gitlin, 2016; Stake, 2005; Yin, 2009). In spite of these differences:

> Single and multiple case designs are variants within the same methodological framework. No broad distinction is made between the so-called classic (single) case study and multiple case study. The choice is one of research design, with both being included under the case study method (Yin, 2009, p.53).

Both the single and multiple case study approaches can be treated as holistic or embedded. Holistic case studies investigate a unit as a single global phenomenon, while an embedded approach treats the single unit as a collection of parts (DePoy & Gitlin, 2016). The choice of a single or multiple case study that is holistic or embedded is based on the identified research objectives (Eisenhardt, 1989; Walsham, 2002; Yin, 2009). This is both a strength and a weakness of case studies. It is a strength because the procedures of the research design can be tailored to the research questions and objectives (Meyer, 2001). As a weakness, the method has been criticised for producing poor case studies that lack academic rigor and is therefore considered inferior to other methods that have specific guidelines for data collection and analysis (Meyer, 2001). Considering academic rigor, this study therefore used different data sources, and data collection and analysis techniques, including a detailed justification of their appropriateness to meet the objectives of this study.

Although it has been established that a single comprehensive case study can still achieve rigour and provide meaningful answers, a 'holistic' multiple case study method was fitting, given the nature of this study (Yin, 2009). This method enabled the collection of compelling and robust evidence through the exploring of the differences, similarities and patterns of a single complex phenomena across difference cases (Yin, 2009). Moreover, the method provided a valid basis for the understanding and generalisation of the phenomenon in its natural setting (Okoli & Schabram, 2010). The phenomenon of e-IIs' support of community development (through ICTs) and communication for development (with

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special attention paid to social media use) was explored within multiple cases (DePoy & Gitlin, 2016; Meyer, 2001; Yin, 2009).

The flexibility of the case study method enabled the use of different data collection techniques (Yin, 2009). These included a quick-scan (qualitative) questionnaire, semi-formal interviews, focus group discussions, and non-participant observations. The sources of data also included documents, social media accounts, community members, and e-II representatives. These multiple techniques were used to answer the 'how' and 'why' research questions of this study (Benbasat, Goldstein, & Mead, 2002; Makodza, 2017; Yin, 2009). The use of several different data sources also facilitated data triangulation, which enhanced the validity of the findings and enabled the cross-checking of the findings (Patton, 2002). Since the investigations took place within the real-life (natural) setting of the research participants, it was possible to collect evidence supporting theory in practice (Benbasat et al., 2002), and this is another strength and contribution of the case study method (Meyer, 2001; Stake, 2005).

For this study, the data collection and analysis took place in two stages. Firstly, a quick-scan analysis (QSA) of fifty e-IIs operating across the WCP was conducted. After the analysis of the data, the second stage entailed an in-depth exploratory investigation of six case studies. The same phenomena were investigated across all the case studies to reveal complexities embedded within each of the six case studies and to gain deeper insights that allowed for the identification of patterns across the case studies (Benbasat et al., 2002; Bryman, 2004; Eisenhardt, 1989).

4.5 Data collection strategy

4.5.1 Stage 1: Quick-scan analysis

To select the most appropriate and relevant e-IIs to investigate as case studies, it was necessary to know what type of e-IIs exist in the WCP, including how they operate and communicate and the services they provide. This type of information is not readily available. Therefore, the QSA method was used to facilitate the first stage of this comprehensive case study research to understand the e-II landscape in the WCP. The method is appropriate in situations where not much has been documented on the specifics of a research topic (Van Audenhove, Baelden, & Marien, 2016). It is used to get an impression of the areas in which variance is suspected. For example, in the context of this study variance is suspected regarding e-IIs use of social media and the types of social media they use. The QSA is a method that is used to carry out a cross-case analysis of a number of mini qualitative case studies, usually between twenty and forty, to determine similarities, differences, and other possible variances based on a set of limited variables (Van Audenhove et al., 2016). The case studies are

referred to as small or mini case studies because they are not in-depth investigations. The purpose of the method is to gain an overview of the research topic and phenomenon being investigated.

The contribution of the QSA to this study was twofold. Firstly, it provided an overview of the e-II landscape in the WCP. Fifty e-IIs were identified and described as small case studies based on a set of variables identified during the literature review. Secondly, it was possible to conduct a cross-case analysis of the data collected from the e-IIs through the QSA to understand the e-IIs' similarities and differences. The findings of the QSA, particularly the cross-case analysis, provided the foundation that informed the selection of the multiple case studies that were investigated more comprehensively to achieve this study's objectives and answer the main research question.

The QSA entailed six key steps: (i) review of pertinent literature, (ii) mapping of e-inclusion intermediaries, (iii) sampling, (iv) design of data collection questionnaire, (v) data collection, and (vi) quick-scan matrix construction and data analysis. An overview of the steps that were followed is illustrated in Appendix 1.

(i)   Review of pertinent literature

A review of pertinent scientific literature and relevant social science theories provided a holistic understanding and explanation of the use of technology for development, e-inclusion intermediation, community development, and communication for development (Lee & Saunders, 2017). The review facilitated the identification of knowledge gaps in the existing literature and the type of information that was needed to address them. The knowledge gaps were condensed into variables that were used to guide the data collection protocol. The variables were grouped into the following categories: (i) type of area in which the e-II is located, (ii) type of e-II, (iii) number of people involved in daily operations, (iv) operating sector, (v) user community, (vi) services provided, (vii) communication media used, (viii) use of social media, and (ix) general and communication challenges.

(ii)   Mapping of e-inclusion intermediaries

This study's definition of an e-II (see section 2.4.3) outlines the criteria for the types of organisations to consider. Three approaches were used to identify relevant e-IIs operating in the WCP. First, a desk-top study was done using the Internet to search for e-IIs operating in the WCP. Specific search strings, which included telecentres, e-centres, ICT centres and digital centres, were used during the search. Information about e-IIs (organisation name, type of e-II, location, contact details, services provided) that matched the criteria was collected and stored in an Excel database. Secondly, snowball sampling

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was used by using the identified e-IIs' (key informants) networks to find and recruit other e-IIs (Mack et al., 2005; Patton, 2002). The third approach involved contacting umbrella organisations and relevant government departments to request details of e-IIs that they had established in the WCP.

(iii)   Sampling

After compiling a database of the e-IIs identified in the previous step, purposive sampling was used to select e-IIs that would provide relevant information, and thus an opportunity for an extensive study to achieve this study's research objectives (Patton, 2002; Stake, 2005). The sample needed to support specific forms of generalisation and produce trustworthy descriptions in an ethical manner (Miles & Huberman, 1994). A preselection criterion relevant to the research sub-questions (Patton, 2002) and the theoretical framework (Miles & Huberman, 1994) were used to identify relevant e-IIs. For example, the e-II needed to be providing access to computers and the Internet and be in a position to provide sufficient information about how they use ICTs to support community development, as well as how they communicate for development.

Each participating e-II was assigned a case number; no names of the respondents or their e-IIs are used in the reporting of the findings from the QSA to ensure their anonymity. While there are no set rules for sample size in qualitative research (Patton, 2002), fifty e-IIs were included in the quick-scan analysis. This number was sufficient for the QSA and enabled an overview of the landscape of e-IIs in the WCP, as well as facilitated the comparability of the case studies (Van Audenhove et al., 2016). The objective was not numeric representation, but rather contextual representation. The sample was illustrative, not definitive (Patton, 2002).

(iv)   Development of the data collection questionnaire

Qualtrics© software, a computer-aided data collection and analysis tool, was used to develop an online qualitative data collection form that was structured like a questionnaire. The questionnaire consisted of twenty questions that were answered through dichotomous indicators (yes or no), lists of possible options and open fields for short comments. The questions were made up of variables and indicators that were identified during the literature review (Van Audenhove et al., 2016); particularly literature on e-IIs, e-inclusion approaches and models, e-awareness and the digital divide in the developing context. The design and type of the questions was also informed by the theoretical framework (Chapter 3) and more specifically Table 7 which links the theory to the empirical work. The objective was to collect data from the e-IIs about how they operated, their e-inclusion models,

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management and ownership structures, services provided and their support of community development, communication strategies and use of social media.

(v)   Data collection

Exploratory case studies benefit from conducting pilot studies (Benbasat et al., 2002) to determine appropriate units and become familiar with the research phenomena. A pilot study was conducted to test the construct validity of the QSA questionnaire, including the relevance of data that would be collected and to explore their implications (Maxwell, 1996). Fifteen e-IIs were contacted telephonically to invite them to participate in this study. Ten e-IIs agreed to participate, they identified the appropriate respondent who was then sent an email with a link to the online questionnaire and an information sheet (Appendix 4) detailing the objectives of this study. After several weeks, only two e-II's respondents had completed the questionnaire. Follow-up emails were sent to the remaining eight e-IIs with the questionnaire attached as a Microsoft Word document (Appendix 3) in case the respondents were facing challenges accessing the online version. After two weeks, only one other respondent emailed back the completed Microsoft Word document questionnaire.

The data collection technique proved time consuming and ineffective due to the lack of responses. Instead of emailing the link to the online questionnaire and sending the questionnaire to the remaining pilot sample of seven e-IIs as a Word document, face-to-face and telephonic interviews with the e-IIs' respondents were then used to ask the questions while the researcher manually filled in the questionnaire. This approach proved more effective. After reviewing the data collected from the ten e-IIs of the pilot, the data were found to be sufficient and relevant. However, a few adjustments were made to the questionnaire; two questions were reworded to make them easier for respondents to understand.

Telephonic and face-to-face interviews were then conducted with respondents from forty additional e-IIs that were willing to participate in this study. The researcher filled in the questionnaire manually to capture their responses. The forty e-IIs were purposefully selected from the Excel database of e-IIs and the organisations identified the appropriately knowledgeable respondents to participate. The data collected from the ten e-IIs of the pilot study and the forty e-IIs, using the questionnaire were then manually loaded into Qualtrics© to organise and manage the data, and facilitate the data analysis.

(vi)   Quick-scan matrix construction and data analysis

Once all the data collected from the fifty e-IIs were captured in Qualtrics©, the quick-scan analysis matrix was developed. The questions (variables) and the answers (indicators) were integrated into a matrix of columns and rows, making it easier to carry out the cross-case analysis (Van Audenhove et al., 2016). The e-IIs were mapped in the columns, while the questions and their responses were mapped in the rows. The three open-ended questions were excluded from the matrix and were analysed separately using a thematic analysis approach. For illustrative purposes, a screenshot of the matrix that shows five of the fifty case studies can be seen in Appendix 2.

The data in the QSA matrix were analysed at three levels and the results are discussed in the QSA report presented in Chapter 5. The first level of analysis was horizontal analysis to identify the different variables across the e-IIs. It was possible to identify indicators that had high and low scores and provide possible explanations based on (i) what had been learnt about the case and (ii) information gained from the literature and theory review. It was possible to then confirm, enhance, and contribute findings towards the existing literature based on the results of the analysis. Although the occurrence of the indicators was counted, the totals did not have any statistical value, nor did they claim any statistical validity. They only illustrated tendencies and variances (Van Audenhove et al., 2016).

At the second level of analysis, the horizontal analysis was combined with vertical in-case analysis to determine under which circumstances variables combined and to identify specific e-IIs that had similar outcomes. Based on the information in the literature review and explanations provided by the theory, it was possible to hypothesise causes and propose causal relationships on the bases of the matrix (Van Audenhove et al., 2016). In the third level of analysis, e-II cases that had missing variables were identified and possible explanations for this were determined based on knowledge of the e-IIs and the information from the literature and theory.

4.5.2   Stage 2: In-depth case studies

Following the analysis of the fifty e-IIs that participated in the QSA, the second stage of this comprehensive case study was the selection of appropriate and relevant e-IIs to study further as in-depth case studies.

(i)   Sampling strategy

Purposive sampling was used to identify e-IIs that would provide useful, relevant, honest, and sufficient information to understand the research context and answer the main research question

(Creswell, 2003). Unlike quantitative studies that seek representativeness in the sample, the focus was on selecting information-rich e-IIs (Crabtree & Miller, 1992). A check-list was developed guided by Miles and Huberman's (1994) criteria for sampling. The term 'criterion-based sampling' is used by some researchers (for example Creswell (2013) and Ritchie, Lewis, Elam, Tennant and Rahim (2013)) to refer to purposively selected samples based on set criteria. The check-list for the e-IIs included the following criteria: (i) ICT services provided for free or at a very low cost, (ii) intended beneficiaries particularly marginalised community members; (iii) operating in an under-resourced community; (iv) intentionally supporting community development; (v) communicating for development using social media; (vi) accessible and willing to participate in an in-depth study; and (vii) feasible.

The criteria were mapped against the findings of the QSA, and eight e-IIs were appropriate. These eight e-IIs included three e-centres, one community centre, one innovation and training hub, one training institution, and two rural public libraries. These eight e-IIs were grouped by type and formed five different case studies. Two additional e-centres that were not initially part of the QSA were added to the case study of e-centres because they represented different demographics and locales that would provide rich data. This brought the total number of participating e-IIs belonging to the e-centre case study to five.

Additionally, two public libraries (e-IIs) operating in the Cape Town Metropole were added. Since these libraries were operating in the metropole, they were considered a separate case study to those operating in rural areas. This brought the total to six different case studies. The metropole libraries were initially not included in the QSA because the rural libraries represented the public libraries; however, the researcher believed that adding a case study on public libraries in the metropole would provide rich data from under-resourced urban and peri-urban locales in the Cape Town Metropole, since the rural libraries were in areas outside of the metropole. Details of the case studies are presented in Table 9. The e-IIs are referred to by e-II type and case study number, and their actual names are not used.

The participating e-IIs were investigated through six in-depth case studies to gain high-quality data (Ritchie et al., 2013), as well as a range of experience and information (Stake, 2005). Each case study provided enough data for credible analysis and reporting (Marshall, Cardon, Poddar, & Fontenot, 2013), as well as sufficient information to answer each of the research sub-questions of this study (Mack et al., 2005; Patton, 2014). Six case studies were feasible, as adding more case studies would have led to challenges and complexities in managing and analysing the large volumes of data (Yin, 2009). Qualitative samples are usually minimal and based on expected reasonable coverage of the

phenomenon given the purpose of an investigation and the investigators' interests (Patton, 2014). This study relied on a few case studies with many variables (Creswell, 2013).

Table 9: Details of the six case studies

Case study	e-II type	Operating sector	e-II operator	Number of participating e-IIs
Case study 1	E-centre	Public	Government	5
Case study 2	Community centre	Third sector	NPO	1
Case study 3	Innovation and training hub	Third sector	NPO	1
Case study 4	Training institution	Public	State-owned entity	1
Case study 5	Public library - Rural	Public	Government	2
Case study 6	Public library - Metropole	Public	Government	2

(ii)   Data collection

After identifying the six case studies and their participating e-IIs, the e-IIs were approached and invited to participate in this study. Once they agreed the data collection began. The data collection methods included semi-structured interviews (telephonic and face-to-face), focus group discussions, non-participant observation, documents and social media account reviews[1].

Semi-structured interviews

Semi-structured in-depth interviews were used as the main source of rich first-hand data that were collected from responses to real-world phenomena in the context within which they took place (Gillham, 2005; Mack et al., 2005). This is a dominant technique in interpretive research paradigms (Golafshani, 2003) that uses closed and open-ended questions to elicit the meanings constructed by respondents as they engage with the world they are interpreting (Creswell, 2003). However, despite the popularity of interviews as data collection methods, they do not guarantee rich data that will lead to meaningful information (Schultze & Avital, 2011). A researcher's skills and knowledge regarding how to use the method contribute towards its usefulness (Yin, 2009). The researcher was able to elicit rich, in-depth responses regarding the respondents' experiences, opinions, feelings, and knowledge relevant to the main research question (Patton, 2002).

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[1] All the respondents for this study were willing participants and their individual responses were on their own behalf.

The interviews were conducted in English, either face-to-face with the respondents within the natural setting of the respective e-II, or telephonically and through email correspondence. Email correspondence was used in cases where face-to-face and telephonic interviews were not convenient due to the respondents' location or limited availability. Prior to each interview, the purpose of the research was explained to the respondent, including how the results would be used and that they would be kept anonymous. The respondents were provided with a consent form to sign if they agreed to participate (Creswell, 2013) (Appendix 5). The form contained details about this study, the data collection procedures, and ethical and confidentiality procedures. The interviews took place between February 2017 and September 2017. They lasted for between twenty-five and ninety minutes. The shorter interviews were due to those particular respondents' limited availability and time constraints. Follow-up interviews were then scheduled and conducted telephonically. Some respondents refused to be recorded, and therefore notes were taken during those interviews to capture key points and take note of arguments that needed further clarification.

The flexibility of semi-structured interviews allowed the restructuring of questions where necessary to suit the conversation with the respondents (Gillham, 2005). This process also gave the respondents time to think about their answers and expand their thoughts. The respondents were able to provide rich new data that had not been conceived previously. It was therefore necessary for the researcher to remain open-minded and receptive to any new data (Meyer, 2001; Stake, 2005).

Interview respondents

There were two categories of interview respondents: *Experts* and *Users*. In the context of this study, the term 'expert' is used to refer to any person who was part of the organisation managing or operating the e-II. These people were experienced and knowledgeable about the e-II, particularly how it operated and communicated, the ICT services provided and their use by community members. The term does not suggest that the person was a specialist or highly accomplished. The term 'user' refers to community members who used the services provided by the e-IIs.

The expert respondents for each case study were purposefully selected based on their knowledge of the e-II, the ICT services provided and the communication strategies used. There also was a focus on expert respondents whose roles included engagement with the users. These expert respondents had first-hand experience of the interaction between the users and the ICTs. The expert respondents included librarians, library managers, project managers, centre managers, development managers, administrators, interns, education facilitators, and communication and social media managers.

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The interview questions were grouped into six categories based on the focus areas identified in Table 7. The table also highlights how the theory links to the research objectives and informs the empirical work. The questions for category one – *details of the e-II and the respondent's role* – were informed by literature on e-IIs, e-inclusion approaches and models and theories of development (modernisation, dependency and participation), community development and ICT4D. The objective was to develop and ask questions that would enable an understanding of e-IIs, particularly their ownership models, services provided, resources available, approach towards using ICTs to support community development, and challenges faced. In category two – *the community of users* – the questions were informed by literature on the digital divide, marginalisation in under-resourced communities, and theories of community development and ICT4D. The questions sought to determine the characteristics and needs of the users of the e-IIs' services and the ICT services' support of community development.

The third category – *communication strategy and challenges* – comprised questions that were informed by literature on e-IIs and (e-)awareness (for example awareness of e-IIs, ICTs and ICT benefits) among community members, and theories of community development and communication for development. The questions sought to investigate e-IIs' views on communication and its relevance, e-awareness in the community, the communication landscape, and communication strategies and challenges faced by the e-IIs. The questions of the fourth category – *social media use and challenges* – were informed by literature on social media, social media and communication for development, and theories of community development, communication for development and ICT4D. The questions sought to investigate the e-IIs' motivations, perspectives, and strategies for using social media. This also included the affordances of social media for the e-IIs and the capabilities of social media to facilitate the e-IIs' communication for development towards supporting community development.

The questions for category five – *community members' participation in decision-making* and category six – *relationship building* – were informed by theories of ICT4D, communication for development and community development. The questions sought to investigate existing relationships between the e-IIs and community members and the e-IIs and other development actors, and the relevance or impact of the relationships on the services provided, the use of the services and community development. The questions also investigated the type and level of community members' participation in decision-making. A copy of the expert respondents' interview guide is presented in Appendix 6.

The user respondents were community members over the age of eighteen who used the services provided by the e-IIs. Their inclusion was necessary to gain different perspectives on the e-IIs and how

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they support community development and communicate for development. The users provided valuable information, particularly considering that they were the beneficiaries of the services provided and the target audience of the communication media used by the e-IIs. Their opinions, experiences and recommendations were necessary for data triangulation. The user respondents included employed and unemployed adults and youth, job-seeking university graduates, small business owners and entrepreneurs. StatsSA's (2018d) age profiles were quite useful to group the different age groups of users. For instance, (i) children are considered anyone younger than fourteen years, (ii) the youth are between fifteen and twenty-four, (iii) adults between twenty-five and fifty-nine, and (vi) the elderly or older generations are those sixty years and older.

The user respondents' interview questions were grouped into eight categories. The questions of the first category – *occupation and age* and the second category – *use of services* – were informed by literature on the digital divide, e-IIs and e-inclusion approaches, as well as theories of ICT4D and community development. The aim was to ask questions that would enable an understanding of the characteristics of the users, their needs, motivations, their use of the services provided, and how these services support community development.

For the third category – *engagement with e-II* – questions were informed by literature on e-IIs and (e-)awareness, and theories of communication for development. The questions sought to investigate the level of awareness in the communities about e-IIs and the services provided based on the perspectives of the users. The questions were designed to also gain users' perspectives regarding how the e-IIs communicate for development, and the effectiveness of the strategies applied and media used. For the fourth category – *use of social media* and the fifth category – *knowledge and use of e-IIs' social media* – the questions were informed by literature on the digital divide, social media and social media in communication for development, as well as theories of community development, communication for development and ICT4D. The questions sought to explore the users' knowledge of, access to and use of social media, knowledge and use of the e-IIs' social media accounts, as well as their perspectives regarding how the e-IIs communicate for development using social media and the effectiveness and/or limitations of the e-IIs' approaches.

For the sixth category – *participation in decision-making* and the seventh category – *relationship building* – the questions were informed by theories of community development and ICT4D. The questions were designed to investigate the perceived relevance of community members' involvement in decision-making, the type and level of involvement and the existing relationship between the e-IIs and community members. The questions also sought to investigate the e-IIs' capabilities and

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facilitation of community engagement and organising. The last category – *communication barriers* – contained questions that were informed by theories of communication for development and sought to investigate and identify existing and potential communication barriers faced by the users. A copy of the user respondents' interview guide can be found in Appendix 6.

The total number of expert and user interviews conducted for each case study (excluding follow-up interviews) is shown in Table 10. The number of expert interviews for each case study was based on (i) the number of participating e-IIs for that case, (ii) the respondents' willingness and availability to participate, and (iii) information saturation. For example, only four people worked at the training institution (case study 4) and the data collected from three expert respondents were sufficient. More interviews were conducted for case study 1 because five different e-IIs (e-centres) participated and expert respondents from each e-II, as well as experts from the participating e-centres' head office were interviewed.

Face-to-face interviews were conducted with users when it was not possible to conduct a focus group discussion. However, in case studies 1 and 6, it was possible to conduct both focus group discussions and face-to-face interviews due to more than one e-II participating in each case and the e-IIs' help to secure willing participants. This proved quite beneficial, as both group and individual perspectives were gained.

Table 10: Total number of interviews and focus group discussions for each case study

	Case study 1: E-centre	Case study 2: Community centre	Case study 3: Innovation and training hub	Case study 4: Training institution	Case study 5: Rural public library	Case Study 6: Metropole public library	Total
Number of expert respondent interviews	13	7	3	3	5	6	**37**
Number of user respondent interviews	3	0	6	6	6	4	**25**
Number of focus group discussions	2	1	0	0	0	1	**4**
Number of participants in focus group discussion	Group 1 = 6 Group 2 = 10	8	0	0	0	8	**32**

Focus group discussions

Focus group discussions were also used to collect data from the user respondents (no focus group discussions were conducted with expert respondents), and this contributed towards data triangulation (Denzin & Lincoln, 2012). The questions from the users' interview guide were adapted and used to inform the focus group discussions. The researcher had initially planned to conduct a focus group discussion with the users for each of the case studies. However, this was only possible with case studies 1, 2 and 6. Organising focus groups with the users for case studies 3, 4 and 5 proved challenging, and therefore only face-to-face interviews were conducted with willing user respondents.

The focus group discussions were qualitative data-gathering techniques that relied on the simultaneous and systematic questioning of multiple respondents (Denzin & Lincoln, 2012; Kitzinger & Barbour, 1999). The user respondents came together as a diverse group under the direction of the researcher to discuss their e-IIs and answer the discussion questions (Mack et al., 2005). The user respondents were of different ages, genders, education levels, cultures and socio-economic backgrounds. These differences resulted in active engagement due to contrasting experiences. The researcher encouraged the user respondents to also engage with each other, and this allowed them to correct, expand on or challenge each other's responses. This was a form of data validation (Flick, 2014). The occupations of the focus group discussion respondents included community development workers (CDWs), unemployed adults, small business owners, entrepreneurs, student interns, university students and local government municipal workers.

The stipulated size of focus groups varies among researchers. Patton (2002) suggests between five and eight participants, Kitzinger and Barbour (1999) propose between five and six, while Stewart and Shamdasani (2015) propose between eight and twelve and further add that less than eight participants can lead to a narrow and biased discussion. On the other hand, more than twelve participants can lead to challenges in managing the group and the direction of the discussion (Stewart & Shamdasani, 2015). The size of the focus group discussions for this study were between six and ten participants, and they lasted for between fifty and eighty minutes.

Non-participant observation

There are two distinct types of observations – participant and non-participant. Participant observation entails a researcher participating in the research with his/her role either known or concealed from the other participants. Non-participant observation entails a researcher only observing and those being observed either aware or unaware of the observer's presence (Creswell, 2003). For this study, the

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researcher used non-participant observations as an additional qualitative data gathering tool (Yin, 2009). Data that were collected included descriptions of activities, behaviours, actions, interpersonal interactions and other processes that were part of observable human experiences (Patton, 2002).

One observation session was held at each of the participating e-centres of case study 1, three at the community centre of case study 2, one at the innovation and training hub of case study 3, three at the training institution of case study 4, two at one of the rural public libraries of case study 5, and two at each of the metropole public libraries of case study 6. The decision on what to observe was informed by the research sub-questions and the theoretical framework (see Table 7). The researcher observed the premises of the e-IIs, the ICT infrastructure available, community members use of the ICTs, and their engagement with each other as well as with the e-II staff. The observations were limited by the fact that the focus was on external behaviours without knowledge of the context or internal influencers (thoughts and feelings) (Patton, 2002). Some users also became more reserved and seemed uncomfortable once they were aware of the researcher's presence and role (Creswell, 2003; Patton, 2002). An effort was made to make the users feel comfortable, and this included the e-II staff walking about the venues with the researcher and introducing the researcher to the users and making jokes as they walked around.

Review of documents and social media accounts

A review of relevant documents about the different organisations and e-IIs provided a source of additional information (Patton, 2002). The documents included published speeches, official WCG and City of Cape Town reports, print media publications (newspaper articles, pamphlets, and flyers) and conference presentation slides. The documents were treated as social facts and produced valuable information about the e-IIs. The information included e-inclusion models and strategies, community development objectives, current and proposed interventions, and achievements.

The social media accounts of the participating e-IIs were sources of valuable data. The accounts contained content of the e-IIs' posts and engagements which were used to confirm and identify irregularities between what the expert and user respondents had said about the content, activity status, and engagement on the social media pages. Furthermore, some of the expert respondents could not recall details about their social media activities, and as such it was necessary for the researcher to explore the accounts to gain the necessary information. The information from the social

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media accounts and various documents was triangulated with the data that were collected from other primary and secondary sources. Key documents[2] that were reviewed are summarised in Appendix 8.

(iii)   Data management

The process of analysing and interpreting the collected data had several components, which began with the management and preparation of the data (Creswell, 2003). The recordings of the interviews (telephonic interviews were also digitally recorded) and focus group discussions were transferred to a computer and labelled according to the date and time of the interview, and the respondent's role. Once the recordings were labelled, they were stored in folders. Each case was assigned a folder. The folders were also backed up onto an external hard drive and Dropbox folder that were password protected. The recordings were transcribed verbatim by both the researcher, using Express Scribe© Transcription Software 2017, and two paid professional transcribers.

The transcripts were then uploaded into ATLAS ti© version 8, a computer assisted qualitative data analysis software (CAQDAS) tool. The CAQDAS helped to organise the data into a more manageable format in preparation for the analysis and report writing. A separate project was created for each case study, with two folders (experts and users) in which the transcripts were stored. This study adopted a multiple case study approach, therefore each case was treated and reported individually. The researcher worked with one case at a time, which made the process of data analysis and report writing feasible and manageable.

(iv)   Data analysis

There are several data analysis techniques available to qualitative researchers that can be tailored to suit specific research needs and objectives. Examples include content analysis, thematic analysis, and critical discourse analysis. Content analysis entails the subjective interpretation of the data text. The approach includes the systematic coding of the data and the identification of themes and recurring patterns (Bernard & Ryan, 2010). Thematic analysis is used specifically with qualitative data and entails the encoding of the text using codes that originate from themes identified from the data (Boyatzis, 2008). Critical discourse analysis probes for relationships of causality between discursive practices, events, texts and wider cultural and social structures, relations, and processes (Fairclough, 2013).

Thematic analysis techniques were used for this study. This approach is defined as a process of encoding qualitative information using codes that originate from themes, and a theme is a pattern

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[2] To preserve the e-IIs' anonymity details of their social media accounts are not included in Appendix 8.

found in the information that describes, organises and interprets aspects of the phenomenon. The themes can be generated inductively from the raw information, or deductively from theory and prior research (Boyatzis, 2008). Thematic analysis was appropriate for the qualitative nature of this study, which is rooted in interpretive research paradigms and objectives.

For this study, thematic analysis was applied as a methodological approach that sufficiently analysed the data (Braun & Clarke, 2006). This approach facilitated the discovery of predominant themes (Bernard & Ryan, 2010) and techniques of pattern matching and explanation building, which were used to provide rich thematic descriptions (Braun & Clarke, 2006) and explanations through stipulated assumptions of causal links. These links were among development, technology and communication. They related to how the e-IIs supported community development and communicated for development. Thematic analysis further enabled the cross-case synthesis to aggregate the findings across the different case studies.

The data analysis strategy used for this study followed a six-step process through thematic approaches and is summarised in Table 11. Although the steps appear distinct and linear, in practice the process was non-linear and recursive.

Table 11: Data analysis process for in-depth case studies

Steps	Description of step
1 – familiarisation with the data	Upload all transcripts into the CAQDAS and read them to gain an understanding of the data, noting keywords and phrases.
2 – developing a conceptual interview scheme	Re-read the transcripts to extract important information and cluster it into concepts to develop a scheme. Provide an explanation for each concept, including how it is related to the main research question.
3 – generating initial codes	Combine the concepts from each scheme to compose one list that is loaded into the CAQDAS as the initial set of codes.
4 – coding process	Re-read the transcripts and apply a code to all relevant data extracts in a systematic fashion.
5 – identifying themes	Organise the codes and develop themes. Use concept maps to show the relationships and patterns between the data extracts, codes and themes.
6 – writing the report	Write a report of the findings based on the analysis and use compelling data extracts to support the findings.

Source: Adapted from Dierckx de Casterlé, Gastmans, Bryon and Denier (2012)

Step 1: familiarisation with the data

It was necessary for the researcher to become familiar with all aspects of the data collected (Braun & Clarke, 2006). The transcripts were uploaded to the CAQDAS tool and read again to gain an understanding of the data. During this process, a digital memo that contained initial thoughts was assigned to keywords and phrases within each transcript to enhance the researcher's ability to

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articulate a holistic understanding of the respondents' experiences in relation to the main research question (Dierckx de Casterlé et al., 2012).

Step 2: developing a conceptual interview scheme

Using Microsoft Word, a conceptual interview scheme in the form of a table was developed for each transcript. The purpose of the scheme was to move from the concrete level of experiences towards the conceptual level, which provided insights into the research topic. The process entailed filtering the most important data and clustering them into concepts. To verify the appropriateness of the identified concepts, the researcher asked (i) whether the content of the conceptual interview scheme reflected the most important concepts in answer to the research sub-questions, (ii) whether any other concepts were overlooked, and (iii) whether the identified concepts could be linked to the interview data? Based on the outcome, the schemes were adapted as necessary. To illustrate the appearance of the scheme, an example from an expert respondent is presented in Appendix 7.

Step 3: generating initial codes

This stage was characterised by the forward-backward movement within one transcript and across all the transcripts belonging to an individual case study to identify common concepts (Dierckx de Casterlé et al., 2012). The concepts from each of the expert respondent's scheme were all added into a single Microsoft Excel spreadsheet, combined and reviewed. Duplicated or related concepts were merged into one concept. The purpose was to design a single, combined scheme that included all the concepts from the other expert respondents' schemes. The same process was carried out for the user respondents' schemes. The result was two schemes for each case study, one for the expert respondents and another for the user respondents.

The concepts represented different levels of abstraction, and care was taken not to impose any hierarchical order. At this stage, the researcher had gained an increased conceptual understanding of the data. The lists of concepts were then introduced into CAQDAS as the initial primary set of codes. Therefore, for each project (case study), two lists of codes were uploaded to analyse the data.

Step 4: coding process

The coding process entailed re-reading each transcript and assigning an appropriate code to all the data fragments (quotations). Digital memos were also used to explain the relationships between the quotations and the assigned codes. A deeper analysis of the codes was done using CAQDAS for a better understanding of where, why, and under what circumstances the codes appeared (Dierckx de Casterlé

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et al., 2012). A comment with a description of the code, the assigned meaning, and characteristics grounded in the empirical data was assigned to codes to facilitate the report writing.

Step 5: identifying themes

Once all the data for each transcript were coded the search for themes began (Braun & Clarke, 2006). The themes were phrases or sentences that captured and described important aspects of the codes (Rossman & Rallis, 2012) that related to the research sub-questions and represented a level of patterned response and meaning within the data (Braun & Clarke, 2006; Saldana, 2016). While it is common for a researcher to identify themes at either exclusively a semantic or a latent level (Boyatzis, 2008; Braun & Clarke, 2006), for this study, the themes were identified at both levels. This was done to get the most out of the data towards achieving the objectives of this research. At the semantic level, which is also referred to as the explicit level, themes were identified based on what could be said and understood about the codes at the surface level (one-dimensional). At the latent level, which is also known as the interpretive level, the themes were identified based on the underlying ideas, philosophies, assumptions, and conceptualisations that had informed the semantic content of the data (Braun & Clarke, 2006).

The process of identifying the themes entailed both interpretive efforts (Braun & Clarke, 2006) and deductive theory-driven approaches. There were three levels of themes; level one was the overarching themes, level two was the sub-themes and level three was the code group theme. Five overarching themes were identified based on the research sub-questions and purpose of this study. This was done to organise the themes and codes and guide the reporting of the findings. The overarching themes were (i) description of e-II, (ii) services provided and community development, (iii) communication and engagement, (iv) new insights, and (v) recommendations. Sub-themes were then identified based on the theoretical underpinnings of each overarching theme. For example, for the overarching theme — *services provided and community development* — the sub-themes were informed by community development and ICT4D theories and included (i) economic development and empowerment, (ii) participation, (iii) social capital, (iv) services provided, and (v) challenges.

After assessing each code (step 4), the codes were then grouped based on their characteristics and each group was assigned an identifying theme. The theme was the result of the surface meaning of the grouped codes and overarching concepts that encompassed the sense and meanings associated with the codes. For example, codes such as *training*, *playing games to build skills* and *accredited training* were grouped together under the code group theme: *capacity-building*. Each code group

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theme was then assigned to a sub-theme. Concept maps, guided by the principles of 'mind mapping', were used to graphically map the codes to code group themes, the group themes to sub-themes, and the sub-themes to the overarching themes (Braun & Clarke, 2006). The maps also highlighted the patterns across the group themes and sub-themes. The CAQDAS tool was used to develop the maps by manoeuvring and organising the data extracts (quotations), codes, code group themes, sub-themes and overarching themes. Figure 6 presents an example of one of the maps, highlighting the overarching theme, sub-theme, code group theme and codes.
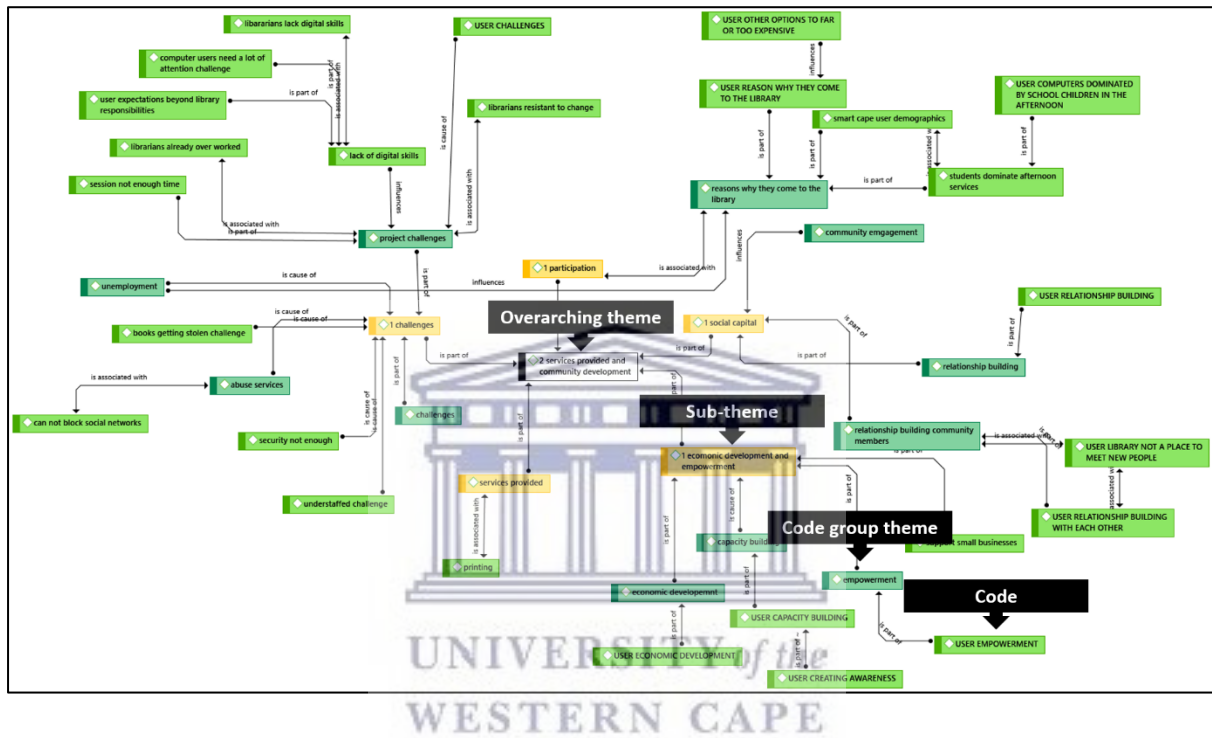
Figure 6: Identifying themes

Step 6: writing the report

The purpose of the reports was to tell the complicated story of the data in a way that would convince readers of the merit and validity of the analysis (Braun & Clarke, 2006). The concept maps, as well as memos developed throughout the process, were used to systematically and thoroughly describe the code group themes, sub-themes and overarching themes and their relationship with the research sub-questions (Dierckx de Casterlé et al., 2012). Significant data extracts were inserted to highlight this relationship. An alias was used for each respondent in respect of their anonymity, which was a condition of their participation. Each of the six case studies has an individual report, which is presented in Chapter 6.

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(v)   Cross-case analysis

After analysing the data and reporting the findings of each case study, the researcher went back to the data to conduct the cross-case analysis. This is necessary in multiple case study research (Yin, 2009). Another project was created in CAQDAS that combined the transcripts from all the six case studies, including their reports. The analysis involved repeating only data analysis steps 3 (generating initial codes) to 6 (writing the report). The focus was on identifying similarities, differences and patterns across the different case studies. This led to fresh insights into the e-IIs and new information related to the topic area. The discussion of the findings based on the cross-case analysis is presented in Chapter 7.

4.6   Reliability and validity

Reliability and validity are major considerations in research that relate to issues of data quality, data collection and the analysis methods used (Babbie, 2014). In addition, they touch on the credibility, truthfulness and believability of the findings and conclusions (Babbie, 2014). Reliability is associated with the consistency of the process that was followed and the methods used, and whether the same results can be achieved if the same process is repeated by other researchers (Sarantakos, 2013). The aim of reliability is to reduce any inherent biases and errors that can influence a study (Yin, 2009).

In qualitative research, achieving ultimate reliability in the traditional sense is not always possible (Rossman & Rallis, 2012). This is partly due to the nature of qualitative research, which focuses on people, their behaviour and their unique contexts, and these elements are not always constant. Moreover, qualitative research produces a variety of perspectives that lead to different interpretations. This is due to the fluidity of the contexts, as they reflect diversity in the social settings being investigated. Some qualitative researchers avoid using the concept of 'reliability' altogether, and instead use concepts like credibility (Creswell, 2013; Sarantakos, 2013). Qualitative research focuses on gathering trustworthy understandings of people's experiences of phenomena, rather than the reliability of replicable data (Silverman, 2006). Emphasis is on the dependability of the research process (how it was conducted) (Rossman & Rallis, 2012) and the transferability of the findings (Holloway, 1997).

To address the issues of reliability and validity, which are interpreted as the credibility, authenticity, and transferability of the findings, a detailed description of the research design process, research participants, and research settings is provided. This includes thorough and complete descriptions of how the data were collected and analysed (Babbie, 2014; Rossman & Rallis, 2012; Sarantakos, 2013;

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Yin, 2009). In addition, analytical discussions that present a truthful picture of the research findings based on evidence collected from the participants are presented in the reports of the QSA, case studies, and cross-analysis (Chapters 5, 6 and 7).

Furthermore, different instruments (interviews, focus group discussions, non-participant observations, and document reviews) were used to collect data that were a true representation of the phenomena being studied. This form of triangulation strongly promotes the validity of the findings and authenticates qualitative case study research (Patton, 2002). The data were also triangulated through multiple sources of evidence in each case study. Evidence collected from multiple sources helped to identify and illustrate the realities of the research participants based on different perspectives and first-hand experiences (Stake, 2005). This added to the depth of the data and also demonstrated this study's credibility (Merriam, 1988). Consequently, the concepts of validity and reliability have been reinterpreted to strive for rigour by using data source and data collection triangulation (Silverman, 2006).

4.7   Ethical considerations

In research work, the word ethics relates to a researcher's moral principles (Rossman & Rallis, 2012). Ethics guide the manner in which a study should be done to respect, protect, and uphold the rights of each research participant (Payne & Payne, 2004). This study was conducted in a professional manner that adhered to specified ethical considerations throughout the research process (Maxwell, 2009). This entailed receiving ethical clearance from the University of the Western Cape's Senate Research Committee (Appendix 11) before approaching any participants or collecting data.

Permission was also sought from the different e-IIs that participated in this study and the organisations that manage them. The data collection only started once permission was granted. Moreover, only willing participants were included. The purpose of this study was explained to each respondent, including how their data would be treated. Regarding the in-depth case studies, the researcher also explained that the responses would be kept anonymous and an alias would be used when reporting the findings. To ensure that the user respondents could trust the intentions of the researcher, no personal identifying details, such as names, addresses or place of employment, were requested at any point during the data collection process. The respondents were then presented with an opportunity to ask any related questions and a consent form to sign (Appendix 5).

4.8   Challenges encountered during data collection

The challenges faced during the data collection processes included stringent and lengthy research approval processes, unwilling participants, intimidated respondents, respondents' refusal to be recorded, and language barriers. Some of the case study organisations are government agencies with stringent procedures that had to be followed before they approved being part of this study. For one organisation, the process took several months before permission was granted to include their e-IIs in an in-depth case study, and this delayed other aspects of this study.

Furthermore, in the case studies where the e-II staff did not help to secure user respondents, the researcher faced challenges in finding willing users to be part of this research. For case study 4, for instance, the community is very reserved, and the researcher was an outsider, which made most of the users unwilling to participate when approached.

The presence of the e-II staff during the first focus group discussion intimidated the users. Although the staff wanted to hear what the users were saying, some of the users did not speak freely or respond to certain questions. After this experience, the researcher resolved not to have e-II staff present during future focus group discussions with the users. Another challenge for the researcher was that some expert and user respondents declined to be recorded, and therefore extensive notes had to be taken, and it was not always possible to capture all the important and relevant details.

Some of the user respondents were not very fluent in English, and this created a language barrier. During the focus group discussions, some of the respondents would help by explaining the questions and ICT jargon to other respondents in languages they understood, which were often either Afrikaans or IsiXhosa. The respondents also asked each other the English words to explain their answers. Having some respondents who could speak English as well as Afrikaans or IsiXhosa was unplanned, but beneficial for the researcher, who is not fluent in either Afrikaans or IsiXhosa.

4.9   Summary of the chapter

This study was qualitative in nature and used a multiple case study method to explore e-IIs operating in the WCP. The interpretive paradigm was appropriate to understand the realities of the participants, including their experiences and perceptions, which helped to draw a picture of how e-IIs support community development and communicate for development. The data collection and data analysis took place in two stages. The initial stage was a QSA of fifty e-IIs, which helped the researcher to understand the landscape of e-IIs in the WCP. The second stage entailed an in-depth investigation of

six selected case studies. The data collection methods that were used included interviews, focus group discussions, non-participant observations, documents and social media account reviews. Ethical considerations were applied throughout the research process to ensure that the rights of all the participants and organisations were respected and upheld.

