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Department of Library and Information Science

The role of public libraries in bridging the digital divide: a Cape Town case study

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Mini Dissertation

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Declaration

I declare that **The role of public libraries in bridging the digital divide: a Cape Town case study** is my own work and that all sources that I have quoted have been acknowledged by means of complete references.

Signed: ....

Date: ....

Abstract

This research project looked at the role of public libraries in bridging the digital divide which is both a symptom and a cause of social exclusion. Public libraries offer free information services to ordinary citizens by means a wide range of media, including the Internet. But they offer more than just access as their information literacy programmes educate people in the use of the various media. Across the world there are many initiatives employed by public libraries to help bridge the digital divide. The purpose of the case study of one library district was to investigate if and how libraries in Cape Town were taking on this responsibility. The project had two parts: a survey of one district of the city's libraries and a closer case study of one selected library in the district. The overall findings from both phases of the study were that Public libraries do help to narrow the Digital Divide by providing free internet access to the public. One of the initiatives the Public libraries that were surveyed including Masiphumelele library employed to help narrow the Digital Divide is SmartCape. Not only did Masiphumelele have SmartCape, but it also offered free computer literacy classes to its users.
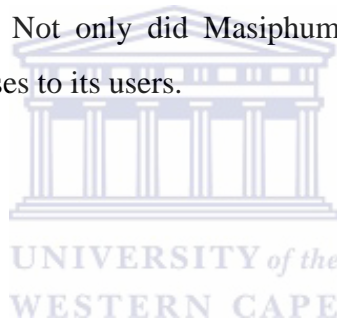
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Chapter 1
Introduction to the Research Project

1.1 Introduction

The digital divide is the growing gap between people who have access to information via ICTs (Information Communication Technologies) and those people who do not. In this age of digital information, people who do not have access to the Internet and World Wide Web are at a disadvantage. The digital divide means that the information "have-nots" are denied the option to participate in new ICT-based jobs, e-government, ICT-improved healthcare, and ICT-enhanced education (Mphidi 2004; Wilhelm 2004: xiii; Bridges.org 2006). They are unable to use the opportunities of ICTs to improve their lives. The NGO, Bridges-org points out that, more often than not, the information "have-nots" are in developing countries, and in disadvantaged groups within countries.

According to Lor (2003), in order for us to fully understand the digital divide, the concept first needs to be problematised. Once it is known how it affects individuals, possible roles for narrowing the digital divide can be identified by libraries and other institutions which provide information services. He also states that the word "divide" suggests a barrier, which is further narrowed by the word "digital" to a technological problem, which can also be seen as technology inequality. Van Dijk (2005: 3) and Wilhelm (2004: xiii), however, say that the digital divide should be seen as a social and a political problem rather than a technological one. The digital divide affects people according to their social groups. In Wilhelm's vision of an "inclusive digital nation", free and easy access to ICT builds inclusivity by opening up opportunities for everyone. Wilhelm (2004: xiii) claims that "technology is not the problem. How it is used, to empower, liberate or enchain, is a function of human action". He also points out that just providing ICT is not enough. "Digital literacy" education is needed to bring marginalised people into the centre of economic and social life. Hendry (2000:332) also believes that the digital divide is more than access to technology. It refers to the gap between people who are information literate and those who are not information literate.

Public libraries offer free information services to ordinary citizens by means a wide range of media, including the Internet. But they offer more than just access as their information literacy programmes educate people in the use of the various media. The survey of access to ICT in South Africa by the HSRC in 2003 concluded that this is the special strength of public libraries in terms of efforts to bridge the digital divide (Tlabela, Roodt, Paterson& Weir-Smith 2007). Across the world there are many initiatives employed by public libraries to help bridge the digital divide. The purpose of the proposed project is to investigate if and how libraries in Cape Town are taking on this responsibility. The project will have two parts: a survey of one district of the city's libraries and a closer case study of one selected library in the district.

1.2 Background and motivation: South Africa's progress towards an information society

The digital divide is closely connected to poverty and under-development. South Africa is one of the most unequal societies in the world and the gap between rich and poor is not decreasing (University of Cape Town Development Policy Research Unit 2010). Almost half of the population lives below the poverty line (Butler 2004: 66). Poverty is about social exclusion as much as inadequate income. Poor people lack access to the resources that might aid their development. People who are poor do not buy computers or Internet connection. About 75% of South Africa's population have never used the Internet (Bridges.org 2006) and only 11% have broadband subscriptions (World Wide Worx 2012). In the 21st century the lack of this physical access implies "information poverty". Several writers point out that information poverty affects all spheres of life (for example Britz & Blignaut 2001: 65).

The International Telecommunication Union (ITU) uses five indicators to assess a country's access to the information society: fixed-telephone subscriptions per 100 inhabitants, mobile-cellular telephone subscriptions per 100 inhabitants, international Internet bandwidth per Internet user, percentage of households with a computer and percentage of households with Internet access at home (2012: 38).These ICT Development Indicators (IDIs) measure ICT infrastructure and readiness and the ITU sees them as the foundation for ICT usage and impact. It places South Africa at number 91 out of 155 countries. The ITU identifies the barriers developing countries are still facing when it comes to ICT development as: the cost of devices and connections, the (low) speed and quality of broadband connections, the limited availability of ICT services

outside major urban areas and "inherent development challenges related to poverty and literacy levels" (p. 33). There is agreement that in South Africa and other African countries mobile smart phones will provide the means to widen access to the networks and opportunities of the information society (Word Wide Worx 2012). In developing countries mobile-cellular subscriptions are growing at "double-digit rates" (International Communication Union 2012: 33).

In 2002 the City of Cape Town with the NGO Bridges.org conducted a study of the digital divide in Cape Town (Bridges.org 2006). It found that poor communities had low access to computers and Internet use was very low. People in poor areas did not have electricity and their homes were not safe places to store computers. The report recommended that one strategy is to provide free access in public places. But, although the City was improving access in public libraries and community centres, the survey found that most people did not know about these services. The project also found that people might not want to access the Internet as the content is not relevant to their lives. Low levels of literacy are another barrier and the report pointed out that most web content is in English.
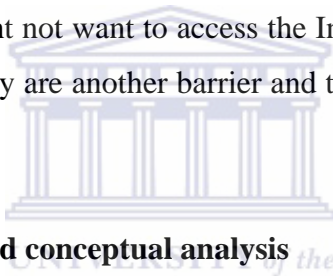
1.3 Theoretical basis for study and conceptual analysis

The research project had two theoretical pillars: the role of the public library in social justice and inclusion and the theories of bridging the digital divide.

Public libraries and social inclusion

IFLA/UNESCO (2001: 87) defines a public library as the following: a local centre of information which makes a variety of knowledge and information easily accessible to its users/patrons. Public libraries offer their services to everyone whatever their age, race, gender, religion, nationality, language, sexual orientation and social status. IFLA/UNESCO (2001:88) identifies 12 roles or purposes of a public library. The following relate to the proposed project:

1. supporting both individual and self conducted education as well as formal education at all levels;
2. ensuring access for citizens to all sorts of community information;

3. providing adequate information services to local enterprises, associations and interest groups;

4. facilitating the development of information and computer literacy skills;

5. supporting and participating in literacy activities and programmes for all age groups, and initiating such activities if necessary.

These missions contribute to public libraries' social role. They can play an important role in social justice and social inclusion. According to the most recent draft of the Library and Information Services Transformation (LIS) Charter by Nkondo et.al. (2009:xviii), most South Africans are excluded from the advantages of the information society and the key function of a public library in South Africa is to provide access to the information society to marginalized groups. Britz (2004: 192-204) describes the impact of "information poverty" on people and how libraries can bring information to the marginalised.

The social role of public libraries is sometimes seen in terms of building social capital (the reserves of community networking) which contributes to socio-economic development within a community (Hart 2006). Tise (2009) and Kaniki (2008) state that libraries could play an important role in the realization of the Millennium Development Goals (MDGs). Services and programmes can be planned around each of the eight goals, since the traditional work of libraries in education, information, communication and knowledge building is important to each. Goal 8 is especially relevant to the proposed project: "… make available the benefits of new technologies, especially information and communication". This goal is about getting access to ICTs available to people, especially the marginalized.

The Digital Divide

The digital divide is both a symptom and a cause of social exclusion (Pateman 2008:54). Social exclusion is when certain individuals and groups are marginalized and are excluded from the mainstream of society (Hendry 2000: 334). The concept of social exclusion arose in the 1990s. It means something broader than income poverty and refers to poor people who are alienated from social affairs and who lack the power to control decisions that affect them (Vinson 2009: 2). Access to and use of ICTs is a measure of inclusion in today's information society. As we

are living in an emerging information society, we are more than ever relying on the accessing, sharing, creation and manipulation of information (Britz, 2004: 193). Britz states that questions such as the right to access and obtain information and its fair distribution in the market place are questions of social justice.

According to Mphidi (2004:2), the following factors play a role in widening the digital divide:

- **Poverty -** most South Africans do not have access to the necessary infrastructure of accessing the World Wide Web as it is expensive
- **Gender**- females are known to have less access to ICTs and the internet, as this is seen as a male dominated area, partly because IT is seen as a technical subject for males and females exclude themselves from it. According to Moe's research study on bridging the digital divide in Colorado Libraries (2004: 2), there were more males (55%), than females (45%) that use computers and the internet in public libraries in Colorado.
- **Physical disability**- the Internet and ICTs are usually inaccessible to blind and visually impaired South Africans
- **Lack of ICT skills and support**-
- **Cultural and behavioural attitudes with regards to technology**- People tend to associate a certain group of people with computers and ICTs, and they tend to exclude themselves from these types of technologies. For example computers and the internet are usually associated with educated people
- **Relevancy of content-** if people do not find the content meaningful to their lives they will not use the Internet
- **Age-** The younger generation uses the Internet more than the elderly. According to Mphidi, 45% of people aged between 15 and 25 use the internet daily, while 27% of people aged between 45 and 54 use the Internet once a month
- **Apartheid legacy** - black South Africans people were not as exposed to technology as white people.

One of the most influential theories with regards to the digital divide is Jacob Nielsen's three types or stages of the digital divide: economic divide, usability divide and the empowerment

divide. Nielsen (2006) argues that the digital divide can be viewed within these three stages. The economic divide happens when people are not able to afford to buy ICT tools like computers. Nielsen argues that the economic divide between developed and developing countries is growing each year. The usability divide is when technology is so complicated that people cannot even use the computer even when it is offered for free. According to Nielsen (2006), low literacy poses a big problem for accessing the web. Senior citizens pose the second biggest problem in accessing the web. Lastly the empowerment divide describes the occurrence when people do not make "full use of the opportunities that such technologies afford". This suggests that although people have access to computers and the internet, they do not have the confidence to use the technology, i.e. they do not use it optimally. In social networking sites, for example, a majority of members (90%) do not contribute ever, while 9 % contribute occasionally, and only 1% are frequent contributors.

Another theory with regards to the digital divide which underpins the study is Rogers's Diffusion of Innovation (DOI) theory. DOI has been used in library and information science research as shown by Minishi-Majanja and Kiplang'at (2005:211). Chigona and Licker used it in their study of " communal computing facilities" libraries in Cape Town" (Smart Cape) to investigate who uses them (adoption) and for what reason. DOI is a theory that seeks to define the processes and factors which have an influence in the adoption of new innovations (Rogers In Chigona and Licker, 2008:59). There are four key factors in the growth of a new technology: decision processes; individual innovativeness; rate of adoption; and perceived attributes (Minishi-Majanja and Kiplang'at, 2005:213). People adopt an innovation based on their perceptions of the new thing: trial-ability (opportunities to try something out and learn); observability (making innovations visible to others); relative advantage (when an innovation is perceived as being better than the idea it supersedes); complexity (the idea that the innovation is difficult to use); and compatibility (the degree to which an idea is compatible with social norms). The four key factors are described as follows by Minishi-Majanja and Kiplang'at, (2005:213):

- Decision processes: suggest that diffusion takes place gradually over time and consists of five stages: knowledge; persuasion; decision; implementation; and confirmation. The potential adopter has got to first learn about the innovation and then be persuaded with

the advantages of the innovation. He then has to decide to adopt the innovation, implement it and then confirm if whether he will reject or adopt the innovation.

- Individual innovativeness: this factor states that there are people who are prone to be innovative. These people will adopt the innovation faster than those who are not prone to adoption of innovation.

- Rate of adoption: this factor states that the innovations are adopted over time in a pattern which resembles an s-shape. The growth of adoption first becomes slow; then it gradually grows and then it experiences dramatic growth; it then stabilizes and then declines again.

- Perceived attributes: people will adopt the innovation according to their own perceptions. As seen above this factor is perceived with regards to the five attributes of innovation.