Chapter 5

Quick-scan analysis report

5.1   Introduction

A quick-scan analysis (QSA) was used to explore fifty e-IIs operating in the Western Cape Province (WCP) in order to gain a better understanding of the e-inclusion landscape, particularly the different types of e-IIs and the services they provide. The QSA provided an overview of how different e-IIs support community development using ICTs, and how they communicate for development, especially how they use social media. The report of the QSA findings is grouped into five themes: (i) categorising e-IIs in the Western Cape Province, (ii) services provided by e-inclusion intermediaries, (iii) communication media used by e-inclusion intermediaries, (iv) e-inclusion intermediaries and social media, and (v) challenges faced by e-inclusion intermediaries.

5.2   Categorising the e-inclusion intermediaries in the Western Cape Province

Three overarching types of e-IIs are identified in the literature, namely telecentres, public libraries, and Internet cafés (see section 2.4.5). However, this typology was not adequate to categorise the different types of e-IIs now operating in the WCP. There are other organisations, like training institutions and innovation hubs, that facilitate community members' e-inclusion while not necessarily operating solely like telecentres, public libraries, or Internet cafés. It was therefore necessary to add three other categories to the typology of e-IIs used for this study: innovation hubs, Multi-purpose community centres (MPCCs), and training institutions. These categories were based on the services that the e-IIs provide and their operational models.

Despite the addition of these types of e-IIs to the typology, which brought the total to six categories, eight of the fifty participating e-IIs stated that they did not fit into any of the provided categories. These e-IIs considered themselves a combination of different types (categories) of e-IIs, for example an e-centre and a training hub, or an innovation hub, training centre, and e-centre. Therefore, identifying the e-II as one particular type of e-II would misrepresent the scale of their services. As a result, these eight e-IIs were categorised as 'other', which refers to a 'combination of categories'. Chart 1 shows the typology of e-IIs that was used for the QSA and the number of e-IIs of each type.

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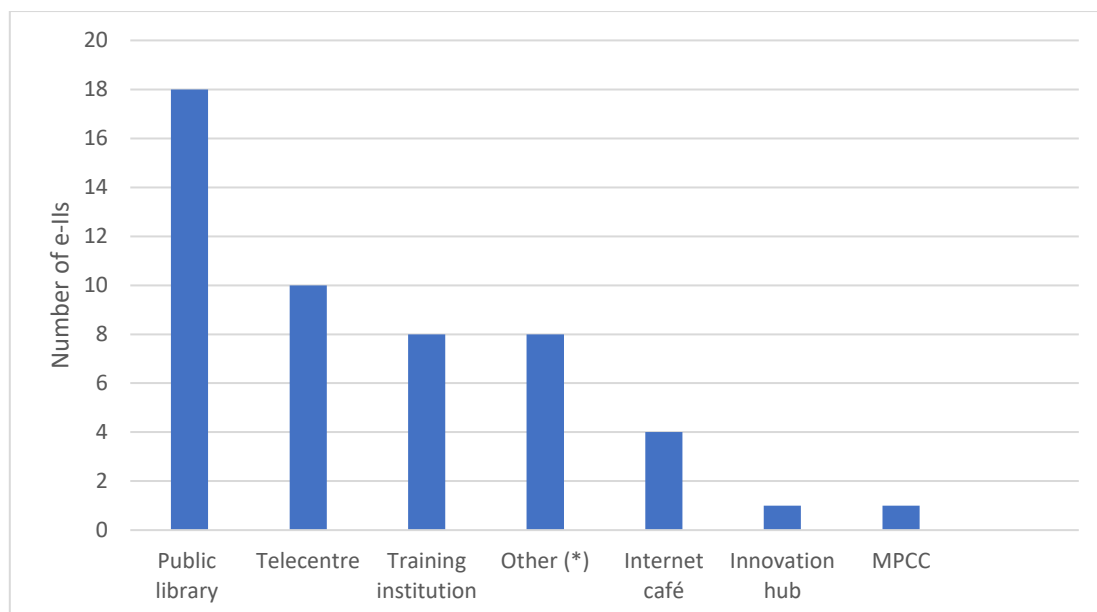
Chart 1: Types of e-inclusion intermediaries

(*) represents e-IIs that are a 'combination of categories'

The e-IIs in the QSA were located in urban areas (nine), peri-urban areas (twenty-six), and rural areas (fifteen), with their intended beneficiaries mostly located in rural and peri-urban areas. Of the e-IIs located in rural areas, thirteen operated in the public sector as government initiatives, and two were operating in the third sector as civil society initiatives. Of the e-IIs in the peri-urban areas, seven were operating in the third sector and fourteen were in the public sector mostly as public libraries and telecentres. In addition, in the peri-urban areas there were five e-IIs that were in the private sector and operating as Internet cafés and training institutions. Of the nine e-IIs in the urban areas, four e-IIs were government initiatives operating in the public sector, four e-IIs in the third sector and one e-II in the private sector.

The e-IIs operating in the public and third sectors intentionally supported community development and provided their services either for free, or at a very low subsidised cost. The e-IIs in the private sector were operating for profit and did not prioritise community development, however, one e-II in this sector ran a project that provided marginalised youth in the community with free access to ICTs. These services were provided to support the development and employability of the youth in the community.

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5.3   Services provided by e-inclusion intermediaries

All the e-IIs that participated in the QSA provided access to desktop computers and the Internet. They operated with between two and five staff members who were involved in the daily operations. Forty-four e-IIs provided additional printing, scanning, photocopying, and faxing services to cater for the growing needs of community members. The services were mostly used by small business owners, entrepreneurs, informal traders, students (primary, high school, and university) and other low-skilled, low-income and unemployed community members. The Internet was used to search and apply for jobs, business tenders and university applications, to search for information, and for communication through email, social media and discussion forums. The computers were used to type documents such as CVs, business plans and research projects, which were often printed and photocopied. The primary and high school children used the facilities to do research for their homework, play computer games, watch videos, and listen to music.

Within the under-resourced communities of the Western Cape Province (WCP), the lack of digital skills, particularly among marginalised community members, and the lack of education opportunities and information resources are a challenge (Research ICT Africa, 2015). The e-IIs attempt to address this challenge by providing information about available educational opportunities, training services and other capacity-building interventions. Twenty-three e-IIs provided basic digital skills training, such as the International Computer Driving Licence (ICDL) and in computer basics. Thirteen (of the twenty-three) e-IIs also provided advanced digital skills training (for example web design and programming), of which three provided accredited training courses in other fields, such as project and business management. This is shown in Chart 2. The e-IIs sought to enhance the capabilities and freedoms of community members through access to information, skills development, and other resources needed to use ICTs meaningfully for development.
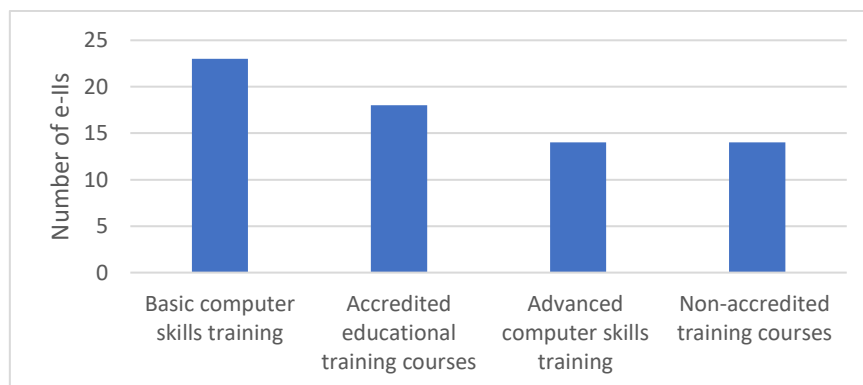
Chart 2: Training services provided

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Thirty-eight e-IIs operating in the public and third sectors played the role of information hubs that provided community members with access to online information resources and general information about government services, health care, job opportunities and business tenders. Having the information in one place at the e-II benefited community members. They did not need to travel long distances to different places to get the information, a distance that many who are marginalised have to walk due to a lack of money to pay for public transport.

The e-IIs were aware that the challenge of unemployment was prevalent in their communities and, as a result, community members struggled to uplift themselves from their conditions of poverty. To help create opportunities for business growth, job creation and income generation, nineteen e-IIs facilitated formal and informal small business development by providing access to digital skills and business training, workshops, business-related information, and mentorship. Eleven (of the nineteen) e-IIs also focused on encouraging and facilitating entrepreneurship and self-employment for community members to generate income for their own development. The e-IIs had designed and designated spaces in their venues that were used specifically for business-related activities, such as networking, meetings, and mentorship.

Community members' understanding, support and participation are necessary for e-IIs to make an impact on development in the communities (Leavy & Howard, 2013; Rahnema, 2010; Talbot & Verrinder, 2010). To achieve this, forty-one e-IIs prioritised engagement and relationship building with community members, which enabled the e-IIs to be transparent about their mission and objectives in the community, as well as share information that created awareness. The e-IIs also provided opportunities such as networking sessions and community meetings for community members to engage with each other. The e-IIs sought to help community members forge and maintain networks that could be useful to share information and other resources.

5.4   Communication media used by e-inclusion intermediaries

The lack of awareness of the benefits of ICTs and understanding of their usefulness act as barriers to the use and adoption of these technologies by community members (Chigona et al., 2009; Mbatha, 2015; Sein, 2011). It is the role of e-IIs, along with other development actors to promote these technologies and ensure that community members, especially those who are marginalised, possess enough information about ICTs to make informed decisions about using them, particularly when it pertains to using ICTs meaningfully for development (Gigler, 2004; Gomez & Baron-Porras, 2010; Sein & Furuholt, 2009). In this respect, it is necessary for e-IIs to communicate effectively in their

communities to share information that creates awareness and generates knowledge among community members.

The e-IIs of the QSA used different communication media, namely (i) *print media*, such as local community newspapers, posters, flyers, written letters, and notices; (ii) *broadcast media*, such as radio and television; (iii) *online (Internet) media*, such as email; (iv) *social media* (discussed further in section 5.5); (v) short message services (SMSs); and (vi) word of mouth. The purpose was to achieve communication objectives that included sharing information, creating awareness, promoting the use of ICTs, and engaging with community members. Chart 3 shows the popularity of the different communication media used by the e-IIs. Although word of mouth is not necessarily a medium, it is an important and effective communication method used by e-IIs and community members to share information and create awareness in the communities.

Chart 3: Communication media used by e-inclusion intermediaries

Fifteen e-IIs were satisfied with the effectiveness of their communication strategies in creating awareness in the communities about the e-IIs and the services provided, and promoting the use of ICTs. These e-IIs believed their strategies and use of communication media were successfully achieving their communication objectives in their communities. On the other hand, four e-IIs were largely unsatisfied with their communication strategies. This was because these e-IIs were failing to promote the use of ICTs and to create awareness among community members about the e-IIs and the services provided. The lack of awareness among community members led to underutilisation of these e-IIs' services: *"Our message is not getting across to the people, the information channels we are using are not effective"* (QSA Case 17). These e-IIs were also not sure what changes were necessary to make their communication strategies more effective, specifically to reach community members in more

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remote locations. The other thirty-one e-IIs of the QSA did not comment regarding the effectiveness or otherwise of their communication strategies.

Although they used different communication media, forty-seven e-IIs relied mostly on word of mouth to spread information in their communities. Most of these e-IIs were located in rural and remote communities and operating in either the public or third sectors. The e-IIs shared information with community members that came to the e-IIs and asked them to pass it on to others. The e-IIs also worked with community leaders and CDWs whom they trusted to spread the information to community members, who were also encouraged to share it with others. In addition, the e-IIs shared the information in their networks with other development actors, including government, media houses, civil society, and other community development organisations, and asked them to pass the information on to community members.

The e-IIs faced three main challenges that affected the effectiveness of the communication media they used. The challenges were low literacy levels, social divisions, and language barriers among community members. Six e-IIs stated that low literacy levels affected their community members' ability to read and understand the information that was shared by the e-IIs using various print media. Social divisions among community members based, for instance, on race and economic status also acted as barriers to the flow of information. Community members of different social groups did not share information with each other, and the information remained within one social group.

South Africa has eleven official languages and, in the WCP, English, IsiXhosa, and Afrikaans are spoken the most. This diversity creates language barrier challenges for e-IIs. The e-IIs communicate mainly in English, which is the dominant language; however, there are community members who cannot read or speak the language, and this limits the effectiveness of media such as posters, flyers, and newspaper articles in English:

> *language barriers … English which is a challenge for people in the community, particularly the children* (QSA Case 1).

> *English is not the first language for most of the users* (QSA Case 2).

The e-IIs that had access to more financial resources to cover communication costs would print the same article, notice or poster in three of the most spoken languages to limit the exclusion of community members who could not speak English. Two e-IIs that were in a rural community in which

community members mostly spoke IsiXhosa employed additional staff that were fluent in both English and IsiXhosa. This strategy was successful in mitigating language barrier challenges.

5.5 E-inclusion intermediaries and social media

Of the fifty e-IIs that participated in the QSA, forty-one used social media. Although this study investigates how e-IIs use social media to communicate for development, the nine non-users provided some perspectives on why some e-IIs do not use social media. For instance, the reasons why these e-IIs did not use social media included the lack of perceived benefits, the lack of time to manage the accounts, and the lack of digital skills and understanding of social media among the staff. This facilitated a more holistic view of the conditions, resources, and processes necessary to communicate for development using social media.

Among the forty-one e-IIs that used social media, Facebook was the most used application, followed by Twitter, Instagram, WhatsApp, and then YouTube, as shown in Chart 4. Although WhatsApp is an instant messaging application and not necessarily a social networking application, the e-IIs considered it as part of their social media. WhatsApp was useful for the e-IIs to share information and engage with community members who had registered as users of the e-IIs' services.
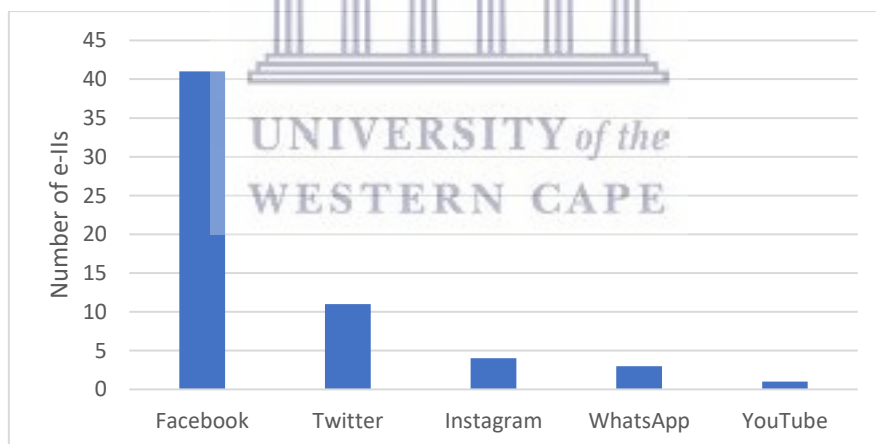
Chart 4: Social media applications used by e-inclusion intermediaries

Most of the e-IIs' social media accounts were managed by a team of staff members who shared the responsibilities. Other e-IIs that were part of umbrella organisations provided information to a third party that was responsible for managing all the social media of the organisation. These e-IIs had limited influence or control over how social media were used by the third party, the type of content that was posted and the level of engagement. The least common type of social media management among the e-IIs was having one staff member solely responsible for the social media accounts. This

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was largely due to the e-IIs not being very active on their social media accounts and therefore not seeing the need to have several people managing the accounts. Chart 5 presents a graph that shows the number of each type of e-II and how their social media accounts were managed. The e-IIs that had either a team or third party managing the social media accounts were more active than those that were managed by one person. Social media accounts managed by one person had content posted less than five times a month, while the social media accounts of the other e-IIs had content posted up to five times a day, and more constant engagement with community members.
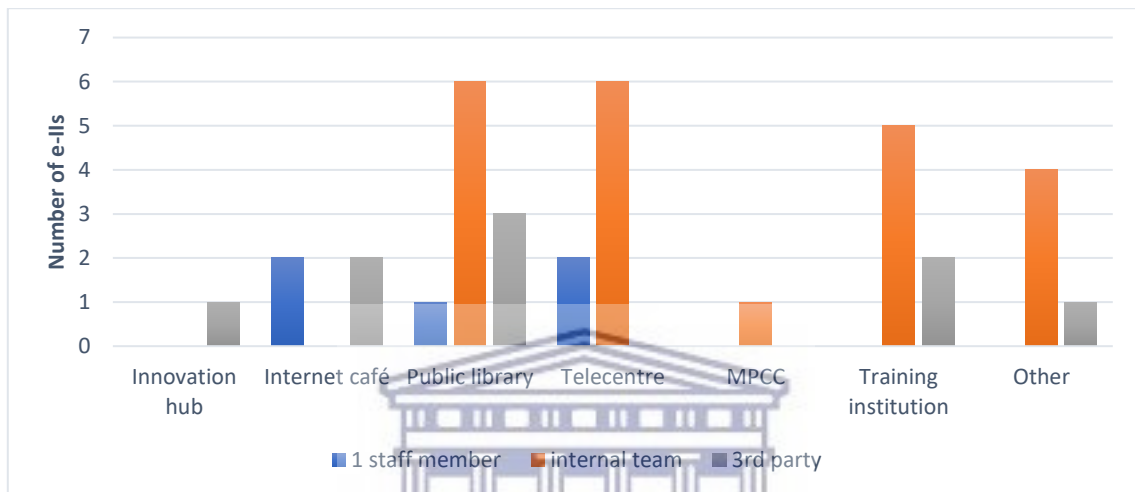
Chart 5: Types of e-inclusion intermediaries and the management of their social media

Of the forty-one e-IIs that used social media, thirty-seven were able to describe the role of social media in their overall communication strategy. The e-IIs used Facebook, in particular, to share information about their organisation, the services provided, government services, community outreach programmes, and employment opportunities. The e-IIs also encouraged community members and their other followers to engage with them through social media by sharing, liking and commenting on the content, as well as providing opinions and/or asking questions, to which the e-IIs made an effort to respond. Facebook was therefore used to facilitate two-way engagement with community members. By sharing information using social media, the e-IIs were able to improve their ability to create awareness and promote the use of ICTs. Some community members who saw the content posted by the e-IIs shared it with friends and family through social media, other instant messaging applications and word of mouth.

Since some of the e-IIs gave their community of followers the freedom to post on the e-IIs' social media pages, this inadvertently, exposed the e-IIs to negative comments about the services from unsatisfied or bitter community members. To avoid such situations, eight e-IIs chose to restrict

http://etd.uwc.ac.za/

community members' freedom to comment and/or post anything on the e-IIs' social media pages. These e-IIs did not use social media to engage with community members. They only shared information to create awareness among community members and promote the use of ICTs. The other thirty-three e-IIs used social media to post content and engage with community members.

The e-IIs faced different challenges in their use of social media. For instance, although social media were popular in the under-resourced communities where some of the e-IIs were located, not all community members had access to them. Three e-IIs stated that the community members that they wanted to reach to create awareness about the value of ICTs did not use social media. They did not own or have access to mobile devices, Internet connectivity, or the necessary digital skills to use these media:

> *Online mediums such as social media and email are often not useful when targeting women in rural areas. The young women members of our organisation struggle with affordability and access issues* (QSA Case 34).

Five e-IIs also found, that although their Facebook pages were effectively sharing information and facilitating engagement, this was mostly with people who were not part of the e-IIs' intended target audience in the community. While the information did eventually trickle down to some of their target audience through people sharing the content on Facebook and by word of mouth, it took much longer than if the target audience had direct access to the e-IIs' social media accounts. These e-IIs were motivated by the 'buzz' around social media. They focused first on the technology (social media) before determining the suitability of social media to reach their target audience. According to one e-II, their "*… target market that is disadvantaged does not have access to information on the Internet"* (QSA Case 1), yet this e-II still used social media although they knew their target audience could not access it.

Three e-IIs also started using social media before considering the resources that they had available and the environments in which the e-IIs where located. These e-IIs faced Internet connectivity challenges due to unreliable Internet service providers and constant electricity supply cuts. Due to the e-IIs' remote locations, the staff also did not have convenient access to free Wi-Fi hotspots, and mobile data costs were too expensive for them. This affected their ability to use social media actively and often led to disappointment among the staff regarding the poor performance of the e-IIs' accounts. The e-IIs' limited activity resulted in few information posts, which were not updated often, and only a small community of followers, with limited engagement:

The number of followers on the social networks is very small, so the information is not reaching enough people. The engagement on our social network sites is not as we expect, it is less than we expect (QSA Case 22).

We sometimes post important things on our social media, but the responses from the people, community members are limited (QSA Case 25).

Two e-IIs had Facebook pages, but the staff were not entirely sure how to use them to achieve their communication objectives, which included creating awareness about the e-II and the services provided, and promoting the use of ICTs. The staff managing the pages were not adequately skilled or knowledgeable about social media. Three other e-IIs found that managing their Facebook page, and keeping it active, attractive and engaging, was a challenge. The page needed to be updated daily and the staff needed to be ready to engage with anyone through the page. This process was quite demanding and not always possible due to time constraints and Internet connectivity issues.

One respondent stated that developing a strategic plan to use social media was helpful to use social media effectively to identify and address the information and communication needs of community members. While developing the plan was not an easy task due to the amount of research and effort required, the plan was necessary to determine how to integrate social media into the overall communication strategy of the e-II. Furthermore, the e-IIs whose staff were adequately skilled and knowledgeable about social media were more capable of using social media to achieve their communication objectives. This entailed using different features, like interactive campaigns and other engaging options.

5.6   Challenges faced by e-inclusion intermediaries

The QSA also enabled an investigation of the challenges that affect e-IIs' ability to provide adequate and quality services. Sixteen (of the fifty) e-IIs claimed that they did not face any challenges and therefore operated as expected. Despite this claim, it is assumed that they did indeed face some challenges. It is possible that the e-IIs were content with how they operated and did not recognise any specific challenges, or they did not want to admit having challenges. The e-IIs were largely underfunded, understaffed and under-resourced, and therefore could not adequately cater for the demands and needs of community members. They had limited resources and lacked the facilities to cater for the disabled community in particular. The e-II staff also lacked adequate skills and resources to provide digital skills training to community members. The e-IIs struggled with constant equipment breakdowns, unstable electricity supply and poor network coverage, as well as the abuse of services

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by community members who used the services. There was also limited awareness among some community members about ICTs, including an understanding of the benefits of these technologies.

Two e-IIs that were operating in the private sector stated that they were adequately funded. They considered their organisations to be well-resourced and operating optimally. On the other hand, e-IIs operating in the public and third sectors that depended on external funding and donations admitted that sourcing funding was a challenge. Six e-IIs stated that their lack of funds to hire adequate staff left them understaffed, making the ratio of staff members to users overwhelming: *"Too few staff members to cater to users' needs and too few staff member to teach computer skills …"* (QSA Case 11). Four of these e-IIs were public libraries where the librarians were already overworked, and introducing ICT services at the libraries only further increased their workload: "*The number of staff members is not enough to cater to the needs of all the users"* (QSA Case 13).

The e-IIs lacked the funds to improve or renovate their physical space, for instance by getting a bigger venue, expanding the building, or painting and fixing the floors, windows, and doors. Being underfunded also hindered e-IIs from purchasing and upgrading their equipment. They operated with old and very slow computers that often broke down and took time to fix, since the old parts were difficult to find. Thirteen e-IIs operating in the public and third sectors lacked adequate ICT facilities to cater for the demands of the community: *"There aren't enough computers to cater for the demand, especially to cater for all the school children"* (QSA Case 19). Another respondent stated that they did not have *"… enough computers to cater to the demand, not enough resources"* (QSA Case 4).

One e-II located in a rural area was the only option for community members and other people, mostly school children from other communities to access ICTs. This e-II struggled to cater for the demand because they had too few computers. Like other e-IIs, they had resorted to reserving the afternoon sessions for the students to ensure that as many students as possible got a chance to use the computers for their schoolwork: *"We try to set times, for example in the morning till 1:00 pm is for the adults and then after 2:00 pm when schools close the young adults come and use the facilities"* (QSA Case 35).

Five e-IIs did not have adequate facilities to cater for disabled community members, particularly those with physical and visual impairments. Some of the e-IIs had the computers located in places that were not accessible by wheelchair. One e-II had installed software to assist visually impaired users and, while it was quite useful, it was only available on a few computers. The e-IIs admitted that more

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needed to be done to incorporate the needs of the disabled community when developing e-inclusion initiatives:

> *There is only one computer dedicated for people with disabilities, and it is downstairs. Since the centre staff work upstairs they are required to move downstairs to help anyone that needs to use the computer downstairs* (QSA Case 2).

> *There are no computer facilities to cater to disabled people* (QSA Case 13).

> *Have no computer facilities for blind or disabled children* (QSA Case 21).

Five e-IIs stated that the lack of adequate knowledge and skills about how to use computers and the Internet among their staff was a challenge. This limited their own capacity to use the ICTs and their ability to help or train community members on how to use the technology: "*It is difficult to get computer trained staff in the townships who can also provide training to the users*" (QSA Case 7), while another respondent stated, *"there is a lack of staff members who can teach computer skills to the community members* (QSA Case 25). Three public libraries did not have adequately skilled librarians to provide ICT skills-related training, despite the grave need for digital skills training among their community members: *"There is a need for training of the community members, but we do not have the facilities*" (QSA Case 13).
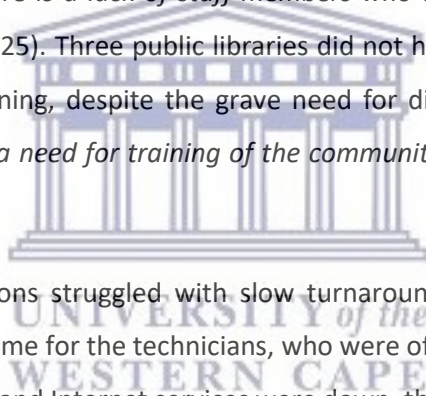
E-IIs in rural and remote locations struggled with slow turnaround times for repairs when their computers broke down. It took time for the technicians, who were often based in other towns, to get to the e-IIs. When the computer and Internet services were down, the community members suffered because many did not have alternative options to access the Internet. Some community members became frustrated and abusive towards the e-II staff. Moreover, due to their remote location, some e-IIs struggled with unreliable and slow Internet connectivity. They relied on the services of Internet service providers (ISP) who were often located in faraway towns and could not guarantee uninterrupted service due to the remoteness of the communities and the lack of adequate infrastructure to facilitate connectivity: "*The computers regularly malfunction, and the Internet goes on and off making it unreliable*" (QSA Case 27).

Five e-IIs complained that community members sometimes abused the services by watching and downloading pornography and inappropriate material related to gang violence: "*Users take advantage of the centre, they abuse the centre and use the Internet to access restricted sites such as pornography*" (QSA Case 24)*.* These e-IIs were in the process of investing in software to block access

to restricted sites and sites that require a lot of bandwidth. Informing the community members about the rules regarding the use of the computers and the Internet, and the e-II staff monitoring the users, did not help to mitigate the abuse of the services. The users did not listen to or obey the rules, and took advantage of the lack of adequate staff to monitor them, particularly during high peak times.

Four e-IIs expressed growing concern about the general lack of digital skills and understanding of the benefits of ICT among their community members. Although these e-IIs provided basic and advanced digital skills training, the training was not enough to cater for the growing training needs of the community members. Furthermore, the training content of some of the courses provided to the e-IIs by the government and other donor organisations was often not in line with the skills needs of community members. As a result, community members could not relate to the content and ignored or abandoned the training.

5.7   Summary of the chapter

The findings of the QSA provided a more informed overview of the e-II landscape in the WCP. The typology of public libraries, telecentres, and Internet cafés is limiting and does not capture the diverse range of e-IIs operating in the WCP. There are e-IIs that provide a range of other services beyond e-inclusion to support development in communities. These changes are largely the result of the growing needs of community members. Although the e-IIs attempt to cater for these needs, those operating in the public and third sector especially are often under-resourced, underfunded and understaffed. As a result, they struggle to provide quality services and to adequately cater for the demands of community members.

Communication is an important part of how e-IIs operate. It helps the e-IIs to share information, create awareness, promote the use of ICTs and engage with community members, as well as other development actors. Communication is also necessary for the e-IIs to build relationships and forge and maintain their networks. The e-IIs generally do not want to admit that their communication strategies are ineffective, despite their failure to achieve their communication objectives. The few e-IIs that do admit to this, also do not know how to communicate more effectively to achieve their communication objectives in their communities. Effective communication requires e-IIs to develop strategies, use appropriate media and know the information and communication needs of the community members (their intended audience). E-IIs also need to understand the environments, resources, and limitations of community members, for instance, access to ICTs away from the e-IIs, literacy, language, and the accessibility and availability of different media.

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The effectiveness of social media to help achieve the e-IIs' communication objectives depends on the appropriateness of social media for the target audience. Often, e-IIs use social media to keep up with the latest trends or because they are popular in the community, yet their target audience does not use social media or generally lacks the required digital skills and devices to access these media. Social media need to be appropriate for the e-IIs' target audiences. Moreover, social media are more effective for e-IIs that have a structured social media plan and staff who are adequately skilled and knowledgeable about social media, and who also work in teams to share the responsibilities.

Chapter 6

Case study reports

6.1   Introduction

This chapter extends the findings of the Quick-scan analysis (QSA) which are reported in Chapter 5, with the findings of six comprehensive case studies. An interpretive discussion of the case studies is presented using descriptive narratives. Each case study has an individual report that includes a description of the participating e-IIs and respondents. An alias is used for each respondent and the cases are referred to by case study number and e-II type. The findings are grouped into two main themes, formulated on the basis of this study's main research question. These are Theme 1: E-inclusion intermediaries' services and community development, and Theme 2: Communication and engagement with community members.

Theme 1 is further broken down into four sub-themes: (i) economic development and empowerment, which reports on how e-IIs' services help to create opportunities and support community members' capabilities to improve their economic well-being and quality of life; (ii) participation, which reports on community members' involvement in decision-making regarding what and how the e-IIs' services are provided and their use of the e-IIs' services to facilitate developmental efforts towards, for instance, employment, small business development, social inclusion and entertainment gratification; (iii) social capital, which reports on how e-IIs support the building of social networks and relationships in the community; and (iv) the challenges faced by e-IIs. These sub-themes are based on the concepts of community development (see section 3.5.2), which are summarised in Table 12.

The concept of community organising is addressed in the sub-themes of empowerment, economic development, participation and social capital. Consequently, e-IIs' support of community organising includes building community members' capability through gained empowerment, economic development and useful social networks for community-initiated participatory approaches to development.

Table 12: Community development concepts and their key components

Concept	Key components	Source
Empowerment	Enhanced skills and access to information and other resources. Increased freedoms, control and opportunities. Increased self-capability and confidence to improve well-being and quality of life.	Cadiz (2005) Gigler (2011) Phillips and Pittman (2015)
Economic development	Increased and improved employment and income-generating opportunities. Business growth, entrepreneurship and cohesive action for economic growth in the community.	Kwan and Drolet (2015) Phillips and Pittman (2015)
Participation	Engagement with development actors. Inclusion in developmental interventions. Contribution to decision-making. Participation in one's own development.	Howard and Wheeler (2015) Phillips and Pittman (2015) Swanepoel and De Beer (2011)
Social capital	The degree of enabling environments, social networks and connections among community members that facilitate economic, political, labour or community-based returns through mobilising, resources, collective action and engagement.	Granovetter (1973) Lin (2001) Phillips and Pittman (2015) Putnam (2000)

Theme 2 also has four sub-themes. The first sub-theme, communicating for development with community members, reports on the strategies and media used by the e-IIs to achieve their communication objectives that relate to community development. The second sub-theme reports on how e-inclusion intermediaries communicate for development using social media, and the third sub-theme reports on why e-inclusion intermediaries use social media to communicate for development. The last sub-theme reports on the challenges faced by e-IIs in their use of social media to communicate for development. While WhatsApp is primarily an instant messaging application and not necessarily a social networking application, it is included in the discussions because the e-IIs consider WhatsApp as part of their social media.

6.2   Case study 1 (CS1): E-centre

The e-centres are part of a government ICT initiative that began in 2004. The initiative entails setting up e-centres across the province to provide people with free public access to ICTs, namely computers and the Inernet. The e-centres are located predominantly in under-resourced communities with limited opportunities and resources for people to improve their quality of life. Five e-centres were included in this case study. Two were in Thembalethu, a township located in George, which is about 440 kilometres from Cape Town. Two e-centres were in Mossel Bay, which is about 390 kilometres from Cape Town, and one was located in Great Brak, a coastal village between George and Mossel Bay. The locations of the e-centres and the number of computers in each e-centre are presented in Table 13.

Table 13: CS1 E-centres

E-centre name	Location	Computers available
e-centre 1	Thembalethu	10
e-centre 2	Thembalethu	13
e-centre 3	Great Brak	18
e-centre 4	Mossel Bay	11
e-centre 5	Mossel Bay	21

6.2.1   Background of respondents

Face-to-face interviews were conducted with thirteen expert respondents. The respondents included three management staff (MS) from the head office of the initiative, five e-centre managers (CM), four development managers (DM) and one intern (I). Their duties and responsibilities are summarised in Table 14.

Table 14: Matrix of CS1 expert respondents' roles and responsibilities

Responsibilities	Roles			
	MS	CM	DM	I
Addressing staff queries	X	X		
Addressing community members complaints about the e-centres and/or staff	X	X		
Arranging trainee graduations		X	X	
Arranging quarterly meetings with community members		X	X	
Assisting e-centre manager			X	X
Assisting e-centre users		X	X	X
E-centre branding with government and initiative insignia	X			
E-centre project administration (e.g. human resources, equipment maintenance)		X	X	X
Ensuring website information about the e-centre is up to date		X	X	
Establishing e-centres	X			
Identifying communication mediums to engage with the community		X	X	
Managing the e-centre and staff		X		
Managing e-centre's Facebook page		X	X	X
Marketing e-centres across the WCP	X	X		
Marketing e-centres in the community		X	X	X
Planning and attending e-centre launches	X			
Reporting to government	X	X		
Stakeholder meetings (for example with municipalities)	X	X		
Structuring e-centre budget	X	X		
Submitting weekly and monthly reports to government	X	X		
Training of community members (e.g. ICDL and e-Learner)			X	

In addition, face-to-face interviews and focus group discussions were conducted with users from the e-centres where the experts were based. A summary of the user respondents and the data collection methods used is presented in Table 15. The researcher also observed how the e-centres operate and

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the engagement between the staff and community members, as well as among the community members themselves.

Table 15: User respondents and data collection methods

Data collection method	Name of e-centre	Number of interviews or focus group discussions	Number of participants	Gender of participants	Age range of participants	Occupation
Focus group discussion	e-centre 2 e-centre 4	2	Group 1 = 6 Group 2 = 10	Group 1 = 1 male and 5 female Group 2 = 8 male and 2 female	Group 1 = 18 – 50 Group 2 = 25 – 40	Small business owners, unemployed university graduates, university students, employed and unemployed adults
Face-to-face interview	e-centre 1 e-centre 3	3	3	2 male and 1 female	23 – 35	Small business owners and an employed adult

6.2.2   Theme 1: E-centre services and community development

6.2.2.1 Economic development and empowerment

To help community members enhance their capabilities to act towards achieving economic development, the e-centres provide access to ICTs, information and digital skills training resources. The e-centres' staff help community members to search and apply for jobs, as well as prepare for interviews. The people who are hired to work in the e-centres are from the communities in which the e-centres are established, and in this way the establishment of e-centres creates employment opportunities. The e-centres also provide support to entrepreneurs, informal traders, and small businesses in the community and encourage community members to work together to overcome community challenges.

Through the e-centres, community members have limited but free access to computers, the Internet and printing facilities. Community members type and print documents, such as job applications, motivation letters and business-related documents (for example invoices and business plans). All the e-centres' computers have a standard CV template installed. This is especially useful for community members who do not know how to structure a CV: "*All these PCs, they have the CV templates so that you won't start your CV from scratch*" (Adele H., user respondent). Thandi J. (user respondent) stated:

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"… the centre has helped me to make a CV to find a job, and to apply online on some of the stuff there". An expert respondent gave an example of a community member who was employed after the e-centre staff helped him to prepare a CV and apply for internship opportunities at the local municipal offices. Another expert respondent stated: *"yesterday, I was assisting an unemployed teaching graduate"* (Juan V., expert respondent) who had come to the e-centre seeking assistance with applying for jobs online.

To build community members' capacity to use ICTs meaningfully, the five e-centres provide free basic certified digital skills training for the International Computer Driving Licence (ICDL) and the Electronic Learner (e-Learner). The e-centres facilitate the empowerment of community members by equipping them with knowledge, digital skills and access to ICTs to make informed decisions and participate in activities that could potentially improve their quality of life: "*People will feel more confident about life ... If I never used to work on a PC and now suddenly, I can work on a PC, I feel wow, I can tackle the world … that is empowerment, yes*" (James B., expert respondent).

The user respondents stated that gaining digital skills and access to ICTs made them feel more capable to help themselves. They also appreciated that the e-centres did not discriminate against the age and level of skills of community members who had no prior skills or qualifications. Having access to ICTs also enables the e-centre staff themselves to improve their digital skills, incorporate ICTs into their daily lives and assist community members more effectively.

In addition, the e-centres provide useful information to community members about employment and other income-generating opportunities, government services and events in the community. The staff of the e-centres search for and collate this information from different sources (the Internet, newspapers, community noticeboards, and word of mouth) for the benefit of community members. Some of this information is visible on noticeboards in the e-centres: *"They currently also have that information here. And then, people do not have to go to the police station. If they are living close by, they can come into the centre and take the information"* (Dave B., user respondent). The e-centre staff also help community members prepare for job interviews by teaching them how to present themselves, communicate with the prospective employers and dress appropriately.

The establishment of the e-centres themselves created employment opportunities because the e-centres employ people from the communities to work as permanent and contract staff or interns. After a one-year attachment, some interns are offered permanent employment positions at the e-centres they are working: "*In some centres … there's some paid interns who has got the centre*

manager job, or development manager job" (James B., expert respondent). The user respondents acknowledged that the government was intentionally creating employment opportunities in their communities through the e-centres: *"As you can see,* [Nancy K.] *is an intern here, of which that's something big. As you can see, also* [Janet C.] *She was an intern here, now she's also promoted …"* to development manager (Dave B., user respondent).

The e-centres also support entrepreneurs, small businesses and informal traders in their communities. They provide digital skills training and access to ICTs, which are used to perform business tasks, such as searching for information, checking emails, Internet banking, searching and applying for tenders and other business opportunities. Other tasks include typing and printing flyers, invoices, business plans, and quotations. The e-centres also allow the business owners and traders to place adverts on the noticeboards and distribute flyers to other users in the e-centre. The e-centre staff had helped two user respondents to register their businesses. Dave B. (user respondent) stated: *"I just started with registering my company"* when asked about business support received from the e-centre.

E-centre 3 and e-centre 5 have designated business corners where small business owners hold meetings, network and mentor each other. Daisy B. (expert respondent) highlighted the benefits of the business corner: *"I have had there, a couple of guys who come here, business guys they know each other, and they sit in the business corner and they share ideas and resources and they outsource work to each other"*.

The e-centre staff encourage community members to continuously share information, knowledge, and skills that could be useful for mutual development. For instance, in Thembalethu, some female informal traders taught each other how to use social media to market their businesses, create email accounts and communicate with customers using their mobile devices. In this way, the community came together to empower one another and support the economic growth as well as the success of each other's businesses.

6.2.2.2 Participation

The e-centres play five key roles, namely as digital shops, entertainment, training, business support centres, and information hubs. User respondents described the e-centres as 'one-stop digital shops' where they could access computers, the Internet, printers and photocopiers. Community members generally use the Internet to search for information, check their emails, manage their social media accounts, and search and apply for employment. Primary and high school learners depend on the

facilities to type their assignments and to do research for school projects. The e-centres are the only option for many in the different communities to access computers and the Internet.

In Thembalethu, there are community members who do not have mobile devices that can connect to the Internet, along with others who cannot afford to purchase mobile data. Although there is free limited access to Wi-Fi hot spots in selected places in the communities, some community members cannot read or understand the instructions, so they rely on the e-centres to access the Internet. In Mossel Bay, the situation is similar, in that some community members cannot afford to buy smartphones, hence they rely on the e-centres to access the Internet. The user respondents from Mossel Bay could access the Internet on their phones, however, they still depended on the e-centres for other free services, such as printing and photocopying: *"We don't have computers at home"* (Lorraine R., user respondent)*.* The user respondents from the different e-centres agreed that they would be at a great disadvantage if the e-centre in their community stopped operating: "*I never toi-toi* [3]*, but I will be in the front. We want our centre back. I'm sure the students will join us"* (Annelies G., user respondent).

The e-centres are also popular places for community members to entertain themselves. They watch videos, go onto social media and play computer games. The games are mostly played by young learners. The expert respondents claimed that playing the games helps these learners to increase their ICT awareness and build other digital skills:

> *They play a lot of games on it in the afternoon and we allow that because that teaches a different skill to the children, how to use a computer, how to get used to computer, when they're bigger, it's much easier, they're familiar with it and that also bridges the gap in terms of the skill, ICT awareness* (John C., expert respondent)*.*

In addition, the e-centres are information hubs. The staff "*gather information from local municipality, all the municipalities, local police station"* (Dave B., user respondent) and share it with community members. This helps community members to save time and money they would have spent on travelling. Students who have completed their Matric (high school education) also visit the e-centres to get information on scholarships and funding opportunities, as well as to apply to universities and other institutions to further their education.

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[3] In the South African context, toi-toi is a term used to refer to a form of protest were a group of people gather to chant, dance and/or sing to express strong feelings of unhappiness about something.

The model for the e-centres is standard to ensure equality in response to the government's mandate to facilitate citizens' connectivity to achieve the national objective of an information society by 2030. Therefore, decisions about the ICT infrastructure, software, services, and training courses provided are made by top-level management staff who are based at the e-centres' head office in collaboration with other stakeholders, namely government, education, and local and international development organisations. Community members do not actively contribute towards any decision-making processes about the type of infrastructure, services or training provided by the e-centres.

Community members are, however, invited to participate in other aspects, such as security issues, e-centre staff conduct, and the e-centre environment, and to make suggestions on how the e-centres could improve how they deliver the existing services. For instance, community members from one e-centre negotiated with the e-centres' head office through their e-centre manager to provide security at their e-centre after several robberies had occurred. More security measures were put in place and patrolling guards were introduced at the e-centre to improve the safety of community members and the equipment at the e-centre.

Different forms of communication media are available for community members to engage with their e-centre. These include face-to-face discussions, suggestion box and book comments, telephone calls, email, and social media. The most preferred media that community members use to engage with the e-centre staff are face-to-face discussions and telephone calls, because they are two-way engagement channels that enable immediate responses and private conversations. Suggestion boxes and books are the least preferred. Some community members do not believe anything they leave in the box or book is going to be taken seriously, while others are hesitant to leave complaints about staff or services using such a public platform. Bob M. (expert respondent) stated that the boxes and books *"didn't work because there were no suggestions"* placed inside. The expert respondents found that some community members used the suggestions books at different e-centres where they were not known and highlighted the e-centre to which they were referring. The e-centres shared this information with their regional manager, who then addressed it with the implicated e-centre: "*There's a complaint book next door, what people do is they will go next door and write a complaint there … So, people don't know that you are writing a complaint, and whatever complaint you are writing*" (Sam M., expert respondent).

Since community members prefer face-to-face and interpersonal engagement, which gives them the opportunity to speak to the staff directly about the services provided by the e-centre and their ICT needs, the e-centres host engagement sessions:

Yes, there are supposed to be meetings that we have … annually with the community … in trying to have those type of engagements. So, we provide a platform for them to have some ideas, and for us to report back to them about where we're going, and what are we aiming to do in the future (Allan K., expert respondent).

The sessions also give the e-centre staff an equal opportunity to discuss challenges and possible solutions, and to provide feedback to the community.

6.2.2.3 Social capital

The e-centres support relationship and network-building processes in their communities by creating enabling environments for engagement. This engagement helps to build networks and connections in the community, and the ties and bridges that link them. The engagement between community members who are not part of each other's immediate networks of close family and friends helps to form networks of weak ties. These type of ties in networks are useful to spread information, particularly about employment and business opportunities, and to share resources, as well as planned collective action for community development. A small business owner, Dave B. (user respondent) stated: *"I'm connecting with some new people who might be interested in seeing what I have"*.

The e-centres provide a space where community members meet and engage with each other about problems in the community, possible solutions, and the necessary community action. Community members get to know each other and form personal, social and business relationships. One user respondent met his now business partner during a community engagement session facilitated by the e-centre. They continue to work together, providing training services to marginalised high school learners in the community: *"So, as I'm speaking today, I'm running an organisation. He is a business coach, and we are partners. We met here. While I'm busy, I notice hey, what this guy is doing might benefit my programme. So that's one of the things that this centre is doing"* (Tafadzwa T., user respondent). Another user respondent stated:

Yes, I also have an organisation. And sometimes I get even people calling me from faraway, not even here on the centre. Maybe they are in town, they need a particular assistance. So, I have to run quickly because I don't want to lose the friendship that we developed here in the centre. So, you always have to keep that relationship, yes (Annelies G., user respondent).