1.4 Problem statement

The above theories formed the Cape Town Project. The project investigated the role of public libraries in helping to bridge the digital divide by means of a case study of one district of libraries in Cape Town. The proposition was that public libraries may play a vital role in helping to bridge the digital divide by providing free access to the Internet. To some people the library is the only access point in which they can access information through ICTs without any costs. The study included both adults and school learners. Previous research has highlighted the predominance of school learners in use of public libraries in South Africa (Hart 2006). As will be discussed in Chapter 3, the digital divide is part of bigger social divides. If people are not part of the digital world then they will be shut out of the mainstream of society.

There are two fundamental questions:
- Are public libraries playing a role in bridging the digital divide? If so, how?
- What are the conditions that enable a library to play this possible role?

The case study of the district, including a close focus on one library with excellent ICTs, set out to explore these questions.

The research problem and questions will be returned to in Chapter 3.

1.5 Research design and methodology

The approach to explore the research problem was to undertake a case study of two phases. The research methodology and research sites are described in detail in Chapter 3. Flyvbjerg argues that case studies are essential to building knowledge in the social sciences. He says that case studies have the "force of example" (2006:228). The overall purpose of a case study is to see what lessons can be learned for the research problem. A case study explores an issue in a bounded system by collecting data from a mix of sources like observation, interviews and documents (Creswell 2007: 73).

1.6 Ethics Statement

At all times the researcher adhered to the rules of the Research Committee of the University of the Western Cape. The rights of the participants to remain anonymous were respected at all times and confidentiality was maintained throughout the research project. Participants were informed of the purpose of the study and that they had the right to withdraw from the research when they wished. The people interviewed at Masiphumelele were asked to sign a consent form.
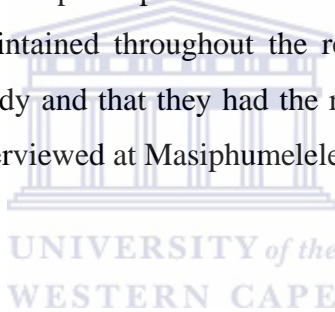
1.7 Chapter outline

Chapter 1has introduced the research project. It describes some background to the problem and also analyses the chief theoretical concepts. Chapter 2 is the literature review which covers existing research in the problem area. It uses the findings of research across a number of countries to build a picture of the present and potential role of public libraries in building an inclusive digital society. The review also examines the questions and methods used in these studies as they provide guidance for the study in Cape Town. Chapter 3 formulates the research problem and questions, describes the research site and describes the methods used in the study. Chapter 4 summarises and analyses the data gathered in the first phase of the study while Chapter 5 summarises and analyses the data gathered in the second phase of the case study. Chapter 6 interprets the findings to draw some conclusions and make some recommendations for South African public library services.

Chapter 2
Literature Review

2.1   Introduction

According to the authors of the sixth draft of the Library and Information Services Transformation Charter (2009), most South Africans are excluded from the advantages of the information and knowledge society. They state that only 10 per cent of South Africans are users of the Internet compared to 70 per cent of North Europeans. The Charter suggests that a key function of LIS is to provide access to the information society to marginalized groups. Access to information is necessary for social inclusion and for active citizenship in a democracy. But Kinney (2010: 113) warns that a narrow focus on the provision of "access" might ignore other factors in digital divides like the use of technology, information literacy, and broader social conditions such as economic and class inequalities.

This chapter reviews the literature around the role of ICTs in public libraries in bridging digital divides. It is organised according to three relevant themes in the professional and research literature:

- ICTs and social inclusion
- public access to computers
- the impact of public access computers on public libraries.

2.2 ICTs and social inclusion

The links between socio-economic development and ICTs are generally accepted. The United Nations places the global spread of the benefits of ICTs under its eighth Millennium Development Goal "Develop a global partnership for development" (UN Department of Public Information 2010).   South Africa's National Development Plan (National Planning Commission 2012: 190) forecasts that ICTs will underpin an "inclusive and prosperous" information society and knowledge economy by 2030. It talks of a seamless information infrastructure that will contribute to "effective economic and social participation". According to the Plan, by 2020, South Africa will have 100 per cent broadband penetration and "all schools, health facilities and

similar social institutions should be connected and individual citizens should have affordable access to information services and voice communication... at appropriate locations" (p. 195). And by 2030 the goal is that "all South Africans will be able to use core ICT services and enjoy access to a wide range of entertainment, information and educational services" (p. 196).

Britz and Blignaut (2001: 63) argue that the North-South divide and poverty in general are connected to "information poverty" which they define as :

"a condition of life where the majority of people in a specific context do not possess the skills and abilities to access, interpret and use information effectively for development. As such information poverty can be seen as an instrumental form of poverty affecting all other spheres of life" (p. 65).

Information poverty means more than not having physical access to ICTs. In a report on a study of refugees and migrants in Australia, Lloyd, Lipu and Kennan (2010: 47) talk of "information poor lifestyle" which has three dimensions:

- inadequate access to resources
- limited social networks
- inadequate practices and skills to use information to make decisions.

Thus it is not just physical access that is important. These researchers argue that a prerequisite for participation, inclusion and informed citizenship is the ability to develop knowledge from information. Their project shows the connections by studying how the new settlers cope with their new "information landscape" (Kennan, Lloyd, Qayyam and Thompson 2011: 192). The research found that the settlers needed to develop new "information practices" to find and use information to deal with everyday situations. There were three barriers: lack of education, lack of literacy and lack of English (p. 208). Facebook was found to be valuable to some of the younger migrants in connecting with old friends in their mother tongues. But on the whole the Internet was not a useful source of information because of language and literacy challenges (p. 206). The study highlights the role of trusted mediators to help the outsiders navigate the new information landscapes.

The report of the American Knight Commission on the Information Needs of Communities in a Democracy (2009) also highlights the issue of "information poverty". The report begins with the statement, "There need be no second-class citizens in the democratic communities of the digital age". But it finds that the digital age is not serving all Americans equally. It gives three aspects to the idea of "access" that are close to the Nielsen model which was described in Chapter 1:

- the availability of relevant and credible information to communities
- the capacity of individuals to engage with information
- individual engagement with information and the public life of the community (p. xiii).

2.3 Public access to computers

An ethnographic study conducted by Donner, Gitau and Marsden (2011) on the use of mobile-only Internet among a group of women working as seamstresses at an NGO in Khayelitsha in Cape Town highlights the risks in assuming that technology alone might alleviate information poverty. None of the participants had used the Internet before although they owned mobile phones with Internet access. In the course of the study, the participants were given training to use the Internet. The training introduced mobile Internet as part of daily living, whereby they could search for job opportunities, news, and entertainment. Six months after the training most of the participants had continued to use the mobile Internet for entertainment; but had encountered barriers which included affordability and the difficulty of using it.

2.3.1 A comparison of public access computing venues

If ICTs play a part in social inclusion in the 21st century they have to be accessible, affordable and usable. There are different ways to provide public access to ICTs: for example in telecentres, in cybercafés and in public libraries. Some writers have argued that public libraries are the best venues in the African context even if they are at present inadequately equipped (for example Chisenga (2004) and Were (2006)). In 2007 Tlabela, Roodt, Paterson and Weir-Smith conducted an investigation for the Human Sciences Research Council into public access to ICTs in South Africa. They concluded that public libraries have a wider geographic distribution than other venues like multipurpose community centres or telecentres and that their community and education orientation might give them an advantage over these others.

Gomez and Gould (2010) investigated why people prefer one over the others in a survey of 25,000 people in 25 developing countries including South Africa. They used the Real Access framework which was developed by the South African NGO Bridges.org. It assesses "access" by considering three criteria: physical access including affordability; capacity including staff and user training; and environment including socio-cultural factors like political will and popular support (2010: 251). The results of the study show that commercial cybercafés are the most used public access points for ICT within all 25 countries (73%) while libraries and telecentres account for only 11 per cent and 12 per cent respectively of the total usage. The authors found that the use of public access ICTs depends on people's "trust": in terms of safety, relevance of the information available and perceptions of "coolness" (p. 257). Public libraries are regarded as the most reputable, telecentres are seen as providing the most relevant information and cybercafés are the most "cool". "Coolness" comes from factors like unrestricted Internet access, friendly staff and the feeling that the place is a sociable space (p. 257). Telecentres and libraries often block social media use and do not encourage "hanging out".

2.3.2 Public access to computers in public libraries

Public libraries might not be "cool" in developing countries but surveys show that in countries like the USA and Australia their provision of free access to ICTs has grown hugely in terms of Internet connectivity and the numbers of public access workstations. Since 1994, the regular surveys called Public Libraries and the Internet (Bertot, Jaeger, McClure, Wright & Jensen, 2009) have documented the increase in public library Internet connectivity in the United States from 21 per cent to 99 per cent. And the survey by the Australian Library and Information Association (ALIA) in 2011 (ALIA, 2011) showed an increase of 26 per cent of public access terminals from 2008 although the population increase had been just four per cent. Moreover the provision of wireless Internet is growing - with 63 per cent of library services in Victoria making it available according to the State Library of Victoria's report (2012).

According to Kinney (2010: 105), public libraries were identified early on as important role-players in equalising computer and Internet access. He points out that President Bill Clinton, in his 1994 State of the Union address, declared his intention "to connect every classroom, every

clinic, every library, and every hospital in America to a national information superhighway by the year 2000". Kinney's comprehensive review of the American research in use of public library ICTs concludes that people who belong to groups characterised as "digitally disadvantaged" tend to use library computers more frequently than those who are more advantaged, and they are more likely to depend on the library for access. Moe (2004: 2) argues that the technology have-nots are not just the poor and uneducated.

Kinney makes the important point that, even when available, access alone does not make up for inequities among various demographic groups.

The huge IMPACT study Opportunity for All, conducted over 2008 and 2009, reveals the central role public libraries are playing in building the digital society in the USA.(Becker, Crandall, Fisher, Kinney, Landry & Rocha 2010). It set out to find out who uses ICTs in public libraries and for what purposes. It found:

- 45 per cent of all library visitors were using the libraries' ICTs
- 44 per cent of people living below the American poverty line use library computers and Internet access. For low income users the library was usually the only access point.
- People of all ages, races and levels of education go to the library for Internet Access whether they have a connection at home or not
- Technology draws teenagers to libraries
- People use the library computers for basic needs like finding work, education and health. But 60 per cent of the use involves keeping in touch with friends and family
- More than 26 million people were using the library's Internet to access government services.

The study highlights the important role of library staff. They have become "informal job coaches, college counsellors and technology trainers" (p. 4). They offer computer classes and continuous one- on-one support.

The Australian report by the State Library of Victoria (2012), which was inspired by the IMPACT project, documents the variety of ICT training activities librarians might be engaged in

(2012: 22). They include special sessions for the elderly run by peer volunteers, workshops on IPADs for seniors, homework clubs, and training for Vietnamese and Chinese users.

Because of growing pressures on libraries to provide evidence of their value, Return on Investment (ROI) studies are increasing. Aabo (2009) conducted a meta-analytical study of 38 ROI projects. Of the 38 studies, 32 were public libraries, in the following countries: USA, Norway, Australia, New Zealand, South Korea and the UK. Aabo gathered from his study that for every dollar invested in a library, the library returns more. Bertot, McClure and Jaeger (2008) conducted a study of 6979 public libraries in the United States in 2007 to investigate the issues of library technology budgets and the funding of Internet access. The authors set out to better understand the impacts of free public Internet access. The public libraries sampled were based on three library demographics: metropolitan status, poverty level of their service population, and the state in which they reside. The overall findings of the study support the importance of Internet access to modern public libraries and their users. They found that 99 per cent of public libraries provide Internet access to their users with an average of 10.7 public access workstations in each public library; 54 per cent of public libraries now also provide wireless Internet access. Seventy-three per cent of public libraries report that they are the only providers of free Internet access in their communities.

Other studies lend support to the above findings. Weiss's study in the USA (2012) for example highlights the value of public library ICTs to low-income families and less-educated people who do not have computers in their homes. Echoing the IMPACT study, he points out that public libraries are the third most popular place to access the Internet after schools and workplaces, which have limited access to the Internet. Like Kinney, he argues that it is of no use that people get free access to computers and the Internet if they cannot use them effectively. This statement echoes that of Nielsen's theory of the three divides, especially the usability divide, that was discussed in Chapter 1. Nielsen suggests that people will not use a technology, even if it is offered to them for free, if they do not know how to use it.

The Library Council of New South Wales in Australia (2009) conducted a study of their libraries to determine if and how they sustain their communities. Ten case studies were undertaken and 2000 people were surveyed. The study found: 64.5 per cent of the people interviewed said that the public library generally enhances their quality of life; 16 per cent argued that it had enabled them to gain or improve their computer skills; 14 per cent said that the public library made them more productive in their jobs; eight per cent said that it helped them obtain a new job or get a promotion; and 70 per cent claimed that public libraries help to facilitate job or career planning. The most important finding from the study was the public libraries' "malleability" in being able to fulfill the wide variety of a diverse community's needs

Despite all the evidence of the positive impacts of public library ICTs, the risk of focusing on just the provision of access has to be emphasised again. Kinney quotes many examples of how people without ICTs and Internet access at home continue to be disadvantaged. He argues that the poor quality of the public access services, the time limits, the insistence by some libraries on library membership all serve to maintain digital divides in North American society (2010: 120).