Having constructive and positive relationships with community members enables the e-centres to support community development more successfully, since community members became more willing

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to support and participate in development interventions. The elements necessary to build the relationships include the e-centres' transparency about their objectives through effective engagement. This helps community members to relate to and understand the purpose and benefits of the e-centres, which makes them more trusting and supportive of the e-centres:

> *So, we are being transparent to them. They know what is happening day by day, by the information given to them. But also, we can build … because now they can see, these people, they are transparent. They don't hide any information from us, each and every time they want the information. We always give it back to them, we don't hide anything* (Allan K., expert respondent).

The e-centres emphasise communicating with community members and making sure that community members are treated with *"respect and dignity"* (Abu G., expert respondent) and in a manner that is inviting and helpful. Building relationships with community members is not an easy task for the e-centre staff, as each community member is different, and it takes time for and frequent engagement by the staff to learn the best way to treat and respond to them. The ties between some of the e-centre staff and community members become strong, to the extent that the staff are included in the networks of close family and friends of community members. Dave B. (user respondent) stated that the e-centre staff were *"more like family"*. Having a good, helpful relationship with the staff makes community members more comfortable and encourages them to visit the e-centres and use the facilities. Lorraine R. (user respondent) stated that is *"… why we come here every day"*. The user respondents gained access to useful information and the staff were more willing to give them extra time to work on the computers and 'inside' information on job opportunities.

The staff who work in the e-centres come from the same communities where the e-centres are located. They are part of existing networks in the community, which is useful in linking community members from different social groups with each other through 'bridging' weak ties, and also linking the e-centres with community members that they might not have reached yet. These links help spread information and promote the use of ICTs.

6.2.2.4 Challenges

The five e-centres face similar challenges, which include the rapid deterioration of furniture, computer equipment breaking down and unreliable Internet connectivity which leads to the loss of community members' trust. Apart from e-centre 3 and e-centre 5, the others struggle with inadequate space. The venues are small and accommodate very few computers. The challenge of short session times affects

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all the e-centres, as does community members' lack of digital skills and high expectations, which often overwhelm the staff. Other challenges are, safety, gender-based barriers, learnt helplessness among the youth, abuse of services, and community participation in decision-making.

The furniture in the e-centres needs constant and costly replacement due to rapid wear and tear. The computers also break down, often causing great inconvenience for the users. The unreliable Internet connectivity furthers the inconvenience. During a visit to one of the e-centres, the Internet was offline and community members who were unaware were walking in and fully expecting to access the Internet. After finding out the Internet was offline, they were disappointed and frustrated. The disappointment due to the broken-down computer equipment and the unreliable Internet connectivity, damages the e-centres' relationships with community members, who are losing trust in the e-centres' abilities to deliver reliable services.

Space is another challenge. For three e-centres, the venues are too small and inadequate to cater for the demand from the community. This also limits the number of computers in each e-centre: *"Because you will see, even this space is too small … and sometimes they will come, and then we have to send them to another centre, you see"* (Bob M., expert respondent). To ensure that each community member has an equal opportunity to use the available computers, all e-centres implemented a forty-five minute session limit per person per day. However, this allocated time is not enough for most community members who use the computers. Those who lack adequate digital skills spend most of the time trying to figure out how to navigate the computer and the Internet: *"The time is limited, it's only 45 minutes. So, within 45 minutes, you still are doing your personal details …"* (Catherine U., user respondent) to log on to the system.

It is "*a heavy burden … some even* [students] *in colleges, they don't know how to operate a computer"* (Sam M., expert respondent)*.* Therefore, they need a lot of assistance, which overwhelms the staff, who are not always able to help all the users that need assistance: *"A person comes, and then he wants you to help him with the CV. And then another person comes, and then while you are helping him, that one also wants you to help him and then you can't help"* (Bob M., expert respondent).

Furthermore, some community members do not understand the roles and responsibilities of the e-centre staff. They expect the staff to do everything for them: *"They assume that okay, if we go there, they will do everything for me. So, that's another challenge"* (Bob M., expert respondent). Some of the community members are not motivated to learn how to use the computers: *"… they just don't want to do anything. They expect the staff here to do everything"* (Trina S., expert respondent).

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Some of the e-centres are in areas prone to criminal activity and gang violence, which restricts their operating times: *"… opening after hours sometimes in some of the centres, it's not a challenge, it's a risk. That's what we found out"* (Sam M., expert respondent)*.* Parents are concerned about their children being mugged or abducted during their long walks to the e-centre: *"Some of the guys, you know, they stay far and the guys are scared to come to the centre or send their children to the centre, because they will get robbed and stuff"* (Abu G., expert respondent). The e-centres also have to ensure that their equipment is safe because, when computers are stolen, it takes time to replace them and the community suffers without access.

Gender-based barriers, which influence the use of ICTs by women, also exist in the different communities, especially in the Black African communities. Fewer women than men visit the e-centres to use the ICTs. Although it can be argued that some women in the communities might not have wanted or needed to use ICTs, the expert respondents observed that some women, especially mothers of young children, want to use the facilities but face challenges:

> *We have a lot of men, males than females. They don't want to come here with the kids, they are bothering other people. The males, they don't have the responsibility of their child. They just come and do whatever they want to do. So, most of the time, males, they are using our services more than females* (Abu G., expert respondent).

The mothers of young children do not go to the e-centre because they cannot afford to pay someone to look after the children and the e-centres do not have facilities, such as a playpen to cater for the children: *"These mums … we're talking about the impoverished guys. They don't have money to get babysitters. We also do not want to chase them away from the e-centres"* (Allan K., expert respondent). This challenge is not easy to address: *"There's still a long way to go when it comes to the gender part of it. To get it right"* (Gavin K., expert respondent). The e-centres currently cannot afford to provide services to look after young children while their mothers use the computers.

There is a degree of learnt helplessness among community members, particularly the youth, due to having grown up in conditions of poverty with low self-esteem and very little hope that their situation can change. The youth have no interest in applying for jobs because they already believe that they will not get a job. The e-centre staff struggle to encourage the youth's use of ICTs and understanding of ICT benefits. An expert respondent stated:

> *There's the lack of interest by the community members, that's one thing I've realised … I've spoken to quite a few people, especially the young people, and I tell them … why don't you go*

and look for jobs? On the Internet, through the … centre which is there. And what they tell you is … even if we go and … we apply for a job by the municipality, there is a vacancy there but are we really gonna be taken. So, there is that lack of interest as far as the young people are concerned (Sam M., expert respondent).

This is a challenge that *"is also linked to poverty and to crime"* (Sam M., expert respondent). These social challenges and the lack of resources, opportunities, education, guidance and positive social structures are among the root causes of why this type of mentality exists. It is a challenge beyond the capabilities of e-centres to address. A prolonged multi-stakeholder intervention is required, which includes relevant development actors, such as government at all levels, education, business, civil society, community-based organisations and other development agencies.

Some community members misuse the services. Young school children watch inappropriate material, such as content on gang violence and dog fights, which is what they are accustomed to seeing in the streets of their own communities. This was more evident in the e-centres in Coloured communities. However, to protect the children's exposure to such violence, the staff had "*stopped … any fights and gang activities on YouTube … we don't let them watch*" (Tina R., expert respondent). In the Black African communities, the inappropriate material that the young school children and adults watch is more pornography than violence related material. Although the e-centres have rules in place, it is not always possible to monitor the activities of community members at the e-centre. Some of the e-centres have installed software and firewalls to block certain restricted sites, but the users still find a way to view the inappropriate material.

Although the e-centre staff engage with community members and encourage them to voice their opinions, complaints, and suggestions, the staff themselves do not have much authority to act on most of the complaints and suggestions. The e-centre manager *"has no powers to fully involve us, she just attempts"* (Lorraine R., user respondent). The staff collect the information and escalate it all to either the regional manager or the e-centres' head office on behalf of the community in lengthy processes that often take time for community members to get feedback.

The e-centres also find that there are risks associated with involving community members in decision-making on the services provided and how the e-centres operates. For instance, some community members of one of the e-centres collectively and continuously requested that their e-centre open on weekends to accommodate those who worked during the week. The issue was escalated to the head office, which eventually approved the request to open the e-centre on weekends. However, the e-

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centre staff were not going to be paid overtime. Consequently, the initiative was unsuccessful and stopped after three weekends. While the e-centre staff were willing to work on weekends without getting paid to accommodate community members who needed to access the services, community members, including those who made the request, did not come to the e-centre on weekends. It was not clear to the e-centre staff why the community members had requested the service, yet they were not using it.

6.2.3 Theme 2: Communication and engagement with community members

6.2.3.1 Communicating for development with community members

The e-centres make use of different communication media, which include noticeboards, flyers, pamphlets and newspapers. They also use radio, social media and word of mouth. All the e-centres have noticeboards in their buildings on which they place notices and articles to share information about, among others, the activities of the e-centre, forthcoming workshops and training, operating hours, announcements, job vacancies, and adverts from small businesses in the community. Although this is a cost-effective medium, community members need to be at the e-centre to see the notices. For most user respondents, the noticeboards are their second choice for information, as they prefer either direct engagement with the e-centre staff or Internet-based sources: *"The noticeboard, yes. They will put it there, then we will be able to see it. Each and every time, when you come in you start from the noticeboard and then we come straight here"* (Ben N., user respondent).

A few of the user respondents found out about the e-centre in their community from people who were walking around the community, *"giving flyers to the community members. So, that's how we found out about the centre"* (Victoria B., user respondent). Most of the user respondents were against the use of flyers as a communication medium, however, because of saturation of flyers from dodgy business-people and scammers who were always passing them around: *"… when they hand it out, they must just say please, this is not Dr Phil or Dr Malinga from the muti. Because everyone is afraid of this … they must say this is from the centre"* (Catherine U., user respondent).

The e-centres' head office regularly prints pamphlets that are like small booklets about the initiative and the services provided. These are printed in the three most common languages spoken in the different communities (English, IsiXhosa and Afrikaans) and distributed to all the e-centres. Printing in three languages enables the e-centres to cater for the diversity in the community and therefore not exclude the few English or IsiXhosa speakers in an Afrikaans-dominated community and vice versa. The pamphlets are convenient to hand out and contain a lot of details, "*a pamphlet speaks a thousand*

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words" (Sam M., expert respondent)*. One expert respondent travelled with pamphlets and handed them out to community members while travelling in a Minibus taxi, at church, and in shops. The user respondents stated that the pamphlets were convenient and easy to carry as information sources to share with other people. While they are more acceptable than flyers, pamphlets are not the first choice for information for the user respondents.

The e-centres' restricted budget limits their ability to use provincial and local newspapers which are costly to place adverts, articles and notices. The e-centres therefore place adverts and notices in free community newspapers. However, these newspapers often print only impact stories that hold special significance for the community. For example, the story of an eighty-four year old woman from the community who defied the odds and completed her e-learner training at one of the e-centres. These newspapers become effective when news and pictures of community members' achievements such as the ICDL graduation ceremonies are advertised. Community members want to see each other and share the pictures, which helps create awareness, curiosity, and motivation for the community members to visit the e-centres:

> *Whenever we have a project, we make sure that we are prominently there in the paper, so that people can get to know the access centres. This works marvellously well when it comes to graduations … people are very … jealous. When your neighbour's kid has received a certificate and then suddenly, it spreads like wildfire. So, in that sense, it works quite well* (Abu G., expert respondent).
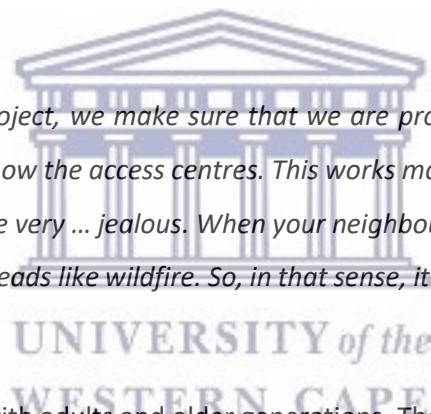
Newspapers are more popular with adults and older generations. They are not the first media choice to get information among the user respondents who are younger than thirty-five years old. These user respondents prefer to get information and news from online newspaper sources and social media.

In addition, the staff of the e-centres are sometimes invited for interviews on local radio and television to discuss the initiative: *"I … go to the radio and speak about …you know, how many centres we have … what exactly are we doing, what are the challenges we are facing, and what are the benefits …"* (Sam M., expert respondent)*. Like newspapers, radio is also mostly preferred by adults and the older generations, who listen to stories and the news. The e-centres also use existing networks and partnerships with other development actors to create awareness about the e-centres and the services provided. The opportunities created through these networks play a key role in creating awareness among community members.

Most of the user respondents found out about the e-centre in their community through word of mouth from family, friends, and other people in the community. Although word of mouth is effective in creating awareness, the e-centre staff have limited control over the accuracy of the information shared. When community members have a negative experience at the e-centre, they tell other community members to stay away from the e-centre because it is a bad place. For instance, when community members went to the e-centre while it was very busy and needed help to use the computers, the fact that the staff could not always assist them frustrated some community members, who then told others negative things about the e-centre and staff: *"… that person would say, no, we did go there but they didn't help me, you see … so, when that person goes back home, that person will say … I didn't get help there"* (Abu G., expert respondent). Other community members purposefully misinform each other as a tactic to reduce demand for the services. To ensure that accurate information is shared, the e-centres run several campaigns at local schools and in the community each year to share accurate information about the facilities and services provided.

Communication facilitates the delivery of the e-centres' services and successful support of community development. However, effective communication is a challenge for the e-centres. Most are not satisfied with their communication strategies and feel they need to be improved to achieve their communication objectives: "*I also think that it needs to be improved"* (Abu G., expert respondent). The communication strategies used fail to create the anticipated levels of awareness in the communities about the e-centres and the services they provide: "*I must admit, that's one area we're lacking …"* (James B., expert respondent). Some user respondents blame ineffective communication strategies used by the e-centres, while others claim that community members do not make the effort to inform themselves.

6.2.3.2 How the e-centres communicate for development using social media

The e-centres make use of Facebook and WhatsApp. The use of WhatsApp however, is restricted to e-centre users who register and want to receive messages in this manner:

> *Ja, if we can just create a group then we can use WhatsApp. But we must let them know first that we're going to do like a WhatsApp group, and then they can join the group. Because some of the people, they don't like the group thing, you see* (Bob M., expert respondent).

The user respondents stated that, while the WhatsApp groups are a quick and easy way to get information directly, the activity in the groups sometimes becomes overwhelming. This makes it

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difficult to manage and scroll through messages for what is relevant, and they end up leaving the groups.

The e-centres use Facebook in two ways. The head office of the e-centre initiative has a closed Facebook group page, and some of their e-centres also have their own Facebook pages: *"Most of the centres have their own Facebook ... where they have community members part of the group"* (John C., expert respondent). The head office's Facebook group page is only for staff, who can access it by becoming group members. Therefore, non-members cannot see anything posted or engage on the page:

> *So, now what normally happens is now this photo I'm taking, I would actually put them on the page of* [head office] *... but now, there is the exclusion, because they* [community members] *will not see it. But if I put it on my Facebook page and they're my friends, they will see it* (Sam M., expert respondent).

Two e-centres did not use social media. E-centre 3 was launched recently and the staff wanted to know more about their community to determine the best approaches. E-centre 1 was planning to possibly relocate to a bigger venue and wanted to settle at the new venue first before creating a Facebook page. E-centre 2 and e-centre 4 each have a Facebook page. Community members can view, post and comment on content as well as engage with the e-II staff. E-centre 5 has a Facebook group page that anyone is free to join; however, the engagement is restricted, *"they can view, but they can't have input"* (Victor C., expert respondent). The expert respondents admitted that having a group page with limited engagement is not very useful in helping them achieve their communication objectives, which include engagement with community members.

The e-centres are not provided with any additional resources to help them manage their social media: *"... they do it more in their own time, and their own personal way"* (James B., expert respondent). This is due to the e-centre initiative already operating on a stringent budget with limited resources. The e-centre managers therefore manage the Facebook pages and the e-centres that have interns give them the responsibility of managing the page, and the managers focus on their e-centre's operations.

The e-centres use Facebook to post information (text, video, and images) about the e-centre, such as the location, services provided, digital skills training courses offered, support services for small businesses, details of school holiday programmes, job vacancies and internship opportunities in the community. They also post announcements about forthcoming events and community meetings,

details about community development initiatives such as community cleaning drives, as well as community news:

> *I'll go around and if it is something which is happening here, then I'm going to post it and everybody is going to know about it. If it is something happening somewhere else … then I will post it, and they will see something* (Sam M., expert respondent).

The e-centres tailor their content to the youth in their community, because the youth are the most active users of social media: *"Facebook is more effective with the youth, then print media is more effective with the older ones"* (Abu G., expert respondent)*.* Expert respondents from the three e-centres stated that they were not very active on their Facebook pages, nor did they have a structured social media plan to guide how they use Facebook or what they post. The little engagement on the Facebook pages was mostly with the images posted and less so with textual content. Community members want to see pictures of what the e-centres look like, the resources available, the people that use the services and the e-centres' activities: *"On Facebook, for now, it is used to post pictures, use Facebook just to post pictures for them. They only come for the pictures"* (Abu G., expert respondent).

6.2.3.3 Why the e-centres use social media to communicate for development

The e-centres use social media for various reasons. It is convenient and cost effective to access these media. They are also useful for internal communication, networking and relationship building, and are immediate and appropriate to achieve the e-centres' communication objectives. Social media are not restricted by geographical boundaries and the staff also feel social pressure to use them.

The e-centres have free, convenient access to social media: *"It's cheaper and it's easier since they have the Internet for free at the office* [e-centre]*, so they can use it"* (James B., expert respondent). Moreover, social media are cheaper to use than other traditional media for awareness campaigns with a wide targeted audience. Social media are also more convenient for the staff of the different e-centres to communicate with each other. Some of the e-centres are in rural and remote areas that have poor communication infrastructure, so they rely more on Facebook to communicate for sharing ideas, challenges, and solutions with each other:

> *When the phone lines are off then they use the Facebook as a medium of communication. So, it's very effective in terms of getting hold of centres or spreading some important information through to these centres. Most of them are on the computers, some centres don't have access to telephone lines because of Telkom services, so they use the Facebook page as a medium …*

If there is an issue with the printers that the centres have then … someone in one of the centres will post it on there to say this is how to solve the problem there, or there is a solution to make it work … (John C., expert respondent).

Social media are appropriate for the e-centre staff's communication objectives related to community development. The e-centres can post different types of content, for example pictures, videos, and links to websites, as this is evident on their Facebook pages. The content posted can also be seen and shared immediately by anyone with access to the Internet, which means that social media extend beyond geographical boundaries in the community. The e-centres are able to create and maintain networks with community members and other development actors through Facebook.

The expert respondents who are e-centre managers feel social pressure to use Facebook for two reasons. Firstly, they feel pressure to create Facebook pages because they want to be part of the engagement on the head office's closed group page and see what other e-centres are doing and talking about. Secondly, they want to keep up with what is trending and popular in their community. Facebook has become very popular in the different communities, particularly among the youth and young adults who are using it for communication purposes. Among the user respondents sixteen used social media, namely Facebook, Google+, Instagram and WhatsApp, which they describe as being more popular than Facebook. Facebook was, however, their preferred source of information, news and entertainment. They also use it for protest activities, job searching, building and maintaining relationships with new people, friends and family, as well as sharing pictures and videos. Other functions of Facebook for them are marketing businesses, communicating with customers and networking with business owners.

The e-IIs' staff in the Coloured communities of Mossel Bay, in particular stated that their community members were trendier than most when it came to having the latest mobile devices and applications: *"Our community is mostly using Facebook … it is very popular …"* (Tina R., expert respondent). Juan V. (expert respondent) from an e-centre in a Black African community stated: "*they've got phones. Anyone, they can access it"*. The Black African user respondents, however, challenged this claim: *"Not everyone has got a phone. People is poor here. So, if you ask here around, it's not all of them that's having a cell* phone" (Adele H., user respondent)*.*

6.2.3.4 Challenges of communicating for development using social media

The e-centres' use of social media to communicate for development is not always effective due to challenges that include insufficient resources, high expectations, poor engagement, and a lack of

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awareness of the Facebook pages and groups among community members. Language and illiteracy barriers, community members' lack of digital skills and understanding of social media, and the limited capacity of their devices are other challenges. As a result, the e-centres do not rely on social media only to communicate for development in their communities.

Managing an active Facebook page requires resources that often are underestimated by the e-centres' staff. These resources include time, effort, dedication, and a specific set of skills and competences that not all the e-centre staff possess. These resources are necessary to design and post the content, monitor and manage the page, as well as facilitate any engagement. The lack of these resources leads to inactive and therefore ineffective Facebook pages: *"It would take some dedicated people to make sure that the news it's always up to date and also make sure that there's no other bad influences or words on the Facebook page"* (John C., expert respondent). The inactivity of the Facebook pages also results in limited engagement on the page with community members. The expert respondents claim the limited engagement is due to some community members being *"too lazy to say anything … too lazy to type out"* (Bob M., expert respondent). The community members are only interested in seeing and posting entertaining content. They do not want to read things on Facebook:

> *They only come for their pictures. They don't even read … The only thing they are checking is how many likes do I have, who commented on my status, then that's it. He doesn't want to go to any pages or want to check what is happening that side. They only check the status, or only check my friend, what my friend posted* (Jason D., expert respondent).

The lack of awareness of the e-centres' Facebook pages among community members could also have been to blame for the limited engagement. This lack of awareness was evident among the user respondents from the different e-centres. Only one user respondent knew that their e-centre had a Facebook page. The rest were unaware, and this was despite different expert respondents' claims that their community members knew about the e-centres' Facebook pages. Even after the user respondents were made aware that the e-centres have Facebook pages, they admitted that they would still not visit the pages for information. Since they were regular visitors to the e-centre, they would rather ask the staff directly for any information. They were not convinced that the e-centres would have Facebook pages that would adequately fulfil their information and communication needs.

Illiteracy and language barriers are also blamed for the lack of engagement: *"It's about the poor literacy, they don't have the interest in reading information"* (Jason D., expert respondent). These barriers also affect community members' ability to connect to the free Wi-Fi hot spots in the

communities, since they struggle to read and follow the instructions: *"You can't, even though there's instruction, but you can't access"* (Rudo M., user respondent); *"the instructions are not easy if you are illiterate … I've just come in with my phone now and I want to connect to the Wi-Fi. So, I don't know where to go to, you see. So, literacy for me, if I do not know how to use Wi-Fi, it's very difficult"* (Thandi J., user respondent).

The lack of digital skills among community members is still a challenge: *"Not all the people are aware how to use Facebook"* (Gavin K., expert respondent). Thandi J. (user respondent) stated: *"I don't even know what a browser is. I don't, I just see DV, I don't even know what DV is. So, for me, I think digital literacy is also a barrier"*. Furthermore, some community members' mobile devices have limited capabilities. The devices can access the Internet but, since they are old they have outdated software, and this affects how Facebook loads and works on the phones. There were also different Facebook versions that were constantly changing, with new features being added. Many community members become confused and struggle with the changes. The e-centres alone could not be responsible for training community members. The user respondents believed that community members should help and encourage each other to learn how to access and use social media and not only rely on e-centres: *"It's everyone's duty, not only the centre staff …"* (Adele H., user respondent).

Three user respondents had made a conscious decision not to use social media, one did not see their relevance: *"They don't know what Facebook is for"* (Allan K., expert respondent). The other two user respondents only knew 'horror' stories they heard about bad things that had happened to people through social media, and that was enough for them to decide not to use social media: *"I've heard horrible stories also about Facebook, bad things always happen. So, I try to play safe and not get involved, you know. Not to play with fire, you know. So I stay away there … sometimes I'm afraid I will see the wrong things there and it influences the mind"* (Victoria B., user respondent). They only use WhatsApp to communicate with close friends and family.

6.2.4   Summary

The e-centres play a significant role in the different communities to support the development of young learners, job seekers, small business owners, and entrepreneurs. However, due to limited funding and resources, the e-centres are often unable to provide quality services and cater for the demand. The services that are provided are also predetermined, therefore there is limited community engagement or participation to ensure the services are community-driven and addressing existing challenges.

http://etd.uwc.ac.za/

Developing effective communication strategies that identify and address the information and communication needs of the community is a challenge for the e-centres. The staff do not know the communication landscape of their communities and the needs of their community members. It is also evident that the resources necessary to use social media to communicate for development are often underestimated, and this leads to inactivate and ineffective Facebook pages. The conundrum is that, while better communication strategies and use of social media could potentially create awareness that attracts more community members, the e-centres are inadequately resourced and staffed to cater for an increase in demand. The solution, however, is not for fewer community members to come to the e-centres. The government and other relevant stakeholders need to ensure that the e-centres and other e-inclusion actors are adequately equipped to fulfil the e-inclusion and communication needs of community members.

6.3   Case study 2 (CS2): Community centre

The community centre serves marginalised community members in Elsies River, a suburb about twenty-three kilometres from the Cape Town Metropole. It is a government initiative that is aimed at empowering marginalised people through access to broadband technology, digital skills and entrepreneurship. Although it is a government initiative, the centre operates as a social enterprise and is managed by an NPO. In the QSA, the centre was categorised as 'other' because it operates as different types of e-IIs due to its diverse range of services. The centre provides public access to ICTs, digital skills training and other educational courses, as well as small business and entrepreneurship support. While it has an academic approach similar to a training institution, resulting in many calling it an 'Information Technology (IT) campus', the expert respondents were against this categorisation, as the centre is *"… not just an IT training campus"* (Lydia M., expert respondent). The centre provides different services that support community development in addition to digital skills training. It operates like an Internet café, training institution, business incubator and an e-centre due to its different focus areas. The centre has five distinct focus areas: commercial, learn, study, create, and play, which are described in Table 16.

Table 16: Description of focus areas

Focus Area	Description
Commercial	Provides public services, such as printing, scanning, laminating, faxing, and free limited access to computers and the Internet. Centre users are allocated 300 Megabytes of free Wi-Fi data per month.
Learn	A fully equipped computer laboratory that accommodates twenty-four people for training.
Study	A quiet learning environment for trainees to prepare for test and exams and do their assignments. Computers and Internet facilities are also available for research purposes.
Create	A meeting place for designers and developers to practise their skills. Digital training courses, for example, 3D printing, multi-media design, website development and mobile application development.
Play	Offers learning through gaming to community members of all ages. It is a space for innovation that stimulates the thinking of people, who are also trained to develop games using open source software

Source: Adapted from the NPO's website (2017)

6.3.1 Background of respondents

Face-to-face interviews were conducted with seven expert respondents who included a project manager (PM) from government, the centre management (CM), focus area facilitators (FAF), and interns (I). The roles and responsibilities of the expert respondents are summarised in Table 17. A focus group discussion was also held with eight centre users – four male and four female. Their occupations included entrepreneurs, interns, and full and part-time students. The researcher also spent time at the centre observing how the centre operated and the engagement between the centre staff and community members.

Table 17: Matrix of CS2 expert respondents' roles and responsibilities

Responsibilities	Roles			
	PM	CM	FAF	I
Active board members		X	X	
Assisting in the commercial focus area				X
Checking equality of services	X	X		
Collecting centre statistics			X	X
Compiling reports		X	X	
Conducting training			X	
Course administration			X	
Developing innovative strategies to sustain the centre	X	X		
Ensuring centre policies are up to date and in line with government requirements		X	X	
Graphic designers of centre material			X	X
Managing trainee and users' registration			X	X
Managing and sourcing of funding		X	X	
Managing staff		X		
Managing staff labour relations (e.g. leave, discipline, training of staff)		X		
Managing and allocating centre resources		X	X	

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Responsibilities	Roles			
	PM	CM	FAF	I
Managing the centre		X	X	
Managing the centre reception				X
Managing the centre's social media accounts		X	X	
Marketing the centre		X	X	
Office administration				X
Overseeing and assessing all skills development		X		
Overseeing the implementation and operations of the centre project as per funding proposals	X			
Regulating training			X	
Running marketing campaigns			X	
Sequencing of classes			X	
Updating work stations			X	X
Writing centre assessment reports for government and other partners		X	X	

6.3.2 Theme 1: Community centre services and community development

6.3.2.1 Economic development and empowerment

The centre supports the enhancement of community members' capabilities by providing access to ICTs and training courses, and facilitating fundraising initiatives to help community members raise funds to pay for training courses. The centre also creates employment opportunities and supports job creation and income generation by supporting entrepreneurs and small businesses. The centre provides free limited access to ICTs, which include computers, the Internet and printing, photocopying and scanning facilities. These facilities are used to search for information, apply for opportunities (for example job vacancies and scholarships), and type, print, and photocopy documents. The centre also provides access to other technologies, such as three-dimensional (3D) printing, gaming equipment, and sound and recording systems, which are used by the youth in particular to explore and develop their skills and generate income. For instance, some trainees who want to be musicians use the equipment to practise and record demonstrations (demos), as well as for other projects.

The centre offers both paid and free training courses that are popular among community members, since the community largely lacks digital skills and education opportunities. The courses are offered at different levels of advancement and include computer basics, Microsoft Office (specialist), online job searching, IT essentials, mobile app development, website design, computer programming, video editing, multi-media design, and 3D printing. Other training courses are in project management, strategic management, and accounting. In addition, every Fridays there is a 'Google day', and free training is provided on Google applications, namely Google Calendar, Gmail, Google Drive, Google

Documents, and Google Sheets. These workshops are supported by the Google Foundation which has partnered with the NPO that operates the centre.

The training courses are open to anyone who wants to build their capacity, as the free courses are intended to benefit community members who cannot afford tuition fees but have a desire to develop their skills. Two user respondents had no digital skills before coming to the centre, and have since learnt how to use a computer, type documents, and access the Internet. People are *"never too old to learn, it doesn't matter. People that are seventy years old they come here to learn courses"* (Evelyn K., user respondent).

The training has had some successes. Three of the user respondents had successfully started their own businesses. One respondent was teaching basic computer skills to young school children in the community for a fee. The other user respondent, a trainee and intern at the centre, learnt how to fix computers and started a small business fixing computers: *"I have people calling me and stuff asking me to come and sort out their PCs and that is all the stuff I learnt here. I couldn't put a processor in, I couldn't open the power supply, I learnt all that stuff here"* (Tamari J., user respondent). The third user respondent started a business of designing websites and mobile applications: *"When I was finished then people came to me and said I want a website, I want the app. So, I'm making money now"* (Rudo M., user respondent).

By encouraging and supporting their trainees to use their knowledge and skills to start businesses or become entrepreneurs the centre supports job creation: *"The e-commerce students, they're starting their own company called Job Solutions to be the solution to the community because we know the unemployment rate is very high in communities like Elsies River, Khayelitsha, Gugulethu, Parow, and Goodwood"* (Albertina K., expert respondent).

It is through access to ICT infrastructure and capacity-building that community members become capable of acting towards their economic development: *"In order to drive economic growth and job creation, and entrepreneurship … focus is on trying to connect businesses and citizens by providing them with infrastructure and skills"* (Lydia M., expert respondent). Since many community members cannot afford to pay for the training courses and the centre helps them to raise money: *"We give you the chance … there's no way we will turn away a student that wants to do well"* (Tamanda K., expert respondent). The staff identify, organise, and facilitate fundraising initiatives, as well as encourage community members to be innovative to overcome financial challenges and to take control over their own lives:

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I will always tell them you know what you shouldn't allow financial circumstances to be your barrier … you can also go out and do a fundraiser … you bring your whole family to the centre and I will direct them to how we do the fundraising, so that you can pay for your studies. You should never allow financial circumstances to be your barrier for education because education is paving your future for success (Nina W., expert respondent).

The centre creates employment opportunities by hiring people from the community to work at the centre as staff or interns. The centre also provides small businesses and entrepreneurs in the community with information resources and business skills training: "*We are helping businesses in digital tools. So, we will be teaching them mail-chimp newsletter, and we will be teaching them how to design their own business poster, and an introduction to web design*" (Tatenda K., expert respondent). The centre provides the businesses and entrepreneurs with ongoing access to networks of organisations that provide specialised services not offered by the centre. Business workshops and business expos are often hosted at the centre, and small business development organisations such as the Small Enterprise Development Agency (SEDA) are regularly invited to consult with community members.

To measure its impact, the centre keeps in touch with past trainees of paid courses to keep records of whether the trainees had gained employment, started businesses, or decided to study further. From their records, the expert respondents claim that often "*when the person leaves* [the] *centre after six months of study … he or she is able to find a job. That is proven, we've got proof of that*" (Tamanda C., expert respondent). This statement was challenged by the user respondents, however, who had failed to secure employment despite having completed five different paid training courses at the centre.

6.3.2.2 Participation

Many of the community members that use the services of the centre are marginalised, as they cannot afford to pay to access these services elsewhere. The community members use the computers to type assignments, CVs, business plans and other documents. The Internet is used to search for information, business tenders and employment opportunities, do research for school assignments, watch movies, YouTube videos and animated stories, check emails and social media accounts, play games and listen to music. Some community members who go to the centre to access the computers and the Internet or attend the free training often end up registering for paid courses after they gain an understanding of the value of education and skills. The training courses help community members to improve their employability and opportunities to generate income:

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> *Their objective was never to come to the* [centre] *for a course, it was just to type up their CV but through engagement in front, we say like listen, here we are offering that to help you, why don't you have an email on your CV. We teach Gmail, then get the result through that and we also discovered that after free courses people will then do paid courses. So, they do their free stuff and get a job and they come back, and they start doing a course* (Tatenda K., expert respondent).

The centre prioritises community engagement to facilitate ICT needs-based assessment of the community and determine the necessary as well as appropriate services to provide. Community members are invited to communicate their ICT infrastructure and skills needs to the centre. The communication media available for this purpose include customer feedback and request forms, direct face-to-face communication, telephone calls, email, the centre's website, and social media, which also include WhatsApp. The participation of the community in some decisions regarding the services and training courses provided is within the tokenism and citizen power levels of Arnstein's (1969) participation ladder (see section 3.5.2). Community members' opinions, suggestions and requests about training courses are considered by the centre management, who also engage with experts in business and education to investigate the relevance of the courses and feasibility of developing and offering them:

> *You see the* [training] *courses that is running now, that was based on the decisions of the community … it's because the community members requested office administration, they requested A+ technician, the community requested technician specialised, the community requested web specialists. Where there is no university, no college that provides a web specialist course, so the courses that has been developed is because of decisions of the community members* (Albertina K., expert respondent).

The user respondents confirmed that they had actively participated in decisions regarding some training courses that are provided at the centre, mostly through face-to-face engagement and WhatsApp. The impact of the community is evident in the training courses, as most of them are based on ideas and requests from the community.

6.3.2.3 Social capital

Prior to the centre opening its doors, very little engagement and relationship building had been done with the community by the responsible development actors. Consequently, the community did not know what the centre was, or its purpose, nor did they understand the relevance of ICTs. The situation

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was further aggravated by the fact that the centre moved into a building that was previously occupied by well-known community development organisations. This caused tension between the centre staff and community members, as well as between the centre and the other community organisations that felt displaced. This tension and anger towards the centre caused community members to come together and form networks. These networks were used to devise solutions and plan protest activities to remove the centre, which hindered the centre's ability to operate and support community development.

As a result, the centre management decided to prioritise positive relationship building with the community through continuous community engagement and participation. After the first year of operation, the centre overcame the stigma that was initially attached to it and began forming positive networks and building relationships with community members. The community began to embrace the centre and community members started to use the services.

Having a positive relationship with community members, particularly with the trainees is important for the centre, because the trainees are then more motivated to return to the centre and complete their courses. Due to the social challenges and lack of resources, many of the trainees come from impoverished homes where they are exposed to, for instance, drug and alcohol abuse and domestic violence. The centre provides an escape for them, and the staff strive to make all the trainees feel welcome and comfortable. The user respondents affirmed that, when they are at the centre, they have *"… a warm feeling like you're around family"* (Steven C., user respondent). The centre staff make an effort to create an environment in which the trainees are free to talk to them, even about personal or family challenges they are facing. To maintain strong networks and utilise the benefits of the weak ties to share information, resources and support, the centre staff and the trainees, as well as their families, have fun days each year to socialise and network with each other.

The centre staff also organise networking sessions between, for instance, the trainees amongst themselves, trainees and businesses, businesses and entrepreneurs, as well as community development organisations and other development actors. These engagement sessions help to grow the networks. The staff teach community members how to communicate and network with, and support each other in order to make the most of the networks. Interacting with each other helps the trainees to make friends and settle in. One of the user respondents was very shy and closed off, but after continuous encouragement from class-mates to socialise she became more open, comfortable, and made new friends: *"I find myself more free to express myself"* (Mada K., user respondent). Being encouraged to interact also makes it easier for the trainees to be engaging with facilitators during

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classes, as they also gain more confidence. The trainees use the networking sessions to build relationships with people in business and to negotiate for future employment and internship opportunities.

The centre also brings in industry experts from the community to teach, and to share their experiences and advice with the trainees:

> *We've got people in the sound, like for instance JJ Sounds, he comes in and he teaches audio-visual, how to set up the stages, how to do the lighting and then he comes in again for live sound engineering. We've got people in artist development, teaching you how to use your vocals, to sing and be an artist in the industry, so there's quite a variety of service providers that we make use of* (Albertina K., expert respondent).

These *"external facilitators help young people to think better, learn better, develop learning patterns …"* (Tatenda K., expert respondent). The centre organises networking sessions with other development actors, including community development organisations, other e-IIs, and government agencies in and around the community to share ideas, information, resources and solutions to community challenges.

6.3.2.4 Challenges

The centre faces ongoing challenges related to funding, high staff turnover, marketing, community members' use of ICTs for non-developmental purposes, and rapid technological advancements. Regarding the funding, the centre depends primarily on funding from the government; however, since the unique nature of the centre model and the initial need for upfront capital investment was more expensive than anticipated, the annual budget is insufficient: *"The challenge is yeah, the budget and the project that was not costed correctly, that regardless of what the budget was I still needed to meet the deliverables man, you see that. That is the kind of issues that we face"* (Tatenda K., expert respondent). The centre therefore adopted *"more of a social entrepreneurship model"* (Lydia M., expert respondent), whereby the NPO operating the centre continuously looks for alternative sponsorship and ways of sourcing revenue. Examples are the paid training courses and paid business support services (designing business cards, flyers, websites, and mobile applications at a cost). However, not all the marginalised community members who use the centre's services can afford to pay for the services.

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The limited funding also means that the centre cannot afford to pay its staff competitive salaries, which results in high staff turnover. Some staff members will leave the centre as soon as they get better-paying opportunities: *"When you are a non-profit you can't expect people to stay forever, that's just the nature of a non-profit"* (Tatenda K., expert respondent). When the staff leave, this also has a negative impact on the existing relationships with community members, because since the staff are from the community, some of them possess a unique understanding of the challenges that community members face and how to engage with them. The staff also leave with the knowledge, skills, and experience they gained:

> *Staff members that started with us two years ago have learnt a lot, they have gained a lot of skills and then they move on and then I need to start now beginning again with new staff members … it is at a loss yes, but you grateful because your true objective is really to empower people* (Tatenda K., expert respondent).

The marketing challenge affects the centre's ability to generate revenue. The centre is expected to include government insignia on all communication and marketing material. However, when community members and businesses associate the centre with the government, they become less willing to pay for services or provide any sponsorship:

> *Also, the challenges we face are people's mindset of the … centre because at the moment it says initiative of the* [government]*. People think everything is for free, so we face challenges where people are not willing to spend their money here* (Tatenda K., expert respondent).

While the centre might have high usage statistics, the reality is that community members are not using the facilities as expected for development purposes: "*What people are using the Internet for is not really what we hoped they will use it for. The extent of the usage for entrepreneurial activities or job searches It's much lower than with gaming and movies …*" (Lydia M., expert respondent). It is possible that some community members are not aware of how they can benefit themselves from using the technology to address their particular challenges, or they do not see the need to use ICTs for purposes other than fulfilling their sought entertainment gratification.

The centre struggles to keep up with the drastic rate at which ICT infrastructure and services evolves. To avoid offering outdated services, the staff have to constantly evaluate the services and training course content to ensure they are still relevant. The staff also continuously conduct research on teaching and learning methods to find new, improved ways of connecting the content with the community.

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6.3.3   Theme 2: Communication and engagement with community members

6.3.3.1 Communicating for development with community members

Communication is an important part of how the centre operates, as it facilitates the engagement, relationship building and service delivery. The expert respondents were quite satisfied with the centre's communication strategies and media used. The user respondents agreed that the centre communicated effectively. However, they also acknowledged that "*there is always space for improvement*" (Natalie K., user respondent) since there still are community members who do not know enough about the free courses offered by the centre. The centre operator may use any communication strategies and media to achieve their objectives, as long as they adhere to government's communication and marketing protocols.

Initially, the centre struggled to devise effective communication strategies. The staff found that "*it's difficult to put something on the map that is not mature …*" (Tatenda K., expert respondent). Furthermore, the centre staff did not know enough about the communication landscape of their community. Once they gained the necessary knowledge and experience, it became easier to develop communication strategies and identify appropriate media to communicate for development. The centre strategically uses different media, namely local newspapers, pamphlets, flyers, newsletters, radio, television, SMSs and word of mouth. It also uses online media such as a website, email and social media, which include WhatsApp.

Three user respondents found out about the centre through flyers. Another user respondent saw an article in the community newspaper about how the centre was helping marginalised youth become entrepreneurs and became interested. Print media are useful to reach community members who do not have access to or chose not to use radio, television, and online and social media as sources of information. Many literate adult and older generation community members prefer newspapers as a source of news and information about the community. Community members often request that the centre makes more use of newspapers to share information due to the popularity of the medium in the community. Although newspapers have a wide reach, they are expensive media. Pamphlets, flyers and newsletters are cheaper to print and easy to distribute. They are used to share details of current events and upcoming training courses.

Broadcast media such as radio and television are far reaching and help to create some awareness in the community about the centre. However, these media are even more expensive to use than newspapers. Their use by the centre is due to the centre manager regularly being invited for local

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radio and television interviews, which the centre uses for marketing purposes: *"In terms of radio, we are quite a lot on certain radio stations, where the director gets interviewed"* (Tamanda C., expert respondent). The centre also benefits from free and discounted fees from certain broadcast media organisations: *"… because* [we are] *a non-profit, I look for free spaces on radios which they must give us … then that radio is very helpful because I would go on there and discuss other topics with them"* (Tatenda K., expert respondent).

The centre uses SMSs to send information, announcements and updates. Although SMSs are effective, they are also costly, and the communication is limited to community members who are registered and willing. A challenge is that *"not everyone receives the SMSs at the same time when it's sent out … some receive the SMS two or three days later …"* (Albertina K., expert respondent). Others do not receive the messages at all due to challenges with different mobile networks. The content of SMSs is also limited therefore the centre adds a link to their website for more information. Many of those who receive the SMSs do not understand what the link is and what to do, so they either ignore it or come to the centre and speak directly with the staff. The more digitally skilled and knowledgeable community members make use of the centre's website as a source of information. They also send emails asking for more information, usually about the training courses provided by the centre.

Direct engagement with community members often leads to information sharing and awareness creation among community members by word of mouth. The centre therefore runs numerous campaigns in the community (at schools, libraries, community centres, and even door to door in the residential areas) to talk to community members about the centre and do demonstrations of what happens at the centre: *"So, physically we started speaking at the schools at assemblies and that communication grew well and our people come to the … centre"* (Tatenda K., expert respondent). Three of the user respondents found out about the centre from centre staff who were campaigning about the centre in the community. Another user respondent was told about the centre by a friend, who also sent a picture through WhatsApp of a poster advertising the centre: *"My friend sent me a picture through WhatsApp. It was about the game day in 2015. I looked at, it and I was like I can win some money, so I might as well come and since then I have been coming through"* (Evan M., user respondent).

6.3.3.2 How the community centre communicates for development using social media

The centre makes active use of Facebook, Twitter, YouTube and WhatsApp. WhatsApp is used mostly for marketing purposes and to communicate with the registered community of users, particularly the

trainees. Each class has a dedicated WhatsApp group to share announcements, such as changes in schedules or information from the class facilitators. All the user respondents are part of WhatsApp groups for their classes. The centre staff also have a dedicated WhatsApp group for themselves that is used for communication purposes:

> *Many times, you're so busy you don't want to go look where that person is and then you can instruct that person through the* [WhatsApp] *group … every day there is movement of discussion, communication, instructions, so it's a continuous thing that happens in the … centre amongst staff* (Tamanda C., expert respondent).

All eight of the user respondents knew about the centre's Facebook page, four also knew about the Twitter account, while only two knew about the YouTube channel. The centre uses social media to create awareness and share information about the services, digital skills courses, events and workshops, and to engage with community members. The social media are also used to share digital stories of community members whose lives have been affected positively by the centre. Digital stories are important because they give a real-life account of how ICTs support development, and this is what community members need to see to relate to ICTs. Seeing how their peers have succeeded gives community members hope and motivation that they too could benefit from using the technology or attending the training.

The centre developed a strategic plan to guide the use of different social media accounts, including the type and quality of content they post. The centre follows specific guidelines to ensure that they package the content posted in an attractive, appropriate, informative, and engaging manner. There are different templates and artwork designed for the centre by graphic designers that are used to post the content on their social media:

> *The artwork gets looked at, planned at and the type of artwork that we put on, I'm always focused on what speaks to the people and how they can connect with what they see. That strategy that we implemented … has contributed a lot* (Tatenda K., expert respondent).