2.3.3 A study of the Smart Cape project in Cape Town's public libraries

The focus in this section is on one research project which investigated the Smart Cape initiative which provides computers and access to the Internet in public libraries in Cape Town. It was sponsored by the City of Cape Town and rolled out and supported technically by a municipal department outside the library. More information on Smart Cape will be provided in the next chapter

Chigona and Licker's research in Smart Cape (2008) investigated who uses it and for what reason. The study is of particular interest to this study as it used Rogers's theory of Diffusion of Innovation (DOI) as the theoretical framework, which was discussed in the previous chapter. DOI seeks to define and explain the processes and factors which have an influence on the adoption of new innovations (Rogers In Chigona and Licker, 2008:59). Chigona and Licker's study examined the adoption patterns of Smart Cape in three public libraries in Cape Town that

were identified as serving the "urban poor". The data were gathered using interviews with users, library staff and the Smart Cape Access Project management.

In Chapter 1 the attributes that affect adoption of a new technology according to DOI were listed as: relative advantage, compatibility, complexity, observability and trialability. Chigona and Licker's overall findings were that the community computing facilities (CCFs) are filling a gap and that the CCFs located in public libraries might have a higher adoption rate than those in other public access centres. The main use of the library ICTs among the adults is for job seeking and typing their resumés. For school students the facilities help them to complete their school projects. Some of the students mentioned that they do not have computing facilities at the schools, while for some of them their schools are far and they cannot afford to go back to school in the afternoon.

It was discovered that the compatibility of computing facilities with other technologies such as cellphones had a positive impact on adoption. The CCFs are also compatible with the community's needs, since there is a high employment rate surrounding these three centres and the CCFs are located in areas where the residents cannot afford to pay for such services. The innovation was found to be trialable, since the services were offered without any costs. There is low or no financial risk in trying out the technology and this has a positive impact on adoption. The lack of training does not allow those without skills to try out the technology at one centre. At one of the centres a training course had been introduced since they were discovering a low rate of adoption among women and, after the training, the number of women using the centre increased. Lack of visibility was found to be a barrier. Many adopters first learned of the CCFs only when using the library.

In the interviews with the library staff there were comments on the new challenges in looking after the CCFs. They had brought an increase in the numbers of school learners and it was proving difficult to manage the demand.

2.4 The impact of public access computers on public libraries.

The provision of free access to ICTs impacts on public libraries in many ways. It seems that it has played a vital role in reducing the decline of visits to public libraries in the US and has attracted new users. Kinney (2010: 135) quotes findings on the benefits specifically to rural libraries in the US like increased use, greater visibility, and increased job satisfaction. However, the picture might be different in developing countries because of a lack of funds, skilled workers and other logistical problems (Shuva, 2005: 159).

Kinney points out that free public Internet access in public libraries has led to two sets of questions: how it affects librarians' traditional mission in society and how it affects their existing routines and services. Some argue that it will transform libraries and others see it as an extension of their traditional educational and informational role. Kinney relates these questions to a bigger question over the relevance and survival of libraries in the Internet age. The rise of mobile access to the Internet in South Africa 33.1 percent (Tlabela, Roodt, Paterson & Weir-Smith, 2007: 12)might add to this concern, although the above studies in the US and Australia have shown that even people with access outside the library choose to use the library. Kinney's answer is to analyse three roles for librarians: guides to and teachers of the Internet; providers of a rich range of services beyond the Internet; and providers of Internet access to a diverse range of people who might not otherwise have such access (p. 132).

In his book on managing public access to the Internet in public libraries, Sturges states that the management of public access ICTs is a normal function of public libraries. But he identifies three specific challenges (2002: 12):

- accountability: the people who pay for these services to be available will want these ICT services to be provided in an organised manner with outcomes that can be measured
- technical support: workstations and network facilities need technical support as they are much more complicated than just switching on and off a workstation
- personal support: personal support and guidance is needed for users to make effective use of the facilities.

All three of these issues, as well as the new demands of library staff, are referred to often in the studies that were covered in the earlier sections.

McMenemy and Burton (2005) cover two main issues for management: coping with the high demand and controlling inappropriate uses of the ICTs. They point out that there are risks of someone using the library's computers to search for illegal or inappropriate material which may cause political scandal. Policies should be put in place to manage the use of the computers and Internet – and staff must be educated in the issues. They say that ignorance of these issues can be potentially costly for a library when it has breached the policy. However, in Chisenga's survey (2004: 17) of 22 public libraries in Sub-Saharan Africa (2004: 17) only seven had a policy for ICT usage.

2.5 Conclusion

The literature surveyed in this chapter provided a useful basis for the dissertation project. It helped identify the research questions which will be presented in the next chapter.

It indicates that ICTs in public libraries might play a vital role in narrowing the digital divide. The ROI research and other surveys of library ICT use suggest that for every Rand invested into public libraries the funders and the community reap great benefits. However, if the libraries ICTs are to alleviate the prevailing information poverty and social exclusion in South Africa, it is clear that more than mere physical access will be required.

Chapter3
Research Design and Methodology

3.1 Introduction

This chapter returns to the research problem that was discussed in Chapter 1 to identify the research questions that underlie the project. A brief overview of the case study sites will be given to give the readers a clear understanding of the community that was studied. It then focuses on the research design and data gathering methods that were applied to explore the problem and questions.

The case study had two phases: a questionnaire survey of all the libraries in the South Peninsula Library District of the City of Cape Town Library and Information Services (COCTLIS), which is also known as District 2; then a qualitative study of one library, Masiphumelele Library, which was identified as a library with excellent ICT facilities. This second phase zooms in on this one library as it was thought a closer picture of one library might throw light on the findings of the questionnaire survey.

3.2 Problem statement and research questions

The project set out to investigate the role of public libraries in helping to bridge the digital divide by means of a case study of one library district in Cape Town. The digital divide is part of bigger social divides. If people are not part of the digital world then they will be shut out of the mainstream of society. This quotation from the website of Plugged In, a Stanford University supported community project, refers to America but it could apply equally to South Africa:

> Interaction between human and computers has greatly increased as we embark on the twenty-first century. The ability to access computers and the internet has become increasingly important to completely immerse oneself in the economic, political, and social aspects of not just America, but of the world. However, not everyone has access to this technology. The idea of the "digital divide" refers to the growing gap between the underprivileged members of society, especially the poor, rural, elderly, and handicapped

portion of the population who do not have access to computers or the internet; and the wealthy, middle-class, and young Americans living in urban and suburban areas who have access (Digital divide, 2004).

Access to ICTs is essential to compete in the information society. But "access" means more than physical access. It means knowing about ICTs and having the intellectual capacity to use ICTs to find useful information, solve problems, and, so on. Jacob Nielsen's model, as discussed in Chapter 1, suggests that just providing free access is not enough. There are other factors that shut people out of the digital world like lack of skills and knowledge, lack of literacy, and lack of confidence. The DOI theory, also discussed in Chapter 1, suggests that providing ICTs is not enough as people will only adopt them if they know about them, know what they might be useful for, and have time to learn them.

One fundamental question of the study in Cape Town asks if and how public libraries are playing a role in helping to bridge the digital divide by providing "access" to ICTs and the Internet. Another fundamental question is: What are the conditions and pre-requisites for libraries to be playing a meaningful role in narrowing digital divides? It is hoped that the research design, by looking first at one district then more closely at one library with excellent facilities, might throw light on this question.

These are the research questions coming from the research problem:

1. Are public libraries playing a part in narrowing digital divides? If so, how?

2. Who uses the ICT facilities in a public library? And what for?

3. How are public libraries equipped to help bridge the digital divide in terms of infrastructure and human resources?

4. What sort of educational programmes are there in public libraries to narrow digital divides?

5. What are the views of librarians on the role of public libraries in bridging the divides?

6. How are they trained to fulfill this role?

7. How do the users know about the ICTs?

8. Why do they adopt the technologies?

9. What benefits does the use of ICTs possess for the users?

10. What are the management issues related to ICTs in a public library?

3.3 Research design and methodology

The project is a case study of how a district of public libraries in Cape Town might be bridging the digital divide. It has two phases with the second phase being a case study within the larger. A case study is an intensive investigation of certain individuals or a phenomenon in a contained system, using a mix of methods and data so as to gain a deeper understanding (Terre Blanche, Durrheim& Painter, 2006:255). According to Flyvbjerg (2006: 223), case studies are essential to building knowledge in the social sciences: He says:

> for researchers the closeness of the case study to real-life situations and its multiple wealth of details are important in two respects. First, it is important for the development of a nuanced view of reality, including the view that human behaviour cannot be meaningfully understood as simply the rule governed acts found at the lowest levels of the learning process and in much theory. Second, cases are important for researchers' own learning processes in developing the skills needed to do good research. If researchers wish to develop their own skills to a high level, then concrete, context-dependent experience is just as central for them as to professionals learning any other specific skills.

Flyvbjerg answers the common questions over the generalisability of case study research by saying that all learning comes from cases. He argues that the value of case study comes from the "force of example" (2006: 228).

The first phase of this Cape Town study dealt with the 23 COCTLIS libraries of the South Peninsula District of the City of Cape Town. In this phase questionnaire were handed out to the librarians in a district meeting to fill in and hand back to the researcher. The second phase zoomed in on Masiphumelele Library. In Masiphumelele interviews were conducted with SmartCape users and staff, observations were conducted, and documents were analysed.

According to Nielsen's theory of the types of divides and the DOI theory, people cannot use the ICTs that are in the library unless they know that they are there and have the confidence to use them. Both the phases will be discussed in the sections that follow. Each phase had its own goals and each focused on specific research questions. For example in the table below Phase 1 focused mostly on research questions 1-6 and phase 2 focused on research questions 2, 3 and 7-9.

Table 1 Research Questions of each phase

Research Question	Phase
1	1
2	1, 2
3	1, 2
4	1
5	1
6	1
7	2
8	2
9	2

10	1

Table 1shows that each phase aimed to throw light on the ten research questions. Each phase answers specific aspects of the problem.

3.3.1Research sites

The City of Cape Town libraries provide a good site to study the role of public libraries in bridging digital divides mainly because of the groundbreaking Smart Cape project. Smart Cape is a project of the City of Cape Town that began in 2002 in order to offer free public access to computers and the Internet across the city's libraries. After an award from the Belinda and Bill Gates Foundation in 2003, it now has more than 170,000 registered users in 97 public libraries (Smart Cape 2010). The project is modelled on other projects funded by the Belinda and Bill Gates Foundation like the People's Network,which provides every public library in America with free access to the Internet (Pateman, 2008: 52). The Peoples' Network is thought to have played a vital role in stopping the decline of visits to public libraries in the United States and attracting new library members (Pateman, 2008: 58).

The site that was chosen for this research project, District 2, has a diverse mix of 23 libraries. The City's libraries are divided into six districts, which are meant to cut across the historical racial divisions of apartheid. At the start of the study District 2 had six regional large libraries and 14 smaller community libraries and three satellite libraries. The heritage of apartheid means that it is still valid to talk of suburban historically white advantaged communities and historically disadvantaged coloured and black townships.

Table 2 District 2 libraries by category

Categories	Libraries
Historically black/coloured township community libraries	Hangberg Library, Lotus River Library, Ocean View Library, Masiphumelele Library, Grassy Park Library,

Historically white regional and community libraries	Rondebosch library, Fish Hoek Library, Claremont Library, Wynberg Library, Meadowridge Library Retreat Library, Plumstead Library, Southfield Library, Camps Bay Library, Lansdowne Library, Kommetjie Library, Simon's Town Library, Hout Bay Library, Tokai Library, Mowbray Library
Satellite	Masiphumelele Library(incorporated into City as stand-alone library in June 2012), Ottery Satellite Library, Pelican Park Library

3.3.1.1 The South Peninsula District

The District is called the South Peninsula District. Since the site of the study Masiphumelele is located in the Fish Hoek valley, this section will therefore zoom in or focus on this part of the Southern Suburbs.

As discussed in the previous section the South Peninsula District also known as District 2 is a district which cuts across apartheid barriers although it is not as diverse as some other districts when it comes to its demographics.

The second phase of the case study took place in Masiphumelele township which at the start of the study was a satellite of Fish Hoek Library. Fish Hoek valley was once a rural area, but now it is mainly covered by townships and suburbs such as Ocean View, Kommetjie, Fish Hoek and Masiphumelele. The first townships in this valley were established in the early 1900s. By 1940 Fish Hoek was big enough to be declared a municipality. During the 1960s and 1970s considerable development in the valley was undertaken by the Divisional Council of the time. The Divisional Council provided public services such as roads, sanitation, housing and libraries. In the 1960s a white residential area called Sunny Valley and a coloured residential area called Ocean View were established to accommodate the people who were forcibly removed by the apartheid system from Fish Hoek, Simon's Town and Sunnydale (Annual Report of the Divisional Council of the Cape). In 1986 the black people from Dassenberg, an area in the Fish HoekValley, were also forcibly removed by the apartheid system from the Valley and were

relocated in Khayelitsha. They were later allowed to come back to the valley in 1989 and a new settlement was established for them in a section of Sunnydale which was later named Masiphumelele. In 1996 Fish Hoek Municipality was incorporated into the Cape Metro.

3.3.1.2 Masiphumelele Township

Masiphumelele means "We will succeed!". It is a township which is part of the Fish Hoek Valley and borders on three different areas namely: Ocean View, Simon's Town and Fish Hoek. Now being home to about 20 percent of the people of the Fish Hoek Valley (Bray, Goosen, Kahn, Moses & Seekings 2010: 24) the Masiphumelele township began as an informal settlement in 1992. The NGO, Masicorp (the NGO active in the community which will be discussed later), estimates its population to be 38,000 people, most living in shacks (Masicorp 2012). The residents of Masiphumelele are mostly Xhosa speaking people from the Eastern Cape who have migrated there because they could not survive in the rural homelands. Many have families which they have left behind and support when they get jobs themselves. Masicorp (2012) claims that about 70 percent of Masiphumelele residents have no regular work. The few who work either work in local factories or as domestic workers in the suburbs. Six families or more share one water tap and toilet facility.
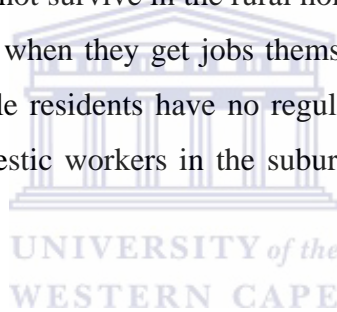
According to the Masicorp website (2012), although life is tough in Masiphumelele, the state is trying its best to improve the conditions in the township. It has provided basic infrastructure to most of the township such as water, electricity, a sewerage system, a health clinic, schools and a satellite library. According to Fishhoek.com (2006), the township owns a vibrant spirit inspite of the influence of crime, alcoholism, drug abuse and HIV/AIDS in the community. A large study of the youth in the area reveals the risks that they face (Bray et.al. 2010: 233).

Figure 1.1 Masiphumelele Township   **Figure 1.2 Map of Masiphumelele**
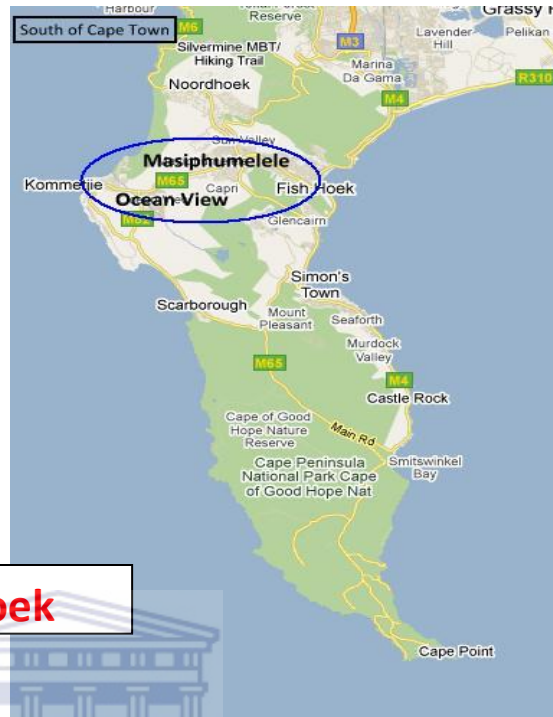
The tables below depict the demographic profiles of the residents of Masiphumelele as given in the 2011 census. The population has more than doubled since 2001 from 8242 to 21905. But the proportions have not likely changed.

Table 3: Ethnic groups in 2011 (Source: City of Cape Town, 2013)

	Male	Female	Total
African/black	10330	9685	2015
Coloured	154	164	318
Indian/Asian	15	14	29
White	21	11	32
Unspecified	1008	503	1511
Total	11528	10377	21905

Table 4: Age in 2011 (Source: City of Cape Town, 2013)

	Black	Coloured	Asian/Indian	White	Unspecified	Total
0-4	2556	40	4	1	189	2790
5-14	2725	53	3	4	67	2852
15-24	4477	51	10	7	394	4939
25-64	10108	171	11	15	858	11163
65+	149	4	0	2	4	159
Total	20015	319	28	29	1512	21903

The figures in this table reveal how youthful Masiphumelele is.

Table 5: Education (Adult education, age 20+) in 2011 (Source: City of Cape Town, 2013)

	Black	Coloured	Asian/Indian	White	Unspecified	Total
No schooling	414	9	0	0	63	486
Grade 1-6	1134	48	3	6	57	1248
Grade 7	579	18	0	3	42	642
Grade 8-11	6495	90	9	6	516	7116
Grade 12	4119	33	9	3	465	4629
Higher	387	3	0	3	27	420
Other	9	0	0	0	3	12
Total	13137	201	21	21	1173	14553

Table 5 shows that there are a few adults with higher education while most didnot even complete Grade 12.

Table 6: Employment rate in 2011 (Source: City of Cape Town, 2013)

	Black	Coloured	Asian/Indian	White	Unspecified	Total
Employed	8016	149	12	9	846	8997
Unemployed	3756	39	3	6	231	4035
Total	11772	153	15	15	1077	13032

The figures serve to give clear background and understanding of what type of people reside in Masiphumelele and what the education levels as well as the poverty levels among these residents are.

Masiphumelele Library

In 1994 Jean Williams a former librarian from Ocean View library started a basic library at Ukhanyo Primary School week which ran once a week. Later in 1995 Sue Alexander joined her from Fish Hoek library. They established a small community library in an old farmhouse which they shared together with the Municipal Housing Department. The library which was mostly funded through donations continued to grow until 1999 when the building was destroyed by fire in a housing protest.

In 2002 funding was approved by Masiphumelele Corporation (Masicorp), a USA- based NGO which was headed by John and Carol Thompson. Masiphumelele Corporation is a development charity that combats unemployment by providing training courses in job skills, mentorship and financial help for small businesses. It also offers scholarships and microenterprise loans. It runs the library and daycare centre and helps build low income houses in Masiphumelele (Masicorp 2012).

After the City of Cape Town withdrew its funds, John and Carol Thompson decided to take on the project alone with the agreement that Fish Hoek Library would oversee the library and run it

as a satellite. A satellite library belongs to one library as a project. The new library was built and opened its doors in 2003. A double storey extension in the library as well as a park in front of the library was then built in 2005 and 2006 respectively. Another extension with a hall, activity rooms and an enclosed courtyard was completed with funding from private businesses in 2011. The Library operated with book donations from South Africa and abroad until the Provincial Library Services came on board when it started supplying books to the Masiphumelele Satellite library. In June 2012 the Library became a standalone library in the City of Cape Town LIS with Masicorp agreeing to continue its financial support until 2017 (Alexander 2012).

3.3.2 Research Design Phase 1

In the first phase the research project was a quantitative survey of libraries in the South Peninsula District of COCTLIS. The project thus began with a survey of the 22 library managers in the South Peninsula District. A questionnaire was handed out at the district meeting for all the senior librarians to fill in. The survey gathered data on the SmartCape and other ICT facilities, computer and information literacy educational programmes and services and on the librarians' experiences and attitudes. The quantitative data were summarised and analysed on an Excel spread sheet.

Questionnaire design

The questionnaire had 10 questions aimed at investigating the role of public libraries in bridging the digital divide in terms of the research questions given above. The questionnaire, which is attached as Appendix C, had two open-ended qualitative questions while the rest were all structured. The first question asked the librarians to name their libraries since the communities they serve were pertinent to the research problem. Then the open-ended Question 2 asked them if they thought their libraries were playing a role in bridging digital divides and why. It prompted the respondents to think and to give a full meaningful answer using their own knowledge and/or feelings.

The rest of the questions, except for Question 10, were quantitative; the respondents had to choose from a list which answer was more suitable to them. If their answer was not in the list,

they were given an alternative option of "other", where they could state their response. In Question 3 they were asked what ICT facilities do the libraries' have for the public, in this question they were given options to choose from. This question was related to Research Question numbers 1 and 2. Question 4 asked if the libraries had their own websites, blog, wiki or facebook page so relating to Research Question number 3. By having a webpage or facebook page the libraries might be seen as keeping in step with the ever changing social media. The DOI theory also stresses the importance of the marketing and communicating of an innovation. So Question 5 asked how the libraries advertised their ICT facilities to the community. Again options were given here for them to choose. Question 6 related to Research Question number 6, by asking the librarians if they had any support staff to help their users with the ICT facilities. Question 7 simply asked the librarians to give more information on the type of support staff they have; they were also asked to choose from options. Questions 8 and 9 asked if there were any educational programmes in the libraries. They related to Research Question number 4. In question 10 the respondents were asked to comment on the chief challenges in managing the ICT facilities in their libraries. Just like question 2, this question was related to Research Question 3, because it asked about the infrastructure of the library.
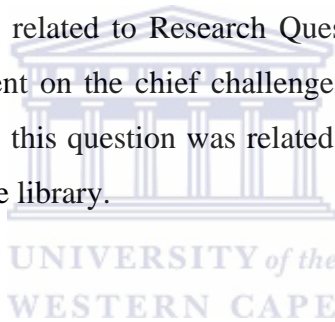
3.3.3 Research Design Phase 2

The second qualitative phase of the study focused on Masiphumelele, a township on the outskirts of Cape Town with high levels of poverty and unemployment. Its library was, at the start of the project, a satellite library of Fish Hoek Library and was supported by a number of private organizations. There were several reasons for choosing Masiphumelele library as a closer case study site:

- Firstly the responses to the questionnaire survey which revealed it to have more ICT resources and programmes than other libraries in the District

- Its reputation as an unusual library site. One of its marketing brochures describes it as "no ordinary library" (Masicorp, 2012). In 2005 it was awarded the Western Cape Arts and Culture Award for "The Most Community Involved Public Library".

- The fact that Masiphumelele is a community which has a high rate of poverty and unemployment as described earlier. This implies the need for programmes that might bridge social divides. The site throws into relief the issues contained in the research problem and research questions.

It has many so-called outreach programmes including computer literacy classes in its large computer room where observations and interviews were conducted.

The more qualitative study in Masiphumelele involved visits over four Saturday mornings to observe and interview the users of the SmartCape facilities and the people who attended the Saturday morning computer classes. The data from the observations, from the interviews and from various documents were analysed for themes and patterns, following the steps recommended by Creswell (1994: 155) and Braun and Clarke (2006:77) for qualitative analysis . More details are given on the Phase 2 methods in Chapter 5.

3.4 Conclusion

This chapter has described the data-gathering techniques and methodologies applied to complete the research process. Both of the phases in this study used different techniques to gather the data. The first phase used questionnaire surveys to gather data, while the second phase used interviews, observations and document analysis to gather data. An Excel spreadsheet was used as a means to analyze the data that were gathered from the questionnaires. The data from the second phase were coded into themes. The following two chapters will summarise and analyse the data gathered in the two phases. Then the data across the two phases will be converged in the last chapter in an attempt to answer the research questions.

Chapter 4

Summary and Analysis of Data in Phase 1

4.1 Introduction

As described in Chapter 3, the first phase of the project was a questionnaire survey of the 22 COCTLIS libraries in the South Peninsula District in order to investigate their possible role in bridging digital divides. The librarian in charge of each library was given a questionnaire to fill out. The questionnaire was described in Chapter 3 and is provided in Appendix C. The libraries that took part in the study are all mentioned in Chapter 3. Five of these libraries are so-called "township" libraries which cater for historically black communities. These libraries include Grassy Park library, Hangberg library, Lotus River library, Masiphumelele library (which was a satellite library of Fish Hoek during the study) and Ocean View library; while the rest of the libraries are suburban libraries. .

4.2 Summary and Analysis of Data

On being asked in Question 2 if they think their libraries play a role in bringing people to the information society all said "Yes". They were asked to elaborate on their responses and Table 7 provides an analysis of their replies with supporting quotations from their questionnaires. The table depicts the analysis of responses to Question 2 in themes or units of meaning from the most frequent to the least frequent. The respondents across all the libraries believe that their libraries play this role by offering SmartCape (described in Chapter 3) to the people. A few say that their provision of books for leisure and educational reading is also part of bringing people into the information society. The library is a social place for mixing. SmartCape brings more people to their libraries and a bigger mix of people. Poor people who have no ICTs at home come to the library and refugees and migrants make up a big section of the SmartCape users. But elderly people and more middle class people are also users. As shown in some of the large international surveys described in Chapter 2 (for example Becker et al 2010) users are diverse and so are the uses. Not everyone uses the ICTs for school work or research. Kinney (2010: 148) points out that librarians tend to see some ICT uses as less valuable than others. Many of the South Peninsula older users and the migrants use the facilities mostly to keep in touch with their

families in other countries. Others are job-seekers and type out CVs and look for jobs on the Internet jobs. The one library that provides access to Facebook on its Friends of the Library PCs reports teenagers are heavy users – and suggests that it brings them to the library. Several mention that they support and teach people how to use the ICTs. One interesting comment is that the library makes people more "broadminded".