The staff manage the social media as a team and delegate different roles and responsibilities to each other. This ensures more efficient management that keeps the accounts up to date and active without overwhelming one person. Regarding Facebook, while all staff are administrators on the Facebook page, two are responsible for posting content, another for taking all the pictures and videos, and one manages all the engagement (responding to comments, questions, and messages). The staff work

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together to monitor their social media and quality-check the content to ensure that it is appropriate and respectful:

> *There's quite a variety of people that manages the FB page. Myself and* [Albertina K.] *are also administrators on the FB page for posting different things.* [Albertina K.] *is responsible for the feedback because people do send messages. Then it's* [Rob C.] *… the photographer, he comes in when it comes to the posting of the photos, on a daily basis …* (Nina W., expert respondent).

To increase the reach and views of the posts, the staff share the content posted on the centre's Facebook page on their personal Facebook pages as well.

The centre's social media plan entails posting new pictures on their Facebook page that are taken at the centre daily: *"It's like every day there is a class this guy has been instructed, every day there is class photos are being taken. it's a crazy thing but it is working because it says a lot …"* (Tatenda K., expert respondent). These pictures provide a reason for the user respondents to visit the Facebook page often, as they want to see and share the pictures taken of them during the day: *"We want to see, they take pictures of us in class, so we want to see"* (Steven C., user respondent). Some community members who visit the Facebook page and see the pictures become intrigued and end up engaging with the centre. They ask questions regarding where the centre is situated, the training courses provided and payment plans. When the engagement becomes extensive, the staff call and/or invite the people to the centre. The user respondents' engagement with the centre through the Facebook page is very minimal, because they are at the centre several days a week for classes and prefer to talk directly with the staff to get information.

The daily posting of new pictures and videos of what happens at the centre helps to facilitate transparency. The public sees the activities and venue of the centre: *"We post everything on there, what is happening here. There's nothing that we hide away from the community. Its progress, even negative things"* (Tatenda K., expert respondent). The centre also posts pictures and videos of what is happening in and around the community to create awareness and help build the relationship with the community. For instance, the staff suspected that the electricity transformer close to the centre was being vandalised constantly to cut the power supply and steal equipment. The centre used Facebook to inform community members of their suspicions and posted pictures of the vandalisation: *"He's taking photos … for instance we had a fire by the electricity pole,* [Rob C.] *is there on the scene. He makes sure he is here first, so that is also letting people know what is, what's happening in the community …"* (Nina W. expert respondent). Without insinuation from the centre, the response from

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the community was to protect the centre. Community members began engaging on the centre's Facebook page and encouraged each other to keep an eye out. They therefore use the page to report any suspicious activity in the community and warn each other, as well as create awareness and discuss other community related issues.

The centre's social media plan also includes the use of social media analytics to determine and understand their social media performance*: "We analyse the data to see … when you go to the background of Facebook there is a panel where you can analyse the data to see where the traffic is coming from and the area they're coming from …"* (Nina W., expert respondent). Using the analytics also helps to identify the most popular type of content and the best times of the day to post content: *"There is a certain point in time that we are posting photos, specially photos that will be taken in the morning, we start loading our pictures here by 5 o'clock"* (Tatenda K., expert respondent) in the afternoon. This is the time when community members are leaving work, school or university and taking a bus, train, or taxi to get home. They are on their mobile devices going through social media to entertain themselves.

The centre also uses paid Facebook marketing campaigns to target and reach specific audiences of Facebook users in the community who are not necessarily following or aware of the centre's Facebook page: *"People come from, with the paid marketing we actually reach people from Eastern Cape, who don't like the page, they will see the ads"* (Nina W., expert respondent). This tactic works well for the centre to create awareness and interest when specific audiences and filters are selected, and search keywords are used:

> *Our research stats* [show] *our last group of students that we got, we added it up we counted … it shows that 62 percent was social media, so most of those people came through social media, and we even do paid Facebook marketing and that is good, that is cost effective* (Tatenda K., expert respondent).

Social media are the most preferred source of information for the user respondents. They also use them to gather information and communicate, and for entertainment. The user respondents all visit the centre's Facebook page often (several times a day for some) to rather, see their pictures and announcements, and to keep up to date with what is happening at the centre, than for engagement with the staff: *"They have a lot of workshops, so the social media platforms inform people"* (Evan M., user respondent)*.*

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Since awareness about the centre's website is limited compared to awareness about the Facebook page, the centre is planning to incorporate more links to the website in their Facebook content. The user respondents agreed that, instead of posting a lot of textual content on Facebook, the centre should use the links to redirect people who want more information to the website. Community members do not want to read a lot on Facebook, so the posts need to be short, precise, informative and entertaining.

6.3.3.3   Why the community centre uses social media to communicate for development

The centre uses social media because of social pressures, the popularity of social media in the community, cost effectiveness and the efficiency of social media, which have a wide reach and the target audience can be specified. Social media also facilitate the centre's transparency and help with relationship building as well as networking.

Globally, social media have become central communication media used as sources of information and entertainment, as well as facilitators of engagement. The centre wants to keep up with global trends and, in this way, feels pressure to use social media. Social media are also very popular among community members, largely due to the availability of more affordable smartphones and increasing numbers of free Wi-Fi hotspots across the community. The user respondents were very comfortable with social media, which they access using their mobile devices and the free Wi-Fi hotspots at the centre and in the community.

Facebook is the centre's biggest communication medium and they cannot see a future communication strategy that does not include Facebook. Facebook creates awareness, and facilitates information sharing and instant two-way engagement with community members. The first time many community members who visit the centre heard or saw anything about it was through social media:

> *The information, even the videos that we load up there, people are really responding to it and as soon as you advertise new courses, new products, immediately there's responses, the phones are ringing, we get emails, we get questions on Facebook* (Tamanda C., expert respondent).

Social media are also far-reaching and not limited by the geographical boundaries of the community. An additional feature of social media, namely Facebook, above other, traditional media is their ability to target selected audiences: *"… when we're posing on Facebook right, because we also use paid marketing, the Facebook paid marketing, and it goes to specific areas. It also goes to a designated*

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group, for instance 18 – 24 and then we target 24 – 35 [year olds]*"* (Nina W., expert respondent). This is a feature that the centre utilises in the marketing campaigns. The staff use pictures and videos to showcase the centre's activities to existing partners and funders, as well as other people. Facebook also enables the centre to network and maintain relationships with its sponsors, funders, and community members. Lastly, the centre finds social media, particularly Facebook, to be cost effective. Even the paid Facebook marketing campaigns are still cheaper than the other paid communication media, such as radio and television.

6.3.3.4 Challenges of communicating for development using social media

The centre's use of social media is not without its challenges. These include community members' lack of awareness about the centre's social media, and a general lack of access to, skills for and use of social media. In addition, language barriers, unwanted exposure, the high cost of mobile data, and the overly rich quality of content are other challenges the centre faces. The popularity of social media is also seasonal, and the social media need constant monitoring due to people posting negative content on the centre's social media.

Although social media are popular in the community, there are still community members who do not know about the centre's social media accounts. These community members either do not want to use social media, they do not know about them, or they do not possess the skills to use them or own devices that can access them: *"We had this one lady come in and say to one of the staff in front why do you market on Facebook, because not everyone is on Facebook. I came because of the article in the newspaper"* (Tatenda K., expert respondent). There still are marginalised community members who either own feature phones or have smartphones but cannot afford to purchase mobile data and have no convenient access to Wi-Fi hotspots: *"We don't always have data to see what is on the Facebook page, we have to come here to check our Facebook"* (Rudo M., user respondent). The centre provides free Wi-Fi at the centre, however the coverage does not extend very far beyond the centre therefore when the centre is closed, community members have no access.

The language barrier challenge has several facets. Most of the content is posted in English, yet the community is mostly Afrikaans speaking, with some not fluent in English or simply preferring content to be in Afrikaans: *"People want to read certain stuff in Afrikaans and I think that can also be a negative one"* (Lydia M., expert respondent)*.* There are community members who do not understand ICT jargon. They struggle to relate to terms such as 'digital skills'; they are more likely to understand the term 'computer skills'. Therefore, the centre staff have to be aware and cautious of the English words

and ICT jargon they use in the content to ensure that community members understand and relate to the content.

Although the daily posting of pictures and events at the centre, which includes trainees in class, is an effective marketing strategy, the trainees are not always comfortable with this. This is largely because they are often not aware that their pictures are being taken. The user respondents were not entirely fond of this strategy because they do not necessarily like how they sometimes appear in the pictures. They might be caught yawning or in a position where they look funny: *"Sometimes they take pictures when you are not paying attention, so you want to see what you look like. I'm sitting here and now … I'm trying to understand something and I'm stressing then your mouth is open, and your eyes are big and they take a picture of you like that"* (Steven C., user respondent). For the user respondents this is embarrassing since Facebook is a public forum.

The content posted by the centre is often very rich in terms of quality and does not display well on some devices with old software. The content also requires more bandwidth than usual to download and view. The centre staff are aware of this challenge but are not willing to reduce the quality of some of the content, as this would also affect the content's impact: *"I would definitely say is the barrier … because the quality of our posters is very big … we don't want to lose quality on the things … we just upload the images because it's good quality. And the quality of the picture can affect how that picture is going to load in your phone"* (Nina W., expert respondent). A solution is necessary, however, to ensure that even those with old phones or old software can view the content on their phones.

The popularity of social media has high and low peak times during each year. At the beginning of each year, there is a lot of activity and engagement from interested community members and people from other communities on Facebook. It gradually dwindles, only to pick up again in the middle and at the end of the year. The staff have become aware of when social media are most useful to share particular types of information and they use social media strategically in this regard:

> *Within January social media explode because everyone wants to do a course … so yes in a certain point in time that can be the main one, then maybe in the next turn around, maybe during March or something it would then be the newspapers. So, there is seasons when certain stuff is working, when everyone is now settled in March studying no one is going to worry now about following on social media so now we need to find other ways to get to people* (Tatenda K., expert respondent).

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The centre continues to post content even during the off-peak times to keep the page active and share information with those who visit the page during these times. The staff also have to deal with people posting inappropriate content, such as pornography, weight loss tips, and irrelevant information to redirect people (traffic) to their own social media pages or websites. The centre has set a protocol in place as part of their social media plan to address these issues. The page needs to be monitored constantly and inappropriate content is deleted and, if necessary, the centre staff block or report the perpetrators to Facebook.

6.3.4   Summary

With its different focus areas, the centre facilitates e-inclusion and plays other roles to fulfil the other growing needs in the community, for example small business support and education. A good relationship between the centre and the community is necessary for the success of the centre's developmental initiatives, and this is achieved through community engagement and participation. Effective communication is a necessary part of the process and requires an understanding of the community's communication landscape and knowledge of community members' information and communication needs. The centre uses more than one type of medium to fulfil these needs, as some media like – newspapers and radio – are more effective with the older generations, while social media and other online media are more effective with the youth and young adults. A dedicated team working together, and a social media plan that addresses issues of language, mobile data costs and access, are also useful to use social media to communicate for development. Social media analytics provide valuable information about the performance of social media and can be used to inform a better social media plan.

6.4   Case study 3 (CS3): Innovation and training hub

Similar to the community centre of case study 2, the innovation and training hub was also categorised as 'other' in the QSA. This is because the hub operates as an incubator, innovation space, Internet café, e-centre, youth development centre, and training institution. The hub is a social enterprise, which enables it to support its financial well-being and sustainability. It was founded in 2009 and is owned and managed by an NPO. The hub is a social revolution initiative born out of community organisation and action to address poverty-related challenges. It is the hub's mission to reconstruct communities by empowering community members through training, innovation and entrepreneurship, which are facilitated by ICTs. In this context, reconstructing the community entails addressing existing socio-economic challenges (for example drug abuse, gangsterism, unemployment

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and poverty). The hub is located in Athlone, which is about fourteen kilometres from the Cape Town Metropole.

The hub offers public access to ICTs, training, incubation for start-ups, mentorship and business consulting services, and a platform for community members to come together with other development actors to address community challenges. The organisation operates under three pillars which are: (i) *Training and Development*: free, specialised capacity-development programmes. Initiatives under this pillar include Women, Youth, Connect, Academy, and Course lab; (ii) *Incubation*: support for start-ups and existing businesses, including a twelve-week support and mentoring programme; and (iii) *Innovation lab*: incubation and support programmes for entrepreneurs, start-ups and existing businesses' new products or services for a fee.

Since it started operating, the hub franchise has grown, with the addition of two Youth Cafés located in Mitchell's Plain and Athlone through partnerships with government. There are also franchises of the hub in Tanzania, Namibia, and Botswana. The hub has various local and international partners and funders, operating in business, research, and education. Examples include Accenture, BBC, Facebook, Media24, Mozilla, the Omidyar Network, the Rockefeller Foundation, UNWomen, and USAID. Partnerships are an integral part of how the hub operates.

6.4.1 Background of respondents

Face-to-face interviews were conducted with three expert respondents, two male and one female. They were part of the hub's management team responsible for social media, training and development, and the community-based learning campus. The responsibilities of the expert respondents are summarised in Table 18 based on their focus area in the organisation: Incubation (I), Academy (A), and Social Media (SM). Interviews were also conducted with six user respondents, four male and two female, between the ages of twenty-three and thirty-two. They were university students, a job-seeking university graduate, employed adults and an entrepreneur. The researcher also spent time at the hub observing how the different departments function and their engagement with community members.

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Table 18: Matrix of focus area responsibilities of CS3 expert respondents

Responsibilities	Focus area		
	I	A	SM
Developing social media plans and campaigns			X
Developing programmes and structuring content	X	X	
Digital skills training	X	X	X
Hub marketing	X	X	X
Managing the 12 week programme and incubation	X		
Managing the academy		X	
Monitoring and maintaining social media accounts			X
Organising facilitators	X	X	
Overseeing training	X	X	
Registering applicants	X	X	
Social media engagement			X
Sourcing funding for poor trainees	X	X	
Supporting existing community-run campuses	X	X	
Training and consulting	X	X	X
Updating the hub's website and blog			X

6.4.2   Theme 1: The hub services and community development

6.4.2.1 Economic development and empowerment

The hub's mission is to make *hope contagious* by showing community members that change is possible and by empowering them with the knowledge, skills, and resources to make the change. To build the capacity of community members, the hub provides various training courses that focus on women, business, and personal and economic development. The courses include (i) *women*: introduction to make-up, start-up women, creative design, and geeky mums; (ii) *business development*: introduction to small business management, advanced small business management, introduction to entrepreneurship, introduction to office management and technology, introduction to photography principles, and introduction to centred leadership; (iii) *personal development*: introduction to leadership, and personal financial management; and (iv) *employment development*: basic computing, introduction to human resource principles, project management, events management, occupational health and safety, public relations and marketing, design, computer coding, and web publishing.

The training builds community members' capacity in different ways. Existing entrepreneurs and small business owners gain the skills to organise their start-up businesses and develop them further. The hub also provides funding opportunities, ICT infrastructure, mentorship, and incubation services. The incubation services entail providing a space for individuals or small businesses to develop and design their products and services. The hub also works with them from the business idea or concept design

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stage until the early stage of the start-up and the growth of the business over a set period. Community members with social impact business ideas and start-ups have the opportunity to go through a twelve-week training, incubation and mentorship programme. The focus is on these businesses because their mission is to benefit the communities and create employment opportunities: *"Like prerequisite that you have to meet first as a starter to be considered… the business first you need to have social impact"* (Meg G., expert respondent). Attending the twelve-week programme helped one of the user respondents develop a social impact business idea towards a scalable start-up.

Other community members who are not satisfied in their jobs or with their current income upskill themselves in an attempt to improve their employability or get promoted. The hub creates opportunities for marginalised women to access information and communication resources, mentorship, training and other initiatives that can help them create economic opportunities. The youth have opportunities and a safe place where they develop their skills and start their own small businesses. The hub also offers skilling programmes and mentoring to prepare the youth for the job market. The partnerships that the hub has with other organisations in the different industries are also helpful to create job opportunities for the hub's training and development graduates.

There are also community members who want to develop certain skills to be able to carry out tasks related to their hobbies and other personal interests. For instance, five user respondents attended a short photography course to learn about photography. Although photography was only a hobby and they did not seek to make money from it at that stage, they still wanted to be empowered with the knowledge of photography and the skills to use a digital single-lens reflex (DSLR) camera: *"I wanted to do photography lessons. I do like photography as a hobby, so I wanted to get to know the camera better"* (Phil C., user respondent). The user respondents felt their capacity was enhanced because they gained knowledge of photography and skills to use a DSLR camera, and they were glad to have attended the training.

Since not everyone can afford to travel to the hub for the training, the hub started a community-based learning campus initiative which referred to as an academy in 2016. Past trainees who want to build the capacity of other people in extended communities can establish mini hub training campuses, with the mentorship, marketing and training course content support from the hub. These individuals are required to attend further leadership training and to organise their own venues and equipment. At the time of this study, there were eight campuses located in Khayelitsha, Atlantis, Rylands, Delft, Hanover Park, Blue Downs, and Mitchells Plain that are managed by people from the respective communities.

6.4.2.2 Participation

The hub is an initiative *"for the people, by the people"* (Meg G., expert respondent). Community members are therefore invited to participate in decision-making regarding the services provided and how they are provided, because "*without the community, there is no* [hub] *… it has always been about community involvement …*" (Glen C., expert respondent). Therefore, *"we listen to what the community needs"* (Glen C., expert respondent). The hub does not introduce preconceived ideas and solutions into the community but works with community members to build workable solutions. Most of the training courses provided by the hub are as the result of continuous community engagement and needs-based assessments. The needs are often related to either personal development, business start-up or growth, and employment:

> *It's having a conversation with community people that come here and it's also surveys, we do questionnaires, satisfaction surveys. So, we also ask if there is anything that you would like, what would it be, what would you like us to add and then we get what people are saying. Everything we do that is only because the community has asked for it* (Meg G., expert respondent).

Due to their participation community members gain a sense of ownership of the different initiatives and this makes them more supportive and motivated to work with the hub for community development:

> *You need a community to be behind you otherwise you can try and implement things, but if the community don't buy any of that, then you can do a lot of stuff and you will do it all in vain, you can spend a lot of time, lot of money and a lot of resources on something that a community, they might need but not behind it* (Stan L., expert respondent).

The hub's Youth Cafés are a good example of what can come out of community engagement and participation in decision-making about services that best suit community needs. The hub held an 'un-conference' in partnership with government and invited 2 500 young people to participate. The hub engaged with them and creatively extracted meaningful information about their needs and preferred communication media. The concept of the Youth Cafés originated from that engagement, as the youth wanted the cafés to *"be colourful, there should be free Internet, they should have music playing, they should be vibrant. Something very interesting, they should be a mother and father figure and we didn't expect that"* (Meg G., expert respondent). Many of these youths came from communities and homes

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where they were exposed to gang violence, drug and alcohol abuse, as well as domestic violence. They sought a comfortable, safe, and loving family environment with parental figures.

The hub has protocols in place that guide its community engagement about the community needs and services provided. It is important that all people are treated with respect and shown that the hub takes them seriously. The process when community members come to the hub for face-to-face engagement starts with the staff welcoming the person or people and finding out how the hub can assist them, after which they are introduced to the staff member who can best attend to them. None of the user respondents had approached the hub to discuss the services provided, therefore they were not able to provide details of the process. They were satisfied with the courses they attended and the services they received.

6.4.2.3 Social capital

The hub's staff understand and experience the value of strong relationships and networks in community development. Therefore, they implement different strategies to build and maintain positive relationships with community members from the different communities in which the hub has a presence. The hub makes use of a community advisor who is a trusted leader in the communities to guide and facilitate the hub's engagement and relationship building with community members. The hub's staff are also from the communities and have links to different networks in their communities. These links are useful for the hub to gain access to networks that provide information about community challenges and needs. Knowing this information enables the hub to develop more informed community development initiatives:

> *Whoever works with or at* [the hub] *are people from the community, it's not outsiders. These are people that understand the heart-beats of the communities, growing up in these communities, who really understands the challenges. We know what works and doesn't work, so coming up with possible solutions we are the best place* (Meg G., expert respondent).

All of the hub's staff are brand ambassadors. How they act and treat people embodies the values of the hub: *"You cannot get drunk on the corner because they* [community members] *will see the organisation, so what they see it will impact the reputation of the organisation"* (Meg G., expert respondent). How community members see the staff has an impact on the relationship with the organisation. Therefore, the staff try to portray 'the change that they wanted to see in the community' by "*being true to who you are as an organisation and as a person, our goals and values as an organisation"* (Meg G., expert respondent). To gain community members' trust, the hub is transparent

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about their initiatives and objectives: *"You have to be real. We cannot make up stuff … people will pick it up when you are not real"* (Glen C., expert respondent), and that can damage the relationship.

The hub also facilitates relationship building among community members by providing a space and environment where community members feel free and comfortable to engage and network. For example, one user respondent had become good friends with other people met through engagement facilitated by the hub. They share ideas, camera equipment, and help each other with photo shoots. The hub staff, environment, and even the atmosphere at their venues are designed to be welcoming. For many community members, the hub provides an escape from the harsh realities they face at home and in the community:

> *Our space needed to be very different. Space, design, fine art, smell, taste, touch, all of these things affect people's experience. In our community unfortunately people aren't used, this is not normal for them … when they come into this space they need to see something different that is immediately going to spark something within them … I don't just mean the physical space, it is also the atmosphere that we create here, we are very very particular about that. So, there is no arguing here, there is no shouting or fighting nothing, that's not allowed in here because all of that affects the atmosphere … when they come here they should not experience any of that* (Meg G., expert respondent).

The success of this approach has led to several schools in other under-resourced communities approaching the hub for help to set up spaces similar in design and concept for the benefit of their trainees.

6.4.2.4 Challenges

The hub's challenges relate to the rapid growth of the organisation and the lack of commitment to free training. The rapid pace at which the organisation is growing is a challenge because, among others, the hub risks losing focus on the initial mission and values:

> *The biggest challenge for us as an organisation is our growth … we are growing so quickly and so fast that it's easy to lose your values … especially when opportunities come along, external partners and funders. So, our challenge, is growing so rapidly but staying true to our values not losing that …* (Meg G., expert respondent).

Although the staff struggle to keep up with the growth, their innovativeness and resilience help them manage and adapt. Another challenge is that community members are not always committed to

completing the free training. Therefore, the hub began requesting all interested participants in certain courses to pay a very low fee for administration and completion certificates, which increased the level of commitment:

> *So now* [we] *said okay if you apply for a course you pay administration fee which will be 100 Rand for the year and then your certificate at the end of the year will be 50 Rand, which is not that much considering that these are people from the community they don't earn much and some of them don't work …* (Stan L., expert respondent).

Certain community members who are not able to pay the amount are invited to engage with the staff to secure funding under certain conditions, which include completing the training.

6.4.3   Theme 2: Communication and engagement with community members

6.4.3.1 Communicating for development with community members

Communication plays an important role in how the hub operates and provides its services. It facilitates the engagement with community members and other development actors, which is necessary to identify needs, share information and resources, discuss solutions and the necessary actions. The hub continuously makes an effort to research and understand the communication landscape of the community to develop more informed communication strategies and media choices. Understanding the landscape helps the hub determine *"… what the community is like and what is happening in the community"* (Glen C., expert respondent) regarding communication and the media that is used. Moreover, through the research the hub learns about the growing and changing information needs of community members and the appropriate approaches, as well as the best media to fulfil these needs. The communication media used by the hub include newspapers, pamphlets, radio, television, word of mouth, a dedicated website and social media, which includes WhatsApp.

Articles about the hub and its initiatives in the communities are often in local print and online newspapers: *"… a big part is print media as well, so that we do community newspapers mostly because is free, so it's perfect for how we target audience"* (Meg G., expert respondent). The hub also benefits from the media organisations in their networks, which on occasion offer to print articles about the hub in local newspapers with wide readerships: *"… they will email us and say do you guys have anything that you would like to put into the newspaper for free"* (Glen C., expert respondent). The hub uses pamphlets to provide information about its different interventions. The academy, for instance, provides community members with pamphlets containing details of all the campuses in the different

communities and the services they provided. Community members also share the pamphlets with others, and this helps to create awareness about the interventions.

The hub has an online radio station that broadcasts daily breakfast and lunchtime shows. The shows are used to promote the use of ICTs and skills training, share information about the services provided and current events in the community: *"We have a radio station … we can say stuff on air about* [the hub]*, in fact we can say anything on that radio station about* [the hub] *…"* (Glen C., expert respondent). The hub also conducts two-way engagement sessions with community members who call into the shows to discuss various topics, such as challenges in the community and possible solutions. People in different countries listen to the hub's radio shows, which helps to create awareness outside of the community and gain the interest of international development actors and to forge useful networks.

The hub's management staff are often invited for interviews and debates where they speak about the hub and its initiatives, and these are broadcast on local radio and television: *"We often get invited to speak on the radio about our programmes"* (Meg G., expert respondent). The hub also uses its large networks and supportive relationships with different organisations to help it achieve its communication objectives. Primedia Broadcasting, for example, one of the largest broadcasting and media organisations in South Africa, regularly offers the hub free opportunities to be on radio and television: *"We kinda work closely with Primedia broadcasting, it is a Cape Talk, Kfm and those kind of things"* (Glen C., expert respondent). The hub uses these opportunities to create awareness about its community development initiatives and encourage community members to use the services and participate in reconstructing the communities.

Awareness in the communities about the hub is also created and shared through word of mouth. The staff encourage community members to talk to each other about their experiences and the impact that the hub has had on their lives, whether positive or negative: *"You don't know the impact that you are making or that you have until people start speaking about it and that is what we want to do"* (Meg G., expert respondent). The effectiveness of word of mouth is evident among the user respondents, many of whom found out about the hub and the training courses from friends: *"It was word of mouth, I attended a meet up then I met someone who told me about it"* (Cole B., user respondent). Other user respondents felt that, while word of mouth and the other media used are effective, more could be done to improve the overall communication strategy: *"If I had not met the person who told me about it I wouldn't have known about, so I think they should work more on the way they do their thing. I think they should work on their advertising"* (Nick C., user respondent). The other user respondent found

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out about the hub and its twelve-week training and support programme from doing online research and then contacting the hub for more information.

The hub's website is used to share information about the organisation, particularly images of the hub, its objectives in the different communities, and the services provided. Links to the hub's social media and a feedback form are also provided on the website for people who want to engage with the organisation. One of the main principles of the hub's communication strategy is non-payment for the use of media: "*We don't go and pay for airtime … we want people to speak about* [the hub] *and that's why I tell you that we don't do paid media …*" (Meg G., expert respondent). Glen C. (expert respondent) stated: "*we don't do pay media, we only do organic, yeah, we don't pay for media*". Organic reach is more rewarding for the hub.

6.4.3.2 How the hub communicates for development using social media

The social media used by the hub include Twitter, YouTube, Google+, Instagram, Facebook, and WhatsApp. WhatsApp is used to engage, and to share news, announcements and general information with staff and registered trainees. The different departments, classes and hub franchises have dedicated WhatsApp numbers and groups. The user respondents are in WhatsApp groups for their classes and feel this is an effective way for the hub to share information and engage with them:

> They tell you that they will send you a message, like two weeks before your course starts. It will come in like a WhatsApp message and then if you need any information you can actually send a WhatsApp and you will get a response as early as possible (Cole B., user respondent).

The user respondents engage with the hub through WhatsApp because the hub responds quickly to questions.

The hub uses a Facebook page and Twitter to share information and create awareness in the communities about the organisation and the services provided, particularly the training courses, entrepreneurship and small business support services. The hub also uses its social media to post invitations to events, motivational messages, digital stories, and pictures of events and achievements. They also share relevant content from the Facebook pages of the hub's franchises, including the campuses. Since the hub does not pay to use media, it relies on its community of followers to share the hub's content with their followers and through word of mouth. The staff are also encouraged to share the content from the hub's Facebook page on their personal Facebook pages. This helps to

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increase the reach of the content, since some of the staff members have more than 2 500 followers on their personal Facebook pages:

> *Once I put something on the page and the staff shares it … if everyone shares a post we can have at least 18 to 100 shares every single day and our reach will be so much bigger and so those kind of things and that is one of the reasons why we don't pay* (Glen C., expert respondent).

The hub has developed a detailed and organised plan that guides how they use their social media and also invest in staff training on social media. The hub's social media plan entails what and when they post content, which is planned according to a daily schedule. For instance, an inspirational message, picture, or quotation is posted in the morning with the hashtag morning. Then, in the late morning, an update is posted with information about what is happening at the hub and at the other campuses as well as franchises. At this time, the hub also shares relevant content that was originally posted on the Facebook pages of the campuses, the Youth Cafés and the hub's other franchises on to their page, with an added short comment or caption. In the afternoon, opportunities and information about training taking place during the week and on the weekend are posted. Anything else happening at the hub in the afternoon that had not been shared is also posted. Towards the end of the day, the hub posts more opportunities and engages with community members. The social media analytics reveal that late afternoon is the time when community members engage most with the content on the page.

The hub use of social media analytics is part of their plan to gain accurate information on the impact and performance of their social media, particularly Facebook. This helps them know their audience, especially the times when they are most active online, their geographical locations (country and city), interests, and age groups:

> *You check out the analytics … the settings side of it … the page gives a lot of things right, you see everything … so that's the average per day … that's how much people we reach … people who liked it, people who shared it, those kind of things* (Meg G., expert respondent).

The analytics reveal the areas where the hub's social media plan is performing well or poorly and, using this information, the hub adjusts its plan accordingly: *"When you know your audience, you will know what to post"* (Meg G., expert respondent).

Engagement sessions between the staff that manage the social media at the hub and its franchises and Youth Café are held once a month. The purpose is to discuss strategies, best approaches and

challenges, and to ensure that the different accounts are uniform and follow the same principles that embody the values of the hub. These values shape the organisation's brand, and therefore inform the social media plan:

> *Once you know what the company stands for or what they are about and you take that online, now you attract the audience to that brand. But now you need to attract a bigger audience, so, in order to attract a bigger audience especially from your community you need to understand what the company stands for and what missions they are putting out there and once you understand that you will know what to post online* (Meg G., expert respondent).

It is equally important for the hub to know what content not to post on social media. Where possible, the hub avoids sensitive topics such as culture, race, and politics, because, as far as politics and community are concerned, *"… the two don't really get along that good"* (Glen C., expert respondent)*.* The different community members served by the hub are multiracial and multicultural, and their experiences and strong opinions differ.

Research is an important part of the social media plan design. The hub researches the latest trends, current topics of interest and discussions on social media, particularly in South Africa. These insights are used to determine how the hub can integrate itself and capitalise on the conversation taking place:

> *So, research is also key to what we do all the time. We need to keep on track with trends and changes on social media, which is constantly evolving. You need to stay up to date with what is happening out there, so constant reading* (Meg G., expert respondent).

They also research similar organisations' social media presence to get ideas from how other organisations use social media.

6.4.3.3 Why the hub uses social media to communicate for development

The reasons why the hub uses social media are that they are appropriate for the hub's target audience, they are cost effective, wide reaching, capable of multi-media content, and convenience as communication media that facilitate two-way engagement, networking and information gathering.

The hub targets vulnerable groups in the communities to empower them to change their quality of life. Many of these people are active social media users, which makes it easier for the hub to reach them: "*… if you wanna find them that's where you gonna find them"* (Meg G., expert respondent). Social media are also wide reaching, as anyone, anywhere with a capable device and Internet

connection can see the content. The hub's social media analytics provide evidence that the organisation's organic social media reach is at the community and international level: "*So I can look and see okay that post, that's how much we reach … you see South Arabia, Bangladesh, Thailand and Norway so we have a presence in … I think its 23 countries at this moment in time*" (Glen C., expert respondent).

The hub can also post different types of content, for example text, audio, video and images, making social media appropriate to share the digital life stories of community members whose lives have been affected by the hub organisation. This is the type of content that community members want to see to be convinced that positive change is possible, as seeing these stories makes them hopeful that they too can improve their quality of life.

Facebook and Twitter are convenient and useful for two-way engagement between community members and the hub. Community members post questions and comments, and send private direct messages to the hub, asking for information about the service, courses and the other initiatives. The hub makes an effort to respond promptly and, where necessary, to redirect the questions to the relevant department. Community members also use Facebook to voice their dissatisfaction with the hub, and the organisation has set protocols to address this type of engagement in their social media plan. The following is an example of a complaint that was posted on the hub's Facebook page by a community member:

> *We had this complaint when that Café opened … one lady who came in and complained … on the page … about music that's too loud and the staff is just taking photos and things like that. Instead of us just removing it from the page, I said let's just solve this. I clicked on her name, inbox her as the* [hub] *page and* [we] *apologised to her. Then asked her if it is possible for her to come to the Café and we can sit, then we can meet over a cup of coffee … they* [the Youth Café] *met with the lady, they spoke to her nicely, they came to an agreement. She understood why they were taking photos and it was sorted …* (Glen C., expert respondent).

The convenience of social media as engagement and networking media enables the hub to connect with community members and other development actors. Among the user respondents, only one had engaged with the hub through its Facebook page to ask a question about the photography course, to which the hub responded promptly: "*That was before I attended my course, I wanted to get information and see like what other people say about it, if it was worth going to or it was going to be a waste of time*" (Phil C., user respondent).

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The hub is also able to conduct research and gather further information on development actors and different community development initiatives taking place locally and internationally and this is helpful for the staff to get ideas and inspiration.

6.4.3.4 Challenges of communicating for development using social media

The challenges that the hub faces when using social media to communicate for development are community members' lack of information, digital skills and access to social media. Although social media are popular in the communities and actively used by the hub's target audience, the reality is that not all the community members they want to reach use social media. Some community members still do not know what social media are, nor do they possess the digital skills to use them. Furthermore, access is still a challenge: "*Not everyone has access to the Internet … people struggle to get access to their Facebook page, some don't have access at all*" (Cole B., user respondent).

There are community members who do not have mobile devices that can access social media. They own feature phones or phones with old software that is not capable of downloading applications like Facebook:

> *Looking at cost of data, not being able to afford data … not having a phone that Is capable of going on to the Internet, because we still have a lot of people out there that has feature phones. So that could be one of the reasons why they cannot access …* (Glen C., expert respondent).

 The cost of mobile data further hampers community members access to social media. Some community members rather purchase WhatsApp data bundles, which are cheaper, because they use WhatsApp more than Facebook.

6.4.4   Summary

The hub is an example of what can be achieved through community organisation. The hub emphasises instilling feelings of hope and desire for change in community members, and then empowering them to act and achieve that change. The community is the starting point. Community members participate in aspects of the discussion, design and implementation of and approach to the hub's developmental initiatives in the community. Community members have a sense of ownership and determination to see the initiatives succeed. They also bring useful knowledge about community challenges, needs and possible solutions, which they are willing to help address.

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Communication plays a leading role in facilitating the engagement and research is important for the hub to understand the communication landscape. This understanding is useful to inform more effective communication strategies and uses of different media, including social media to communicate for development. The hub designs and uses a social media plan that embodies the values of the hub and provides insights into their social media audience, which also leads to more effective use of these media. They have clear social media objectives, and know their audience's information needs and the appropriate ways to use social media to fulfil these needs.

6.5   Case study 4 (CS4): Training institution

This case study was done on a centre that operates as a training institution and was established in 2008 by a state-owned entity that is funded by the government. The entity collaborates with different development actors from government, education, business and civil society, while deriving its mandate from the government. The centre is in a rural area located in Franschhoek, a town about eighty kilometres from Cape Town. The mission of the centre is to develop people's digital skills capacity through training, mentorship, and exposure to ICT and the media industry. The centre provides public access to ICTs for training purposes. In addition, the centre provides low-cost administration services to fulfil the needs of community members. The centre serves mostly marginalised community members, most of whom live in the under-resourced communities of Mooiwater and Groendal, including an urban shack settlement called Tyotyombeni – all of which are in the vicinity of the centre.

6.5.1   Background of respondents

Face-to-face interviews were conducted with three expert respondents, two female and one male, who were responsible for operations at the centre. Their roles were Centre Manager (CM), Course Facilitator (CF), and Centre Administrator (CA). Their responsibilities are summarised in Table 19. Face-to-face interviews were also conducted with six centre users, five male and one female. Their ages ranged from twenty-two to fifty-one years and their occupations included small business owners, as well as employed and unemployed adults. The researcher also spent time at the centre observing the daily operations and engagement between the centre staff and community members.

Table 19: Matrix of CS4 expert respondents' roles and responsibilities

Responsibilities	Roles		
	CM	CF	CA
Centre administration			X
Centre maintenance	X	X	
Course curriculum and material development	X	X	
Faxing services			X
Human resources	X		
IT infrastructure support	X	X	
IT repairs	X		
Lecturing	X	X	
Managing the centre's finances	X		
Managing trainees' data	X	X	X
Marketing the centre	X	X	X
Photocopying services			X
Printing services			X
Social media management		X	X
Trainee registration	X	X	X
Typing services			X

6.5.2   Theme 1: Centre services and community development

6.5.2.1 Economic development and empowerment

Many of the people in communities around the centre are marginalised, and close to a quarter of this population lives in conditions of poverty and do not have a stable source of income (StatsSA, 2018c). The centre seeks to build community members' capacity for community development by providing access to information and communication resources and skills development, which enable community members to act towards improving their quality of life. The centre supports small businesses by providing services that enable the businesses to operate more efficiently: *"There are a number of businessmen who come … they use it as sort of a business hub …"* (Mimi S., expert respondent).

The centre staff provide community members with information collated from different sources, such as newspapers, the Internet, social media, and other development actors. This information includes employment and internship opportunities, funding and scholarship opportunities, and details of the centre's training courses. The staff also provide information on how community members can access and apply for vacancies online or on Gumtree, which is an online classified adverts website: *"A lot of people come and ask questions, they want to send a job application, they want to apply for jobs on Gumtree and they don't know how to do it … so, we also try and assist them"* (Cardi H., expert respondent).

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The centre offers a variety of training courses, most of which are at a small fee, and the rest are free. These include entrepreneurship, desktop publishing, communication, digital photography manipulation, business management, Microsoft computer literacy, and radio production. The centre also offers computer literacy training courses in partnership with the Vaal University of Technology, and other short community-driven digital skills training courses.

In their effort to build the capacity of community members through training, the centre staff have learnt three key things. Firstly, community members do not believe that the free training courses have any value and are therefore not interested in them: "*We discovered early on that courses offered for free were considered worthless and students would start and stop*" (Mimi S., expert respondent). The expert respondents also find it interesting that the community members who shun the free courses are in most cases the same people who cannot afford the paid courses.

Secondly, the training content must be relatable to the daily realities of community members, because they have specific tasks that they want to perform. Hence, the centre staff also develop needs-driven courses designed to address ICT-related training (skills) needs: "*There is a need to focus on, to find out what the needs are and to focus on those needs and develop skills courses that will focus specifically on that*" (Stevie B., expert respondent). These needs are usually identified through the staff's engagement with community members, community organisations, other development actors and through community research. These courses are designed to empower community members with the freedom and skills to use ICTs to perform desired tasks. The 'silver surfers' course, for example, was designed to empower older community members with basic skills to use their mobile devices to communicate with family using social media and instant messaging applications, and search for information using applications like Google search.

Lastly, the centre's trainees come from very diverse backgrounds and have different literacy, education and competency levels, resulting in different training needs: "*We had a lot of face-to-face classes and what have you and there was a lot of lecturing and then we discovered that it wasn't actually working for the students or for the people in the area …*" (Mimi S., expert respondent). The staff therefore had to develop strategies for effective skills transfer, one of which was converting some of their course material into digital format. This enables trainees to be more in control of their progress as they work individually at their own pace, using the computers to access the training material with the support and guidance of the facilitator.

The centre staff help unemployed youth to prepare for the job market by giving them advice on how to present themselves and engage with potential employers. They also have discussions on ways the youth can use the resources available to them to generate income:

> *I try and give advice … you know help them. I had the one guy come in the other day and he had done training as a dog handler … and I said to him why don't you become a dog trainer. The first thing he said to me was that I don't have money for overheads, and I said to him look at that field, you don't have to pay for that field. All you need to do is, you need two people. You go to them and you say let me train your dog for you for free and next week you have ten people who will come to you. You can do it outside here and you don't have any overheads. So, I try, you know its small things … so you try and give them little ways of making an income …* (Cardi H., expert respondent).

To support the entrepreneurs and small businesses, the centre provides services which include typing, printing, photocopying and storage of digital documents. In addition, the centre runs entrepreneurship workshops to develop the capacity of community members to network and engage in income-generating activities. The centre staff also prioritise enhancing their own capacity by gaining the skills required to provide the community with the best possible service. One staff member attended a social innovation course to better understand community dynamics and how to facilitate innovation that addresses community challenges. Another staff member was pursuing a postgraduate degree in technology and education that would facilitate a better understanding of how to integrate digital technologies into the learning ecosystem for the benefit of the trainees. For Jodi B., another staff member, being at the centre instilled her with self-determination and motivation to complete her Matric and gain digital skills:

> *When we started off here,* [Jodi B.] *had a standard seven certificate.* [Jodi B.] *now has a Matric since being here and also through the motivation …* [Jodi B.] *is also now very computer-literate from somebody that couldn't do a thing,* [Jodi B.] *assists people with typing CVs and making photocopies, sending faxes and things like that …* [Jodi B.] *has developed skills that can be used elsewhere* (Stevie B., expert respondent).

Cardi H. (expert respondent), who was not involved with the course facilitation, wanted to attend a facilitators' course to gain the skills necessary to lecture trainees:

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I would love to do a facilitators' course … coz we not open at weekends and we not open at night, and that is a bit of a problem coz majority of the people can only come on a Saturday …, so that I can facilitate the class on the weekends … (Cardi H., expert respondent)*.*

This would enable the centre to create more training opportunities for community members.

6.5.2.2 Participation

The centre has *"… an open-door policy for the community. Any queries they may have, I would be quite willing to listen to"* (Mimi S., expert respondent). Community members are welcome to visit the centre to voice their queries, suggestions and opinions about the services provided and they can also communicate with the centre staff through email, social media, telephonically, and through the website of the entity that owns the centre. The centre staff consider contributions and suggestions from community members that are in line with the centre's objectives in the community and that are feasible given the centre's resources. For example, the centre hosted first aid courses and Early Childhood Development (ECD) workshops at the request of community members. None of the user respondents had approached the centre staff to request additional services or make any complaints. They were satisfied with the centre's ability to fulfil their individual needs, which were mainly typing and printing: *"They do cater to my needs … most of the time I'm here for printing"* (Chris H., user respondent).

Community members go to the centre to access computers and the Internet, and training and administration services. However, at the time of the data collection, computer and Internet access were reserved for training only, because most of the computers had broken down and the centre could not at that time, provide general Internet access. Nevertheless, due to the growing need for services such as typing, printing, and photocopying in the community the centre started offering these services at very low costs, *"providing like admin and typing services for people within the community"* (Cardi H., expert respondent). Using one computer, two staff members alternate helping community members by typing, printing and photocopying community members' documents. Other organisations that offer similar services are either too expensive or too far away for community members to access. There are days when community members start queueing for the services before the centre even opens, and the most popular request is for typing, printing, and photocopying of CVs: *"It is the most popular thing, people are in here constantly either to type CVs or to update CVs or to get copies of CVs or to fax or to email CVs"* (Cardi H., expert respondent). This was also observed by the researcher.

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6.5.2.3 Social capital

While the centre has an open-door policy and community members are welcome, the entity, which has its head office in a different town, and the centre staff, who are not originally from Franschhoek, have faced tremendous adversity integrating into the community:

> *On the first day in my office when I started here, 2008, the lady came in and said what are you doing here, who are you, and then somebody came in here and they stood talking there as if it was their place and it was simply because I'm not from Franschhoek* (Stevie B., expert respondent).

However, through continuous engagement with different development actors, NGOs, CBOs and community representatives, the centre staff have managed to build some networks. These networks provide the links necessary to connect with the different social groups in the community. The centre staff use these links to share information and promote the centre's initiatives.

The centre staff make an effort to treat community members with respect and to make them feel welcome, which helps to build relationships. The relationships have led to some loose-knit networks that are helpful for sharing information and creating awareness: "*As soon as you treat someone with respect and with dignity and with understanding, it's a huge change, a huge change in how they perceive you …*" (Cardi H., expert respondent). Over the years, the centre has also gained a steady stream of trainees with whom they had a positive relationship.

One of the centre staff who speaks English and Afrikaans was learning IsiXhosa to help IsiXhosa-speaking community members: "*I actually started learning isiXhosa, just so I can start communicating because when you can greet someone in their own language it makes such a huge difference*" (Cardi H., expert respondent). This effort makes IsiXhosa-speaking community members who come to the centre feel respected and welcome, as the staff member practices with them, which helps to build the relationship. The user respondents described the centre staff as helpful and understanding.

6.5.2.4 Challenges

The challenges faced by the centre include a lack of social cohesion, computer equipment breaking down, and the trust relationship being broken. The centre also struggles with community members' low participation in training courses, language barriers, illiteracy, and social challenges in the community.

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There is a lack of social cohesion in Franschhoek, as the people from the different communities in the town are socially segregated. The different social groups do not seem to fully embrace each other. The groups are based mainly on race (Black African, White, and Coloured), with the Black Africans being in the more under-resourced and limited-opportunity communities:

That's the biggest problem here is that we are not unified, everybody is fighting … it's Black and it's Coloured, or it's Black, Coloured and White, you understand what I'm saying. So, there is no real unity and that's a problem (Cardi H., expert respondent).

Within the racial groupings, there are smaller cliques based on cultural and religious backgrounds (local and foreign), economic status and language spoken (Afrikaans, English or IsiXhosa).

The lack of social cohesion affects the centre, because the staff who are White and Coloured face resistance from social groups of Black Africans in particular, who do not appreciate any help or do not want to be part of the centre's networks: *"This community is extremely polarised, very and it's very frustrating … I'm immediately discarded …"* (Cardi H., expert respondent). Furthermore, the different social groups themselves do not want to engage with each other about common community challenges and possible solutions: *"Word of mouth stops within certain groupings and it doesn't go further"* (Stevie B., expert respondent). This makes it difficult for the staff to initiate unified developmental interventions. On some occasions where different groups come to the same place, they end up having confrontations instead of discussing common challenges: *"So the discussions taking place then once again a confrontation between the Coloured community and the Black community, instead of talking together about how to solve a certain problem, or to look at the solution"* (Stevie B., expert respondent).

These divisions and social groups are also evident among the centre's trainees. In classes, the different groups sit separately and do not engage with each other: "*The Coloureds will sit on one side and the Blacks will sit on one side … they don't sit together. They do not mix. I don't know, I just find it absolutely intriguing to see how it happens every single time"* (Mimi S., expert respondent). Even when trainees are stuck with their work, they will not ask someone from a different social group for help.

Another challenge for the centre is the breakdown of computer equipment. As a result, the centre was not able to deliver key services between 2015 and 2017. This affected the existing relationship with the community, particularly with community members and the steady stream of trainees who had paid to attend training courses. The centre lost the community's trust: *"It's a difficult thing … the*

broken trust relationship that we had in terms of the machines breaking down and so forth, which was quite a problem" (Stevie B., expert respondent). Another expert respondent stated:

> *We had a steady stream of students, but then we had the breakdown in the relationship that we built up after so long when all the equipment broke down and it was unfortunate that there was nothing we could basically do about that*" (Mimi S., expert respondent).

The broken trust relationship also extended to the centre's networks, because the centre was not able to deliver certain services and lacked the supporting infrastructure. Some development actors stopped participating in joint initiatives and, since they were the centre's link to social groups in the community, the centre also lost those connections. The centre depends on the state-owned entity to maintain the centre, which includes replacing and repairing the equipment whenever necessary. Their delays in doing so further aggravate such challenges and add to the frustrations of the staff and community members who need the services:

> *I think people are sick of excuses ... hopefully, something will happen. Our hands are largely tied ... I don't know, we'll have to wait and see. In the meantime, we'll just carry on and try and do as much as we can* (Mimi S., expert respondent).

Although the centre had obtained enough functional computers to start offering various training courses, the community members' participation remains poor. Due to low ambitions and limited appreciation for the value of education, some community members do not see the need to attend any training. Many of these community members work low-paying jobs like fruit picking, as their parents did and their grandparents before them, and they are content and do not see the need for further education. They also do not want to leave their community, let alone the town, even if better income-generating opportunities are available in the next town:

> *They won't go … they don't want to work that way and they don't want to be travelling there, so they're very much enclosed in their own community and from a local community perspective, they don't understand the value of having computer skills or being computer-literate, despite the fact that they could access information and opportunities online* (Mimi S., expert respondent).

In addition to poor participation in the training courses, community members' interest in the training is also seasonal. Franschhoek is a tourist town, which means employment opportunities are also

seasonal. During peak time, the centre experiences high levels of drop-outs because community members would rather gain employment, as their immediate priority is putting food on the table:

The other problem is that we find during the summer months our students drop off because there's a lot of seasonal work. Fruit packers and pickers and the farm work labourers … restaurants, hotels, guest houses what have you. So, they work a lot during the seasons and then in winter months if it doesn't rain then we get students but on rainy days they don't come out (Mimi S., expert respondent).

The community is largely poor and it's more important to put food on the table than to attend class (Cardi H., expert respondent).

The trainees' commitment is unpredictable. The centre tried a strategy of providing free lunch, and this proved effective in attracting trainees: *"We had lunch every day, very nice and that was the best part"* (Farai K., user respondent). The initiative proved to be too costly and, as soon as the centre stopped providing food, interest in the training reduced drastically.

Other challenges are that some marginalised community members struggle with literacy and poor English language comprehension skills, which makes it difficult for the centre staff to assist them:

They don't have common knowledge … the biggest problem is language … half of them don't have matric, the other half do have matric but … there is no comprehension … it is very sad that there is a big gap, I would almost suggest that these kids need to do a language course, an English course, a comprehension course. Because sometimes I get frustrated here … you know, and it's not because a person is stupid. It has got nothing to do with intellect, and everything to do with language comprehension (Cardi H., expert respondent).

The trainees who cannot speak English struggle to understand the course content, which is in English, and to express themselves. Community members also face social challenges, such as drug and alcohol abuse, which often leads to domestic violence. Occasionally, women come to the centre visibly bruised and battered: *"… plenty of women that come in here with two blue eyes, you know they are victims of domestic abuse"* (Cardi B., expert respondent). These women do not want to talk about what happened, but it is a moral dilemma for the staff, who nevertheless support and help them with the services they need without judging or bringing attention to the women.

6.5.3   Theme 2: Communication and engagement with community members

6.5.3.1 Communicating for development with community members

Communication is an important aspect of how the centre operates and builds the necessary relationships that enable it to support community development. The centre uses the following communication media – word of mouth, radio, flyers, posters, noticeboards, newspapers, and social media. Word of mouth has been effective to share information and create awareness about the centre and the services. The information spreads during community engagement and networking events, and by community members sharing with each other. Four user respondents found out about the centre through word of mouth: "*I heard about it and I just told myself that I would just come here and get more information*" (Farai K., user respondent)*.* However, the challenge is that the different social groups in the community do not engage with each other, and therefore the information spreads in one group:

> *If the first person to get the information was a Coloured person then it will stay within the Coloured community largely. If the first person to get the information is Black it will probably stay within the Black community largely, because there's not terribly much in the crossover* (Mimi S., expert respondent).

This is a multi-faceted, national challenge that is deeply rooted in the Apartheid legacy. It is beyond the efforts of the centre staff alone to address.

Community radio is a fast and effective medium to share information and create awareness about the centre and training courses it provides: *"Radio station is the most effective in this area because everybody has got a radio"* (Cardi H., expert respondent). The centre made use of a community radio station that was conveniently located in the same building as the centre. This radio station gave the centre free limited time on air to market the centre; however, the station stopped broadcasting in 2014 and this left the centre with no other affordable radio options.

The centre staff then increased their use of print media through posters that are placed on community noticeboards and flyers that are given to community members. Community members respond more positively to the colour posters, which are useful to create awareness, since black and white posters are often associated with dubious and suspicious 'fly-by-night' initiatives. However, due to funding constraints, the centre often has no choice but to print posters and flyers in black and white, which

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are not as effective. Nevertheless, two user respondents found out about the centre from posters placed on noticeboards in stores in the community.

The town of Franschhoek has a monthly local newspaper. While the newspaper is informative and widely read in the community, it is not effective for the centre to create awareness and share information, because it is only printed once a month: *"There's a monthly newspaper … but that comes out on a monthly basis, but it's an English and Afrikaans newspaper so it doesn't cater for the Black communities"* (Stevie B., expert respondent). There is a large population of Black African, IsiXhosa-speaking community members who are not very fluent in English and Afrikaans. This motivated the centre staff to start a newspaper-printing incubator to help cater to the language diversity in the community and to create an opportunity to share information and create awareness about the centre and its initiatives.

6.5.3.2 How the centre communicates for development using social media

The centre makes use of a Facebook page that is managed by one staff member, who is responsible for developing and posting the content as well as any engagement on the page. During the first stages of the data collecting process, the Facebook page was not active because the services of the centre had been reduced due to the lack of functional equipment, and therefore there was not much to post: *"… there's not that much to put on it.* [We] *try and push as much as possible when we have courses"* (Mimi S., expert respondent). However, during follow up interviews and observations of the centre's Facebook page it was evident that the activity on the page had picked up, since the centre had obtained some functional computers and began offering training courses again. The page is usually most active when there are activities happening at the centre.

When it is active, the Facebook page is used to share information and promote the use of ICTs. The centre posts information about its location, objectives and services, as well as the training courses offered and their expected outcomes. To help community members who want to study further but lack the funding, the centre posts information about available education opportunities in and around the community, and bursaries and scholarships. For the benefit of the unemployed youth, information about youth development events, employment opportunities and student internship programmes is posted. To support small businesses and entrepreneurs, information about mentorship, consultancy, skills development, and other forms of support is also posted. The content is mostly in English, with a few posts in Afrikaans, and includes mostly images, colourful posters and videos. Community members engage more with the images and videos than the textual content.

The centre was also experimenting with using Facebook to support the teaching process. They were developing short educational and training videos, some of which are animated, and posting them on the Facebook page. The objective of this is to provide community members with training content right at their fingertips, especially for those who cannot attend the training at the centre but have access to mobile devices and social media. They can access the short videos and self-teach in their own time and at their own pace. This process was still in its infancy, however, and therefore the overall impact of transferring skills in this manner had not yet been determined.

In addition to using its own Facebook page, the centre also sends information to be posted on the Franschhoek town Facebook page (Flash Info – Franschhoek). The Flash Info Facebook page has a large following and it is a popular source of information for many people in the town: *"Almost everyone from Franschhoek knows, if you want to check what's going on, you check Franschhoek info. Because it gives information ... and that's the quickest way to get to people"* (Cardi H., expert respondent). When the centre has information, for instance about a new course being offered, it also uses Flash Info: *"You can write to her and say please can you out this on Flash Info for me … if it's social things or a community thing she will never say no. It will go on to Flash Info"* (Cardi H., expert respondent). However, only community information that the Flash Info Facebook page administrators think is relevant and beneficial for the community is posted. The public are restricted from posting anything directly on the Flash Info page to maintain the quality of the content and professionalism of the page.

The user respondents were largely unaware of the centre's Facebook page, but knew of the Flash Info page, which they visited often for information. Information about the centre was more likely to be seen by the user respondents on the Flash Info page than on the centre's own page. The centre staff are looking for new ways and content to make the page more active, attractive and engaging. They are also considering the use of paid social media marketing campaigns to target certain community members. The centre staff were also planning to use continuous face-to-face engagement campaigns at schools with the youth to invite them to the centre and encourage them to like, follow, and share the centre's Facebook page:

> *To actually go to the schools and to speak to youngsters, to actually have them start following us. Maybe if you just have a few to follow us and like a certain thing then you would have others in their groups also starting to read what is this all about and so forth. But as I said the key thing will be to find the correct bait. It's like casting your rod in the, you know, catching fish but you have to have the right bait and I'm still trying to figure that one out* (Stevie B., expert respondent).

The centre does not make use of a set social media plan with identified objectives or protocols that guide how they use the Facebook page. However, the staff are willing to conduct the necessary research to understand the information needs of their target audience. This would be a step in helping them make more informed decisions about how they use the page to help achieve the centre's communication objectives.

6.5.3.3 Why the centre uses social media to communicate for development

The centre uses Facebook because it is convenient and helps them to create some awareness in the community. Facebook is also popular in the community, particularly among the youth: *"The motivation is there's a lot of youngsters now having devices and being on Facebook specifically …"* (Stevie B., expert respondent). Three of the user respondents were active users of Facebook. They use it as a source of information, entertainment, and networking. The popularity of Facebook in the community is due to the increased availability of affordable mobile devices and free Wi-Fi spots in certain areas of the town. According to the expert respondents, more people in the community have access to a mobile device than they do to a computer at home, and *"if you have a smartphone you have got access to Facebook"* (Cardi H., expert respondent).

The staff have convenient access to social media at the centre, to which they connect using their mobile devices and the Wi-Fi connectivity (reserved for staff) at the centre. Despite the centre's Facebook page not always being very active, the staff are encouraged because some community members do come to the centre after having seen a post on Facebook: *"When we get the courses going and we make use of Facebook platform … we get people who come and start taking our courses"* (Mimi S., expert respondent). Facebook *"is really is a great tool"* (Cardi H., expert respondent), because it creates awareness and anyone with access to Facebook is able to see the information. It therefore helps to overcome barriers associated with word of mouth, where the information does not pass from one social group to another.

6.5.3.4 Challenges of communicating for development using social media

The centre faces some challenges in using social media to communicate for development. These include the lack of awareness about the centre's Facebook page, and the inactivity of the page due to a lack of time and of a social media plan. Social media are also not appropriate for some of the centre's target audience due to the community members' lack of access to social media and digital skills.

There is a general lack of awareness of the centre's Facebook page in the community, and this was evident among the user respondents. When some of the user respondents were asked how the centre could improve its communication, they suggested the centre use social media, unaware that a Facebook page already existed.

The centre's Facebook page is not always active and has little engagement. When there are no activities at the centre, there is nothing posted on Facebook. In addition, managing the page requires dedication, time and effort, which the staff do not always have:

> *Those who have a lot of time, they are on Facebook and those things, I don't have time for those things. That is one problem.* [Roger K.] *being the lecturer, needs to attend to students,* [Jodi B.] *is also busy … so although they look at the page and update sometimes and so forth, their attention is not there …* (Stevie B., expert respondent).

To use social media effectively *"… you need to have somebody that will be there the whole time, that will focus on that thing the whole time"* (Stevie B., expert respondent). The centre manager therefore had decided that all staff should become acquainted with Facebook to share the responsibilities of managing the page. Furthermore, the centre does not have a social media plan to guide how it uses the Facebook page. A plan could guide how and what to post to keep the page active, even when there are no events at the centre, especially since not all the information that the centre posts has to do with activities at the centre. Continuous activity on the page can prevent community members from losing interest during times when there is little happening at the centre.

Not all the centre's target audience, which includes community members whom the staff would like to come to the centre to better themselves, use social media: *"I also know for a fact that although we have a Facebook page, the people that we actually want to reach are the people that do not have Facebook and that for me is a problem"* (Stevie B., expert respondent). Since social media are therefore not appropriate for some of their target audience, the staff need to identify the most appropriate media to reach them.

The reasons why community members do not use social media include, among others, the lack of access and of digital skills. Although there has been an increased uptake of mobile devices and use of social media in the community, not all community members can afford to buy a mobile device capable of accessing the Internet. Most of the trainees who come to the centre have feature phones that are useful for calling and texting (SMSs) only: *"If I'm totally honest with you, a lot of students … a large amount of them only have, just regular cell phones, feature phones – just for calling and SMS"* (Mimi

S., expert respondent). Moreover, the computers and Internet connectivity at the centre are sometimes reserved for the training, which further limits their options to access the Internet, and therefore social media: *"They don't have access to the Internet. So, when it comes to sort of checking their FB accounts and what have you, I suppose that's limited"* (Mimi S., expert respondent).

There are community members who lack the necessary digital skills to access and use social media. Some who visit the centre have never seen a computer or accessed the Internet before:

> *Digital skills in this area are very low. Technologically challenged is the word that comes to mind. I have students who will walk in and* [have] *never sat in front of a computer before. Never had access to one. It's mind-blowing* (Mimi S., expert respondent).

Not only are primary and high school learners not exposed to computers in the computer labs at their schools, but their educators themselves lack the digital skills to use them: *"Nobody goes in there* [computer lab] *because they don't know how to use them"* (Cardi H., expert respondent).

6.5.4   Summary

The case of the centre brought several issues into perspective. The concept of e-inclusion extends beyond providing physical access to computers and the Internet. For some time, the centre was not able to provide access to these technologies since they only had a few functional computers, yet they were still able to facilitate, to a certain degree, the e-inclusion and participation of community members in the digital society through other offerings, which they still provide. For instance, the staff help community members with job applications. The staff also type documents that are either printed, saved or emailed to someone on behalf of community members. Community members' documents are also saved on the centre's computer, since they have no other options to store and edit the digital copies. To support community development, the centre staff focus more on community-driven services to address the existing challenges. The training approaches and content also try to consider the diversity of community members, particularly in their levels of education, skills and literacy, as well as languages spoken – all of which affect skills transfer.

Social groupings in the community also make it difficult to build relationships and networks, and rely on word of mouth to share information across the groups. The centre benefits from working with community leaders and representatives from the various groups, who provide useful links to community members. If the centre is not able to deliver on the services it claims, this can lead to a break in the trust relationship and breakdown of the networks.

Effective communication requires the use of strategies and media that are informed by knowledge of the communication landscape. This entails information about community members' information and communication needs, as well as access, use and media preferences. The centre only discovered after they started using social media that these were not appropriate for most of their target audience at that time. The e-IIs need to consider if the effort required to use social media is worth it, considering that only a few of their target audience are using social media, or if there is potential for the audience to increase.

6.6   Case study 5 (CS5): Rural public library

In 2008, the government started a project of placing desktop computers with Internet connectivity and other ICTs in the rural public libraries of municipalities outside the Cape Town Metropole area. The purpose is to provide community members, especially those who are marginalised, in rural and/or remote areas of the WCP with access to ICTs and to digitise some of the libraries' operations to make them more efficient. When the infrastructure is installed, the librarians receive some basic training on how to use the system installed on the computers. The machinery is replaced every three years, which ensures that it is always under warranty and up to date.

Two rural libraries participated in this case study, and are referred to as rural library 1 and rural library 2. Rural library 1 is located in the Stellenbosch municipal area, and nineteen people are involved in its daily operations. Stellenbosch is a town about fifty kilometres from Cape Town. Rural library 2 is located in Worcester, and fifteen people are responsible for the daily operations. Worcester is a town about 125 kilometres from Cape Town and falls within the Breede Valley municipal area. The services provided by both libraries include leasing books, access to printed newspapers, space for meetings and studying, and free limited use of computers with Internet access. Printing and photocopying services are also provided at a low cost. Each community member is allowed a free forty-five minute session per day on the computers, which have a visible timer. Community members are required to be registered members of the library before they can use the computers.

6.6.1   Background of respondents

Interviews were conducted with five expert respondents – two female and three male. They were a project co-ordinator (PCo), project assistant (PAs) and project administrator (PAd) from government, as well as a senior librarian (SL) from rural library 1 and a library manager (LM) from rural library 2. Their roles and responsibilities are summarised in Table 20.

Table 20: Matrix of CS5 expert respondents' roles and responsibilities

Responsibilities	Roles				
	PCo	PAs	PAd	LM	SL
Addressing daily challenges faced by the libraries				X	X
Assigning repair jobs to ICT support team and making sure they are done	X	X	X		
Engagement with librarians	X	X			
Ensuring memorandum of understanding is adhered to	X				
Ensuring the libraries are fully functional				X	X
Initial selection of libraries to install ICT equipment	X				
Insuring ICT equipment				X	X
Issuing the ICT equipment, paper and ink cartridges to the libraries		X	X		
Keeping statistics of library and ICT members and usage				X	X
Logging faults and repairs done to computers					X
Managing libraries in the district				X	
Managing the library				X	X
Managing the library staff				X	
Managing the roll-out of equipment to libraries every three years		X			
Mediating between government and the respective municipalities	X				
Monitoring and maintaining the equipment in the libraries		X			
Monitoring and securing equipment				X	X
Monitoring the help desk			X		
Ordering equipment	X	X			
Posting on Facebook					X
Procuring and distributing equipment to the libraries			X		
Project documentation	X	X			
Project management	X				
Project management support		X			
Registering the library users on the system				X	X
Report writing for government	X				
Reporting faulty equipment				X	X
Scanning and receiving books					X
Setting staff rotations				X	X
Supporting library members				X	X
Supporting ICT members					X

Face-to-face interviews were also conducted with six library users, four male and two female. They were between the ages of twenty and forty-seven. They were university students, student interns and employed adults. The researcher also spent time at rural library 1 observing community members' use of the ICT services and their engagement with the library staff, as well as with each other.

6.6.2   Theme 1: Rural public library services and community development

6.6.2.1 Economic development and empowerment

The public libraries create opportunities for community members to address their challenges and facilitate community development by providing access to ICTs, and to information and employment opportunities. For many people in under-resourced rural communities, public libraries are their first

contact and only option to access computers and the Internet. Through this project, government seeks to bring the technology closer to community members, who would otherwise not be able to participate in an information society:

> *Most of the positions are being advertised online and they're expected to do online applications. That's the common thing now, and that was also one of the key reasons why the library connectivity is there. So, that the person being 500 kilometres let's say, in Beaufort West and the position is here in Dorp Street in Cape Town at a government institution. That person based 500 kilometres away, has the same opportunity of applying for that same position* (Tom T., expert respondent).

The demand from rural libraries to be part of the project has increased over the years because the librarians want their community members to access opportunities created by ICTs. Farm workers especially, appreciate having free access to ICTs because there are limited other accessible and affordable options. Having access to ICTs makes life somewhat easier for the marginalised community members because they can photocopy their identity documents and apply for government services more conveniently and cost effectively than before: *"It's changed a lot of peoples' lives, to be honest"* (Haylee L., expert respondent). The librarians also use the technology to facilitate activities of upskilling themselves (for example distance learning) to qualify for promotions and increase their opportunities for other, more lucrative jobs:

> *One lady said that … it was a positive thing working there, studying at UNISA, and doing her assignments, and processing her documents … once she gets home, it's not necessary for her to afterwards go to an Internet café and go do her research, and then submit assignments* (Max R., expert respondent).

Having access to computers and the Internet creates opportunities for the user respondents to access information for assignments, and to search and apply for employment opportunities. They depend on the libraries' facilities: *"At work, I have a computer but no Internet access, so it is good to have this place where I can connect and get information"* (Linda T., user respondent). Nyarai K. (user respondent) stated: "*I used to come here to look for information about scholarships and bursaries and internships. Now I actually got an internship from being here and applying"*.

The libraries provide community members with information on ICT benefits, job vacancies, government services, community events (social and developmental), and youth development programmes. The libraries also create employment by hiring permanent and contract staff from the

community. Furthermore, through partnerships between the different project stakeholders from government and civil society, a cadet project was initiated to train unemployed youth from the communities and give them an opportunity to work in the libraries. Each library was to be assigned a cadet who would support the ICT services and facilitate digital skills training of community members.

6.6.2.2 Participation

The services and infrastructure of all the libraries that are part of the project are based on the same e-inclusion model that was determined by the government in partnership with other development actors. Community members are not actively involved in decision-making, although they are encouraged to voice their complaints, opinions and suggestions about how the existing services are provided. They can use direct engagement, email, telephone calls and social media. The librarians consider relevant issues and, where necessary, escalate them to the Director of the Library Services for approval or guidance on how to proceed. None of the user respondents communicated any complaints or suggestions to the librarians, therefore they could not comment on how community members' issues were handled: *"Well there is nothing more really that I need. I am okay with the computers, so I have never tried asking or saying anything"* (Muva M., user respondent).

Rural library 1 has two different sections with computers. One section has eight computers that are referred to as 'learning tools' with limited Internet connectivity, and on which social media are blocked. Community members use these computers to do their business, student, and personal work, which includes studying and typing documents. The other section has five computers with full Internet connectivity, and social media are not blocked. Rural library 2 has eight computers that are used to access the Internet and to type documents. At both libraries, the computers and the Internet were mainly used for searching and applying for employment, as well as for typing, printing, and photocopying CVs: *"We had a big need … before we started with this project, we always had people coming in requesting us for you know, where can we type our CVs"* (Tino N., expert respondent).

Students studying at tertiary institutions through correspondence use the ICTs to facilitate their distance learning. They apply and register for courses, type and submit assignments, and conduct research and complete online assessments. They also communicate with their lecturers and tutors through email and online discussion forums. The primary and high school children use the facilities to play games, watch videos and do research for school projects. They often fill the libraries in the afternoons during school terms: *"lots of children flock to the library to get information for school projects"* (Tino N., expert respondent). To be prepared to assist the learners, the library manager of

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rural library 2 requests information about the students' assignments and projects from the teachers and principals at the start of each school year:

> *Yes, so we have to assist all those children with school projects. So, yes. I send out letters on an annual basis, early during the year so that the school principals can convey the message to the teachers. And I also send emails to schools requesting them to give us the information regarding school projects in advance so that we can put it on reserve for the children* (Tino N., expert respondent).

In addition, community members, particularly the youth, use the facilities to access their social media accounts namely Facebook and YouTube: "*They go on Facebook. That I can even say, a lot of people come in to just go on Facebook … so they are even using the facilities to get to their social media*" (Tino N., expert respondent)*.* The user respondents use the facilities to check their emails, read online news articles, search for information, apply for jobs and go on to their social media. They also type documents such as CVs and school assignments, which they print. Two user respondents who were university students added that they also come to the library to study.

6.6.2.3 Social capital

The libraries support the building of social networks and connections in the community in several ways. They build networks with key development actors, emphasise strong relationships with community members, and facilitate community members' engagement with each other. The project itself is possible through a wide network of provincial, national and international development actors and project sponsors, who work together to achieve common developmental goals. The connections between them provide useful links to share ideas and resources for the common purpose of community development. Since community members are the intended beneficiaries, it is necessary for the librarians to build and maintain positive relationships and networks with them to effectively support community development: *"… you need to build up your relationship with the different role players … especially with the community members"* (Haylee L., expert respondent).

 At rural library 2, there was confidence that they had a good relationship with the community: "*There is definitely a relationship between the library and the community out there*" (Tino N., expert respondent). The librarians have frequent engagement with community members who visit the library, and this helps to build friendships. These friendships and other connections are useful to get information about the library to other people in the communities through word of mouth. At rural library 1, there was less confidence among the librarians about having a positive relationship with

community members, because there is not much engagement. Community members who visit this library are often not interested in talking to the librarians; they use the ICT services, read books or newspapers, and leave. This makes it difficult for the librarians to try to build relationships with some community members.

The user respondents do not consider the library as a place to network; they see it as a quiet place to work: "*This is not really a place to meet people. It's a library. People come here to work, it is a quiet place no talking*" (Nyarai K., user respondent). The user respondents only want to use the services and do not see the need to build relationships with the librarians: "*I don't know if I can call it a relationship, but I come here and I do whatever I need to do*" (Linda T., user respondent).

At both libraries, the librarians try to create positive environments that are conducive to the relationship building process. They treat community members with respect and make sure the services are available and the ICT equipment is working. They also have sections in their libraries that are designed for community members to engage with each other. Some community members use these spaces to have business and community meetings, work events, debates, and other networking functions. When the researcher was at rural library 1 there were community members having a meeting in one of the upstairs venues: "*We don't always ask them what they're busy with, as long as they don't disturb the other people. So, definitely it's used as a facility where people get together and have discussions on certain things*" (Tina N., expert respondent).

6.6.2.4 Challenges

The libraries face similar challenges, which include being considered outdated, lacking adequate funding and staff, and struggling to cater for the high demand for the ICT services. The librarians also struggle with community members' lack of digital skills, and the librarians are not able to provide training services. Equipment breaking down, unstable Internet connectivity and security are other challenges. Only rural library 2 considered language barriers as a constant challenge, due to the diversity in the community: "*We've got Afrikaans-speaking, English-speaking, Xhosa-speaking, Sotho-speaking people, so, it's difficult …*" (Tino N., expert respondent).

Some community members consider libraries outdated and irrelevant, and believe that the information services provided by the libraries could be fulfilled more conveniently by a mobile device: "*A lot of people have the tendency to think library service has to do with books, only books and that's it, and books are outdated*" (Tom T., expert respondent). The libraries, with the support of government

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therefore run various awareness campaigns each year to make community members aware of the diverse services available at the libraries.

Funding is a challenge for both libraries and affects their operations, the quality of service and the ability to employ adequate staff: *"It's difficult … on an annual basis, you know, still to get all the funding that we need. So, yes, that is a challenge"* (Tino N., expert respondent). The librarians are often overwhelmed by community members' demand for the ICT services, and the computers are not always enough. During peak times, community members queue for long periods to use the computers: "*Sometimes it is full and there is a queue of people that want to use the computers. When I have time I wait, if I don't then I just leave and come back another time"* (Muva M., user respondent). At rural library 2, the demand is largely from school children, since the library caters for learners from eight high schools and thirteen primary schools. Some of the school children, however, abuse the services by watching inappropriate material, such as pornography, which is prohibited.

The librarians are also overwhelmed by community members' lack of digital skills, because they *"don't even know how to copy and paste, they don't know how to print … they are lost"* (Samuel S., expert respondent). There is a great need for digital skills training in the communities, and neither rural library 1 nor rural library 2 offers any such training. They both lack sufficient equipment and adequately trained staff: *"We don't have anybody that's you know, able to give training, or extra assistance"* (Tino N., expert respondent). The lack of digital skills and opportunities to gain those skills was confirmed by the user respondents. One user respondent had to travel to the next town to visit an e-II that provided free digital skills training:

> *When I came here I did not even know what I was going to do. I had no skills or education. I started going to the centre for the free training and then I got some skills, they taught me there, how to use a computer and the Internet. Now I'm continuing to gain more skills and further my education* (Albert I., user respondent).

Although the ICT equipment is replaced every three years, it does sometimes break down and this is another challenge for the libraries, along with unstable Internet connectivity. There are community members who depend on the ICT services of the libraries, and they become quite disappointed and upset when the services are not available:

> *All these people are so assertive that they get hysterical if the broadband is off, if the Internet is off they get furious with us. They think it's a not a privilege that they can go on for free, they*

demand it, so you can have quite a few arguments so, that's not very positive (Samuel S., expert respondent).

The responsibility to maintain, repair and replace the ICT equipment lies with the government. The libraries often wait long periods for assistance because the project was only allocated four dedicated ICT support technicians to cater to all the libraries in the WCP and they are over two hundred. The government is aware that the situation is not ideal; however, there is limited funding to employ more technicians. To ease the challenges, a remote support system that provides limited support to the libraries telephonically was implemented.

Security is a big challenge. Since the libraries are public buildings it is not always possible to monitor all who enter. Moreover, homeless community members and those intoxicated often visit the libraries. This is a sensitive issue that the librarians are not always sure how to manage.

6.6.3   Theme 2: Communication and engagement with community members

6.6.3.1 Communicating for development with community members

The librarians from both libraries believe their communication strategies to be effective because they create awareness, they base this on the high numbers of registered library users and new users joining daily. The communication media they use include posters, noticeboards, newspapers, letters, email, websites, word of mouth, and social media.

The posters are used to share information about the libraries' services, upcoming events, holiday programmes for children, and community development initiatives. The posters are placed in common areas like shops, municipal offices, and on the libraries' noticeboards. The user respondents find the noticeboards at the library to be a useful source of information about social events, community gatherings, job vacancies, and announcements by the library: *"… if they need to let us know anything it will be on the board … it works, well for me"* (Linda T., user respondent). Limited funding hinders the libraries' use of local newspapers with a wide readership. As a result, they use community newspapers that offer free advertising for community development-orientated information.

To create awareness at schools about the ICT services, the librarians communicate with school teachers and principals whom they ask to convey the information to the students. General information about the libraries and their services can also be found on an official government website dedicated to library services. The libraries themselves run various campaigns to raise awareness and share information in the communities. Direct engagement is often more effective to help community

members understand ICTs and their value and also to create awareness about the ICT services at the libraries. This information spreads very quickly in the communities through word of mouth especially among the communities surrounding rural library 2:

We never advertised the fact that … now we have computers available for the public. It spread, the news spread like wildfire. So, we never even advertised the fact that we now have Internet access and computers available, yes. So, that's very interesting because the news just spreads within our communities (Tino N., expert respondent).

Four user respondents found out about the ICT services at their library through word of mouth from friends and work colleagues: *"I heard about it from friends on campus, and I can walk there from where I stay"* (Muva M., user respondent). While the user respondents felt the communication methods were informative, they wanted the librarians to also include SMS services to send important announcements; however, the user respondents had not yet suggested this to the librarians. They believe SMSs about the Internet being offline, for example, would save them from wasting time walking to the library. Given the cost of sending bulk SMSs, language challenges, and the large number of library users, it is unlikely that the libraries would implement such a communication medium.

6.6.3.2 How the rural public libraries communicate for development using social media

Both libraries use Facebook, but their approaches are different. Neither library has an independent Facebook page. Rural library 1 joined with eight other public libraries to create one libraries' Facebook page that all nine libraries use to share information with their community members. Rural library 2 uses the Breede Valley Municipality Facebook page to share information and create awareness among community members.

Along with the librarians from the eight other libraries, the librarians at rural library 1 are part of the administration team of the Facebook page. They can post directly on the page and engage with community members. All the librarians who are administrators of the page agreed on the rules and protocols regarding the use of the page. Facebook is used to share information and create awareness about the library's location, services (traditional and ICT related), school holiday programmes, and upcoming events. The type of content posted is mostly pictures and posters, and there is minimal text content. Despite nine different libraries being able to post on the Facebook page, there is not much content on the page, and it is not very active: *"… the library assistant just put a few photos up or put some info on … it's a very loose thing …"* (Samuel S., expert respondent). The engagement is also minimal and mostly entails community members liking the pictures posted. Most of the comments on

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the page are from librarians of libraries in other municipalities who will be supporting the librarians of the nine libraries. While the engagement is minimal, the librarians of rural library 1 do respond to any questions and messages from community members directed to their library: *"We do respond if we can, yes"* (Samuel S., expert respondent).

Rural library 2 librarians send the information (content) to the Breede Valley Municipality's communication department. The person from the department who manages the Facebook page reviews the information and, if it is accepted, they post it on the Breede Valley Municipality Facebook page in both English and Afrikaans:

> *Next week we will have to close earlier on two afternoons during the week. Because four of the staff members are going on training, so I don't have enough people to work all the shifts. And it's already been on Facebook. So, the moment I get it to the communications department, they react* (Tino N., expert respondent).

The municipality's Facebook page has a very large following. It is used to share information and facilitate community engagement about social challenges through debates and discussions. Although information from rural library 2 reaches many community members through the municipality's Facebook page, the librarians have limited control. They also cannot engage with community members who comment or ask questions on the page that are related to the library.

While all the user respondents are familiar with social media, only four were using them. The other two did not see the relevance or need of using social media, as WhatsApp's instant messaging fulfilled their communication needs: *"I know about it but I do not have a Facebook account, I don't really need it, I use WhatsApp"* (Linda T., user respondent). The user respondents who did use social media used Facebook, Instagram and WhatsApp for communication, networking, and as a source of information, news, and entertainment.

Three user respondents knew that rural library 1 made use of Facebook, but only one had visited the page to see what type of information was posted:

> *I know about the Facebook page for the libraries, but it's for the different libraries not just this one … I go there once in a while just to see what is happening, and to see if the library is going to be closed or open the days I want to go there* (Nyarai K., user respondent).

The user respondents who were not aware that their library made use of Facebook to share information were now curious and interested in visiting the respective Facebook pages. They wanted to see if urgent announcements, such as the Internet being offline, are posted:

> *I did not know about their Facebook page, but now I will go there and see maybe they will post the information from the noticeboard there as well, so I can see and I don't have to come all the way to the library to see the notice board* (Albert I., user respondent).

They wanted the same information on the noticeboards to be posted on the Facebook pages.

6.6.3.3 Why the rural public libraries use social media to communicate for development

Facebook is a useful communication medium that enables the librarians to share multi-media content that can be seen immediately, without restrictions posed by geographical boundaries, by anyone who has access to Facebook. The librarians find Facebook helpful to share information and create some awareness in the community: "*Social media in itself is a big tool to use to make people aware of services at the library, and what they can do at the library*" (Max R., expert respondent). Expert respondents from rural library 2 were quite impressed with the speed at which community members would react and contact them after seeing information that had been posted on the municipality's Facebook page:

> *Well, I think it's quite effective. So, if we [through] the municipality put something, … to do with the library week project that we have, if they put it on their Facebook page, it will definitely be read by many people* (Tino N., expert respondent).

Facebook is a popular communication medium among community members due to the availability of affordable mobile devices and free Wi-Fi hotspot areas in the communities, with 250 megabytes of free mobile data per month for each device. The expert respondents from rural library 2 claimed that even their poor community members had access to mobile devices: *"Even the poorest … in our community have phones … that is unbelievable … because really, sometimes you see a kid coming from the very poorest of the poorest community, but the kid has got a phone"* (Tino N., expert respondent). It is also easy for community members who see the posts to share the content with other people, groups, or organisations through Facebook and word of mouth. The librarians also like that they can post any type of content, from images and videos to links to other websites and blogs.

6.6.3.4 Challenges of communicating for development using social media

The libraries face different challenges in their use of social media. The challenge at rural library 2 is that the librarians have limited control over how the municipality uses the Facebook page. Since the librarians do not manage the page, they cannot post as often as they want, nor can they respond to questions or engage with community members on the page. They cannot use Facebook to facilitate relationship building and networking with community members. Due to these limitations, the librarians were considering creating their own, independent Facebook page that would be managed by an ICT cadet with the support of the municipality's communication department. The librarians need the support because "*sometimes people underestimate how much energy or technique it actually takes to maintain a Facebook page*" (Max R., expert respondent).

Rural library 1 faces two main challenges. Away from the library, Internet access is a challenge for many marginalised community members: *"Lots of people in Stellenbosch don't have Internet facilities"* (Samuel S., expert respondent). While there are community members who have mobile devices that are capable of accessing the Internet, they cannot afford to buy mobile data: *"If you have data it's fine … they use their phone but they all looking for free Wi-Fi, where do you find that. The free Wi-Fi in our town doesn't exist now"* (Samuel S., expert respondent). Muva M. (user respondent) stated: *"I use my phone, but I don't always have data and in some places the Wi-Fi is not working anymore, that's why I come to the library"*. The effectiveness of Facebook depends largely on whether the intended audience has access, and among some of the marginalised community members in Stellenbosch access is a challenge. This challenge is further aggravated by the fact that a number of Wi-Fi hotspots in the town no longer offer connectivity:

> *It can work, but it depends on whether the community have the access to Facebook … if the library is … communicating through Facebook a lot of people can't reach that information … they have phones, but they don't have Facebook in their phones. So, sometimes the research is needed because it can be an easy solution, but sometimes a lot of people don't have the access to Facebook* (Haylee L., expert respondent).

The other challenge for rural library 1 is that social networking sites are blocked on staff computers. As a result, when the librarians need to monitor and/or post on Facebook they have to use the project computers in the morning before the library opens, and in the afternoon, when all the users have left:

> *It is negative yes, that's a big problem and there is not Wi-Fi now, so where do you go and how do we update the page … I can't sit in my office on my desktop and do that, put up hours of*

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library and stuff because I don't have the facilities, but I can do it on the … project [computers]*, but I have to do it the hours before the library opens before people come in to use facilities. It is a challenge* (Samuel S., expert respondent).

The librarians use of their personal mobile devices is not always possible due to the high cost of mobile data and the lack of free Wi-Fi hot spots in the community.

6.6.4   Summary

Public libraries in the rural and remote areas of the WCP provide much-needed access to ICTs for many marginalised community members. They are the first and often the only point of contact to these technologies for community members. Therefore, there is a lot of pressure on the libraries to provide adequate services that cater for the demand. However, despite the basic training provided to the librarians by government, the libraries often lack adequate and digitally skilled staff. They also lack other resources that are necessary to facilitate key roles, such as digital skills training of community members. These limitations affect the libraries' impact on community development. The government along with other development actors who include relevant stakeholders involved in the project need to ensure that the libraries are appropriate and capable of providing the additional ICT services and even limited training, creating awareness and promoting the use of ICTs.

The libraries show that there is no one way to use social media to communicate for development. They present two different approaches that can be beneficial, despite some limitations. Rural library 2 librarians might have limited control, but the content posted through the Breede Valley Municipality Facebook page still reaches community members. Rural library 1 librarians have control, but they are not very active on the Facebook page. It is helpful, however, that librarians from the other libraries also post on the page so that at least there is some activity on the page.

6.7   Case study 6 (CS6): Metropole public library

To create equal opportunities for people in Cape Town, the government initiated a project in 2002 of providing free access to desktop computers with Internet connectivity. The project entails using open source software and refurbished equipment that is installed in public libraries within the Cape Town Metropole area. The project is made possible through increased local and international sponsorships, the availability of refurbished equipment, broadband connectivity and the willingness of the libraries. Free Wi-Fi hotspots are also available inside thirteen libraries to provide community members who have their own capable devices with access to the Internet.

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This case study focused on two Cape Town Metropole public libraries that provide traditional library services and access to ICTs. They are referred to as metro library 1 and metro library 2. Metro library 1 is located in Khayelitsha, an informal township on the outskirts of the City of Cape Town. The library was established as part of a project to reconstruct poverty-stricken, under-resourced communities by providing community members with increased access to basic services, and opportunities for development and improvement of their quality of life. Ten people are involved in the daily operations of the library. Metro library 2 is located in the City of Cape Town, and forty people are involved in the daily operations.

6.7.1   Background of respondents

Interviews were conducted with six expert respondents, three male and three female. They were a project administrator (PA) from government; two senior librarians (SL), one from metro library 1 and the other from metro library 2; and assistant librarians (AL), one from metro library 1 and two from metro library 2. Their roles and responsibilities are summarised in Table 21. The researcher also spent time at both libraries observing community members' use of the ICT services and the engagement between the library staff and community members.

Table 21: Matrix of CS6 expert respondents' roles and responsibilities

Responsibilities		Roles		
		PA	SL	AL
Assessing Internet connectivity		X		
Community engagement			X	X
Controlling computer session times				X
Creating a desk shift roster			X	
Developing and managing the communication strategy			X	X
Ensuring libraries receive government insignia of the project		X		
Ensuring newly built libraries are equipped for the installation of project equipment		X		
Ensuring that all equipment is working and the project system is online				X
Liaison with librarians		X		
Logging and reporting faulty equipment			X	
Maintaining library stock			X	X
Managing circulation desk			X	X
Managing the computer section				X
Managing communication media			X	X
Managing the project		X		
Managing social media accounts				X
Mending and processing of new books			X	X
Overseeing all IT equipment in the library and basic repairs			X	
Registering new project users				X
Responsible for operations			X	
Shelving books				X
Supervising staff, including security and sanitation crews			X	

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Data were also collected from the library users through face-to-face interviews and a focus group discussion. Table 22 presents a summary of the user respondents from the two libraries and the data collection methods.

Table 22: User respondents and data collection methods

Data collection method	Name of library	Number of interviews or focus group discussions	Number of participants	Gender of participants	Age range of participants	Occupation
Face-to-face interview	metro library 1	4	4	All male	23 – 30	Small business owner, unemployed adults and an employed university student
Focus group discussion	metro library 2	1	8	5 male and 3 female	20 – 25	University students

6.7.2   Theme 1: Metropole public library services and community development

6.7.2.1 Economic development and empowerment

Metro library 1 and metro library 2 both seek to increase the opportunities available for community members to enhance their capacity to improve their quality of life by providing access to ICTs, learning environments, enabling spaces and connections to useful networks. A director of library and information related services stated:

> *We empower people and communities by providing spaces, connections and resources that enrich lives, inspire discovery, foster creativity, and expand possibilities. Our business is ensuring free access to informational, educational, cultural, and recreational resources and services. Our passion is encouraging reading for leisure and life-long learning* (Steyn, 2017).

The libraries provide access to desktop computers, Internet connectivity, Wi-Fi hotspots, printing and photocopying equipment, as well as several online information databases and educational software applications. Chris K. (expert respondent) emphasised the importance of Internet access in particular: *"Access to the Internet is almost a human right nowadays because we live in an information world, whereby people rely on knowing what happens around them. For instance, people who want to get jobs"*.

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Both libraries are also important information hubs that provide different types of information, and metro library 2 especially is a focal point for tourists and foreign nationals looking for information. The information provided by the libraries includes details of government services and official documents (for example local and provincial government's budget, development and transport plans), business tenders and application procedures, training courses, community events, job vacancies, library services and tourist information. Metro library 2 also boasts a state-of-the-art section called the American Corner, which offers a coffee and iPad bar, access to Mac and Chromebooks, a recording studio and video production equipment. The purpose of this corner is to empower community members with information about educational, tourist, business and other opportunities in the United States of America and South Africa, and to provide support with applications.

The libraries also provide learning environments where community members attend training courses in a variety of skills related to personal, educational, social, economic, and cultural development. This is facilitated through workshops, community engagement, training sessions, awareness campaigns, and events at the libraries. Many of these are provided in collaboration with other local and international development actors. The learning environments also include quite spaces where community members sit and read or do their work.

While metro library 1 does not provide any digital skills training, metro library 2 provides free basic training to address the lack of digital skills and ICT knowledge among community members. The training is on how to use computers and access the Internet. Training is also provided on how to use the library's electronic resources, namely PressReader for newspapers and magazines, Encyclopaedia Britannica, and World Book Online:

> *The training is … for those who do not know how to use a computer at all, and they usually enjoy it. We do MS Word, Internet and e-Mail. We help them to create e-mail addresses so that they can use it to send their CV's if they are still looking for jobs* (Amy B., expert respondent).

The user respondents felt that the training was a good initiative to help community members gain the necessary skills and knowledge to use ICTs, which are useful in searching and applying for jobs: *"I think it's quite nice, it's quite nice because it enhances you in terms of job opportunities, so it's quite nice"* (Bille B., user respondent).