Table 7	
Question 2: How does your library bring people to the information society?	
Units of meaning	**Example of responses**
SmartCape (ICT attract more diverse users)	"Without a doubt, both by providing SmartCape facilities and by keeping our collection of computer books relevant and up to date". "Yes it does via SmartCape we have introduced a range of users to this technology" "Yes, , because the way people use the library is far better before we had SmartCape"
Internet draws people to the library (Library is better used with the internet)	"Not all of these people are library borrowers, but they have come to know the library, because of the internet service" " people queue up outside the library, daily to make use of free internet usage"
Assistance with internet/email access	"Often the members of the public are older and have never used email or internet so we have to assist them through the whole process" "School visits- staff introducing them to SmartCape& internet" "we have a weekly computer class run by volunteers who help people who are nervous of the internet & emails i.e.

	computers"
Enhanced social role for refugees (Social inclusion)	"We have a number of refugees who keep in contact with their families via the internet" "People with " refugee status" are significant users". "SmartCape has been a very successful introduction to include people... used mainly by refugees" "Most internet users do job hunting and facebook" "Older and middle aged persons keep contact with family abroad, teens do facebook, children play games"
Mix of age groups	"from the very young who mostly play games to older users who use the internet for employment seeking and information (self-help)" "Older and middle aged persons keep contact with family abroad, teens do Facebook, children play games" "Firstly in our community, we have a lot of senior people. One would think that this age group would not be interested, but they are as their children or grandchildren encourage them to use it for communication (esp. As the children mostly live overseas)."
Free Internet accessibility	""Free services attract patrons and children are eager to use internet or play games on the computer because these facilities are not available at home" "With the internet facility at the library at least they have free access for 45 minutes daily". "The middle class obviously would want to take advantage, because it is free" "Users are from all age groups, all economic groups, many have own internet access, but still use SC to save money".

Job hunting using SmartCape	"Most internet users do job hunting" "Many are job searching, CVs, study research users"
Broad mindedness (Library broadens horizons)	"the users are broad minded now than before and you will find out sometimes will even come back to you with latest information"
SmartCape saves money	
We assist the elderly with sending emails.	"Often the members of the public are older and have never used email or internet so we have to assist them through the whole process. We can't force people to use the internet for research etc".
We also provide books for leisure and study purposes	"Books are used for leisure and study purposes".
The library acts as a social gathering place	"For community central gathering place"

Table 8 summarizes the answers to Question 3 which asks what ICT facilities the libraries have for the public.

Table 8	
Question 3:	
What Public ICT facilities do you own?	**Number of libraries**
SmartCape	22
PCs with internet in addition to SmartCape	4
OPAC	6
Printers for public	21
Faxing for public	8

Photocopiers	22
E-book readers	0
Other	2

The table shows that all libraries have SmartCape for the users. SmartCape is one of the programmes developed by the City of Cape Town to provideopen-source Internet and e-mail facilities in the city's libraries. However just as in other parts of the world (Kinney 2010: 148), the provision of Internet access is not even across all the libraries. Most of the libraries have five SmartCape terminals per library, but one library has 11 SmartCape terminals in its library. Meadowridge and Plumstead have three SmartCape terminals each, Kommetjie with two, Hangberg with four and Wynberg has eight SmartCape terminals in its library. Apart from SmartCape four libraries mention that they have other facilities with internet access for the public; these libraries included Masiphumelele with 11 PCs with internet for their users. Lotus River has six PCs with internet apart from SmartCape, Ocean View hash five PCs and Wynberg has 14 PCs with internet in its library.

It is noteworthy that only six libraries out of the 22 have access to their OPACs for their public users. One library states that they do not have one yet, but they have "one proposed". OPAC is very important in a public library, because it gives the user that confidence that they are able to search for information on their own. Twenty one libraries have printers for the public with almost all of them with one printer for their libraries excluding Masiphumelele with three printers for its library and Lotus River and Ocean view with two printers in each library. It is obvious (because of the possibility that libraries could be the only places in townships with photocopiers and faxes) that many people in the communities depend on the libraries for printing, photocopying and faxing facilities. All of the libraries have photocopiers, with most of them with one photocopier each excluding Grassy Park and Wynberg with three and two photocopiers respectively. None of the libraries have access to e-book readers. In general it is true that most libraries that have e-book readers are academic libraries, the City's Central library and most libraries overseas. It is seldom that you will find a South African Public Library with an e-reader. Two libraries have other forms of public ICT facilities other than the ones already mentioned. These libraries are Wynberg with a music library with CDs and DVDs, and

Masiphumelele library with "office internet in part supported by Ikamva Youth and used by them". Ikamva Youth is a South African non-profit organization focused on the empowerment of youth through education, e-literacy and career guidance (Ikamva Youth, 2010).

Question 4 asks if libraries take part in social media. Table 9 shows that only five libraries said "Yes" when they were asked if they owned any website/ blog/wiki/facebook page. The five libraries which take part in social media are Fish Hoek, Southfield, Lansdowne, Houtbay and Mowbray. It is worth noting that all of these libraries are libraries which cater for historically white communities and were previously advantaged. Only one township library, Masiphumelele, mentions that they are still planning on owning a Facebook page. A follow- up question was asked later in Masiphumelele to find out if they owned a facebook page yet, as they had said in the questionnaire that they had one proposed. When speaking to the librarian she mentioned that they were "tempted" by the idea of a Facebook page but were not sure of how successful it would be. The librarian further mentioned that one also needed to be up to date with information all the time. She said "the City of Cape Town does not allow us access to Facebook on our computers so we would have to update on our Smart Cape computers". They have looked at other libraries' Facebook pages and have not been "excited by" their ideas. They thought a "Friends of Masi Library" website might be more constructive for their purposes. She also said that it could also be the fact that she is older and a young librarian might think differently and that it would probably take up a lot of the young librarian's work time which could be a problem in the work space.

Table 9	
Question 4:	
Do you own a website/blog/wiki/facebookpage?	**Number of libraries**
Yes	5
No	17

On being asked in Question 5 how they advertise their ICT facilities, almost all of them said that they have a SmartCape logo outside their libraries. The table below shows the responses for Question 5.

Table 10	
Question 5:	
How do you advertise ICT facilities to the community?	**Number of libraries**
SmartCape logo	21
Noticeboard outside library	4
Newspaper	3
Flyers	1
Social media	2
Other	7

As mentioned in the discussion of DOI theory in Chapter 1, it is important to make an innovation or a service visible. Observations show that the SmartCape logo is always put at the door of the library so only people who come into the library can see it. According to DOI theory, one of the attributes of a successful innovation is its observability. It is easier for people to adopt ICTs if they are seen by people, meaning that people will not adopt something if they don't know about it. Four librarians state that they also post notices of ICT facilities in the noticeboards outside the library. It could be also important to observe where the noticeboard is situated, as people may pass by without seeing the notice. People from the streets will not know about the notice unless they go into the library. Three of these libraries post their advertisements in a newspaper. But not everyone reads newspapers especially school children. One library also uses flyers as a means of notifying the community about their ICT facilities, which could be a good way to advertise because then you are able to reach more people in the community. Two libraries advertised by means of social media. Although not everyone is on social media, a wider audience is possibly reached.

Seven libraries mentioned that they had other means of advertising their ICT facilities. The seven responses to the option "other" in the table below include:

- the web

- word-of-mouth

- Googlemaps

- library bookmarks

- inside the library and

- "class visits, when people join".

Questions 6, 7, 8 and 9 all ask about support and training. In Chapter 1 and 2 the importance of offering support in bridging the digital divide was highlighted. As Kinney for example points out, "access alone is not enough to remedy technological inequities" (2010: 148). He sees education and training in ICTs as an extension of the role of libraries in information literacy education. Nielsen's "usability" divide in his theory of the three types of divides, which were discussed in Chapter 1, comes into play when looking at questions 6, 7 and 8. The usability divide is when technology is so complicated that people cannot even use the computer even when it is offered for free. It is important that users get the support they need in order for them to be able to use the ICTs that are available in the libraries such as SmartCape. The information depicted in Table 11 shows that only nine librarians said "Yes" when they were asked if they had any people available specifically to support the users of SmartCape and other computer facilities in their libraries. According to the DOI theory a person will be able to use something when they are educated on it, so these libraries play a role in bridging the divide by offering educational support on the ICTs and SmartCape. However, as Kinney points out, training is resource intensive and libraries often do not have the means to offer high level support in training, outreach and content development (2010: 148).

Table 11	
Question 6:	
Do you have any people available specifically to support the users	**Number of**

of SmartCape& other computer facilities?	libraries
Yes	9
No	13

Table 12 gives more information on the support that is offered in the South Peninsula libraries. Although the librarians were asked to tick in the below table if they said "Yes" to the previous question, it is note worthy that the librarians that said "No" ticked in the table above. The fact that more than nine people answered Question 7 in theory only nine people should have answered. It is because of the ambiguity of the question. Table 6 shows that 13 librarians say that "they all take turns" in their libraries to support the users of SmartCape. This could be that the libraries do not have enough funding to allocate someone who will deal especially with the support of ICT or SmartCape usage. In some libraries there is a staff member who takes special responsibility of the library's ICTs.

Two libraries which include Masiphumelele said that they have somebody who is not on library staff who is paid to do this, even if only a "stipend" is given to them. As mentioned in Chapter 3 Masiphumelele is a special case as it gets private funding from Masicorp. Community volunteers also come in to help in some libraries for the purpose of the libraries' ICTs. The other libraries said that they have other means to support the users of SmartCape such as using a staff member who is "clued-up" with such work or whoever is available from the staff. .Kinney (2010: 148) comments on the need for staff to be well-trained if they are expected to support ICT users and perhaps the approach in the Cape Town libraries is rather haphazard.

Table 12	
Question 7:	
If you answered yes to Question 6, please give more information on the support staff by ticking the appropriate box.	**Number of libraries**
All take turns	13
Special responsibility by library staff	3
Somebody not on library staff who is paid	2
Volunteers	5

Other	2

Table 13 shows that six librarians said "Yes" when they were asked if they had educational programmes, besides one-to-one support to teach the users ICT skills. Masiphumelele was among the six. s. The rest who do not have educational programmes could be for the reason that the libraries do not have funding to be able to pay for educational programmes. It is a pity that the reasons were not asked for.

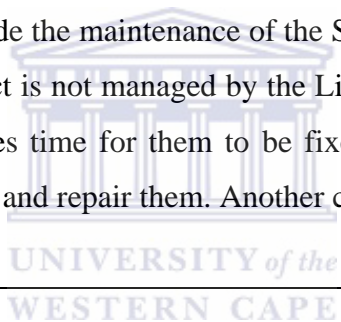| Table 13	
Question 8:	
Apart from one-to-one support, do you have any educational programmes to teach people ICT skills?	**Number of libraries**
Yes	6
No	16

Those who answered "Yes" to the previous question then had to identify the types of educational programmes that they offer to their users apart from one-on-one support. The responses are summarized in Table 14. The answers show that formal education in ICTs is scarce. Only five report that they offer computer literacy classes. Moreover, most of the libraries which answered yes offer more than one type of educational programme. For example Masiphumelele Library offers both computer literacy and internet searching classes as well another option such as ABET. The three libraries offering Internet searching classes are Masiphumelele, Lotus River and Ocean View and two libraries offer other educational classes such as ABET (Adult Basic Education & Training).

Table 14	
Question 9:	
What types of educational programmes do you have?	**Number of libraries**
Computer literacy classes	5
Internet searching classes	3

Other	2

The open-ended Question 10 asks about the challenges of managing the ICTs in the library. Table 15 provides an analysis of their responses by theme by giving the most frequent to the least frequent answers, also with illustrative quotations from the interviews. The strongest thread in Table 15 is the need for more work stations. The librarians complain that there are not enough terminals for the users to the point that people go back home without using the terminals, because of the long queues. Most libraries have only five SmartCape terminals and the queues become very long to the point that there are no chairs for people to sit while waiting. The librarians also state that the users complain about the limited time they are given to spend on the SmartCape terminals; they complain that there is too little time for them.

Some of the other challenges include the maintenance of the SmartCape PCs. The librarians state that, because the SmartCape project is not managed by the Library and Information Services but by the City of Cape Town, it takes time for them to be fixed when they are broken. The IT technicians take their time to come and repair them. Another challenge is the variety of demands.