At both libraries, searching and applying for employment were among the leading uses of the computers and Internet: *"Most of them, the people that are using the library, they are unemployed"*

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and they use the computers for, *"the job search, and … they do type CVs"* (Tatenda F., expert respondent). Expert respondents from both libraries claimed that some of their users had succeeded in getting jobs:

> *They are unemployed, and that's the thing … most of the time I see them, they are looking for vacancies there. And I'm so proud, because sometimes I can talk to someone who used to be a regular and then she or he will tell me that you know, I was fortunate. The time … I was looking for work and I'm working now. Yes, I do have a lot of them. They used to be our regular clients and they've got work now, it happens* (Takudzwa P., expert respondent).

This was also evident among the user respondents from metro library 2; two had managed to get jobs after spending time at the library, using the facilities to search and apply:

> *Most of the times before I started working I used to come here mainly to send out my CV and apply for jobs, but now I got a job. it's like a nice tool and that is from the City to help us seek employment …* (Billie B., user respondent).

The libraries support small businesses and entrepreneurs, who use the facilities to type and print business documents, as well as search and apply for tenders, check emails, respond to clients and market their services:

> *Business people come here to print tenders, register their companies online, and create e-mail addresses … even lawyers do come to use our … computers and celebrities, I remember the other day Sisanda Henna an actor was here* (Amy B., expert respondent).

The business owners and informal traders also use the free Wi-Fi at the libraries to manage their businesses and social media accounts, which include posting adverts and engaging with existing and potential clients using mobile devices.

Both libraries provide enabling spaces and connections, which they encourage community members to use for their businesses and to generate income. The libraries offer their hall facilities and exhibition rooms for conferences, meetings, and events. Metro library 2 often hosts art exhibitions and live performances on behalf of independent artists. They also help to connect community members with other business-people, who provide additional support, resources, and links to influential networks.

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6.7.2.2 Participation

The ICT services provided in all the libraries that are part of the project are the same. They were predetermined by the government in partnership with other local and international development actors, including business and educational institutions. While community members are not involved in any other decision-making, there are invited by government to contribute suggestions, opinions, and complaints to the libraries regarding the ICT services to help make the services function more efficiently. Community members may use dedicated emails, face-to-face and telephonic engagement, suggestion boxes, and social media. Most community members prefer to talk directly with the library staff to give their suggestions or complaints.

The librarians' ability to act or make changes to the services based on the feedback from community members is limited: *"The librarians cannot just decide by themselves"* (Takudzwa P., expert respondent). The librarians collect the information and escalate the matters to a library services division of government that is responsible for evaluating the contributions from the community. The staff of this division then engage with the respective library managers on the best courses of action.

Although the traditional library services (reading and leasing books) are still popular, the demand for and use of the ICT services at the libraries is increasing: *"Some of the community members, they don't use those library cards to borrow books, they only use the library cards only for* [accessing computers]*"* (Tatenda F., expert respondent). In addition to searching and applying for employment, the ICT facilities are used to search for information, type documents, file tax returns and apply for government services. Other uses of the ICTs are submitting university and funding applications, managing social media accounts, and watching movies and videos. Students studying through correspondence access course material, check school email accounts, and write online tests.

6.7.2.3 Social capital

The libraries focus on building networks and relationships with key development actors and community members, and also creating enabling environments where community members can build relationships and network with each other. The project itself is the result of partnerships among different development actors, which include different government departments, and other local and international actors. The relationships and networks are imperative for the continuous growth and success of the project. They enable the sharing of information, resources, expertise, funds, and collaboration.

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Building and maintaining strong positive relationships with community members is achieved through engagement sessions and campaigns at the library, as well as librarians' participation in community-initiated development initiatives. As the engagement and interactions become more frequent, connections are built that lead to friendships and the inclusion of the librarians in community members' networks. The expert respondents from metro library 2 stated that the librarians made an effort to "... *maintain the relationships with people"* (Chris K., expert respondent), and they interpreted the large volume of users as an indication of the libraries' impact on the lives of community members. Metro library 2, for instance, welcomes over 51 000 users per month.

Metro library 1 librarians often receive compliments from community members about the positive impact of the library and the ICT services in the community. The librarians interpret these compliments as an indication of the good relationship with community members. Moreover, community members protect the library building and property, as well as the librarians, during times of protests in the community. Tatenda F. (expert respondent) stated that community members say *"... no, not in this library. This is our library".* Metro library 1 user respondents stated they had a very good relationship with their library, they felt respected and the librarians had become like friends. These relationships help them to get access to helpful information and resources: *"I do like the library, it's a safe place. it's a good feeling to be here. They have all this amazing stuff, like you can watch TV, you can use the computers and read magazines"* (Diana K., user respondent).

The libraries provide spaces that are designed to enable community members to engage with others for community and business meetings, debates and workshops. School tutors also use the facilities to conduct extra lessons with marginalised school children that need extra support. To encourage community engagement for development, the libraries do not charge a fee when the venues are used for community development purposes. In addition, while sitting next to each other at the computers or in the queue to use the computers, community members engage with each other. Some have developed connections that have turned into friendships that continue away from the library. One user respondent was at the library with a friend whom she had met at another library:

> *It is safe and everyone is so nice, and when you are here you can just start speaking to anyone, like look at us we just started speaking to each other. So, you can speak to anyone easily, it's versatile so it's quite nice* (Billie B., user respondent).

They had started talking after the user respondent asked for help looking for information on job vacancies and discovered they had similar interests.

6.7.2.4 Challenges

Both libraries face challenges of being understaffed, experiencing unreliable Internet connectivity, being dependent on external IT support, security, and community members' abuse of the ICT services and their limited digital skills. In addition, metro library 2 struggled with inadequate ICT resources and community members' lack of commitment to the training. Metro library 1 did not have digitally skilled staff to provide digital skills training and some of the librarians were against the ICT services.

The librarians are generally overworked, and the libraries understaffed. The introduction of the ICT services added further strain. For metro library 2, the issue was that the staff work according to a roster and are limited to a certain number of hours a week, which creates some gaps. The challenge was therefore the unbalanced ratio between the hours that the library is open, the hours the staff can work, and the service points that need to be 'manned'.

Both libraries face the challenge of unreliable Internet connectivity, which is also very slow. This was confirmed by the user respondents, who also complained of old computers that had outdated software: *"I think they are using the old Microsoft Office, I don't know … it's the system, it's old"* (Mason C., user respondent). When the ICT facilities break down or the Internet is offline, the libraries depend on the support of a help desk and the few IT technicians assigned to support all the libraries of the project: *"We have two guys on the road permanently and two ladies on the help desk … these two guys on the road they are just* [for the project] *… think about it 665 machines and two guys* servicing them" (Alicia F., expert respondent).

The libraries also experience security challenges, which became worse when the number of security guards who patrolled the libraries was reduced due to budget cuts in 2015. Community members took advantage of the lack of security and stole computer equipment and became difficult to control. The libraries also struggle with community members who sell drugs in the library and others who steal books.

Another challenge for the libraries is community members who abuse the services by watching pornography. The libraries also struggle with community members who lack the digital skills to use computers and access the Internet. As a result, metro library 2 introduced an initiative to provide digital skills training. While a large number of community members often inquire about and register for the training, only a few usually show up and are committed to completing the training. Furthermore, since metro library 2 has limited ICT infrastructure, they use the project computers for

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the training, which happens four times each year and, during this time, the other community members do not have access:

> *That's a challenge that we are facing now, because there are other people who know how to use the facility and … they expect that space to be available so they can use it. So, we've had complaints but … it's a catch-22 kind of thing* (Chris k., expert respondent).

The library was in the process of devising an alternative solution, preferably to get more computers.

Community members' lack of digital skills overwhelms the librarians at metro library 1. The library services division of government had previously assigned someone to the library for three months to be responsible for the ICT services and provide support to community members: *"I don't know when they are going to bring us someone else. Because it was much easier when that lady was here helping people with the* [computers]*"* (Tatenda F., expert respondent). The librarians were hopeful that another person would be assigned, preferably on a permanent basis, to help them cope.

Some expert respondents believed that, while there are great benefits associated with community members having access to ICTs, ICT services should not be provided at libraries. This stemmed from the increased workload from having the ICT services at the library, beliefs in the traditional model of libraries, and intimidation due to a lack of digital skills and understanding of ICTs: *"I always tell them* [community members] *about the importance of the library. I say, this is not meant for the* [computers]… *if you come here and you get your card, you must read …"* (Tatenda F., expert respondent). Despite the resistance of some librarians, the demand for the ICT services at both libraries by community members is increasing. During peak times (early morning and late afternoon), community members are willing to wait long periods for a turn to use the computers and access the Internet.

6.7.3   Theme 2: Communication and engagement with community members

6.7.3.1 Communicating for development with community members

Expert respondents from both libraries were satisfied with their communication strategies, which they considered effective in creating awareness and sharing information. The communication media they use include posters, pamphlets, flyers, noticeboards, newspapers, radio, word of mouth, SMSs, websites, and social media.

The print media are effective for sharing detailed information about the libraries' services. The posters are placed in visible areas of the libraries, although they are often torn down and need constant replacement. The posters are also placed in other community buildings and local government offices. The pamphlets and flyers are given to community members who come to the library, and they are also available at other community centres. The libraries have visible noticeboards at their entrances that are used to share general information and announcements about the library, the services provided, events in the library and community, workshops, training, holiday learning programmes and awareness campaigns. In addition, each designated section of the libraries has a dedicated noticeboard that shares information specific to the services provided in that section. For instance, the computers section and the American Corner have their own designated noticeboards.

The libraries' use of newspapers and radio is governed by the division that deals with library services, which has to approve any content before it is published or mentioned on 'air'. Even with the permission of this division, affordability limits the libraries' ability to have information published in local newspapers with wide readerships. Therefore, they use their networks, which include organisations in the media, to negotiate free or discounted rates to place adverts and notices in newspapers:

> *Because we have a good relationship with a lot of members of the public and people who have contacts in media houses, especially when it comes to the local newspapers, those people do actually advertise our events and our resources* (Chris K., expert respondent).

However, through this division, the government pays for print and broadcast media to create awareness and share information of high-profile events at the libraries, such as an international gala event or metro library 2 hosting a renowned musical artist.

Word of mouth is a powerful communication medium for the libraries, since community members speak with each other about what they see or hear about the libraries, and this information is also passed on to other community members: *"We have people there who share what happens in the library, they spread the word"* (Chris K., expert respondent). The libraries also run annual awareness campaigns at schools and community centres, as well as community outreach events, to inform the community about the services at the library. This helps to ensure that community members obtain accurate information and create opportunities for two-way engagement. Two user respondents from metro library 1 and six from metro library 2 found out about the ICT services at the library through awareness campaigns in the community.

The official website of the library services division is also used to share general information about the libraries with the public. In addition, metro library 2 uses SMSs to remind community members who register for the services of upcoming events and to provide them with specific details. Both libraries also use social media.

6.7.3.2 How the metropole public libraries communicate for development using social media

Both libraries have a Facebook page. For metro library 1, the page is managed by one librarian, who also seeks advice from the other librarians before posting any content to ensure it is accurate and in line with the principles of the library: *"Because at the end of the day, if I manage that Facebook page alone, and then there is something that is wrong that is posted there, it will backfire"* (Takudzwa P., expert respondent). The page is not very active, however, and the content posted is mostly pictures of events held at the library and in the community. The other content posted on the page is information about, for instance, the computer services, upcoming events, youth development programmes, and announcements. The librarian also uses Facebook to search and gather information about scholarships, internships and job vacancies in the community. This specific information is not shared on the library's Facebook page, but it is printed and placed on the noticeboards in the library and handed out to interested community members who visit the library.

Apart from a few likes on the pictures and encouraging comments from other librarians, the engagement on the page is very limited: "*Like, the problem is the people that are commenting on those pages, it's not from the public … It's people from other libraries and other organisations …*" (Tatenda F., expert respondent). The library occasionally receives direct messages on Facebook from people asking questions about the library and offering donations. However, the library has a rule of not responding to questions or comments on the page, and this is possibly why there is limited evidence of engagement. The expert respondents were not able to explain why, as this rule had been in place since before the current librarian started managing the page, and the librarian regarded it as a personal challenge to see the messages and not be able to respond. The librarian was hoping to negotiate with the library management to change the rule and encourage more two-way engagement on the page.

The user respondents from metro library 1 are active social media users and they are aware that their library has a Facebook page. One respondent found out about the page after a librarian asked to take a picture of him to post on the page. He then started visiting the page as a source of information and

to see pictures of other community members. The user respondents were glad that the library had a Facebook page, which for them is a more convenient medium to access for information:

> *It's a good thing, coz there are other libraries who have their own Facebook, so it is better, and it is easier for us to get to know what is happening at the library and what are they doing, like their services* (Victoria C., user respondent).

The Facebook page for metro library 2 is managed by three librarians who share the responsibility of posting information, taking pictures and videos of the displays and events at the library, as well as of any engagement on the page. Working as a team makes managing the page and keeping it active easier. In addition, the chief librarian and a staff member from the library services division are page administrators who monitor the performance of the page and the quality of the content posted.

The librarians have a defined plan to guide how they use Facebook, specifically the type of content they post and the posting schedule; for instance, content is posted three times a day. They post information about the services provided, displays and events at the library, and announcements. They also post pictures and videos of art exhibitions, workshops, concerts and live performances held at the library. Information about job and internship opportunities, awareness campaigns and useful information from the Facebook pages of other development actors is also posted or shared on the library's Facebook page. The emphasis is on making the content graphic, in the form of pictures and videos, rather than textual: *"We've found that videos bring more engagement than images, but images bring more engagement than text. This is why our page is image-heavy"* (Neil P., expert respondent). Pictures of the library *"fascinate people and actually make them want to come and visit the library"* (Chris K., expert respondent).

There is active engagement on the page that entails the librarians' responses to questions and queries, and interaction on the content posted. The librarians monitor their posts to identify the content that attracts the most engagement from community members and continue to post similar content to keep the page interactive. They try to respond to each comment and direct message on the page, including the negative comments. Their social media plan has protocols in place to address negativity on the page. Although the library has an active Facebook page, none of the user respondents from metro library 2 knew of the page.

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6.7.3.3 Why the metropole public libraries use social media to communicate for development

Social media form an important part of both libraries' communication strategies. They are free to access, useful for sharing information and creating some awareness. They also extend the geographical boundaries of the community and are popular in the communities. In addition, for metro library 2, social media are convenient to access, enable two-way engagement and are useful for relationship building.

Facebook is a "*free mass-communication tool*" (Neil P., expert respondent) for the librarians at both libraries to access, and neither library uses any of the paid offerings of Facebook, such as the marketing campaigns: *"The library does not have a marketing budget at all, so using a free mass-communication platform is a massive benefit. Also, because we can communicate to the public in real time"* (Austin P., expert respondent). Facebook is also useful for sharing information and creating awareness: *"Yes, it is effective … compared to the other ways … if I post in our Facebook page, they' re going to come"* (Takudzwa. P., expert respondent). This was evident at metro library 1 and observed by the researcher during one of the visits. Community members were continuously coming to the library throughout the day, specifically to ask for forms after the library's post on Facebook from the previous day about an internship at the WCG offices and the availability of application forms at the library. The impact of Facebook was also evident at metro library 2. Soon after posting about forthcoming free computer skills training, the library received numerous phone calls and enquiries from community members asking for more information after seeing the post: *"When we advertised our training on Facebook … we have received 16 000 plus likes. People are phoning in to enquire about the training …"* (Amy B., expert respondent).

The content posted on Facebook is accessible instantly to anyone anywhere who has a device that can access the Internet, and it extends beyond the geographical boundaries of the communities. Social media are also popular in the communities, due in part to the increased availability of free Wi-Fi hotspots. The user respondents from both libraries are active social media users. They use social media to communicate, share pictures and videos, job hunt, follow celebrities, and as a source of information and news.

For metro library 2, Facebook is convenient to access and enables two-way engagement with community members, which helps to build relationships with community members.

We have a relationship with our users … we use the online platforms, your Facebook. Those people follow our page and we follow them, and we share what happens in the library. So, that's one of the relationships that we have (Chris K., expert respondent).

In this way, Facebook is more capable than other traditional media because it allows for a friendlier approach to the engagement: "*It is more friendly and public than email and allows us to reach people whose contact details we don't necessarily have or would know to look up*" (Austin P., expert respondent).

6.7.3.4 Challenges of communicating for development using social media

In their use of Facebook, both libraries face challenges that include community members not reading text content, the demanding nature of managing a Facebook page, community members' lack of access and digital skills to use social media. Metro library 1 further faces challenges of the librarians' restricted access to social media and the consequences of restricting engagement on the page. Metro library 2 also faces the challenge of a lack of awareness of their Facebook page: *"Many people don't know that we have a Facebook page"* (Austin P., expert respondent).

Some community members do not like to read text content on Facebook, and this makes it a challenge to share certain types of information: *"… our people don't like to read, you can post something to Facebook, there's no comments, nothing. So, it's better to go to them and speak to them"* (Tatenda F., expert respondent). Managing a Facebook page is also quite demanding for both libraries, especially metro library 1, where only one person manages the page. At metro library 2, a team manages the page, but the librarians still stated that it was not easy: *"We have a dedicated team, whilst we do it in between other things, it's not that easy …"* (Austin P., expert respondent).

Despite the popularity of social media in the communities, there still are community members who do not have access to social media or the digital skills to use them. Other community members have capable devices, but cannot afford to buy mobile data to access social media: "*Some phones don't have like android or don't have Wi-Fi phone so they can't get through to the* [project] *Wi-Fi and they can't afford data*" (Victoria C., user respondent).

At metro library 1, the librarians are not permitted access to Facebook or any other social media during work hours, either on the Wi-Fi on their own devices or the staff computers. It can only be accessed at 16:00, yet the library closes at 17:00, which does not leave enough time to manage the page. The

librarian is compelled to purchase data and use his mobile device to post on the page while at home, and this is not always possible due to the high cost of mobile data:

> *That is a challenge … it's busy after 16:00. You cannot be on Facebook before 16:00. So, it's a challenge and then, if there is an event inside and then after 16:00, we only have one hour to go home because we close 17:00. And then, to post every time is a challenge. Sometimes, I post from when I'm at home* (Takudzwa P., expert respondent).

Furthermore, the fact that the library does not engage with people who reach out on Facebook leads to the library missing opportunities:

> *There are opportunities that we miss sometimes, because I was checking in the notifications there's a student who said, I've got this textbook and … those textbooks can be useful at the library if I can donate … some of the books we don't have on the shelves … For me, if we allow those who donate with the textbooks, those textbooks can help other people who don't even have money to buy it themselves … the textbooks are very expensive … I'm still not responding … until we given an opportunity to respond* (Tatenda F., expert respondent).

The engagement could also help the library to build relationships with community members and other development actors.
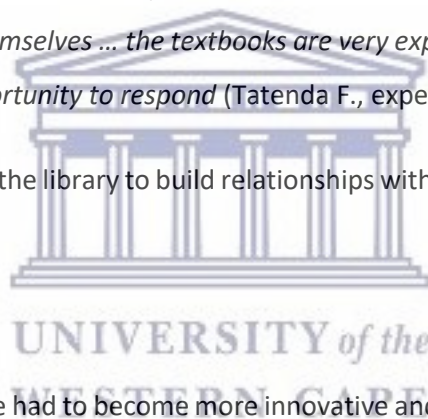
6.7.4   Summary

To remain relevant, libraries have had to become more innovative and proactive. However, adding ICT services without adequate equipment, resources and skilled librarians can limit the impact of the initiative. Moreover, the libraries are providing ICTs that some community members cannot use due to a lack of skills, and libraries like metro library 1 are not in a position to provide digital skills training due to a lack of resources and capable staff. Community members who understand the value of ICTs and possess the skills to use them benefit the most from the provided ICTs.

In creating awareness and promoting the use of ICT services, the libraries benefit from their longstanding networks and relationships with community members, development actors and business organisations. These networks help to spread information through word of mouth and also provide opportunities that the libraries can benefit from, for example free advertising in newspapers. Furthermore, for the libraries to use social media effectively, these media need to be appropriate for the target audience and the librarians need to know community members information needs. The libraries also need to have adequate resources, infrastructure and a plan that guides how they use

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social media. The plan relates to the type of content to post, and the rules and protocols to follow. Limiting the engagement on social media can lead to missed opportunities for the libraries to gain benefits and build new relationships. Therefore, the plan can also provide guidance on how to conduct and facilitate the engagement on the Facebook page.

A summary of the six case studies is presented in Appendix 9, and pictures of the e-IIs in the case studies are presented in Appendix 10.

Chapter 7

Discussion of findings

7.1   Introduction

This chapter presents a discussion of the findings of this study based on the main research question: '*How do e-inclusion intermediaries support community development and communicate for development using social media?'* A cross-case analysis technique was used to identify similarities and differences across the QSA and case studies. The discussion links the literature (Chapter 2), the theory reviewed (Chapter 3), and the findings of the QSA (Chapter 5) and the case studies (Chapter 6). It is presented under two themes. Theme one: How e-inclusion intermediaries support community development, and theme two: How e-inclusion intermediaries communicate for development and use social media.

7.2   Theme 1: How e-inclusion intermediaries support community development

This theme addresses the first part of the main research question regarding how e-IIs support community development. This part of the main research question is addressed in SQ1: How do e-inclusion intermediaries support community development? The discussion follows four sub-themes: (i) changing the e-inclusion approach, (ii) moving beyond physical ICT access: community needs fulfilled by e-inclusion intermediaries, (iii) community participation and community development, and (iv) relationship building for community development.

7.2.1   Changing the e-inclusion approach

E-inclusion intermediaries are shifting their e-inclusion approaches from being techno-centric towards more development-centric approaches. The techno-centric approach, which is evident in CS1, CS5 and CS6, is driven by ideas of modernisation and expectations that access to ICTs will translate to socio-economic development. Computers with Internet connectivity are placed in physical spaces for community members in under-resourced communities to use, and are expected to function and lead to developmental impacts. This techno-centric approach towards e-inclusion can be explained using Avgerou's (2010) discourses on the ICT4D model (see section 3.6), where the ICT innovation happens through the transfer and diffusion of the technology into the communities for the expected progressive developmental transformation.

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Techno-centric e-inclusion approaches are successful in that the e-IIs transfer ICTs to community members, especially putting them in reach of those who are marginalised and digitally excluded. This is evident from the user respondents, for whom e-IIs were the only accessible and affordable option to access computers and/or the Internet. The challenge with techno-centric approaches is that, while they address the issue of access to ICTs, they often neglect other relevant issues that ultimately limit the e-IIs' developmental impact (Aji et al., 2016; Conradie et al., 2003; Gigler, 2015; Kassongo et al., 2018).

These relevant issues include (i) the appropriateness of the ICTs to address community members' challenges and social environments (Roman & Colle, 2002); (ii) the need for communication for development strategies that create awareness, share information, promote the use of ICTs, and facilitate participatory communication (Gcora et al., 2015; Mbatha, 2015); and (iii) the need for enabling infrastructure, reliable IT support, and skilled staff for the e-IIs to provide reliable quality support (Gomez & Baron-Porras, 2010). It is necessary to focus on these issues when developing e-inclusion approaches, because community members do not always know the value of ICTs, nor do they possess the skills to use them (Madon et al., 2009; Mishra, 2013). They also need more support than mere access to ICT to address their challenges, for instance, adequate housing and sanitation services. It is difficult to convince community members living in grave conditions of poverty that access to and use of a computer and the Internet will put food on the table (Kassongo et al., 2018). Community members need to know that the e-IIs exist, and what the benefits are of the services provided, in order to use ICTs meaningfully. Moreover, engagement is part of how the e-IIs operate, conduct community needs assessments, and build relationships and useful networks.

Concern among development actors about the impact and contribution of e-IIs to development, with renewed calls for more human-focused ICT4D interventions, has seen some e-IIs shifting towards more development-centred e-inclusion approaches. Unlike techno-centric approaches, development-centric approaches do not consider providing access to ICTs as the end goal. The ICTs are rather used as tools to create more opportunities and enhance community members' capabilities and freedoms, which are necessary to achieve their development (Sen, 1999). Ferreira et al. (2016) also found that e-IIs are shifting from being techno-centric to community and development-centric in order to foster effective e-inclusion that helps to address specific community challenges. Other researchers (for example Amariles et al. (2007); Bailey (2009); Cibangu et al. (2017)), have also concluded that, for e-IIs to effectively support community development, the technology must be appropriate for community members' daily realities and needs. Gigler (2015, p. 392) also stated *"ICTs have to be appropriated by local communities in order to enhance their well-being".* Moreover, the community

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members must be equipped with the digital skills to use the technology (Madon et al., 2009; Mishra, 2013).

More diversity exists now than ten years ago in South African e-IIs regarding how they operate and their e-inclusion approaches (for example Benjamin, 2001). This diversity is supported by the findings of the QSA, which show the different types of e-IIs operating in the WCP (see section 5.2) and the various services they provide to ensure the meaningful use of ICTs for community development (see section 5.3). Although techno-centric in focus, there is also evidence from CS1 and CS6 of an attempt to shift towards more development-centric approaches that support community development through meaningful use of ICTs. They are introducing services aimed at improving community members' understanding of the benefits of ICTs and capacity-building. The ICT services and skills training provided by CS2 and CS3 are designed largely through community participation and engagement to ensure they address community needs. CS4 has also introduced community-driven courses to ensure that community members are able to use the ICTs to fulfil their individual and community development needs.

7.2.2   Moving beyond physical ICT access: Community needs fulfilled by e-inclusion intermediaries

To effectively support community development, e-IIs need to fulfil different roles in the communities. The findings of this study support that, in addition to providing physical access to ICTs, e-IIs build community members' capacity and support small businesses and entrepreneurs. E-IIs also act as job placement centres, information hubs, Early Childhood Development (ECD) centres, and provide social support and help to facilitate community organising.

To support the adoption and meaningful use of ICTs and the participation of community members in an information society, e-IIs are focusing on building capacity by providing skills and development training courses to community members (Madon et al., 2009; Mishra, 2013; United Nations, 2014). The training services also help to develop the employability and entrepreneurial skills of community members (Cullen et al., 2012; Torrecillas et al., 2014). Twenty-three of the fifty QSA e-IIs provide basic digital skills training to help community members gain the necessary skills and competences to use ICTs. Of the six case studies, CS1, CS2, CS3, CS4, and CS6's metro library 2 provide basic digital skills training.

CS2, CS3, and CS4 further provide advanced learning courses and community-driven courses that are determined through community engagement. The e-IIs also conduct their own assessments in the communities to determine the available opportunities, community e-inclusion needs and skills

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requirements. Community-driven training courses increase the participation, completion rate and learning experience of community members (Marien, Vleugels, Bannier, & Van Audenhove, 2010). When community members cannot understand the relevance of the training content or see the benefits of the training, they are likely to drop out. CS2, CS3 and CS4 also employ various teaching methods. This is because blanket approaches in which the same predetermined digital skills are taught to community members, regardless of differences in literacies, education, personal characteristics, and needs (Casacuberta, 2007), are not always effective for skills transfer. The teaching methods include, for instance, using practical experience in addition to theory, converting course content into a digital format that trainees can self-teach using the computers at their own pace, and posting short training videos on social media.

To help community members create employment opportunities for themselves, and to generate income to improve their quality of life and support their families, nineteen of the fifty QSA e-IIs provide support to small businesses, entrepreneurs and informal traders. The support entails access to ICTs, business seminars and dedicated business corners in the venues. The findings of the QSA are supported by the case studies and show that, with the e-IIs' support, some community members are also able to develop business plans, register their businesses, access and apply for business loans and tenders, and design and print marketing material (posters and business cards).

In addition, CS2, CS3 and CS4 enable small businesses and entrepreneurs to gain business skills and benefit from mentoring and workshops that help develop their businesses. Small business owners and entrepreneurs also use the networking opportunities created by the e-IIs to meet with potential clients, partners and sponsors (Ohmer & DeMasi, 2009). These networks are also used for sharing information, knowledge, skills, expertise, and other resources. Small business owners and entrepreneurs also use CS4's low cost typing service for invoices, quotations and business proposals, and these are kept on the e-II's computer, as these individuals and organisations do not have any other option to keep digital copies.

One of the main reasons why community members visit e-IIs is for employment-seeking activities (Kassongo et al., 2018; Uys & Pather, 2016), and as such the e-IIs function as job-placement centres. Community members look for information about job opportunities and help to search and apply for available opportunities. The facilities are also used to type and print CVs and application letters. CS1 e-centres provide community members with CV templates that are installed on all the computers. The templates are especially helpful for community members who do not know how to structure a CV. Trainees from CS2 and CS3 find business, employment and internship opportunities through the e-IIs'

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networks and partnerships with individuals and organisations. CS1 and CS3 further provide social, soft, and presentation skills to help job seekers to prepare for interviews and meetings with potential employers. The staff at CS4 also advise job seekers on how to dress, talk and present themselves when going for interviews.

Providing information is one of the important roles of e-IIs (Hoq, 2015; United Nations, 2014). Community members go to the e-IIs to get information from the staff, the Internet and other community members. In addition to information about job opportunities, community members also get access to information about government, police, health services and funding opportunities to study. The information provided by the e-IIs helps community members to realise opportunities and make informed decisions (Soriano, 2007).

A service that is needed but not provided by many e-IIs is support for parents who want to use the ICTs but cannot afford to pay someone to look after their young children. Women, particularly mothers of young children, are often unable to visit the e-IIs and use the ICT services as they would like, because they are tasked with staying at home attending to domestic chores and looking after the children. CS6's metro library 1 is the only participating e-II (and one of few e-IIs in the WCP) that provides an ECD centre that caters for children up to the age of six. Young children have a space where they learn through play, while also developing and enhancing essential skills, and this gives the parent an opportunity to make use of the e-II's services.

E-IIs provide social services that help community members, and particularly the youth, in under-resourced communities who are exposed to different social challenges, such as domestic and gang violence, drug and alcohol abuse. E-IIs are an escape for the youth (Bailey & Ngwenyama, 2010), who also go to the e-IIs seeking emotional support and family-orientated environments. During an information-gathering conference held by CS3, the youth requested that a mother and father figure be present at the hub's Youth Cafés. The staff, some of whom are trained as lay counsellors, engage with the youth not only as trainers but as confidantes. In addition, CS1, CS2, CS3, CS5 and CS6 provide the youth and young school children with computer gaming and entertainment activities (for example story time, workshops and networking opportunities) that keep them occupied and off the streets.

Lastly, the e-IIs support community organising, which is an approach towards community development in which community members employ participatory methods that are community-initiated and driven to address community challenges (Cadiz, 2005). The process entails community members coming together and building their capacity, strengthening their resolve and collectively

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identifying challenges, solutions and the required action (Hustedde, 2009; Melkote & Steeves, 2001; Pyles, 2014). The e-IIs support community organising by providing physical spaces where community members gather and engage through debates, meetings, and networking sessions that are initiated by community leaders and CDWs. Community members identify and discuss challenges, such as poverty, crime, gangsterism, service delivery, and community development programmes.

The e-IIs also provide access to information and communication resources, which community members use to access, for example, government information and policy documents regarding service delivery. The e-IIs also expose community members to networks through which the latter can access information, expertise, skills and other resources to help address the identified challenges. These services provided by e-IIs are important because, on their own, community members lack adequate resources. However, the uneven distribution of power between government, CBOs, donor agencies and community members occasionally limits the latter's ability to implement and control the developmental interventions (Flora et al., 2016).

7.2.3   Community participation and community development

Participation in community development entails community members' inclusion in development interventions, engagement with the development actors, and contribution to decision-making (Phillips & Pittman, 2015; Swanepoel & De Beer, 2011). Development approaches that employ community participation are necessary to identify community needs and challenges, as well as to provide appropriate services that support community development effectively (Rahnema, 2010; Sen, 1999). For this study, the investigation of participation included the involvement of community members in decision-making about the e-IIs, what services they provide and how they provide them (Christenson & Robinson, 1989; Howard & Wheeler, 2015). According to Arnstein (1969), the participation of community members can happen in different ways and at different levels, for instance, it can be at a non-participant, tokenism, or citizen power level.

For CS1, CS2, CS4, CS5, and CS6, the decision to place the e-IIs in the selected locations in the communities was made by the development actors. This is usually government at the national and provincial level, which works with local municipalities, business, education, and local and international partners. Community members at the grassroots level are not involved. There is limited or no engagement between the development actors and community members beforehand to inform the people that an e-II will be placed in the community and why, the services it will provide and the anticipated benefits for community members. It is necessary for community members to understand

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why the e-II is being placed in their community, the value of ICTs and how they will benefit, or else they might be resistant and unsupportive.

When CS2 and CS1's e-centre 3 started operating, they experienced protests outside their venues and the verbal abuse of the staff, to the extent that some staff quit: *"At the start there was a few hiccups with the centre and the community"* (Tina R., expert respondent, CS1).

> *The actual community did not trust the centre because they did not understand the objective of the centre … there was a lot of negative connotation attached to the centre … the community didn't understand about the impact of technology and what the …* [government] *wants and that caused a lot of rivalry … to that level where staff members had to face ugly words from people here. It affected myself and the staff, some staff didn't want to work here, I didn't sign up for this I can go back to my company. One lady left, she was passionate about the project but could not handle what was happening* (Tatenda K., expert respondent, CS2).

The resistance was eventually resolved through continuous and effective engagement between the e-II staff and community members, particularly regarding the e-IIs' operations, objectives in the community and benefits of ICTs for community members. Engagement with community members helps the e-IIs to gain the support of community members, which is enabling for the success and sustainability of the e-IIs and their interventions (Hoq, 2015; Pokpas, 2014).

Regarding what services and how these services are provided by the e-IIs, CS2 and CS3 involve community members. This involvement is at the tokenism level, where community members contribute and influence decisions. The involvement also touches on citizen power level, but not completely. Community members, particularly with CS3 have some power and control regarding certain interventions in the community, but they work in partnership with the staff of CS3 and therefore do not have complete control. CS4 also employs some participatory approaches that help it identify the skills and learning needs of community members and then develop and offer the appropriate courses. Participation at the tokenism level helps e-IIs to gain from the expertise, knowledge, experience, and existing networks of community members, and to obtain information about specific community challenges (Vincent, 2009).

By applying participatory development approaches, the e-IIs learn first-hand about the realities in the communities (for example power relations, socio-economic status, service delivery, and infrastructure availability), and the challenges and experiences of community members (Rahnema, 2010). With this knowledge, the e-IIs are able to design and implement informed solutions and community-driven

services that address identified community needs. Examples are the design and offering of specific skills-development courses, and support for small businesses and entrepreneurs in the community. Furthermore, the inclusion of community members in interventions for their development gives them a sense of empowerment and ownership (Dasuki et al., 2014; Leavy & Howard, 2013), which translates into support for the e-IIs (Pokpas, 2014). Community members also learn more about their own realities, ICTs and, how and what benefits can be gained from integrating the technology into their daily life.

For CS1, CS5, and CS6 community members are not involved in decisions about what services are provided. However, community members are invited to offer suggestions on how the existing services could be provided more effectively and how the e-IIs could operate more optimally. While the e-IIs' staff receive the suggestions, they have limited power to act on them and often have to forward them through a chain of command and lengthy processes. The participation by community members is within the non-participant level, because their contribution is manipulated and limited. A recent study by Kassongo et al. (2018) on government-initiated e-centres in the WCP also found no evidence of community participation in the design, implementation and services of the e-centres. The perception of the development actors at the provincial and local government level is that, as long as the technology is there, community members will eventually use it, and this is a techno-centric approach.

7.2.4   Relationship building for community development

Relationship building is part of community development because strong relationships and connections can lead to higher levels of social capital in a community (Phillips & Pittman, 2015). Social capital encompasses networks made of strong and weak ties, which are useful links for community members to access support, resources and information, and to create opportunities for development (Granovetter, 1973). These networks are particularly beneficial for community members in under-resourced communities, who mostly rely on friends, family, government, and donor agencies to survive (Warren et al., 2005). Moreover, community development is about building the capacity of community members to participate in and achieve their development, and for this to happen, community members need to work together and support each other for the common good (Phillips & Pittman, 2015).

E-IIs need to have a good and trusting relationship with community members to support community development effectively. To achieve this, the e-IIs emphasise treating community members equally and with respect, and making them feel welcome and comfortable, regardless of their socio-economic

status. The attitudes of the e-II staff and how they treat community members play a big role in forging relationships, along with community members' use of the e-IIs' services. The engagement between the e-II staff and community members is important in building the relationships, it keeps community members informed regarding the e-IIs and the e-IIs are able to be transparent about their purpose and objectives. As the engagement becomes more frequent, the sentiments of friendship become stronger (Granovetter, 1973).

Strong sentiments of friendship benefit both the e-IIs and community members. In the case of CS1, some community members develop and enjoy friendships with the staff, which puts them in a more favourable position to negotiate with the staff for more sessions using the computers and other favours. For instance, when the staff come across information about job vacancies or business opportunities, they share it with the community and, if it is particularly significant for their friends, they make them especially aware. Regarding CS2 and CS3, the youth gain confidantes whom they can trust to talk about the challenges they are facing. Furthermore, the trainees are exposed to the e-IIs' networks with people in business and education, which creates opportunities for sponsorship, internships and employment.

CS2 and CS3 also put a lot of effort into creating environments that enable community members to engage with each other by hosting debates, workshops and other networking sessions. These encounters enable community members to get to know each other and build networks that are useful outside the e-II space. Small business owners use the facilities provided by CS1, CS2, CS3, CS5 and CS6 to meet and build networks through which they share ideas and resources and mentor each other. Entrepreneurs find business partners and build relationships with funders. The trainees also become friends with each other and support each other when they are struggling in class or looking for jobs and internships.

The e-II staff are also exposed to community members' networks, which they use to connect with other cliques of community members to share information and create awareness about the e-IIs and promote the use of ICTs. Some of the staff from CS1, CS2 and CS3 also benefit from the friendships they make with community members. Outside of the e-II space, they socialise, organise events and network, where they share information and money-making ideas.

7.3   Theme 2: How e-inclusion intermediaries communicate for development and use social media

This theme addresses the second part of the main research question, which asks how e-IIs communicate for development, paying special attention to their use of social media. This part of the

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question is addressed in SQ2: How do e-inclusion intermediaries communicate for development in their communities? SQ3: How do e-inclusion intermediaries communicate for development using social media? And, SQ4: Why do e-inclusion intermediaries use social media to communicate for development? The discussion takes place under six sub-themes: (i) communicating for development, (ii) communicating for development using social media, (iii) reasons for using social media to communicate for development, (iv) a social media plan, (v) organic and paid social media campaigns, and (vi) understanding community members' sought social media gratifications.

7.3.1   Communicating for development

For this study, communication is defined as a dialogical process used to share, exchange, transfer, and interpret information for outcomes that include creating awareness, sharing knowledge, changing behaviour, building relationships, and making informed decisions. What differentiates this communication as we understand it from communication for development is that the latter entails social processes in which communication strategies and different media are used specifically for development purposes and outcomes (Melkote & Steeves, 2001; Servaes, 2008).

The e-IIs make use of different communication media, which include word of mouth, flyers, pamphlets, posters, noticeboards, and letters. These are the more affordable and convenient traditional media that the e-IIs mostly rely on to create awareness, share information and promote the use of ICTs. For community members who do not have access to online or broadcast media, the print media enable them to access information on things such as job vacancies, scholarships, business tenders, and announcements by the e-IIs. By utilising their networks and relationships with people and organisations, e-IIs benefit from free and discounted rates to use television, radio and newspapers with wide readership as communication media. However, the e-IIs' use of broadcast media is less than their use of print media, due to cost, convenience and accessibility. The e-IIs also use SMSs, email, and websites to communicate.

In addition to word of mouth, the media that the e-IIs use the most to facilitate two-way engagement with community members are social media and instant messaging applications (mainly WhatsApp). These media enable community members to inform the e-IIs of community challenges and suggest possible solutions with which the e-IIs can assist. Community members are also able to participate in debates and discussions on social media about community-related topics that either the e-IIs or community members instigate. Consequently, social media are being incorporated into e-IIs' communication for development strategies in an attempt to facilitate community members'

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participation, which is necessary for effective and sustainable community development (Adedokun & Adeyemo, 2010; Tufte & Mefalopulos, 2009).

Developing an effective strategy for communication for development that includes the selection and ideal use of communication media to achieve the identified communication objectives is not an easy task for the e-IIs. E-IIs can be limited by their lack of adequate resources, funding, and communication infrastructure, especially in rural and remote under-resourced communities. The e-IIs can also lack sufficient knowledge of the communication landscape in their community. Moreover, community members' social divisions, illiteracy, lack of media accessibility, unaffordability and language barriers also create challenges.

The language challenge also includes the jargon that e-IIs use when they develop content. There are certain words that some community members do not understand, for instance, CS2 found that when they promoted 'digital skills', community members did not know what this was. The staff had to change the wording and use words that community members understand, like 'computer skills'. To overcome language barriers, CS5's rural library 2, employs a librarian who can speak the three dominant languages (English, Afrikaans, and IsiXhosa) in the community to support community members who are not fluent in English and translate some print media. The head office of CS1's e-centres prints all the promotional material (flyers, posters, and pamphlets) in the three dominant languages and distributes these to all the e-centres. Sharing information in different languages facilitates community members' equitable access to information resources (Mbangala & Samzugi, 2014).

Social divisions, for example based on race, language spoken, and socio-economic status, exist in some communities and this affects the flow of information through media like word of mouth. CS4 showed that, in certain contexts, community members of different races do not talk to each other. Moreover, among community members of the same race, those with a higher socio-economic status do not engage with those they consider lower than themselves. Different networks can exist in a community and, if these networks have very few or no links to each other, it is likely that information and awareness about innovations in a community will be confined to the community members of the same networks (Granovetter, 1973).

7.3.2   Communicating for development using social media

As instruments of development, social media facilitate aspects of everyday communication (Nicholson et al., 2016). Their contemporary participatory development capabilities make them capable of

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facilitating community development, for instance, using multi-way engagement and information sharing (Kaplan & Haenlein, 2010; Mosconi, 2018). Social media are fast becoming common place as tools for communication for development used by international and national development actors to share information with locals and gain their support for interventions (United Nations, 2014). Social media have been found to increase community members' capabilities to improve their quality of life by supporting, for instance, poverty eradication, income equality, employment, civic engagement and political participation.

This section extends the discussion of the roles played by e-IIs to support community development (see section 7.2.2) by also discussing the different roles that social media play to help e-IIs achieve their communication objectives and in so doing, support community development. These roles include information sharing and gathering, teaching, awareness creating, two-way engagement, relationship building and networking. The social media applications used by the e-IIs are Facebook, Twitter, YouTube, and Instagram. The e-IIs also use WhatsApp, which they consider as part of their social media.

For thirty-seven of the fifty QSA e-IIs, the leading role of social media is to share information, and this is supported by the findings of the case studies. The e-IIs share the information with either a wide range of people or with a specific target audience in the community. Although not all of the e-IIs' target audiences have access to social media, the e-IIs are still able to share information and create awareness among some community members, empowering them to make decisions about ICTs, and about their economic development and well-being. For instance, the e-IIs share information about how small business owners and entrepreneurs in the community could also benefit from using social media and other online applications to market their products and services, engage with potential and existing customers, and look for sponsors. They also share information about employment and internship vacancies to which some unemployed community members have seen, applied for and gained employment. Moreover, community members who see the posts also share the information through word of mouth and WhatsApp (instant messaging) with friends and family who do not have access or use social media.

In addition, social media create opportunities that CS2, CS3, and CS6's metro library 2 use to gather information about other development actors' community development projects, and this is used to inform the e-IIs' initiatives. CS3 also gets ideas from other development actors' social media accounts regarding how to communicate for development using social media, particularly relating to the look

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of the account or page, the type of content and media (videos, pictures, or text) posted, and how they integrate information from other sources.

CS4 uses social media as additional teaching tools. The centre's mission in the community entails building community members' capacity through skills development and knowledge of existing opportunities. The staff have learnt that face-to-face teaching approaches are not always effective in their community, so they have devised different strategies to transfer skills to community members. One of the strategies is developing short training and instructional videos and posting them on Facebook. These videos can be beneficial for community members who have access to a capable mobile device to self-teach in their own time and at their own pace. Some of these community members might know about Facebook, but they do not know or use other features on their phones. The videos are intended to show them, for instance, how to install and/or use different applications, such as Google Maps and mobile banking, to carry out personal and business tasks.

Social media's features of participatory communication and two-way engagement greatly facilitate the relationship-building process beyond the one-way top-down approaches of traditional media (Melkote & Steeves, 2001). For community members to actively participate in community development-related topics, the e-IIs use short, personalised, informal and easy-to-understand content that is more enticing (Hassan et al., 2016; Shan et al., 2015). Making use of CS2 and CS3's social media, community members ask questions, and share ideas and opinions about the services provided, including how the services can be improved. They provide suggestions on additional ICT-related services and skills-development courses that are needed in the community. Since the e-IIs consider and act on relevant and feasible suggestions, social media are facilitating community members' participation in the e-IIs' decision-making processes. Furthermore, this participation helps the e-IIs to design and provide, improved and more community-needs driven services.