Table 15

Question 10: What are the challenges of managing ICTs?	
Units of meaning	**Example of responses**
Need more PCs	"heavy demand on the service- ideally we should have more PC's available"
	"the low number of SmartCape terminals"
	"Only 5 PC (SmartCape) not enough for the community we serve"
Hardware breakages and maintenance	"SmartCape (modum, e-boxes, Telkom line etc.) breaking down- users get upset when they come all the way just to find that SmartCape is not working once again"

	"SmartCape computers that are out of order" "Hardware: at the moment we have 3/5 computers working- adaptors can't be sourced" " When SmartCape has problems we have to wait on their technicians" "Maintenance"
Staff assistance is difficult to provide	"Not sufficient staff to assist" "Battle to find volunteers to help the users" "Lack of staff"
First-come-first-serve basis	"… the users manage the first-come-first-serve very well- it's all orderly and civilized"
City's IT help desk	"IT has different understanding of customer service, uncaring of customers expectations" "Reporting to IT desk of the city when problem arise"
Frequent upgrade	"Should have more frequent upgrades" "Speed of system"
Theft	"Theft of SmartCape hardware"
Demands of the daily users	"Accommodating the demands of daily users"
Time allocated to the user a day is not enough.	"Not able to give users help- for beginners 45 min is not enough"
Long queues for the SmartCape stations	"Long queues and sometimes people who have waited for hours don't get to use the library because of closing time".

4.3 Conclusion: Summary of findings

It is obvious with the findings of the questionnaire survey of the 22 South Peninsula libraries that almost all of the libraries help to bridge the digital divide and in diverse ways. They offer free

access to SmartCape and to the Internet and supply their users with basic infrastructure such as faxing, printing, typing and photocopy services. SmartCape and Internet access are important to include people socially and to create a strong sense of social cohesion. In this way people are able to get in contact with relatives and friends that are not close by. On the other hand there are some question marks in terms of the theory discussed in Chapter 1 and 2. For example only five libraries provide information literacy classes.

The chief challenges in managing the ICT facilities in the libraries relate to their management. The main challenges that have stood out in this study are: maintenance of the SmartCape PCs, breakage of hardware, and shortage of PCs. Staff assistance for the ICT facilities was difficult to provide as there are not sufficient staff to assist. The librarians also complain of the city's IT helpdesk which, according to one respondent has "a different understanding of customer service, and is thus uncaring of the customer's expectations". This simply means that the IT help desk does not do as the libraries would like them to do in terms of ICTs.

SmartCape plays a very important role within the public library system ass it draws the community to the library. The ICTs within the library attract more diverse users. Those holding refugee status use these ICTs to communicate with their friends and families back home; while South African citizens use these ICTs to search for jobs, type CVs and complete school projects. Librarians see ICTs as a way of broadening the users' horizons, free internet access provided by the library is also an advantage to the users as they do not have to pay to search for information, go onto social networking sites or get into contact with their family and friends through email. The most important finding in this phase is that the libraries do most of what they can to bring users into the information society by providing access to the internet and by providing books and other material such as newspapers and magazines for the users to read.

The questionnaire survey provided not much detail on the uses people make of the Internet – with no mention made for example of people accessing government or health information. It was hoped that the second phase study of the ICT users in Masiphumelele might give more information on this.
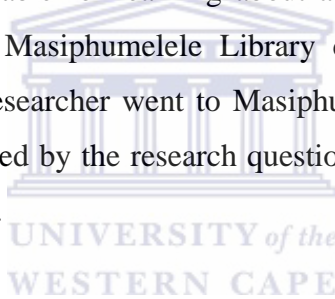
Chapter 5

Masiphumelele Library: A Closer Look

5.1 Introduction

The aim of the second part of the study, following the questionnaire survey, was to take a closer look at Masiphumelele Library. The reasons for choosing this library were given in Chapter 3. This phase of the study was a qualitative case study within the bigger case study of the District.

According to Leedy and Omrod (2001:149), in a case study, particular individuals, programmes or events are studied in depth for a certain period of time using a mix of data gathering methods. They say that a case study is suitable for learning about a little known or poorly understood environment. The case study of Masiphumelele Library consisted of observations, reading documents, and interviews. The researcher went to Masiphumelele with an open mind but the study was at the same time informed by the research questions in Chapter 3 and the analysis of the questionnaire data in Chapter 4.

This chapter follows the guidelines for qualitative data analysis given by Braun and Clarke (2006). It outlines the data gathered in its various parts. Then it analyses the data into themes relevant to the research problem.

5.2 Data gathering

The methods used to conduct this part of the project were: observations of the computer literacy classes and of the SmartCape users; analysis of documents; and interviews with staff and library users.

5.2.1 Observations

The visits to Masiphumelele Public library were over one Friday (a whole day) and five Saturday mornings in September and October 2011 and in July 2012. The huge gap in time period indicated in the log in Table 7 is due to the fact that the researcher took some time off from the project to attend to a personal crisis. The reason why Saturday mornings were chosen was that the researcher had to work during the week and she was available only during weekends to interview the participants and visit the library.

Table 16: Log of visits and activities to Masiphumelele Public Library

Time period	Event
9 September 2011	First visit with supervisor. Introduction to the staff. Interview with the assistant librarian
17 September 2011	Observations and interviews at the SmartCape terminals
8 October 2011	Observations and interviews at the SmartCape terminals
15 October 2011	Interview with the computer literacy tutor and observation of the basics of computer literacy class
14 July 2012	Observations of computer literacy class (intermediate) and interviews with students and Library manager.
21 July 2012	Interviews with computer literacy class students

This section is based on the field notes taken during visits to the library. One limitation of this study was that Saturday mornings are not ideal days to be at the library, because the library is not so busy during that time. Library staff pointed out that the people of the community were either in town doing what they could not do during the week like shopping or paying their bills or they were at home doing their chores such as doing laundry and cleaning the house. It is important to note that, because these people do not have their own personal transport, it is difficult for them to pop into the shops after work as they have to rush home before it gets dark and before public transport finishes for the day.

Observations were conducted and field notes taken at two places in the library: the SmartCape bank of work stations and the computer laboratory upstairs while classes were being held. The purpose was for the researcher to familiarize herself with the site and gather data before the interviews began. Unlike the computer literacy classes, the SmartCape terminals seemed to be dominated by high school learners during the afternoons; while in the morning it seemed that the SmartCape terminals were dominated by people whom the Assistant Librarian described as "foreign nationals from other parts of Africa". The observed dominance of users from other African countries is relevant to the role of library ICTs in bridging social divides.

At the time of the first observation on the Friday and the first Saturday, the researcher's notes record that only one SmartCape computer was working. According to the Assistant Librarian, the Library had been waiting for new adaptors since the previous week. Regarding the maintenance of SmartCape, she mentioned that when the terminals were broken it took time for help to come, because they had to report to the IT desk of the City of Cape Town. Each user was given 45 minutes each per day to use SmartCape. The assistant librarian complained that they had a problem with users who had to queue more than once a day to use the SmartCape terminals. To someone who was new in using the internet 45 minutes might not be enough time which was why some of the users queued more than once, which was against library policy.

On the second visit to the library on a Saturday there were only 2 working SmartCape terminals out of the five. The focus in this observation period was mainly on the usage of the SmartCape computers: who used them, how people used them, and for what purpose. It was noticeable that there were more people at the SmartCape computers that day since it was a weekend and the school children were available. A group of small primary school learners all flocked to one computer where they formed a bundle. The researcher also noticed that high school learners mostly were coming in for social networking, most of them on Facebook. It was very seldom that the researcher saw them doing school projects on SmartCape although they mentioned in later interviews that they did also use SmartCape for their school projects.

One of the main reasons for choosing Masiphumelele for the close case study was the mention in its questionnaire in the first phase of the study that it held computer literacy classes. The computer literacy classes are held three times a week in a room upstairs in the library. As stated earlier, the computer room was sponsored by EIFL PLIP, together with Edunova. Edunova is an NGO from the education sector working together with a range of funding partners since 2004 to focus on the effective use of Information and Communication Technologies (ICTs) in schools (Charity SA, 2012). The computer room now boasts 17 working computers with Windows7 and Office 2010. The old computers have also been upgraded and the computer room has WIFI and high speed internet access (Sithole, 2012).

Many that assist in teaching the class are also former students who graduated from the class. They are therefore passing on their knowledge to other students who are in the position they were in once. The chief tutor, Nyasha Sithole, is a former student of the class and his interview will be described later in the chapter. The students are trained in Word Processing, Excel Spreadsheet and PowerPoint. After each course the students get graduation certificates. There are two classes: one is basic which teaches the basics of computer literacy and the other class is the intermediate class. The students that have passed the basics class can move on to the intermediate class. In this class Microsoft is taught at a more "advanced" level then the basics class. In the observation of the basics of computer literacy class, the tutor was seen to interact often with the students. The students asked questions if they were not clear with something. They also had their own computers to sit at, unlike the larger intermediate class where students have to share a computer. In the basics class the students are taught the basics of computer literacy, for example what the different icons on the desktop are for and how to open and create documents. In the intermediate class they are taught how to make posters, business cards, type CVs and, so on.

The next observation was conducted on the 15 October 2011 on a quiet Saturday morning in the computer literacy class for the basic level. On this day the students were being taught the basics of computer literacy, such as formatting a word document, creating a budget on MS Excel. The

most important aim in this observation was to see how the tutor interacted with the students. The tutor involved the students and took them through every step of creating what was done that day. Unlike the intermediate class where it is sometimes full and students have to share a computer, this class had no more than five students. Each student had their own computer and it seemed like the class was easier to manage with only a few students.

On the next visit some months later on 14 July 2012 it was noticeable how the lab had changed. New computers had been bought for the computer literacy class and the old computers were upgraded with Windows 7. The money for the new computers had been awarded by EIFL (Electronic Information for Libraries)PLIP (Public Libraries Innovation Programme) explained more on page 50. On this particular day the students were writing a test. They were all concentrating on the computer screens. They were each given 45 minutes to complete the test. While the students were waiting for the others to complete, they used that time to go on social networking sites or on Career Junction, a website designed to search for jobs. Directly after the test had been written, a class was conducted by one of the former students of the computer literacy class. In the class the students were taught how to create a poster for Mandela Day.
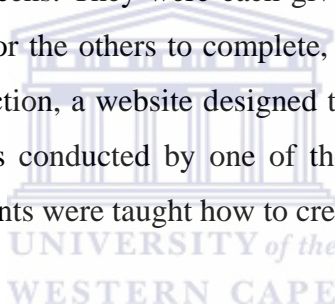
In terms of the researcher's research problem and its interest in empowerment, it was interesting to see that there was no concept of plagiarism. The students seemed to be allowed to copy and paste freely from the Internet. Information literacy was not taught at all. What was also noticeable was that there was a spelling error in the tutor's example, but no one from the students had picked up the error probably because of language barriers or maybe they just did not want to challenge authority.
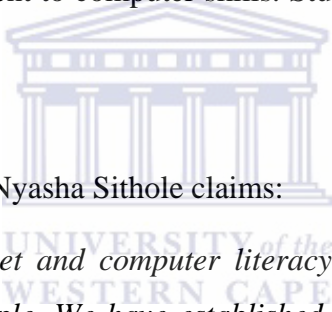
5.2.2 Documents

The documents that were used in this study are:

- Pamphlets which were received from Masiphumelele library. The documents were used to get information on the Library's mission and its outreach activities for all ages. They show the Library to have 75 volunteers and over 19 different programmes.

- The Masicorp web site (www.masicorps.org). Masicorp is a leading NGO in the surrounding community and is responsible for much of the development of the library – its buildings and stipends for its part-time staff, including the computer tutor. Its web site includes pages on the library which it describes as "no ordinary library". It claims that "the programmes distinguish this library – the service it offers has been a great success and is a highly valued resource in Masiphumelele. From the beginning, many of the programmes were over-subscribed and the enthusiasm for more, expressed by residents of Masiphumelele, encouraged everyone."

- Susan Alexander, the library manager, provided documents linked to the Library's awards from EIFL PLIP. According to its web site, EIFL is an international non-profit organization which aims to make access to knowledge possible through libraries in more than 45 developing countries in Africa, Asia and Europe (EIFL 2012). PLIP is its Public Library Innovation Programme by which EIFL gives awards to education programmes in public libraries. It funded the upgrade of Masiphumelele Library's computer laboratory in 2011 and was paying for wifi connectivity. According to Susan Alexander, "Masiphumelele Public Library is replicating the Internet Access and Training Programme (IATP) of the Ghana Library Board. IATP builds young people's leadership and technology skills to increase their chances in life and employability." The researcher was given two presentations on the Library which were given at an EIFL conference in Ghana early in 2012 and which describe the work of the Library and of the computer facilities (Alexander 2012; Sithole 2012).

- An autobiography of the computer literacy class tutor Nyasha Sithole which he wrote as part of the application for funding from EIFL and as background for a talk at an EIFL meeting early in 2012. The autobiography gives a full account of his life and upbringing as well his educational background and work experience.

These documents were used in order to find out the background of Masiphumelele and the Library. They also give insight into the role of the Library in social inclusion and building social capital. The Masicorp web site home page states that it knows that the Masiphumelele community sees "education as the route out of poverty". It goes on to say: "Education is what we do: we built a library and education resource centre where over 20 programs are available free to residents ….."

To describe the computer classes, one of the pamphlets says, "A hands-on experiential approach is taken and the students never leave the class without an example of their work – they have produced CVs, business cards and brochures. There are more formal classes for students aiming for ICDL [International Computer Drivers License] certification." The weekly job readiness classes link the need for employment to computer skills. Students write their CVs and apply for jobs online.

In his paper for the EIFL meeting Nyasha Sithole claims:

> *The provision of free Internet and computer literacy skills course brought a big change in lives of many people. We have established different computer initiatives over the years, starting with beginner classes with a few computers and an internet café arrangement where the community could email, job search and write their CV.*

5.2.3 Interviews

Interviews were conducted with the Library Manager, Sue Alexander, Assistant Librarian, Nomvuyiseko Mlambisa, the computer literacy class tutor, Nyasha Sithole, some users of the SmartCape computers and some students from the computer literacy class. The interview schedules are provided in appendices A to D.

Interview with the library manager

The interview with the library manager, Sue Alexander, was a long interview. The interview questions for her were more philosophical and more theoretical than those with the other participants.

On asked why the Library put so much emphasis on ICTs, she replied, "I just think we cannot be left behind". She said that librarians should "embrace" ICTs. She pointed out that, although there was an Internet café on the main road, the library facilities and Internet access were free and that the Library offered education such as for the ICDL (International Computer Drivers License). This comment echoes the research by Chigona and Licker in three Smart Cape sites, that was described in Chapter 2. They found that the relative advantage of Smart Cape over other ICT facilities came from the closeness to where people lived and the fact that it was free (2008: 66).

On being asked in Question 5 how Masiphumelele library was bridging social divides with its ICT programmes, she answered that ICTs needed to be accessible to everyone and that it would be a natural process that social divides would be bridged by doing so. She went on to talk of the social consciousness of the computer literacy tutor and how important the Internet was in opening up horizons:

> *"...he's also got that social consciousness which I think comes across to the people who he works with and the students. And I think anybody feels more comfortable once they can access the internet and uhm and once they can see what's out there."*

Computer skills she said were taught in two progammes apart from the computer literacy courses: the job readiness course and the adult literacy classes.

In describing the benefits of ICTs in the Library for their users, she mentioned that some of the computer literacy class graduates had found jobs, but not necessarily in IT. She believed that the skills they had learned had helped them. She also mentioned that they had four graduates who were now assisting with the tutoring of the class. She gave an example of a graduate who was now assisting with the class

"...for instance K..is teaching today. I don't know if she's that good, but at least she's uhm progressing as a teacher now, she's clued up enough to be able to teach."

The Library Manager said that it was a "complete mixture" that used the Library's ICTs. She said:

"I've got the tourist officer Charlotte Witbooi who comes in everyday to check, Marius comes in everyday too. He's a taken white resident from… and he comes and teaches the children wherever he stays he brings the children in and he teaches them ICT skills on SmartCape as well. Uhm so there are regular facebookers, the teenagers come and facebook."

She mentioned that they were not as strict as the other libraries, but, if it did get chaotic, the Assistant Librarian became strict with them.

Question 8 asked how the community knew about the ICT programmes. She stated that it was by word of mouth. They also put posters up at clinics and cellphone shops and other places where people were likely to go. They also had advertisements that appeared in the local newspapers and local websites such as the Scenic South (local website).

Question 9 asked what the chief challenges were for the ICT users in the Library. She thought that the knowledge of English was a real challenge, because some of the users did not understand the questions when they were doing a test. She also saw this as a long term challenge in terms of job interviews. Another challenge that she saw was continuity of the class. If the users had to get a job during class time, then they would have to leave the class and attend their jobs. The Library Manager saw users' shyness as another challenge, because they had *"no confidence to go forward"*. Question 10 asked what ongoing support the users of ICT in their library get. The reply was

"Xolani is here there kind of...and Nyasha, both of them. With an internet café there's always somebody to help you, somebody to help print, somebody to help find your job ads and so there's always somebody on hand to help you".

Interview with the Assistant Librarian

The interview with the Assistant Librarian, Nomvuyiseko Mlambisa, was a brief and an informal interview. She was asked a few questions regarding the use of the SmartCape terminals such as questions about ongoing support and the use and the maintenance of SmartCape. Question 1 wanted to find out from her who looked after SmartCape and who was in charge of it. She stated that everybody who worked in the Library was in charge of it. Question 2 asked which problems they usually encountered with SmartCape. She stated that sometimes the computers switched off:

> *"most of the time and we have to report that, and maybe sometimes it takes a long time for the person to come to fix the computers, but they try by all means to come, they always say there are lots clients so, or they can fix it on that side they have to switch it off and then they can try to put it on that side."*

Chigona and Licker's study (2008), which was mentioned above, found that Smart Cape users perceived Smart Cape to be less reliable than other commercial Internet centres but they still preferred it because it was free (p. 66).

Question 3 asked about the policy of SmartCape in terms of social media and games. She stated that the users were allowed to visit social network sites on SmartCape. Question 5 asked if were any other computers the users could use for printing and typing in the library besides SmartCape. The Assistant Librarian responded by saying they could use the computers in the computer room upstairs.

Interview with the computer literacy class tutor

The computer literacy class tutor, Nyasha Sithole, is a former student of the class he now was teaching. He is originally from Zimbabwe and he came to South Africa for a better job opportunity as well as to further his studies. In his interview questions he was basically asked his opinion with regards to the class he teaches, what the benefits are for the students and the kind of feedback he gets from them.

He replied by saying that there was feedback although it was not direct. The fact that a number of people were coming to the Library to help themselves by typing their CVs and looking for jobs was enough feedback for him.

According to Nyasha Sithole, the benefits of attending the computer literacy class were to be competitive in the job market by improving their computer literacy levels. The people that attended the classes were usually from the age of 19 and upwards and the majority were school leavers looking for jobs. Question 4 wanted to find out if they used the computer room for anything else other than the computer literacy classes. He answered that the public could search the Internet for their school projects and to check their emails. But he pointed out that like the SmartCape terminals they were only given 45 minutes each.

Question 6 asked what the policy regarding social media was, if the users were allowed to open social networking sites. He said that the public were not allowed to go onto Facebook or Twitter in the computer room, but they could do that at the SmartCape terminals. He also said that the computer room was for job searching, research and checking emails.

Question 7 asked if there was anything else he would like to share about the class. He mentioned that in the class they produced posters. He also said

> *"…Ok we design it and we do everything with the class, but we do it together with the class, so we show them how to put these borders and transform this into Word Art and how to make the text in line. All these posters were done by them, by the students, so*

that is what we do with this class, but in that class that just finished it's the

intermediate class, the course work is different. We got a course work for that class."

Interviews with the Smart Cape users

There were 10 interviews with the Smart Cape users, ranging from the ages of 15 to late 40s. They were chosen randomly from the Smart Cape users. The following points provide information on the interviewees:

- Three were male; seven female

- Seven were South Africans

- Three had jobs: two of the men and one of the women

- Four were still at school

- Six were Xhosa-speaking.

It is only a small group but the mix might well be typical of the day to day use of the SmartCape computers. A larger study would be required to confirm this statement. Question 1, 13, 14 and 16 were open-ended questions which gave the respondents an opportunity to elaborate on their answers and to encourage them to give their opinion.

Question 1 asked the users why they come to Masiphumelele. Most responded that they came to the library to search for information and for using Smart Cape and the Internet. One of the respondents said

> *"Basically I found that Masiphumelele library is useful, because of the computers and the internet, I also discovered that many things on the internet are found, especially you know my emails I need them to get in touch with the people from far away…"*

Most of the other respondents mentioned that they were coming to the library to search for jobs using the Internet.

Question 2 asked the respondents how often they came to the library. More than half of the respondents replied that they came everyday; the others stated that they came twice or three times a week to the library. One of the school learners said:

"*No since I'm not working, I come everyday*".

Question 3 asked if they mostly came into the library for Smart Cape. Five of the respondents said that they came to the library only for Smart Cape. One of the school learners mentioned that he also came for tutorials and meetings while the other participants said they came for reading as well. The school learner said:

"*Ja Mondays and Wednesdays I come for tutorials and then Fridays I come for meetings*".

Question 4 asked the respondents what they used SmartCape for in the library, giving a list of possible uses. More than one answer was possible. Table 17 summarises the responses. It is obvious that most of the respondents came to the library for social networks. Those who were not at school or at universities usually came to update their CVs while the school learners looked for information for their assignments. It is not possible to generalize use of Smart Cape from such a small number. However the findings here support Chigona and Licker's study of Smart Cape across three libraries using DOI theory as a frame (2008). They found also that Smart Cape was being mostly used for job seeking and "providing access to students for their school work" (p. 66). It is noteworthy that in both studies little mention is made of meeting specific information needs like health or government information.

Table 17: Question 4: Why do you use Smart Cape?	
Reasons for using Smart Cape	
Emailing	2
Finding jobs	5
Updating CVs	5

Looking for information for school and university assignments	4
Facebook/Twitter	9
Looking for health information	0
Coping information	0
Government websites (City of Cape Town)	0
To pay bills	0
Browsing the world wide web	5
Printing out documents	4
Other	0

Question 5 asked the respondents if they used the library for anything else other than the ICTs. Six of the participants answered "yes" to the question, while the rest said they only used the library for ICTs. Table 18 summarizes the answers of the six people who were using the library for other purposes.. The classes that the students came for were the tutorials after school and the Ikamva Youth Group. It is only the foreigners that came to the library for reading.

Table 18: Question 6: What else do you use the library for?	**Responses s**
Borrow books	5
Classes (which one)	2
Study	3
Reading	4
Photocopy	6
Fax	4

Meet friends	1
Other	0

Question 7 asked the respondents if they had access to the Internet anywhere else except for the library. Only seven of the participants said that they did not get access anywhere else except the library. This might support Chigona and Licker's finding (2008: 66) that the advantage of Smart Cape is that it is free. It is clear that the library plays an important role with providing free access especially in a poor community. Question 8 asked those who said "yes" to the previous question where else they had access. One of them said that he got access to the Internet at school and at the food zone (a nearby internet café). Another participant had access through his phone while the last of the three, the lawyer, said that he had access to the Internet at home.
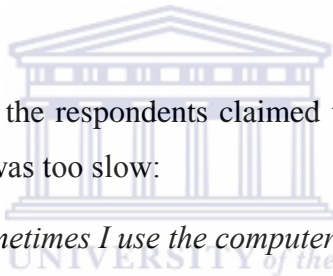
Question 9 found that only one of the respondents claimed to find Smart Cape difficult to use. This one's explanation was that it was too slow:

"What is difficult, ja sometimes I use the computer, but I didn't get replies soon".

Question 11 asked the respondents if they got help with using SmartCape. Only four of the participants said "no". The others said they did get help when they asked for it. The help came from the library staff. Chigona and Licker point out that usually no formal training is given on Smart Cape and this has been the main challenge to its use (2008: 67). People are expected to pick up the skills. However, Masiphumelele Library does have another resource, the upstairs computer room, where computer literacy classes are given.

Question 13 asked the respondents how they knew the library had Smart Cape. Many of the respondents stated that a friend told them about Smart Cape while some said that they saw the computers when they first entered the library. Two of the respondents stated that the people working in the library told them about Smart Cape.

Question 14 asked the respondents of what benefit was Smart Cape to them. They all responded that it is of great benefit because it was free. One respondent, the lawyer, stated that it helped him with his work. He said

"Well it's a tremendous benefit uhm... I did a whole court case using Smart Cape"

Another participant said that it is easier and quicker to get information through Smart Cape.

Question 15 asked the respondents to choose from a table which ICT they had at home. Most of the respondents did not even know what a Smartphone was so the researcher had to explain to them what it was from her own understanding. All of the respondents had cellphones which to some people were seen as a necessity. Only one person had a PC at home, he mentioned that he came to the library for access to the Internet when he ran out of Internet bundles.

Table: 19 ICTs possessed by users	
Cellphone	10
Smartphone	0
PC at home	1
Internet access at home	1
Other.	0

Question 16 asked them why they come to the library if they had Internet access somewhere else. The responses were that Internet was faster with Smart Cape and that it was free. One responded by saying:

"I use SmartCape when I have run out of bundles at home".

Interviews with the Computer Literacy Class students

There were seven interviews with the computer literacy class students. The questions aimed at finding out the benefits of attending the class. All the students were youth from Masiphumelele

Township. Their age groups ranged more or less from 18 to 30. Out of the seven interviewed, three of them were foreign males, from Zimbabwe and Malawi; the other four were young Xhosa speaking females. As with the Smart Cape users, some of the interviews were done in isiXhosa. One of the females is a former student of the class and is now assisting the tutor to teach the class. She helps out whenever the tutor is not available to teach. It is important to note that she participated in this study as a former student of the class and not as a teacher. Six had jobs.