 CS2, CS3 and CS6's metro library 2 use Facebook and Twitter to engage and network with and build relationships with community members and other development actors (Wheeler, 2016). The networks are used to share information, resources and other forms of support. Internet-based networks are more suited to forging relationships that are beneficial in providing information and providing opportunities at low costs (Castells, 2000). On CS2's Facebook page, for instance, there is evidence of the centre staff engaging with other development actors and other e-II managers about ways to help each other offer and fund more learning opportunities for trainees in different communities.

7.3.3 Reasons for using social media to communicate for development

E-IIs use social media for various reasons, which include social pressure, the popularity of social media in the communities, their cost-effectiveness, the fact that they are immediate and wide reaching, they facilitate two-way engagement, and are capable of sharing multi-media content. The e-IIs feel social pressure to use social media in three ways. Firstly, the CS1 e-centres compete amongst themselves. When some e-centre staff see that other e-centres have attractive social media accounts, the e-centres not using social media also create accounts to avoid being outdone. Secondly, like CS2 and CS6's metro library 1, e-IIs feel pressure to be trendy. As advocates for and facilitators of e-inclusion, they do not want to be considered technologically behind or backward by community members and other development actors for not using social media. Lastly, the popularity of social media as information sources for many community members forces e-IIs such as CS3 to use social media to reach their target audience in the community. Social media are popular in the different communities due to the increased availability of affordable smartphones and opportunities to connect to the Internet through free Wi-Fi hot-spots in the communities (Wyche, 2015).

Social media are convenient and cost effective, since the staff have access to computers and the Internet. The staff of CS5's rural library 1 and CS6's metro library 1, however, face some restrictions since social media are either blocked on the staff computers or not allowed to be accessed during work hours. Although social media have paid features, for the most, part social media are free for the e-IIs to use, making them cheaper and more convenient than the usual traditional media, such as newspapers, radio, and television (Attouni & Mustaffa, 2014; Shan et al., 2015). In comparison to the other communication media used by e-IIs, social media are immediate and wide reaching. The content posted is visible to community members (social media users) immediately and overcomes existing social, cultural, and geographic barriers.

CS1, CS2, CS3, CS4, CS5's rural library 1 and CS6's metro library 2 also use social media for two-way engagement. However, it is CS2 and CS3 that experience more engagement and activity through their social media than the other e-IIs. This two-way engagement facilitates community members' participation in discourse about community challenges and developmental interventions. The capability of two-way engagement and the ability of social media, namely Facebook, to incorporate a personalised element in the engagement make social media useful for relationship building, much unlike other traditional media.

The two-way engagement features of social media also enable community members to engage with one another through the e-IIs' social media. The bottom-up, two-way engagement stimulates the creativity of community members and brings their collective intelligence together towards achieving common goals (Badea, 2014). This is evident in CS2 and CS3, where community members bring their collective intelligence together through the e-IIs' Facebook pages to combat crime and other community challenges.

Lastly, social media are effective and appropriate communication media for e-IIs to showcase their physical spaces, ICT infrastructure, staff, users, community, digital stories, events, and achievements through pictures, videos, text, and audio. CS2 and CS3 post multi-media content to facilitate transparency to community members, other development actors, and their funders. The transparency, democratic exchange, and community organising affordances of social media are benefits and enough reason for organisations involved in community development to use social media to communicate for development (Cmeciu & Cmeciu, 2014).

7.3.4   A social media plan

There is limited literature available that details the methods or approaches that development actors and organisations use to communicate for development using social media. Most of what exists are examples of the social media applications they use and the expected outcomes. There is little information in terms of possible strategies to apply or recommendations that can inform e-IIs' choice of social media applications and how to use them. This study finds that the effective use of social media to communicate for development can be challenging and demanding. The process requires resources that include time, funding, adequate ICT infrastructure, reliable Internet connectivity, and skilled people managing the social media and who are also knowledgeable about the different capabilities of social media.

A social media plan is helpful to guide how best to use these media to achieve clear, identified communication objectives, particularly since there is no single approach to using social media. Social media plans are unique to the resources available, the mission and communication objectives of the e-II, as well as community members' preferences and communication and information needs.

CS1, CS4, CS5 and CS6's metro library 1 do not make use of a social media plan. Their use of Facebook is sporadic, without clearly defined communication objectives. Consequently, they face challenges in determining what type of content (information) to post, which often leads to their Facebook pages not being active. These e-IIs also do not use Facebook features, such as the events calendar or

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awareness campaigns. On the other hand, CS2, CS3, and CS6's metro library 2 have developed social media plans with clear goals to guide how they use social media, the type of content and media (text, pictures, and videos) to post, as well as the time during the day to post. The plans also define the language to use, the engagement protocol, and the delegation of responsibilities among the e-II staff that manage the social media accounts.

Developing a social media plan is not an easy task. It requires a high level of familiarity with the social media, digital skills, awareness of the target audience and their sought gratifications, and clearly formulated communication objectives. To develop informed social media plans, CS2, CS3 and CS6's metro library 2 use social media analytics. In the context of this study, social media analytics refers to the process of gathering and interpreting data from social media accounts to facilitate decision-making. The process entails analysing elements that include the action on the account or page, engagement, followers, impressions, likes, reviews, clicks and the reach of the content.

The information gained from social media analytics helps the e-IIs understand their audience (community members). For instance, the community members' age groups, what times they are most active on social media, interests and the type of content they engage with. CS2 and CS3 also use the information to determine areas in which their social media performance is lacking, and therefore adjust their social media plan accordingly to improve performance. In addition, CS3 uses social media analytics to identify information or content that is trending at a given moment on various social media platforms, and if it relates to the work of CS3 they join the conversation. This helps CS3 create awareness, as well as identify, network, and engage with other development actors that share common goals.

Section 8.3.3.3 of the following Chapter 8 provides a seven-step guide that can be used to inform the use of social media to communicate for development. This guide is part of the main outcomes of this study.

7.3.5   Organic and paid social media campaigns

A social media campaign is a marketing effort that uses a social media platform to achieve specific goals, for example increasing followers and awareness, increasing traffic to a website, or advertising an event (Facebook, 2019). The difference between paid and organic social media campaigns is that the marketing strategies to reach people, boost the campaign's performance or distribute the campaign are either paid for or unpaid. When the strategies are unpaid, the reach, performance, and distribution of the campaign is organic.

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The staff of CS1, CS4, CS5 and CS6 did not know about or use Facebook's feature to design and implement marketing and awareness campaigns. Nevertheless, one of the biggest allures of social media for these e-IIs is that they are free to use, therefore the idea of paying for the features is unlikely. The staff managing CS3's social media are aware of the paid campaigns; however, they have made the conscious decision not to pay for any social media campaigns. Rather, they invest that money in their community development initiatives. CS3 relies solely on organic campaigns to achieve their communication objectives. CS3 has skilled and knowledgeable staff, they use a thought-out social media plan and analytics, and know to a degree the information and communication needs of their audience. Therefore, CS3 is able to a large extent, achieve its social media objectives without paying. On the other hand, while CS2 has similar qualities and resources, they make use of paid campaigns as part of their strategy to achieve their social media objectives. Paying works for CS2 because they want to have access to additional features that give them control over the campaign, for instance selecting specific target audiences and age groups in certain areas of the community.

The findings of this study support that e-IIs use social media differently to achieve their communication objectives. Furthermore, their target audiences in the communities have different information and communication needs that they seek from social media, therefore the e-IIs cannot use social media in exactly the same way. While paid campaigns might work for one e-II, organic campaigns might work just as well for another e-II. Consequently, it is difficult to say whether organic or paid campaigns are more effective. It arguably is a judgement that is made based on an e-II's available resources, objectives, and target audience (Cook, 1994).

7.3.6   Understanding community members' sought social media gratifications

In this context, gratifications are the needs that a community member wants to fulfil using communication media based on their personal and social circumstances (McQuail, 1994; Rubin, 2009). Knowing the gratifications that a target audience seeks facilitates an understanding of the motivations behind their choice of certain communication media (Katz et al., 1973). This also helps to identify the appropriate media and develop effective communication strategies to satisfy the gratifications (McQuail, 1994; Rubin, 2009).

The types of categories of gratification sought from communication media include companionship, connectedness, entertainment, escapism, information seeking, network and relationship building, personal identity and stimulation (see section 3.8). Although these categories are based on one-way, top-down traditional mass communication media (for example radio, television and cinema),

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gratifications sought in today's era of modern, bottom-up, two-way communication media are largely similar. However, two new categories are apparent, namely surveillance and social expression, which are particularly sought from social media (see section 3.8).

Comparing the gratification types identified in the theory and literature with those found during this study, it is evident that the sought gratifications are largely the same. The user respondents of this study sought gratification of (i) building and maintaining relationships, (ii) entertainment (escapism), (iii) impression management, (iv) romantic companionship, (v) information seeking, (vi) self-expression, (vii) social engagement, and (viii) surveillance, from social media. However, this study also found two categories not mentioned in the literature or theory, namely (ix) economic development and (x) attention seeking. Economic development is associated with community members wanting to gratify the needs of income generation, small business marketing, customer engagement, and job hunting using social media. Regarding 'attention seeking', community members are seeking to satisfy the need to be noticed, popular, acknowledged, and praised by strangers. They post pictures and videos of themselves to get as many likes and comments for instant gratification. The ten gratification categories are shown in Table 23.

Table 23: Community members' sought social media gratifications

Case study name	Respondents	Type of social media applications	Category	Description
CS1	Small business owners, unemployed university graduates, current university students, local municipal workers, employed and unemployed adults.	Facebook, Instagram, WhatsApp	▪ Building and maintaining relationships ▪ Economic development ▪ Entertainment (escapism) ▪ Impression management ▪ Romantic companionship ▪ Seeking information ▪ Social engagement ▪ Surveillance	▪ Meeting new people ▪ Making friends ▪ Communicating with friends and family ▪ Entertainment ▪ Gaming ▪ Instant messaging ▪ Romancing ▪ Source of information ▪ Following celebrities ▪ Small business marketing ▪ Customer engagement ▪ Showing off

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Case study name	Respondents	Type of social media applications	Category	Description
CS2	Entrepreneurs, interns, full and part-time trainees.	Facebook, Twitter, YouTube, WhatsApp	▪ Building and maintaining relationships ▪ Economic development ▪ Entertainment (escapism) ▪ Seeking information ▪ Self-expression ▪ Social engagement	▪ Job hunting ▪ Entertainment ▪ Posting pictures of self ▪ Gaming ▪ Source of information and news ▪ Instant messaging ▪ Communicating with friends and family ▪ Networking ▪ Meeting new people
CS3	University students, unemployed graduates, employed adults, entrepreneurs.	Facebook, Twitter, Instagram, WhatsApp	▪ Building and maintaining relationships ▪ Economic development ▪ Entertainment (escapism) ▪ Seeking information ▪ Social engagement	▪ Source of information ▪ Entertainment ▪ Income generation ▪ Maintain relationships ▪ Networking ▪ Instant messaging ▪ Communication with friends and family
CS4	Small business owners, employed and unemployed adults.	Facebook and WhatsApp	▪ Attention seeking ▪ Building and maintaining relationships ▪ Entertainment (escapism) ▪ Seeking information ▪ Social engagement	▪ Entertainment ▪ Instant messaging ▪ Networking ▪ Source of information and news ▪ Seeking attention
CS5	University students, student interns, employed adults.	Facebook, Instagram, WhatsApp	▪ Building and maintaining relationships ▪ Entertainment (escapism) ▪ Seeking information ▪ Social engagement	▪ Source of information ▪ Entertainment ▪ Instant messaging ▪ Communicating with friends and family
CS6	Small business owners, unemployed adults, employed university students.	Facebook, WhatsApp	▪ Attention seeking ▪ Building and maintaining relationships ▪ Economic development ▪ Entertainment (escapism) ▪ Impression management ▪ Seeking information ▪ Self-expression ▪ Social engagement ▪ Surveillance	▪ Business marketing ▪ Customer engagement ▪ Following celebrities ▪ Source of information and news ▪ Posting pictures of self ▪ Seeking attention ▪ Entertainment.

Source: Author

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A recent study by Gillwald et al. (2018) also found (i) building and maintaining relationships, (ii) social engagement, (iii) self-expression, (iv) seeking information, and (v) surveillance to be among the social media gratifications sought by South African social media users. The main reason for choosing social media is their capability to facilitate relationship building and (real-time) two-way engagement. In Gillwald et al.'s (2018) study, the surveillance is mainly of government departments and local politicians, while for this study, community members focus their surveillance mainly on celebrities, friends, and other community members they know.

Knowing the gratifications community members seek enables e-IIs to tailor the content of and approach to how they use social media to satisfy the gratifications. They can do this, for instance, by providing relevant and sought information, a platform for community members to actively engage with each other in discussions or debates, and posting entertaining content. However, the e-IIs still need to investigate further to identify the specific information needs, whether job vacancies, government support and the type of content that community members find most entertaining.

Since community members are the intended beneficiaries of the e-IIs' communication, they can provide some valuable feedback to help e-IIs communicate with them more effectively. User respondents from CS1 believe the e-centre staff do not use social media effectively on purpose, because they do not want to create more awareness about the services because they could not cater for the demand. They propose that the government and the e-centres' head office should invest in bigger e-centre venues that are adequately equipped for the e-IIs to cater for the growing demand for ICTs. This would possibly motivate the e-centre staff to use social media and other communication media more actively and effectively.

The user respondents from CS2 and CS3 are satisfied with these e-IIs' use of social media, especially Facebook, as sources of information and facilitators of engagement. User respondents from CS4, CS5, and CS6 want their e-IIs to be more active on Facebook, and for the overall look of the Facebook pages to be more attractive. They want relevant content that is fun, entertaining, and engaging to be posted often. Moreover, they want important information and announcements by the e-IIs that are posted on the noticeboards to also be posted on Facebook.

7.4   Summary of the chapter

Different types of e-IIs exist today that are using ICTs to support community development. What often differentiates the e-IIs is their approach to e-inclusion, ownership and funding models, and their mission in the community. The evolving needs of community members and calls for more human-

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centred development have seen some e-IIs shifting their e-inclusion approaches from being techno-centric to development-centric, which is also more participatory. The participation and engagement with community members helps e-IIs gain more knowledge about the realities in the communities and the needs of community members. This informs more appropriate and community-needs driven services. Moreover, e-IIs gain from the existing networks and support from community members who are involved in decision-making about the e-IIs' interventions.

There are different ways that e-IIs can use social media to communicate for development. The approach is often determined, for instance, by the e-IIs' mission in the community, their communication objectives, knowledge of the target audience, skills of the staff and the available resources. When used strategically and guided by a thought-out plan, social media can create some awareness in the communities, and can be used to share information and facilitate community members' participatory communication. Social media analytics also provides useful information about the e-IIs' social media performance and the followers' demographics, as well as social media behaviours. Community members can also provide useful feedback regarding how e-IIs should use social media to meet community members sought gratifications.

Chapter 8

Conclusion

8.1 Introduction

The purpose of this study was to investigate, firstly, how e-IIs support community development, and secondly, how e-IIs communicate for development, with special attention being paid to social media use. This chapter presents a summary of how and where the objectives of this study were addressed. The implications of this study for theory, policy and practice regarding community development, communication for development, and the use of social media are also presented. The main outcomes of this study are also presented. The chapter concludes with discussions of the limitations of this study and suggestions for future research.

8.2   Revisiting the research objectives

This study had five key objectives. The first objective, *to explore the services provided by e-inclusion intermediaries,* was addressed in Chapter 2, which provides a review of pertinent literature regarding the different types of e-IIs in South Africa and other countries and the services they provide. Chapters 5 and 6 also present the findings of this study and detail the services provided by the e-IIs in the Western Cape Province (WCP). The second objective, *to investigate how e-inclusion intermediaries support community development*, was addressed in Chapters 5 and 6, which describe the findings of how e-IIs in the WCP support the key concepts of community development. Chapter 7 also presents a discussion on the different roles that e-IIs play to support the evolving needs of community members. Chapter 3 provides the theoretical framework that guided the investigation, particularly the conceptualisation of community development and ICT4D.

This study's third objective was *to explore how e-inclusion intermediaries communicate for development in their communities*. This objective was addressed in Chapters 5, 6 and 7, which provide detailed descriptions of how e-IIs in the WCP communicate for development, including the different communication media they use, and how they use them. The challenges that the e-IIs face in communicating for development are also described in Chapters 5 and 6. The theoretical framework presented in Chapter 3 provided the guidelines for how to interpret and investigate C4D.

The fourth objective, namely *to explore more specifically how e-inclusion intermediaries communicate for development using social media*, was addressed in Chapters 5 and 6, which provide comprehensive

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descriptions of how different types of e-IIs use social media to communicate for development. In addition, Chapter 7 provides a thematic discussion of how different e-IIs use social media, and utilise social media plans and campaigns, and community members' sought social media gratifications. The last objective, *to investigate why e-inclusion intermediaries use social media to communicate for development*, was addressed in Chapters 5 and 6, which provide details of e-IIs' different reasons for using social media to communicate for development. Chapter 7 also provides a cross-case discussion of these motivations. For objectives four and five, Chapter 3 presents the theoretical underpinnings of community development, C4D, ICT4D and the uses and gratifications that were used to guide the investigation.

8.3   Implications of this study's findings for theory, policy, and practice

This study, on how e-IIs support community development and communicate for development, especially their use of social media, has implications for theory, policy, and practice. These implications are discussed in the following sub-sections.

8.3.1   Theory

The national development policy makers in South Africa still narrowly interpret development challenges (for example poverty, inequality, and unemployment) as technical challenges, which lead to emphasis on technology-based solutions. Consequently, their ideas of development are rooted in capital-intensive, techno-centric, top-down philosophies of modernisation (Schwab, 2016). The results of this approach include emphasis on the development of e-IIs in under-resourced communities to provide community members, particularly those who are marginalised with access to ICTs which are expected to lead to development.

The challenge with these views of development is that ICTs are often seen as the end goal and not a sub-set of the solution to support community development. In under-resourced communities, where marginalised community members face numerous challenges (for example poor housing, service delivery, sanitation and food security), technology should not be the end goal, because more is needed to address these challenges (Melkote & Steeves, 2001). For instance, looking at economic development, access to ICTs is not the end goal; this access simply creates opportunities for community members to increase their capabilities and freedoms to achieve their development objectives (Gigler, 2015; Hatakka & De, 2011; Kleine & Unwin, 2009; Sen, 1999). Placing e-IIs in the communities does not guarantee community development, or that community members will use the technology meaningfully (Gigler, 2015; Gurstein, 2000; Walsham, 2017). To achieve this, community

members need to know what ICTs are, understand the associated benefits, and relate them to everyday life. They also need to possess the necessary knowledge, information and, digital skills and competences to use the technology to address existing and future challenges.

This study suggests that government and other development actors' modernisation-inspired technology-deterministic approaches to address development challenges in under-resourced communities might not necessarily fail, but will have limited success (Heeks, 2008; Roman & Colle, 2002). This is because it is not easy for western technologies, cultures and ideas to integrate into developing contexts through top-down approaches. Community members who are deeply rooted in their cultures and traditions, and are marginalised, are often suspicious of and resistant to foreign ideas and change. Moreover, the limitations of top-down approaches of placing e-IIs with a supposed moral agenda of empowering community members, is that the e-IIs are often not aligned with the realities of communities and the (empowerment) needs of community members. E-IIs that employ more participatory, community-determined, needs-driven approaches to address development are more likely to be informed about the realities in communities and designed to address the challenges.

This study also finds that community engagement and participation are necessary for (i) the success and sustainability of community development interventions (Huesca, 2008; Rogers, 1976b; Sen, 1999) and (ii) community-driven interventions that are appropriate and address community challenges (Servaes, 2008; Waisbord, 2000). Community members experience the challenges first-hand and know their communities. They provide useful information, networks and expertise to devise and support solutions (Leavy & Howard, 2013; Vincent, 2009). Moreover, community members' participation and involvement in their own development enables them to gain an understanding of their realities, and the knowledge and skills to continue to sustain the initiatives (Melkote, 2000; Servaes & Malikhao, 2016a). This empowers community members and reduces their dependence on government and other local and international development actors.

What is lacking, however, from the participatory theories is a clear interpretation of the level or type of community participation necessary for the success of the developmental interventions. Although guides like Arnstein's (1969) ladder of citizen participation, among others exist, they are not easily applicable in communities with strong opposition from existing traditional, social and cultural power relations. Different groups and networks of community members exist in the communities, based, for instance, on race, language spoken, traditions and socio-economic status. These groups fight amongst themselves for control and power in developmental interventions. They are also resistant to development actors from outside the community who impose power over them. This makes it

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challenging to identify community members to participate, since it is not always possible for all community members to participate and contribute equally. Understanding the distribution of power in the community can help to avoid situations where one power group makes decisions and takes actions for the benefit of some over others (Burkhart-Kriesel, 2005).

Government-initiated e-inclusion approaches still employ either no level of community participation or non-participatory levels, where community members' participation is manipulative and passive, particularly in poor, under-resourced communities. This is evident in CS1, CS5 and CS6. A recent study of a government-initiated e-centre project came to similar conclusions (Kassongo et al., 2018). On the other hand, community-initiated e-inclusion approaches incorporate a higher level of community participation, control and involvement in the services provided and the e-inclusion approaches. CS3 for instance, is an example of what can come out of community organisation, continuous engagement and participation to identify and address community needs. This is also evident in CS4 and CS2 (a government initiative where a third party - NPO operates the centre and largely makes decisions about services provided), particularly regarding the specific training services that are provided.

Interpersonal (face-to-face) engagement is most effective in influencing the understanding, use and adoption of technology in communities, particularly when the community members are marginalised or illiterate (Freire, 1970; Melkote & Steeves, 2001). They trust their family members, friends, traditional and religious leaders, as well as those in their close social networks (Hoq, 2015). Social engagements are the most relied upon communication method to spread information and create awareness. Although technology has greatly influenced how community members communicate, they have not replaced these types of engagements. In rural and remote under-resourced communities in particular, infrastructure is limited, and the more marginalised and illiterate community members place more trust in traditional media and interpersonal social engagements than technology-mediated communication.

In addition, this study finds that communication plays an important role in facilitating community participation and engagement (Heeks, 2002). However, devising appropriate and effective communication for development strategies receives limited attention from policy makers and development actors who employ top-down development approaches (Lennie & Tacchi, 2015). Effective communication for development between development actors, the e-II staff and relevant community members can influence the success or failure of interventions. The communication and engagement facilitate participatory development by helping community members to understand their

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realities, share information to create awareness, and promote and support the e-IIs' development interventions (Melkote, 1991).

Expert respondents from government stated that little attention was paid to devising appropriate communication for development strategies to create awareness, share information and facilitate dialogue with community members prior to and during the development and implementation of CS2. The same was the case with CS1 and CS5. This resulted in community members' initial lack of understanding of the e-IIs and, consequently, their resistance to and limited support of the e-IIs interventions. Arguably, devising a communication for development strategy was not considered necessary, as community members were expected to understand what the technology was and the benefits of using it. The e-IIs relied on traditional communication media (for example radio, newspapers, and flyers), which they continued to use despite knowing these media were not always effective to communicate for development. The e-IIs that did not prioritise developing effective communication for development strategies were also the e-IIs that employed top-down e-inclusion approaches to community development. Very few of the participating e-IIs prioritised conducting research in the community to understand the communication landscape so as to develop more informed and effective strategies.

Participatory communication for development theories emphasise the participation of community members. However, the theories are not always clear on which community members to communicate with, how to select them and communicate with them, and to what extent. This study finds that it is helpful to work with community leaders and representatives, and CDWs to identify the relevant community members. This strategy worked very well for CS2 and CS3. However, caution is warranted, because the community leaders can sabotage development interventions due to conflicting power and race relations. This was evident with CS4, where the e-II faced resistance from Black African community leaders who did not want to engage with non-Black African staff from the e-II, even though the staff were proposing interventions that would help community members.

Weak bridging ties that loosely connect community members with each other and e-IIs with community members through networks are important and should remain a key part of community development. Weak links are useful for information sharing (word of mouth) to create awareness and promote the use of ICTs. They have the capacity to indirectly connect community members of diverse or similar social groups with other cliques in different networks (Ohmer & DeMasi, 2009). The importance and impact of these micro-level (small-scale) interactions on community development are often overlooked (Granovetter, 1973). This study finds that treating community members with the

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same level of respect and interest, regardless of their different socio-economic statuses, helps to build relationships. The more the engagement takes place, the more the e-II staff and community members get to know each other and the stronger the sentiments of friendship become, which leads to the formation of stronger networks.

8.3.2   Policy

In developing countries, ICT policies play a large role in national developmental strategies. For example, to realise the NDP's envisioned 2030 information society, South African ICT policy emphasises digital equality and the inclusion of all people (National Planning Commission, 2012). ICT policies are used to promote improved and increased availability and affordability of ICT infrastructure, particularly in under-resourced communities. Within ICT policy, e-IIs are considered key drivers of ICT promotion and access, and the capacity-building of community members (Western Cape Government, 2015).

This study provides five implications for policy. Firstly, the focus of the South African government's e-inclusion strategies is still largely on ICT infrastructure. That is a techno-centric approach of providing improved, convenient, and affordable access for all people. This has led to more investment in the technology, rather than enabling environments for the technology to succeed in supporting development. Different types of e-IIs exist to provide access to ICTs. Their support of community development could be greater, particularly if more community members have an adequate understanding of ICTs to integrate them into their daily lives and have the digital skills required to use the ICTs. Moreover, if the environments where the e-IIs are located have adequate infrastructure (for example stable power supply, reliable Internet service providers and IT support), this would enable the e-IIs to function more optimally and provide reliable, quality services.

Access to technology undoubtedly is a necessary element for e-inclusion, particularly in under-resourced, rural and remote communities where ICT infrastructure is limited or non-existent. However, technology alone does not guarantee development, nor equate e-inclusion. Policies that focus on the technology and providing access risk exacerbating existing inequalities that could be for example, digital and/or socio-economic (Toyama, 2011). The policy emphasis needs to shift to developmental aspects and community members' participation in their own upliftment. The strategies to support development need to be designed to address the roots of existing community challenges. This entails an increased focus on community members' needs (for example skills development and social inclusion), capabilities, environment, backgrounds and socio-economic status, and determining

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the appropriateness of the technology. That is, e-inclusion strategies need to be less techno-centric and infrastructure-dependent in their developmental efforts.

Secondly, most of the training content used by public sector e-IIs are not designed for the developing context, as they are imported mainly from America and Europe. The content is often in English and is unsuitable for community members whose English proficiency is low. The English language is not the first or even second language for many in South Africa. Moreover, the type of examples and jargon used, the presentation of the content, the accents in audio-visual content, and even the appearance of the characters are not relatable to community members and their contexts. Development policy should therefore either emphasise customising Western content, or developing and using local training content and software that community members can relatable to. The content should also be developed with the participation of e-IIs or other local and/or community-based development actors who know and understand the different realities and needs of their community members. It is noted that the English language has become a global language, for instance in communication, trade, business, education and that there are enormous benefits for community members becoming highly proficient in English. However, the current reality is that English is not a language many people in South Africa are fluent in.

Thirdly, to fulfil the growing needs of community members, especially those who are marginalised, e-IIs need to play different roles in the communities (see section 7.2.2). However, the e-IIs, particularly those established by local and provincial government, are often not sufficiently resourced to provide adequate, reliable services. When the e-IIs cannot deliver the services, the relationship between community members and the e-IIs can break down. Moreover, community members who depend on the e-IIs can be left stranded without other options therefore excluded and unable to participate in an information society. These e-IIs are dependent on government, which is responsible for equipment maintenance, staffing, funding, and staff training. This dependency affects the e-IIs' ability to provide adequate services, because they often have to wait for long periods before they get the necessary funding and resources.

The e-IIs also have to contend with bureaucracy within government, which often leads to poor prioritisation of the e-IIs' needs. Although the e-IIs try to come up with alternative sustainability strategies, this is not always enough or effective because the staff contribute from their personal assets and finances, which are insufficient to cater for the community's demands. Community members do not always understand the challenges that these e-IIs face. Since the e-II staff are the face of the interventions, they bear the brunt of community members' frustration at the lack of

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adequate, reliable services. Therefore, e-IIs need to be deeply integrated into national development policy in a manner that ensures they receive adequate and timely attention and resources to fulfil their objectives.

Fourthly, e-IIs are making ICTs more widely available to community members. However, if community members do not know about the e-IIs or understand the usefulness of ICTs, the use of the services will be low. As a result, the e-IIs' support of community development will be less than it could be. Therefore, there is a need for policies dedicated to C4D. C4D is often underappreciated by development actors, and therefore under-represented in national development and ICT policy (Lennie & Tacchi, 2015). In order for e-IIs to effectively support community development, community members must clearly know that the e-IIs exist and understand the value of ICTs (Melkote & Steeves, 2001; Roy, 2015). Even recent studies in the WCP find that the lack of awareness is still a hindrance to community members' use of e-IIs' ICT services, which therefore need to receive more attention at the provincial policy level (Kassongo et al., 2018).

Lastly, although communication technology provides useful resources to share information, promote the use of ICTs, and facilitate engagement with community members, the use of social media in particular has brought new challenges for government. The government is required to meet the expectations of community members, deal with differences in communication culture, and navigate the unclear line between personal and official social media use (Government Communication and Information System, 2011). E-IIs operating in the public sector are often government initiatives. These e-IIs are therefore considered to be the face of the government in the communities. Their use of social media is also a reflection of government, and thus needs to be in line with governments' objectives.

A lack of clarity among the e-II staff about the rules and procedures when representing the government on social media leads to limited and ineffective use of social media. The staff are uncertain about the type of content to post, the language to use, the issue of formalities and how to engage with community members. They are afraid to misrepresent the government on this public forum. Therefore, policy specific to social media use is necessary to guide and support government-initiated e-IIs to use social media more appropriately and effectively for transparency, participation and engagement with community members.

8.3.3   Practice

The implications for practice are discussed in relation to three themes. The first theme provides implications related to e-IIs and their support of community development. The second theme relates

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to the practice of communicating for development. The last theme provides a list of recommended steps for how to use social media to communicate for development. The recommendations in these discussions are applicable to e-IIs and other development actors seeking to better support community development or use social media to communicate for development.

8.3.3.1 Supporting community development

To support community development, development actors (government, civil society, international donor agencies) that want to establish e-IIs need to know their target communities. This entails knowing the realities of community members, their social environments, community challenges, possible solutions, available infrastructure, and the role that the e-IIs can play. This bottom-up approach is both a continuous process and an outcome of community research, engagement and participation. It ensures that the development actors and e-IIs understand the challenges and needs of community members. This understanding enables the design of more informed and appropriate e-IIs that: (i) provide community (needs) driven services, and (ii) are adequately funded and resourced to provide effective and reliable quality services to support community development.

Knowledge of the communities is necessary for development actors and policy makers to ensure that, when e-IIs are established, they are adequately funded, resourced and staffed to provide reliable and quality services that address the needs of community members (Leavy & Howard, 2013). Moreover, the e-IIs become more informed about the challenges of the most vulnerable in the community (for example women, children and the disabled community) to provide the services using more appropriate and inclusive approaches. For instance, in some under-resourced communities, young mothers who cannot afford child care are excluded from visiting the e-IIs and making use of the services. ECD facilities or similar services can be helpful to enable more parents of young children to use the services, while at the same time exposing their children to learning environments. Furthermore, in some instances, the locations and venues selected for the e-IIs are not easily accessible for the physically impaired who want to use the services. Development actors that know this type of information will be able to make more informed decisions about where they place the e-II and the accessibility of the services provided.

Community engagement and participation, for instance within Arnstein's (1969) tokenism level in decision-making about the services provided by e-IIs, are beneficial for both community members and e-IIs. At this level of participation, community members have the power to influence decisions and have their voices heard. While it is situated above the nonparticipation level, the tokenism level is still below the citizen power level, where community members have complete control and are equal

partners in the initiatives. Kassongo et al. (2018) suggest that community engagement and participation should be continuous and start at the conception stage of the e-IIs.

In the different communities, *"no one knows better about what must be done or is more committed to change than those who live in a community"* (Vincent, 2009, p. 61). This leads to less theory-informed and rather more community-driven services being provided by the e-IIs. Furthermore, through participation, community members gain a sense of ownership and responsibility over the e-IIs' interventions. This translates into community members' support, which is critical for the success and sustainability of the interventions (Pokpas, 2014). The participation can also lead to community members increased knowledge of, relatability and motivation to use the provided services.

Providing physical access to ICTs is not enough for community members to adopt and use these technologies for community development. Access to ICTs should be intertwined with developing community members' understanding, skills and capacity to use the technology meaningfully. To build the capacity of community members, e-IIs' training courses and approaches need to be aligned with community members' developmental goals, challenges and skills development needs. This leads to more community-focused and needs-driven training courses, which are more attractive to community members and more effective in facilitating their development. Community members are more interested in using ICTs and gaining the necessary skills if they enable them to address personal or community challenges and needs (Marien et al., 2010).

The focus should also be on empowering community members with adaptable skills that can be applied to real-world problems in any context or different environment. The training content used by the e-IIs should be relatable to the target audience in terms of context, language, examples, and even presentation. Community members lose interest if they cannot relate to the content. They need personally relevant content. Moreover, community members are diverse. They have different backgrounds, education and literacy levels, which result in different learning needs. Knowing the learning needs helps e-IIs to devise more effective teaching approaches and skills transfer methods.

Although e-IIs play a leading role in facilitating e-inclusion and the use of ICTs for development, caution is suggested in interpreting development challenges as technical problems. This leads to emphasis on providing access, yet technology is only part of the solution. Community members need more enabling environments and better service delivery to improve their quality of life, particularly job and food security, housing, and sanitation. It is difficult to convince marginalised community members who mostly live in conditions of poverty, with no food, shelter, clean water, or electricity, that ICTs can help

them put food on the table or improve their quality of life. This argument is supported by Kassongo et al. (2018), who also found that marginalised community members are more concerned about basic needs such as food and shelter for their dependants than about using the ICTs provided by e-IIs.

8.3.3.2 Communicating for development

Communication for development requires e-IIs to know and understand the communication landscape of their communities, which includes knowing community members' media accessibility and affordability, choices and sought gratifications to satisfy them. For many e-IIs, developing effective C4D strategies is a challenge because they lack this knowledge and adequate resources. E-IIs are 'on the ground', planted in the communities, and therefore in the best position to determine what is required to communicate for development effectively in their communities.

E-IIs need to conduct the necessary research to determine how community members communicate, share information, engage with, and select their communication media. For instance, they need to know if the selection is based on cost, availability, accessibility, or gratification capabilities. E-IIs also need to be aware of power relations in the communities and the social divisions among community members, for instance, those based on race, socio-economic status, and background. These can act as barriers or limit the effectiveness of certain communication media and strategies. Relying on traditional communication media (for example print newspapers, radio, and television) without knowledge of contexts leads to e-IIs using costly, ineffective C4D approaches and selecting media that are not appropriate and fail to achieve the communication objectives.

It is helpful for the e-IIs to work with community leaders and representatives, as well as CDWs, because they are often closer to community members and know their communities. It can also happen that existing social divisions and power relations affect how community leaders, in particular, interact with the e-II staff. Nevertheless, these individuals provide links to social networks, information, knowledge, and expertise that can help e-II staff to understand the cultures, traditions, socio-economic status and other relevant dynamics of community members. Improved communication enables e-IIs to address the lack of information and awareness of e-IIs and ICT benefits among community members.

This study also found that, in certain instances, the staff of e-IIs that are struggling to cater for community members' demands for ICT services due to being understaffed and under-resourced do not put much effort into developing strategies that would lead to effective communication for development. They purposefully use poor and ineffective approaches and limited media because they do not want to create more awareness, since they would not be able to cater for the increased

demand. This emphasises even more the need for policy makers and relevant development actors to ensure that e-IIs placed in the communities are adequately resourced and funded. This will motivate the e-II staff to communicate for development more effectively to create greater awareness.

8.3.3.3 Using social media to communicate for development

Social media have the capacity to facilitate C4D, which supports community development. E-IIs that use social media effectively gain from more participatory, two-way communication approaches that share information to create awareness, as well as facilitate community participation and engagement. Social media facilitate communication that is inexpensive, reliable and accessible, which is necessary to facilitate community members' participation in an information society (Njenga, 2018). However, social media are only effective when they are used strategically to accomplish clear, set goals. The following section provides seven steps that inform the use of social media to communicate for development. These steps are presented in Figure 7.

Step 1: know the information and communication needs of community members. E-IIs need to be aware of community member's needs and realities (economic and socio-psychological circumstances) to determine whether social media are appropriate for their target audience. Engaging with other development actors, community leaders and organisations including community members themselves can help e-IIs gain the required information.

Step 2: evaluate capabilities and available resources. Once it is determined that social media are appropriate for the target audience, the e-IIs need to evaluate their capabilities and the resources they have available. The effort and resources required to maintain an active and effective social media presence are often underestimated, particularly when the social media are used to communicate for development. Therefore, it is advised that, before the e-IIs start using social media, they should be aware of what is required in terms of ICT infrastructure (Internet stability and access, electricity supply) and resources such as time, budget, and digitally skilled staff who know how to utilise social media.

Step 3: set clear social media goals. The e-IIs need to set clear, feasible goals regarding what they want to achieve using social media. This gives the e-IIs direction and keeps them focused as well as aware of their achievements and failures. It is useful for the e-IIs to have these goals aligned to their main mission in the communities.

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Step 4: develop a social media plan. A social media plan acts as a guide that defines how the e-IIs use the identified social media applications to achieve set social media goals and targeted outcomes. The plan is developed in line with e-IIs' mission and overall communication strategies to ensure that they complement each other. The plan can include (i) the type of content to post, for example information about ICTs, job vacancies, or community events. It is also necessary at this stage to be aware of the type of content not to post. Content on topics related to politics, religion, race, tradition and culture often need to be avoided, or used with increased sensitivity to avoid being offensive; (ii) the type of media to post (text, images, video, podcasts, games); and (iii) the posting schedule. The engagement protocol can also be part of the plan. The e-IIs need to determine the best way to engage with community members (language and jargon). This includes how to respond to both positive and negative engagement. Furthermore, e-IIs need to be aware that the use of social media carries some risks of being misused by the e-II staff and/or the audience to spread false information, hate speech and cyber bullying, and even to organise riots. A plan can therefore include protocols of e-II conduct and terms of use for the audience (users).

Step 5: monitor social media accounts and share responsibilities. It is more beneficial if more than one person manages the e-IIs' social media accounts, unless the one person is dedicated to the accounts and has the time to manage them. Working as a team enables the staff to delegate and for each person to focus fully on their specific duties and tasks. When done strategically, with all staff clear on their roles, the monitoring and managing of the social media accounts become more efficient. For instance, one person can be responsible for collecting content to post, while another converts the content into text, images, posters or video that will be posted, and a third person manages the engagement on the page and responds to the audience. Meanwhile, the last person does the quality check to ensure that the content posted, and the engagement are in line with the set goals and mission of the e-II.

Step 6: use social media analytics. Social media analytics facilitate e-IIs' understanding of their social media performance and audience. E-IIs can identify where they are performing well and poorly, which can inform more effective social media strategies. The analytics also provide details on the demographics and activities of the audience, which helps the e-IIs better target specific audiences, align the posting schedule, and identify the most engaging type of content. Moreover, many basic social media analytics tools are built into the different applications and free to use.

Step 7: adapt and evolve. Due to the evolving nature of social media, e-IIs need to be aware of new developments and adapt according to the changing needs of their audience. The e-IIs also need to be innovative and take advantage of the different features and capabilities of social media. For instance,

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some e-IIs are already exploring the use of social media as teaching tools in under-resourced communities. Moreover, the e-IIs need to be aware of the changing information and communication needs of community members. Community members' sought social media gratifications can change or increase.
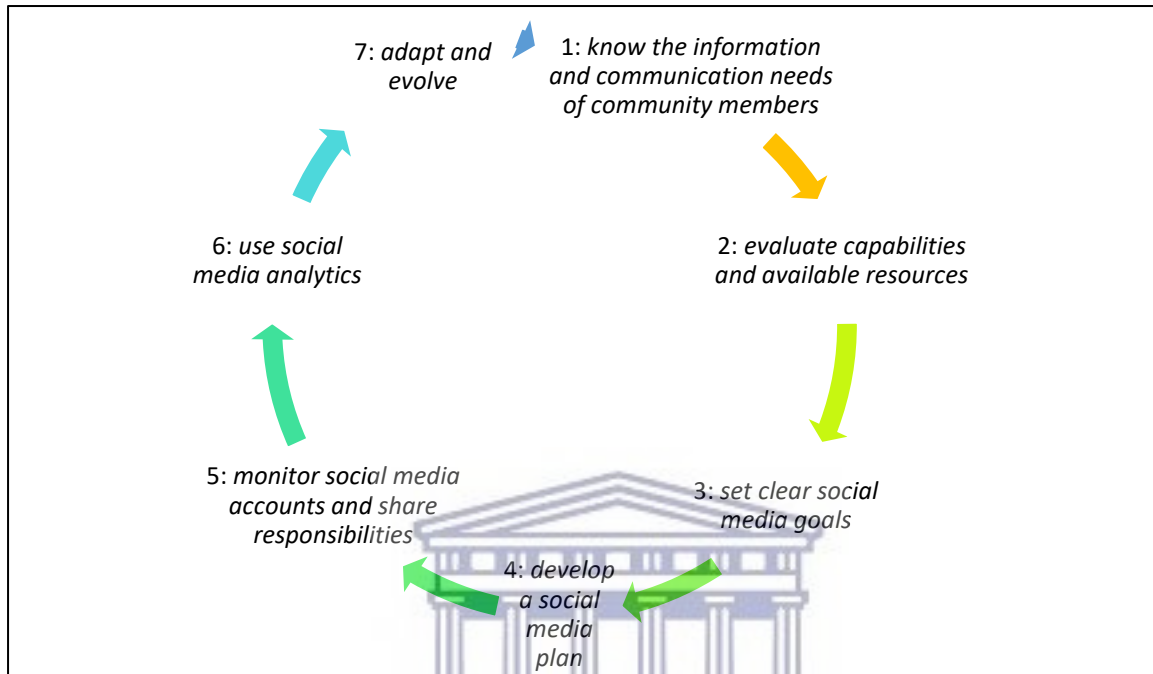
Figure 7: Seven steps for using social media to communicate for development

Figure 7 illustrates that the seven steps follow a cyclical process since the process is recurring. As the e-IIs adapt and evolve they need to ensure that they are still aligned to and up-to-date with the information and communication needs of community members. This is necessary because these needs can change over time and therefore, the e-IIs need to be aware since the changes might require them to, for instance, re-evaluate their capabilities and available resources as well as reformulate their social media goals.

8.4   Main outcomes of the study

This study has two main outcomes. Firstly, there is limited research that investigates the challenge of the lack of awareness about e-IIs and/or the services they provide from the perspectives of the e-IIs (service providers/communicators) and community members (intended beneficiaries/target audience). Moreover, there is a lack of understanding among development actors and e-IIs about the impact of this challenge on their developmental interventions and the reasons why it exists. There is also limited in-depth research on the actual communication strategies employed, media choices made

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and the motivations behind them, and communication challenges faced by e-IIs, particularly those in under-resourced communities. Guided by theories of community development, communication for development, ICT4D and UGT, this study contributes towards the current understanding of how e-IIs in under-resourced communities communicate for development and the challenges they face. The relationship between these theories and the empirical work is highlighted in Table 7.

Moreover, this study provides insights into the impact of often overlooked and yet very relevant aspects of community leaders, power relations, social divisions, deeply rooted cultural and traditional relations, knowledge of the communication landscape – and this includes community members' information and communication needs, in communication for development. Additionally, relevant insights are provided into the important role that continuous two-way engagement (participatory communication) between development actors and community members plays in communication for development.

This information contributes to the ICT4D and communication for development discourse. It fills a gap in the understanding of the awareness challenge, and the importance of effective and informed communication for the development strategies of ICT4D interventions such as e-IIs. Development actors, including government, global and community organisations, and education and business institutions, are continuing to invest in e-IIs in under-resourced communities to bridge the digital divide. However, it is necessary for them to understand that the divide is multi-faceted, and therefore focusing on access alone will not bridge the divide. Equal emphasis should also be on the facet of communication for development. This will ensure that community members, the intended beneficiaries, are aware of the interventions, services provided and associated benefits. While other challenges may exist, e-IIs will have limited success in (i) supporting community development, (ii) achieving ICT policy goals, and (iii) facilitating the equal access required for citizens' participation in the NDP's envisioned information society of 2030 if the intended beneficiaries do not know that the e-IIs exist and/or do not understand the benefits of the services provided.

It would be quite challenging to try an improve e-IIs' communication for development strategies without accurate information and a clear understanding of the e-IIs' current communication situation. This study therefore provides information that sets the foundation to help e-IIs communicate for development more effectively by helping the relevant development actors (and stakeholders) understand the relevance and impact of communication for development, as well as the communication challenges e-IIs face. They also gain from the perspectives of community members, who are the target audience and know best how they can be communicated with.

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Secondly, to the social media and development discourse, this study contributes empirical evidence that social media can facilitate communication for development in under-resourced communities. Using ICT4D, C4D and community development theories as a lens, this study makes a contribution by showing that social media can play the roles of information sharing and gathering, teaching, two-way (real-time) engagement, relationship building, networking and awareness creation. These different roles can help e-IIs to achieve their communication objectives towards supporting community development. These objectives include information sharing, creating awareness, promoting the use of ICTs, and facilitation of two-way engagement (participatory communication).

To develop effective, well-informed social media strategies, development actors and e-IIs that want to use these media to communicate for development need to be aware of their target audiences' sought gratifications. That is, what motivates community members to use these media, and what needs do they expect to fulfil. Guided by the UGT as a lens, this study contributes the knowledge that, in addition to traditional gratifications sought from social media, namely (i) building and maintaining relationships, (ii) entertainment (escapism), (iii) impression management, (iv) romantic companionship, (v) information seeking, (vi) self-expression, (vii) social engagement, and (viii) surveillance, community members in under-resourced communities also seek to satisfy gratifications related to (ix) economic development and (x) attention seeking. To this same discourse, however, and on a more practical level, this study contributes a seven-step guide (see Figure 7) to recommendations for how e-IIs and other development actors can use social media to communicate for development more effectively in under-resourced communities.

A summary of these main outcomes, and some other findings of this study – including how they inform, support or question existing theories used in this study's theoretical framework – are presented in Table 24. This table builds on Table 7 (see section 3.10), which informed the empirical work of this study and it also builds on the discussion regarding the implications of this study on theory (see section 8.3.1).

Table 24: Summary of the findings and how they inform existing theory

Theory	Summary of findings	Contribution to existing theory
Modernisation	• Some development actors still see access to ICT through e-IIs as the end goal for development in under-resourced communities; • Difficult to implement top-down approach to development in environments dominated by local cultures; • Emphasis on top-down one-way traditional mass media	• Ideas of modernisation still largely influence development approaches, the role of ICTs in development, and how ICTs are introduced in under-resourced communities; • Modernisation ideas are useful for ICT diffusion (i.e. e-IIs) and not necessarily meaningful use; • This study supports criticism of modernisation theory for seeing ICT and therefore e-IIs as the end goal; • Top-down approaches towards development risk misalignment of intervention with realities of contexts/environments within which they are introduced
Dependency	• Evidence of some e-IIs' reliance on external IT support, training content, expertise and e-inclusion approaches; • Community members who know about e-IIs and ICTs, have digital skills and are motivated to use ICTs will use and benefit more from the provided ICTs	• Introduction of ICTs can further the digital divide in under-resourced communities if the environment (access, skills, motivation, relatability) is not enabling for all
Participation	• Evidence of a shift from top-down to bottom-up approaches to ICT4D interventions (e-IIs) of non-government organisations (esp. community-driven organisations); • E-IIs that employ development-centric approaches to their interventions are more aligned with the realities and challenges of community members	• Need for more discussions on issues of power relations and social divisions in participatory theory, and practical guidance on how to address them; • Participatory development is intertwined with sustainable development and empowerment of community members
ICT4D	• Evidence of both techno-centric and development-centric approaches to establishing e-IIs and facilitating the e-inclusion of community members; • Development-centric interventions are more aligned with the needs and challenges of community members; • Lack of awareness about the e-IIs, the services they provide, and benefits of ICTs is still a challenge; • Evidence of e-IIs' support of both tangible and intangible community development benefits	• Need for more emphasis on the meaning/ context of development in ICT4D theory; • Need for a stronger theoretical link between development and ICT; • Need for a shift from techno-centric ICT4D approaches towards more development-centric approaches; • Need more emphasis on alignment of ICT4D interventions with the realities and challenges of communities in which they are introduced; • E-awareness does not receive enough attention as one of the contributing factors to the digital divide

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Theory	Summary of findings	Contribution to existing theory
Community development	• Evidence that access to ICT empowers marginalised community members with information and communication resources; • Evidence that e-IIs provide a physical space in which community members engage and organise themselves to address community challenges; • Evidence that access to and meaningful use of ICTs create opportunities and facilitate socio-economic development; • Evidence of both top-down and bottom-up participatory approaches towards community development; • Evidence of the importance of community engagement before and during ICT4D (e-IIs) interventions for community members' understanding and support; • Evidence that social media can facilitate relationship building and networking	• Participatory approaches are necessary for sustainable development and empower community members, and can reduce dependency on development actors over time; • Participatory development and communication, in which community members are involved in decision-making, can help development actors gain the support of community members; • Need for practical guidelines on how to build relationships in communities with social divisions, power relations and deeply rooted traditional and cultural relations in order to facilitate ICT4D interventions; • Empowerment is an integral part of community development; • Empowerment theory is useful to conceptualise empowerment (individual, organisational and community); however, the different concepts/levels are interdependent
C4D	• E-IIs' communication for development aligned with four main communication objectives, namely (i) creating awareness, (ii) sharing information, (iii) two-way engagement, and (iv) promoting the use of ICTs; • Evidence of development actors and e-IIs' over-reliance on top-down traditional (mass) media; • Evidence of a lack of understanding regarding the importance and impact of effective communication for development; • Evidence of the importance of social networks, relationships and interpersonal interactions in C4D; • Evidence of the positive impact of bottom-up participatory communication in facilitating community members' involvement in interventions; • Evidence that social media can facilitate communication for development through information sharing and gathering, creating awareness, teaching and participatory engagement	• Lack of practical guidelines for participatory communication interventions; • Need for more discussion on how to identify and possibly address communication for development challenges, such as social divisions and power relations; • In rural and/or remote locations with limited communication infrastructure, interpersonal communication is still preferred and more effective, particularly among marginalised community members with low literacy levels; • Even in some communities with existing communication infrastructure, word of mouth remains a relied-upon way of sharing information and creating awareness; • Need more emphasis on understanding the communication landscape, including community members' communication and information needs, which will facilitate the design of more informed communication strategies and media choices; • C4D approaches are shifting from ethnocentric views of the development process to more people-centric ideas that consider local voices, cultures and traditions

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Theory	Summary of findings	Contribution to existing theory
UGT	• Evidence that the choice of communication media used is also influenced by awareness of what exists, affordability and accessibility; • Evidence that social media can provide multiple gratifications, whether sought or unintentional, relating to information, entertainment, engagement and relationship building; • Evidence that community members (target audience) are not passive recipients of linear-inspired communication processes (top-down), but rather also are co-creators	• Media-choice research needs to be at the individual level, because socio-psychological circumstances are different for each person; • Understanding the differences between gratifications sought and gratifications gained can also inform e-IIs' selection of communication media and how they use them; • If the individual audience obtains its sought gratifications from the content and/or medium, they are more likely to continue using that medium; • Internet-based media such as social media have not changed the traditional types of gratifications sought from traditional media, just how they are gratified; • Gratifications sought from social media also include economic development and attention seeking

8.5   Limitations of the study

This study has three limitations. Firstly, empirical data collected during the six in-depth case studies were collected from the representatives of the e-IIs (expert respondents) and from community members (user respondents). The community members who participated formed part of the e-IIs' existing community of users. Therefore, they already knew about the e-IIs and used the services provided. This sample of participants was necessary and appropriate to gather information about how the e-IIs' services support community development and the engagement and communication between community members and e-IIs. However, non-users could have provided information about the impact of e-IIs' communication for development strategies to create awareness among community members.

Secondly, social media and their capabilities are constantly evolving. As a result, how they are used also change to adapt to new trends and innovative ways of communicating. Moreover, as the e-II staff upskill themselves and become more knowledgeable about social media and engage more with community members, the way in which the e-IIs use social media to communicate for development will also change. A longitudinal approach to the in-depth case studies would possibly have enabled the collection of data at different stages to capture the changes and growth in how the e-IIs use social media to communicate for development.

Lastly, this study focused more on development theories and less on the UGT. A study investigating communication for development that focuses equally on development theories and UGT might have gained more information about the community members' (i) existing socio-psychological circumstances; (ii) media accessibility and choices; and (iii) sought and gained gratifications. This

information is beneficial to policy makers and any development actors who want to develop informed communication for development strategies. Although the UGT was only applied during the data analysis in this study, it was still quite useful in extracting information at the individual level from the existing responses of community members about their choice of social media and sought gratifications.

8.6   Suggestions for future research

This explorative and descriptive study investigated e-IIs in under-resourced communities of the WCP of South Africa. The purpose was to determine how the e-IIs support community development and communicate for development, paying special attention to the e-IIs' use of social media. Considering the discussion of the findings and implications, this study presents three suggestions for future research. Firstly, there is a need for research that investigates non-users of e-II services to determine their awareness of e-IIs, and knowledge of ICTs and their perceived benefits. This would provide information related to the effectiveness of e-IIs' communication for development strategies. This information will help to guide communication policy and inform communication for development strategies in these communities.

Secondly, social media are constantly evolving to adapt to changing information and communication needs. As a result, to understand their use and developmental impact, it is necessary to use longitudinal studies that capture data at different stages and illustrate the evolution. This will also help to determine whether there is correlation between digital skills and knowledge growth, and the use of social media. Moreover, this information can inform theory development and also the identification of adaptable digital skills and competences that will be required for future communication for development in the evolving digital era.

Lastly, there are e-II staff who do not know the communication landscapes in their communities, which leads to ill-informed and ineffective C4D strategies. The staff also do not know how to go about investigating the communication landscape. Research is needed to develop a communication landscape assessment instrument. The instrument can be used by e-IIs, policy makers as well as other development actors to better understand community dynamics, and the availability, accessibility, and affordability of different media for more informed and effective strategies, media selection and use. Communication for development research that utilises developmental theories and communication theories such as UGT can inform the design and development of the instrument at both an individual and community level.

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Appendices

Appendix 1 – Quick-Scan Analysis steps

	A. Literature review	B. Mapping and sampling	C. Data collection	D. Quick-scan Analysis	E. Case Studies
Public Sector	A1: Identified key concepts. A2: identified knowledge gaps. A3: determined variables.	B1: Defined e-II criteria. B2: Mapped public e-IIs. B3: Selected sample.	C1: Designed data collection form. C2: Developed online survey in Qualtrics. C3: Pilot tested online survey C4: Adapted form. C5: Changed method to interviews. C6: Migrated data to Qualtrics.		E1: Selected case studies based on findings of matrix. E2: Conducted additional research to develop case studies.
Private Sector (Comparative focus)		B6: Mapped private e-IIs. B7: Selected sample.	C8: Repeated C5. C9: Repeated C6.	D1: Constructed matrix. D2: Integrated data into matrix. D3: Analysed matrix. D4: Used Qualtrics to analyse data again.	
3rd Sector		B4: Mapped 3rd sector e-IIs. B5: Selected sample.	C6: Repeated C5. C7: Repeated C6.		

Focus of main research question – Large sample

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Quickscan Matrix		Case 1	Case 2	Case 3	Case 4	Case 5
(1) Type of area	Urban		√			
	Peri-urban	√		√		
	Rural				√	√
(2) Type of organization	Public library				√	√
	Tele-centre or e-centre		√			
	Internet cafe					
	Multi-Purpose community centre					
	Innovation hub					
	Other			√		
	Training institution	√				
(3) # of staff members involved in daily operations	Only 1 person					
	Between 2 and 5 people		√		√	√
	Between 6 and 20 people			√		
	Between 21 and 50 people	√				
(4) Operating sector	Public		√		√	√
	Private					
	all 3rd sector	√				
(5) Category of users	General (all Community members)			√		√
	Low skilled	√				
	Low income					
	unemployed	√	√			
	women					
	Students				√	
	Small businesses					
(6) Main target group	Senior citizens (older than 60 years)			√		√
	Adults (between 25 and 60 years old)		√	√	√	√
	Young adults (between 18 and 24 years old)	√	√	√	√	√
	School children (between 13 and 17 years old)	√		√	√	√
	Young children (less than 13 years old)	√		√		√
(7) Services provided	Access to computers	√	√	√	√	√
	Access to the Internet	√	√	√	√	√
	Access to other ICTs (e.g Printers, Scanners, Photocopiers or Fax machines)	√	√	√	√	√
	Access to information resources (e.g healthcare information or job opportunities)	√	√	√		√
	Access to government information and online services	√	√	√		
	Basic computer skills training (e.g how to use a computer and access the internet)	√	√	√		
	Advanced computer skills training (e.g web-design or programming)			√		
	Formal certification courses (e.g ICDL)	√	√	√		
	Informal courses with no certification		√	√		
	Provide support with interview skills, CV preparation and job searches on the internet	√		√		
	Provide support services to existing small businesses			√		
	Encourage entrepreneurship and self-employment			√		
	Provide community support services (e.g child care, counselling, community space for gatherings or entertainment)	√		√		
	Participate and or support any community activities that promote development	√		√		
	Encourage community members to start and participate in initiatives to develop their own communities	√		√		
	Build relationships between the organization and the community members	√	√	√		√
	Help community members connect with each other		√	√	√	
(8) Cost to access services	Pay a fee					
	free	√	√	√	√	√
(9) Medium (s) of communication used	Newspapaer			√		
	Posters	√		√		
	Flyers	√			√	√
	Radio	√		√		√
	SMS			√		
	Letters					√
	TV					
	Telephone					
	Email					
	Word of Mouth	√	√	√	√	√
(10) Use social media	Yes	√		√		
	No		√		√	√
(11) Management of the social media accounts	I manage it					
	I am part of the team that manages the accounts	√		√		
	Another department manages the social media accounts					
(12) Social media tools used	Facebook	√		√		
	Twitter	√				
	Instagram					
	Youtube					
	Whatsapp	√				
(13) How often content is posted	Between 1 and 5 times a day			√		
	More than 5 times a day	√				
	Between 1 and 5 times a week					
	Between 1 and 5 times a month					
	Not active					
(14) Purpose of social media accounts	Only publish information					
	Publish information and respond to public comments and questions	√		√		
(15) Type of content posted	Information about community development initiatives	√		√		
	Information about your organization and services you provide	√		√		
	Content created by members of the public	√				
	Information about employment opportunities	√		√		
	Information about government services	√		√		

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Appendix 3 – E-inclusion intermediaries QSA data collection questionnaire

University of the Western Cape

Faculty of Economic and Management Science

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nkatunga@uwc.ac.za/ jkariuki@uwc.ac.za

e-Inclusion Intermediaries Data Collection Questionnaire

Q1 Please provide the name of your e-inclusion intermediary and contact number or email address for a contact person

[   ]

Q2 In what type of area is your e-inclusion intermediary located?
   (please tick the appropriate answer)
   ☐ Urban area
   ☐ Peri-urban area
   ☐ Rural area

Q3 What is the name of the area in which your e-inclusion intermediary is located, e.g. Khayelitsha?

[   ]

Q4 Which of the following options comes closest to describing your e-inclusion intermediary?
   (please tick the appropriate answer)
   ☐ Public library
   ☐ Telecentre or e-centre
   ☐ Internet café
   ☐ Multi-purpose community centre
   ☐ Innovation hub
   ☐ Training institution
   ☐ Other (Please specify)   [   ]

Q5 How many people are involved in the daily operations of your e-inclusion intermediary?
   (please tick the appropriate answer)
   ☐ Only 1 person
   ☐ Between 2 and 5 people
   ☐ Between 6 and 20 people
   ☐ Between 21 and 50 people
   ☐ Between 51 and 200 people
   ☐ More than 201 people

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Q6   Which operating sector is best applicable to your e-inclusion intermediary?
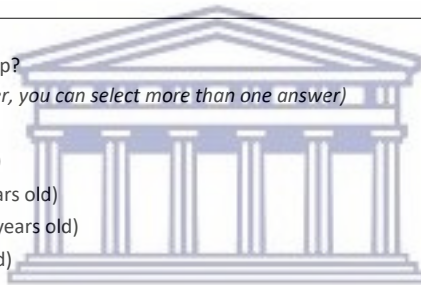   *(please tick the appropriate answer)*
      ☐ Public sector
      ☐ Private sector
      ☐ Non-governmental organisation (NGO)
      ☐ Non-profit organisation (NPO)
      ☐ Community-based organisation (CBO)
      ☐ Socio–religious organisation (SRO)
      ☐ Educational institution
      ☐ Social enterprise
      ☐ Corporate social responsibility (CSR)
      ☐ Other (Please specify) [   ]

Q7   What is your main target group?
      (please tick the appropriate answer, you can select more than one answer)
      ☐ General (all community members)
      ☐ Low-skilled community members
      ☐ Low-income community members
      ☐ Unemployed community members
      ☐ Women
      ☐ Small businesses (formal or informal)
      ☐ Students
      ☐ Other (Please specify) [   ]

Q8   What is your main target age group?
      (please tick the appropriate answer, you can select more than one answer)
      ☐ Senior citizens (older than 60 years)
      ☐ Adults (between 25 and 60 years old)
      ☐ Young adults (between 18 and 24 years old)
      ☐ School children (between 13 and 17 years old)
      ☐ Young children (less than 13 years old)

Q9   What type of services does your centre provide to the public?
      (please tick the appropriate answer, you can select more than one answer)
      ☐ Access to computers
      ☐ Access to the Internet
      ☐ Access to other ICTs (e.g. printers, scanners, photocopiers or fax machines)
      ☐ Access to information resources (e.g. healthcare information or job opportunities)
      ☐ Access to government information and online services
      ☐ Basic computer skills training (e.g. how to use a computer and access the Internet)
      ☐ Advanced computer skills training (e.g. web-design or programming)
      ☐ Formal certification courses (e.g. ICDL)
      ☐ Informal courses with no certification
      ☐ Provide support with interview skills, CV preparation and job searches on the Internet
      ☐ Provide support services to existing small businesses
      ☐ Encourage entrepreneurship and self-employment
      ☐ Provide community support services (e.g. child care and counselling)
      ☐ Participate and/or support any community activities that promote development
      ☐ Encourage community members to start and participate in community development initiatives
      ☐ Build relationships between the e-inclusion intermediary and community members
      ☐ Help community members connect with each other
      ☐ Other (Please specify) [   ]

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Q10   Do members of the public pay to use your services?
           (please tick the appropriate answer)
     ☐ Users pay a fee to use services
     ☐ Users do not pay a fee to use the services
     ☐ Users pay a subsidised fee

If your answer to Q10 was 'users pay a subsidised fee', please answer question Q10.1

Q10.1   If the cost is subsidised, please specify how and by whom [   ]

Q11   Which media do you use to communicate with community members?
           (please tick the appropriate answer, you can select more than one answer)
     ☐ Newspaper
     ☐ Posters
     ☐ Flyers
     ☐ Radio
     ☐ SMS
     ☐ Letters
     ☐ Television
     ☐ Telephone
     ☐ Email
     ☐ Word of mouth
     ☐ Other (Please specify) [   ]

Q12   Which communication media do you find most effective?
[   ]

Q13   Does your e-inclusion intermediary make use of any social media?
           (please tick the appropriate answer)
     ☐ Yes
     ☐ No

If your answer to Q13 is <u>Yes,</u> please continue to Q13.1
If your answer to Q13 is <u>No,</u> please skip to Q19

Q13.1   Do you manage or help to manage your e-inclusion intermediary's social media accounts or are they managed by another
           department/company?
           (please tick the appropriate answer)
     ☐ I manage the social media accounts
     ☐ I am part of the team that manages the social media accounts
     ☐ Another department/company manages the social media accounts

If your answer to Q13.1 was '*Another department/company manages the social media accounts',* please skip to Q19

Q14   Which social media applications do you use?
           (please tick the appropriate answer and provide your handle or profile name; you may select more than one answer)

     ☐ Facebook (Please specify)   [   ]
     ☐ Twitter (Please specify)   [   ]
     ☐ Instagram (Please specify) [   ]
     ☐ YouTube (Please specify)   [   ]
     ☐ Other (Please specify)   [   ]

Q15   How often do you post social media content?
              (*please tick the appropriate answer)*

☐ Between 1 and 5 times a day

☐ More than 5 times a day

☐ Between 1 and 5 times a week

☐ Between 1 and 5 times a month

☐ Other (Please specify)

Q16   How many followers or likes do you have for your social media accounts?
              (*please fill in the appropriate numbers)*

☐ Facebook likes or group members (Please specify)

☐ Twitter followers (Please specify)

☐ Instagram followers (Please specify)

☐ YouTube followers or subscribers (Please specify)

☐ Other (Please specify)

Q17   Do you use your social media accounts to publish content and facilitate engagement with the public?
              (*please tick the appropriate answer)*

☐ Only publish information (no engagement or responding to public comments)

☐ Publish information and engage with public (respond to comments and questions)

☐ Only engagement to respond to public comments and questions (no information published)

☐ Other (Please specify)

Q18   What type of content do you post using social media?
              (*please tick the appropriate answer, you can select more than one answer)*

❑   Information about community development initiatives

❑   Information about your e-inclusion intermediary and the services you provide

❑   Content created by members of the public

❑   Information about employment opportunities

❑   Information about government services

❑   Other (Please specify)

Q19 Please can you list any challenges you face in providing your services

Q20 Please can you list any challenges you face in communicating with community members

Thank you for taking the time to complete this form. Should you have any questions about the form or the study please feel free to contact either Ms Natasha Katunga (nkatunga@uwc.ac.za) or Dr James Njenga (jkariuki@uwc.ac.za).

Appendix 4 – Information sheet

University of the Western Cape

Faculty of Economic and Management Science

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Tel.: +27 21 959 4065/+27 959 3680, Fax: +27 21 959 3522 E-mail:
nkatunga@uwc.ac.za/ jkariuki@uwc.ac.za

February 17, 2017

RE: Social media as an engagement channel: A case study of e-inclusion intermediaries in under-resourced communities

You are cordially invited to participate in this research project that aims to identify the different types of e-inclusion intermediaries and to document the services they provide. The term e-inclusion intermediary is used to refer to organisations such as yours that use ICTs, namely computers and the, Internet for community development purposes. These organisations could also be providing training on how to use computers, access the Internet and various other online services. The services are provided to support members of the public, particularly those in under-resourced communities.

This study addresses the lack of awareness of e-inclusion intermediaries and the services they provide by exploring the communication between e-inclusion intermediaries and community members. It also looks at the use of social media to support organisations like yours to achieve their communication objectives.

Your participation will contribute great insights to the study because of the type of services that you provide and your relationship with community members. Please be advised that the study does not seek to expose sensitive information about the organisation. The data obtained will be treated with the strictest confidence and will only be published with your consent. The analysed data will be summarised and will form part of a PhD thesis. If at any time you feel uncomfortable with your participation you are free to stop the interview; your participation is completely voluntary.

Should you have any queries regarding this study, please feel free to contact either Ms Natasha Katunga on 021 959 4065 or Dr James Njenga on 021 959 3680.

Sincerely yours

Natasha Katunga (PhD Student, UWC)

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Appendix 5 – Consent form

30 March 2017

Title: Social media as an engagement channel: A case study of e-inclusion intermediaries in under-resourced communities

You are cordially invited to participate in a research study conducted by Miss Natasha Katunga through the Department of Information Systems at the University of the Western Cape. This research is conducted towards the completion of a PhD degree at the University of the Western Cape. You were selected as a participant in this study because you are part of this e-inclusion intermediary's community of users.

1.   Purpose of the study

The purpose of the study is to highlight the important role ICT centres play in community development by exploring the types of services that they provide and for what purpose community members use them. Additionally, the study seeks to address the lack of information among community members about the social and economic benefits that can be derived from using ICTs. This will involve gaining insights into how ICT centres and community members communicate and share information with each other. Furthermore, the study also aims to explore the use of social media as an additional communication and information-sharing tool used to help ICT centres achieve their goals.

2.   Procedures

Due to the nature of the study, it is preferred that the interviews take place in the natural setting of the interviewees. The interviews will take place during a time that is most convenient for the interviewee and in a setup of their choosing.

3.   Potential risks and discomforts

No potential risks are envisaged at this stage. However, if something should come up, it will be dealt with in a sensible and sensitive manner.

4.   Potential benefits to participants and to society

The results of the study will help ICT centres to further achieve their community development goals. These goals include equipping people in under-resourced communities with the tools and skills that they need to participate fully in a digital economy. The ICT centres will be able to use social media, which are popular communication media, to engage with community members and encourage them to visit the ICT centres. It is hoped that the community members will be able not only to empower themselves, but also to uplift their communities.

5.   Payment for participation

No payments will be made to the participants.

6.   Confidentiality

The results of the study will not divulge your personal details. Any information that can connect the responses to you or your organisation will remain confidential and will be disclosed only with your permission. Confidentiality will be maintained by using an assigned alias to refer to the interviewees. The aliases will be assigned randomly, not taking age, sex or race into account. The aliases will also be used during the discussion

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of the findings, including any and all possible outcomes of the research report, the thesis, and in conference papers and articles that would be submitted for publication. The researcher further pledges that any information given by participants will be handled with the strictest confidence and that the information given will not be used to reflect negatively on them in any way. The information will be stored in password-protected folders on a computer.

7.   Participation and withdrawal

Your participation is strictly voluntary. You can choose whether or not to participate in the study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not feel conformable answering and still participate in the study.

8.   Identification of investigators

Should you have any queries or questions regarding this study, please feel free to contact either Ms Natasha Katunga or Dr James Njenga on 021 959 4065 or 021 959 3680; e-mail: nkatunga@uwc.ac.za or jkariuki@uwc.ac.za.

9.   Rights of research subjects

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research participant, contact Dr James Njenga, Department of Information Systems, room 4.30, Level 4, EMS building, UWC, or telephonically on 021 959 3680; or via e-mail at jkariuki@uwc.ac.za

SIGNATURE OF RESEARCH PARTICIPANT

The information above was explained to me, the participant, in English (or translated through a translator into a language I prefer) and I understood it. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study, as well as to be recorded. I have been offered a copy of this form. I acknowledge my consent by signing below.

Signature of Subject/Participant   _____

Date of Interview   _____

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to the participant. The use of a translator was used in the case of participants who preferred to engage in their vernacular. The participant was encouraged and given ample time to ask any questions.

 Signature of Investigator   _____

 Date of Interview   _____

Details of Investigator:

Miss Natasha Katunga
Department of Information Systems, University of the Western Cape
P/Bag X17, Bellville 7535, South Africa
Tel: +27 21 959 4065
E-mail: nkatunga@uwc.ac.za

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Appendix 6 – Interview question guide

Interview question guide for e-inclusion intermediaries – Experts

Theme	Questions
1. Details of the e-II and respondent's role	1.1. Please can you tell me about the organisation and specific e-II (history, mission, interventions)? 1.2. What are your roles and responsibilities at the e-II? 1.3. How long have you been working here? 1.4. What services do you provide (why)?
2. Community of users	2.1. Please tell me about the people that make use of the services (demographics – ages, gender, occupation, digital skills levels)? 2.2. What do they use the services for (typing, job searching)? 2.3. Thoughts on relationship between services provided and community development (impact)?
3. Communication strategy and challenges	3.1. What do you think about the communication between the e-II and community members? 3.2. How do you communicate (information sharing, creating awareness) with community members? 3.3. Which communication media do you use (how and why – newspapers, posters, flyers)? 3.4. What type of information do you share/exchange with community members? 3.5. Do you think enough people know about the e-IIs and the services provided? 3.6. Do you face any challenges communicating with community members (satisfied with communication strategy; could it be improved)? 3.7. Do you think community members face any challenges that affect how they communicate and receive information?
4. Social media use and challenges (freedoms, participation, social capital)	4.1. What role do social media play in your communication with community members? 4.2. What do you use the social media for (specifics) and why? 4.3. How do you manage your accounts and who is responsible? 4.4. Do you have any rules/plan that guide how you use your social media (posting, responses, ethics? 4.5. Which language do you use to post on social media? 4.6. Do community members have the freedom to post on your pages? 4.7. Do you think the language used influences how community members respond/engage? Why? 4.8. Do they post anything, can you provide more details? 4.9. Do you respond and engage with them? 4.10. Do community members ever engage with/respond to each other through/on your pages? 4.11. Do you think social media perform as communication media for your community members? 4.12. Do you face any challenges when it comes to using social media (time consuming, information overload, lack of skills)?
5. Participation in decision-making	5.1. Are community members involved in any decision-making or planning process on which services to provide and how?
6. Relationship building	6.1. Do you think you have a relationship with community members? 6.2. How do you build the relationship and why?
7. Closing remarks	7.1. Do you think your communication strategies could be improved? How?

Interview question guide – Users

	Theme	Questions
1.	Occupation and age	1.1. Please can you tell me about your occupation (employed, unemployed, student)? 1.2. How old are you?
2.	Use of services	2.1. What brings you to the e-II? 2.2. Which services do you use, how and why?
3.	Engagement with e-II	3.1. How did you find out about this place? 3.2. How do you communicate with the e-II (asking and receiving of information)?
4.	Use of social media	4.1. Do you use any social media? 4.2. How do you access it? 4.3. What do you use it for (why)? 4.4. Do you think it's easy to use social media to find information and communicate with people?
5.	knowledge and use of e-II's social media	5.1. Do you know about the e-II's social media accounts? 5.2. Do you visit the page? Why? 5.3. What do they post? 5.4. Have you ever communicated with them through their social media? 5.5. Do they respond? 5.6. Do you feel free to express yourself or post questions, ideas, comments, opinions on their social media? 5.7. Do they invite you to participate and chat with them through social media? 5.8. When the e-II posts on social media is the information easy to understand? 5.9. Do you exchange ideas or information with other people on the e-II's social media?
6.	Participation in decision-making	6.1. Do you feel included in any processes or decision-making about the services they provide (and how)?
7.	Relationship building	7.1. Would you say you have a relationship with the e-II? 7.2. How would you describe the relationship? 7.3. Has being at the centre contributed anything positive to you or the community? 7.4. Do you trust that the e-II is trying to make life better? 7.5. Have you met any new people here that you now talk to or are now friends with? 7.6. Has the e-II helped you connect with other people who have helped you (job, bursary, training, sharing of resources)?
8.	Communication barriers	8.1. Are you always able to access social media? 8.2. Do you face any challenges (cost of data, access to device, language)?
9.	Concluding remarks	9.1. What do you think about the e-II using social media? 9.2. Do you think the communication process (information exchange) on social media is effective? 9.3. Could it be better (why and how)?

Appendix 7 – Interview scheme

Tina R., expert respondent CS1: e-centre 5	MAIN RESEARCH QUESTION: **How do e-inclusion intermediaries support community development and communicate for development using social media?**
Concepts	**Link to interview data**
ICT and social mediator: the intermediary between the people and the technology.	- Centre manager and staff - Organisation - Encourages community members to come - He tells them about the benefits of ICTs, the services that the centre provides and helps them to use the ICTs
Abuse services	Watching pornography
Cannot cater for demand	People wait/queue outside for long periods, the centre gets too full
Check emails	Reason for coming to the centre
Check social media accounts	Reason for coming to the centre
Children influenced by the social negativities around them e.g. gang violence	Use YouTube to watch gang-related material online Enjoy watching the violence
Communication media used	WOM, pamphlets
Creates awareness in the community about ICTs and their benefits	Centre manager as ICT mediator
Desire to gain digital skills	Community members want to upskills themselves so they can get jobs or earn enough money to support their families
E-II participate in community development initiatives	Relationship building
Encourage entrepreneurship	Business corner, to create jobs, improve quality of life
Encourage relationship building among community members	Business owners who support each other
Job applications	A popular reason why people come to the centre. Shows that unemployment is a challenge in the communities
Lack of awareness of E-II	Community members do not see/understand the value of E-II
Lack of awareness of ICTs	Community members do not see the value of ICTs, lack of relatability
Meaningful use of ICTs	Teach the users how to benefit from using the ICTs
Mornings for the adults, afternoons for the youth	To cater for the demand
Network building at and away from the centre	Building of social capital among community members
Participation of community members	Community members participate in community development initiatives of the E-II (decision-making)
Political challenges	Caused by lack of transparency
Poor digital skills	Community members do not know how to use computers
Purpose of social media: what will you use it for	- To share information about the centre and services provided - To engage with community members
Request to open till late and over weekends	To cater for those who work during the day
Social media used for networking (affordance, why they use)	Getting to know each other
Social media used to maintain relationships (affordance, why they use)	Keeping in touch and up to date
Social media useful engagement tool (affordance, why they use)	Two-way communication

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Appendix 8 – Document sources

Document data sources

Document	Description	Source
State of the Province Address 2017	Speech delivered by Premier detailing the state of the province and provincial strategic plan	Western Cape Government
Connecting Citizens in the Western Cape 2017	Details of the Western Cape public access initiatives	Western Cape Government
Electronic Communications Act No 36 of 2005	The national act regulating broadcasting and telecommunication services, includes mandate of the Universal Service Agency	South African Government
Electronic Communications and Transactions Amendment Bill 2012	National bill to promote national and international electronic communication	South African Government
National Integrated ICT Policy White Paper 2016	Strategic document that described the role if ICTs in achieving the South African National Development Plan	South African Government
South Africa's Broadband Policy 2013	Strategic document describing the country's broadband policy and associated strategy	South African Government
Western Cape Digital Opportunities Implementation Framework 2018	Presentation on the Western Cape digital economy and digital framework	Western Cape Government
Overview of the South African digitals skills landscape 2018	Presentation on the digital skills landscape of South Africa	South African Government
Annual Review of the rural libraries project 2013/14	Annual performance report describing the Western Cape Library Services' activities, library services and achievements	Western Cape Library Services
Rural Libraries Report 2015	Background report on the project and public library objectives in the communities	Western Cape Government

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Appendix 9 – Summary of case studies

<table>
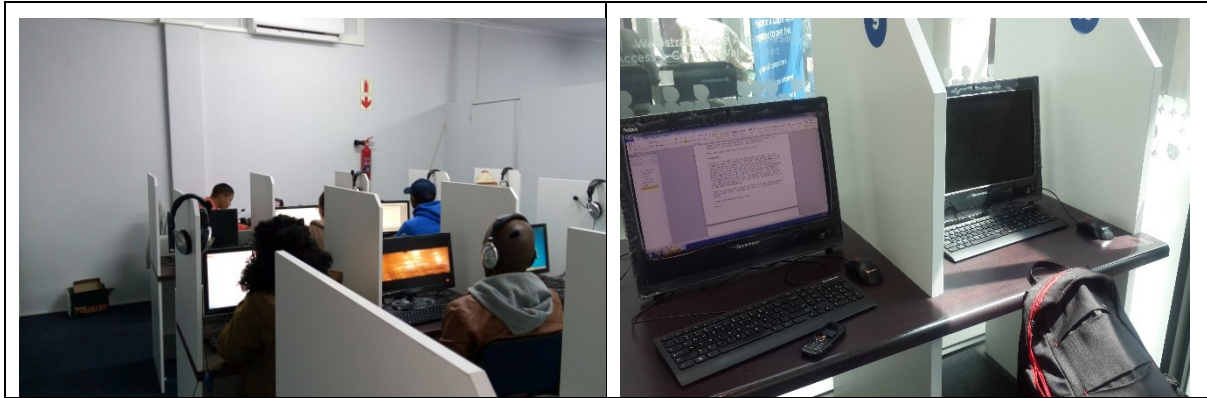<tr><td colspan="2"></td><th>Case study 1 (CS1)</th><th>Case study 2 (CS2)</th><th>Case study 3 (CS3)</th><th>Case study 4 (CS4)</th><th>Case study 5 (CS5)</th><th>Case study 6 (CS6)</th></tr>
<tr><td rowspan="8">Study Context</td><td>Type of e-II</td><td>E-centre</td><td>Community centre ('other': combination of an Internet café, training institution, business incubator and e-centre)</td><td>Innovation and training hub ('other': combination of a business and start-up incubator, innovation hub, Internet café, e-centre, youth development centre and training institution)</td><td>Training institution</td><td>Public library (Rural)</td><td>Public library (Metropole)</td></tr>
<tr><td>Operating sector</td><td>Public</td><td>Third sector</td><td>Third sector</td><td>Public</td><td>Public</td><td>Public</td></tr>
<tr><td>e-II operator</td><td>Government</td><td>NPO</td><td>NPO</td><td>State-owned entity</td><td>Government</td><td>Government</td></tr>
<tr><td>Number of participating e-IIs</td><td>5</td><td>1</td><td>1</td><td>1</td><td>2</td><td>2</td></tr>
<tr><td>Name of e-II</td><td>1. E-centre 1
2. E-centre 2
3. E-centre 3
4. E-centre 4
5. E-centre 5</td><td>Community centre</td><td>Innovation and training hub</td><td>Training institution</td><td>1. Rural library 1
2. Rural library 2</td><td>1. Metro library 1
2. Metro library 2</td></tr>
<tr><td>Description</td><td>Government's ICT initiative to provide people in the WCP, particularly those who are marginalised, with access to ICTs</td><td>Part of government's strategy to empower marginalised people through access to broadband technology, digital skills, and entrepreneurship</td><td>A community-driven NPO that supports the reconstruction of communities by empowering people through training, innovation and entrepreneurship, facilitated by ICTs</td><td>An initiative of a state-owned entity to provide with equal access to ICTs, and to develop digital competences and the skills capacity of people</td><td>A government project to provide marginalised people with access to ICTs through rural public libraries in the WCP</td><td>A government project to provides access to computers and the Internet in public libraries in the Cape Town Metropole area</td></tr>
<tr><td>Location</td><td>George and Mossel Bay</td><td>Elsies River</td><td>Athlone</td><td>Franschhoek</td><td>Stellenbosch and Worcester</td><td>Cape Town and Khayelitsha</td></tr>
<tr><td>Distance from Cape Town Metropole</td><td>440 km (George)

390 km (Mossel Bay)</td><td>23 km</td><td>14 km</td><td>80 km</td><td>54 km (Stellenbosch)

110 km (Worcester)</td><td>Cape Town Metropole

36 km (Khayelitsha)</td></tr>
</table>

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	Case study 1 (CS1)	Case study 2 (CS2)	Case study 3 (CS3)	Case study 4 (CS4)	Case study 5 (CS5)	Case study 6 (CS6)
Services provided	Access to computers, Internet, and Wi-Fi, government services, homework assistance, information, internships, online resources, photocopy and printing services, training (basic digital skills – accredited)	Access to computers, Internet, and Wi-Fi, government services, homework assistance, information, innovation hub, internships, online resources, photocopy and printing services, small business support, training (basic and advanced digital skills – non-/accredited)	Access to computers and Internet, government services, information, innovation hub, internships, online resources, photocopy and printing services, small business support, social innovation, counselling, training (basic and advanced digital skills – non-/accredited)	Access to computers, Internet and information, innovation hub, online resources, photocopy and printing services, small business support, training (basic and advanced digital skills – accredited)	Access to computers, internet, and Wi-Fi, book loans online resources, photocopy and printing services, small business support storytime sessions, online public access catalogue	Access to computers, Internet, and Wi-Fi, book loans ECD centre, live performances, newspapers, online resources, photocopy and printing services, small business support storytime sessions, online public access catalogue
Communication media	Noticeboard, pamphlets, posters, newspapers, radio, social media, word of mouth, WhatsApp, website	Newspaper, radio, posters, social media, word of mouth, pamphlets, flyers, website, WhatsApp	Newspaper, radio, social media, word of mouth, pamphlets, website, WhatsApp	Newspaper, word of mouth, social media, noticeboard, posters, radio, website	Newspaper, noticeboard, posters, social media, word of mouth, website	Newspaper, radio, noticeboard, posters, social media, word of mouth, pamphlets, flyers, website, WhatsApp
Social media applications used	Facebook, WhatsApp	Facebook, Twitter, YouTube, WhatsApp	Facebook, Google+, Instagram, Twitter, YouTube, WhatsApp	Facebook	Facebook	Facebook
Set social media plan	No	Yes	Yes	No	No	Yes (Cen) No (Hre)

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Appendix 10 – Pictures of e-inclusion intermediaries

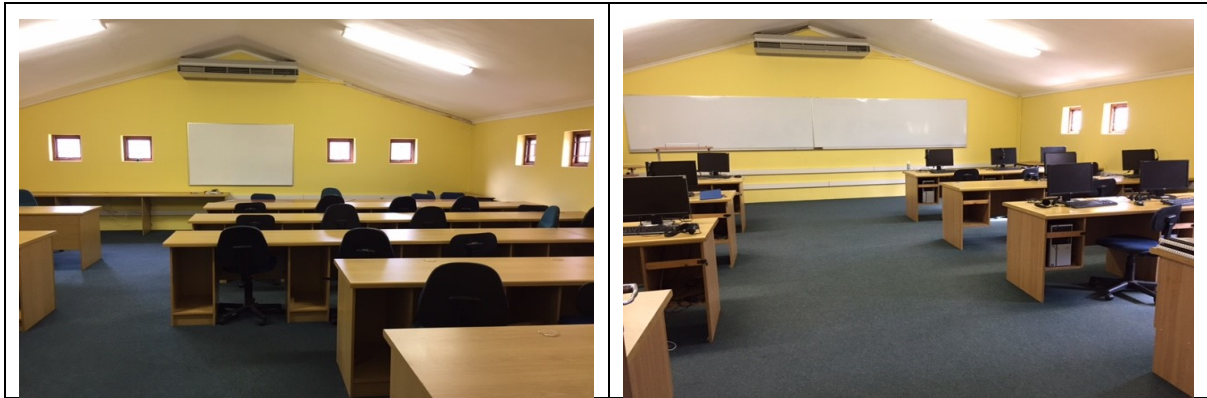CS1 E-centre – (Source: own photo)

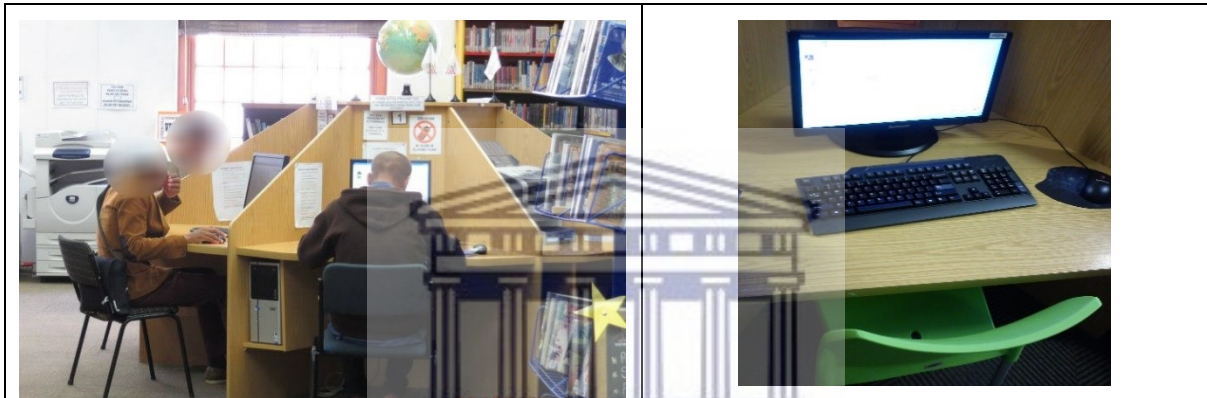CS2 Community centre – (Source: centre's Facebook Page, 2018)
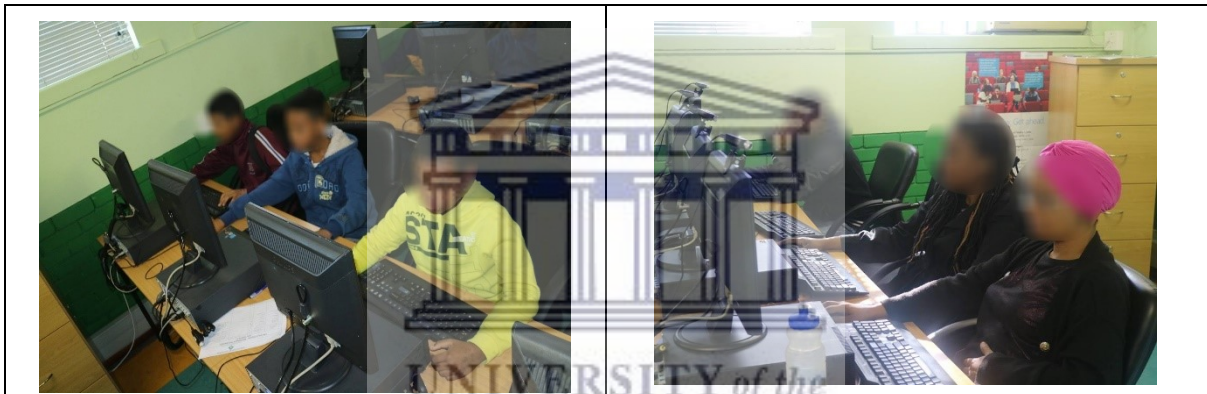
CS3 Innovation and training hub – (Source: hub's Facebook Page, 2018)

CS4 Training institution – (Source: own photo)

CS5 Rural library 1 – (Source, Left: Libraries' Facebook Page, 2018; Right: own photo)

CS6 Metro library 1 (left) and metro library 2 (right) (Source: own photos)

Appendix 11 – Ethics clearance statement

DEPARTMENT OF RESEARCH DEVELOPMENT

UNIVERSITY *of the*
WESTERN CAPE

28 April 2016

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Ms N Katunga (Information Systems)

Research Project: Social media as an engagement channel: A case study of e-inclusion intermediaries in under-resourced communities.

Registration no: 15/7/200

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

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to action through knowledge