Question 1 asked the participants why they attended the computer literacy classes. The most common answer that came in this question was that they attended the classes to know more about computers and to obtain the necessary skills to be able to get a "better" job. The participants commented and said "…*how to type and how to make a CV*". Other answers about the need for computer skills to find work were:

> *"I attend this class to know how to attach a file and send my CV…"*
>
> *"I want to write my CV".*

The two who were working as casual workers at a bakery see the classes as a step towards better clerical jobs:

> *"Computer will help me get a job at Pic' Pay – as a cashier"*
>
> *"I want to work at Home Affairs department – to do IDs"*

One talked of enjoying learning how to be independent. Her library at home in the Eastern Cape had done all the searching for her themselves:

> *"I always wanted to learn a computer, as we didn't have opportunities to use them in the Eastern Cape, even if you go to the library in town, they did everything for you. They searched information themselves and then print it for you".*

The skills were seen by another participant as opening up doors to information for schoolwork, and for "news about the world":

> *"I need computers for school for news about the world"*
>
> *"I need information through the Internet".*

Another, from Zimbabwe, talked of wanting to learn the Internet to keep in touch with his family:

"I want to learn the Internet to communicate with my relatives".

Question 2 asked how the participants heard of the computer literacy classes. Different answers were given by the participants. Two said that they saw the notice board in the library and decided to come to the class. Two of them heard from their family members, such as an aunt, a cousin, or sibling. The other three heard from their friends. According to the DOI theory it is important that an innovation be marketed widely, to be visible. It is perhaps worth noting that only two people attended the class because of the notice board in the Library. The numbers of people coming into the Library are limited so the notices in it were not as useful for these interviewees as word of mouth. However, as mentioned earlier, the Library Manager said that notices were put up in various sites across the community.

Question 3 asked them how often they came to the classes. Because some of them were busy in the week, they said they came only on Saturdays. The others came Monday, Wednesday and Friday when the classes were offered.

Question 5 asked them if they had attended classes like this one before; more than a half replied "No". One man had been given private lessons by his friend in Hout Bay but it had not been a satisfactory experience:

"they taught me how to open and close a computer like that, I didn't go any further". He also commented further by saying "...you see he lied to me, he said that he had IT. So he was teaching me those things and I was happy, but he lied to me. I really trusted that he had IT. I'm not sure if it was 100% what he was teaching or he was putting himself on a high horse".

It is noteworthy that the participant trusted what he was taught in the computer literacy class, he had no doubts. Also the fact that the computer lessons were given for free attracted people and it also made this participant even happier. He thus said

> *"Yes I was paying money, so the time I came here I found out it was for free I was more happy and I had a curiosity to attend it".*

The hands-on practical approach in the classes was an attraction. The documentation for EIFL on the classes, which was mentioned above, stresses that each class ends in something to take home – like a business card. One interviewee mentioned that he had learned computer skills as a subject in high school in Zimbabwe, but the problem had been that there had been no computers so they were taught by textbooks. Another student from Zimbabwe was taught by his brother the basics of computers like Microsoft Word, creating an invoice and using Microsoft Excel, but the difference he said was that what he was being taught here in the library was more advanced and they never had the facilities for Internet in Zimbabwe.

Question 6 asked how the class had helped the participants and what skills they had learned. One man said "*Actually it helped me to be open, to know more, to be curious of having computer*". What he meant was that the computer literacy class had broadened his knowledge of ICTs. When asked to elaborate on being "open", he said that

> *"by being open which means it gives me free space of coming here to study and to know more".*

Most of the people who attended this class agreed that the first and most important thing that they had learned was to operate the computer programmes such as Microsoft Word, Excel, PowerPoint and Internet explorer. The answers were:

> *"it has helped me with Word processing", "with internet searching", and "with emailing and Excel spreadsheet".*

A former student, who now was an assistant tutor and helping other students, said that this class had helped her *"by giving back to people who do not know computers, giving back the*

information that I have learned". When asked how she "gave back", she said, *"by helping them, working with them".*

The last question asked the respondents how they had used the skills outside the class. Three of the respondents said that they did not use the skills. One man, the lawyer, said that

> *"it is a helpful thing everywhere like if I want to book a ticket of a bus or something, then I just go there (internet) and see the plane and other things"*

He also mentioned that it saved him time; rather than going all the way to Cape Town he went to the Internet and he did the whole sum.

Another said

> *"Ja I can say I've been benefited a lot, uhm I actually didn't know anything, but for the meantime I know how to operate this computer, even now I can type a CV, even to enter the Internet and to find jobs and post a CV…"*

A reference was made earlier to the lack of formal training that the city's Smart Cape project offers. This kind of answer by a computer literacy student at Masiphumelele Library indicates the value of education and training.

5.3 Discussion of findings

This section will discuss the themes that were extracted from the interviews, observations and document analysis. Figure 2 is a map of the analysis of data into three themes. Braun and Clarke (2006:89) suggest visual representation is a useful way to identify themes and their connections. They describe the process of identifying themes as "piling". The shaded oblongs in the figure are the main themes that emerged across the observations, reading of document, and interviews. The three main themes are social inclusion, social capital, and management of the ICTs. All relate to the fundamental research question, the role of the library in narrowing digital divides.

Figure 2: Thematic analysis
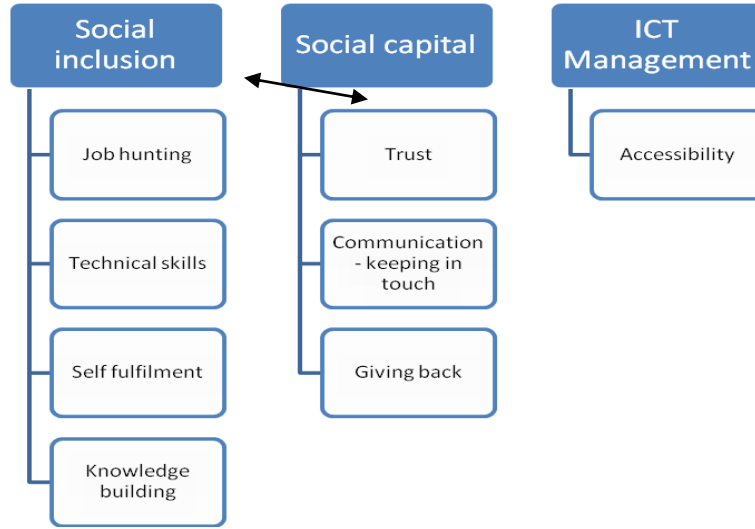
Social inclusion

As discussed in preceding chapters, the concept of the digital divide has to be related to broader concepts like social inclusion and social exclusion. In the 21st century being shut out from the digital society means being shut out from society in general. In his paper for the Australian government Vinson includes several definitions including this one from Pierson's book Tackling Social Inclusion (2001):

> Social exclusion is a process that deprives individuals and families, groups and neighbourhoods of the resources required for participation in the social, economic and political activity of society as a whole. This process is primarily a consequence of poverty and low income, but other factors such as discrimination, low educational attainment and depleted living environments also underpin it. Through this process people are cut off for a significant period in their lives from institutions and services, social networks and developmental opportunities that the great majority of a society enjoys (Vinson, 2009: 5).

At Masiphumelele social divides are bridged with their computer literacy programmes. The library manager told us more about how these social divides are bridged at their library. She says

> *"I think the library and ICT need to be accessible to all and it's a natural process that social divides will be able to bridge that, because you're going to be able speak at the same day"*.

She goes on to say about the computer literacy tutor

> *"He's also got that social consciousness which I think comes across to the people who he works with and the students"*.

The library manager also mentioned that it is important that we embrace ICTs because it is important and she also thinks that we just can't be left behind in terms of ICTs.

Self-fulfillment

Another strong theme, which is a sub theme of social inclusion, is self-fulfillment. It is important that people want to learn how to use ICT in order to enrich their lives and gain computer skills. Several participants stated that they take the classes because they want to be good in computers and have the skills thereof. One participant said

> *"By practicing computer I will be a success"*.

Another one said

> *"I always wanted to learn a computer, so we didn't have opportunities to use them in the Eastern Cape, even if you go to the library in town, they did everything for you. They searched information themselves and then print it for you"*.

One Smart Cape user said

> *"It gives me knowledge of other things"*

In a way getting knowledge can be fulfilling to other people regardless of who they are.

Knowledge-building

One of the themes that came up was that the class makes a person more knowledgeable about computers. One man said

> *"Actually it helped me to be open, to know more, to be curious of having computer".*

What he means is that the computer literacy class has broadened his knowledge of ICTs in particular computers and how they work. When asked to elaborate on being open he said that

> *"By being open which means it gives me free space of coming here to study and to know more".*

Technical skills

Almost half of the respondents said that this class has helped them to type a CV and some other documents, but most importantly typing their CVs. One person said that

> *"I was slow with typing and to know how to search and to see information and how to apply things on the internet".*

Another one said

> *"I know how to type a CV..."*

A lot of people feel that by having typing skills they will be able to get jobs such as till operators in places like Pic 'n Pay. One man from the same class said

> *"Actually I just want to know how to operate a computer and after all I just want to achieve my certificate from here".*

To this man operating a computer is a skill he wants to learn so that one day he may go back home to get a job that needs computer literacy.

Job hunting

One of the most common themes that appeared in the interviews with the ICT users was learning how to make a CV so that they would be able to get jobs. By making a CV and accessing job sites, participants are using the free ICTs at the Library to hunt for jobs. According to the Library Manager the job readiness course at the Library incorporated ICT skills. She talked of the teacher

of that class: The people were taught how to make presentable CVs, the library manager said with the job readiness course

> *"...she really concentrated on CVs and so many people just run the CV out and if you were a job employer you wouldn't even look further than the front page, because it is such a mess, it's been badly photocopied and it's been badly done...and she's got them perfectly with the right sizing and the right print and everything."*

Unemployment is one of the challenges facing the Masiphumelele Township, which therefore widens the digital divide since people are not able to afford technologies such as ICTs. Many of the residents who make use of the ICTs in the library come to use Smart Cape to search for jobs on the Internet. Most interviewees in the computer literacy classes believed that, by obtaining computer skills, they stood a better chance of getting jobs. They understood the power of ICTs in the information economy. The computer literacy tutor was also aware of the challenges of unemployment in this township, which is why he offered this class to prepare his students for the job market, saying:

> *"they can be competent in the job market and that is a very important thing and they can improve their literacy levels, especially on the computer side".*

The fact that the number of students was increasing was proof enough for the tutor of the value of his courses.

Building social capital

Jonathan Jansen, the academic and university principal, wrote an article for the Times online newspaper on what he saw at Masiphumelele Library, in which he refers to the building of connections between communities. He describes the library as a "hive of learning" in this extract:

> On any given school holiday, in the middle of Masiphumelele, you are likely to find
> a group of older white youth helping talented black pupils to prepare them for matric
> examinations and the beginning of university. Lying between the middle-class

suburbs of Fish Hoek and the colourless flats of Ocean View, "Masi", as some visitors call it, is a tough neighbourhood. Yet the library in the heart of the township is a hive of learning - of everything from mathematics to drama - for some of the smartest kids I've met. The bond between these deeply committed white youth and their younger black counterparts is something to behold. This is one of the many places where I discover the practice of social cohesion daily in our talkative country….. In that library in "Masi" they learned not only to do well in their academics but to relate well to their white brothers and sisters who loved them and taught them despite the failings of the schools in the area (Jansen 2012).

The case study provided much evidence to support Jansen's statements. Tutors from the community and from neighbouring areas are used in the classes. The ICT programmes rely on the support of local and international NGOs.

Trust

Trust, important in building social capital, came across as an important issue between the teacher and the students. One man who had been given private lessons by his friend in Hout Bay compared the Masiphumelele classes with his previous bad experience:

> *"I didn't go any further…you see he lied to me, he said that he had IT. So he was teaching me those things and I was happy, but he lied to me. I really trusted that he had IT. I'm not sure if it was 100% what he was teaching or he was putting himself on a high horse".*

It is noteworthy to see that the participant trusts what he is taught in the computer literacy class. He has no doubt of it. Another man mentioned that he learned computer skills as a subject in high school in Zimbabwe, but the problem is there were no computers they were taught by textbooks i.e. they learned the theory of computers. Another student was taught by his brother the basics of computers like Microsoft Word, creating an invoice and using Microsoft Excel, but the difference he says is that what he is taught here in the library is more advanced then what his brother taught him and they never had the facilities for internet in Zimbabwe.

Giving back

One comment that stood from this question was one of a former student who was an assistant tutor and helping other students. She simply said that this class had helped her:

> *"By giving back to people who do not know computers, giving back the information that I have learned"*

When asked how she was giving back, she said:

> *"By helping them, working with them".*

She added that people often stopped her in the streets and asked her for help. With this comment the theory of Return on Investment (ROI) comes to mind; the Library and the community is getting a return from her. The Library Manager is clearly proud of the fact that four graduates of the computer literacy classes had become tutors.

Communication and keeping in touch with friends and family

The interviews showed how important the role of the ICTs was in communication with friends and family. As respondents say, the ICTs help them to be able to communicate with family and friends via email and social media. Different responses in connection with the theme were given by the respondents such as

> *"To know from computers like facebook and meeting people through computers…"*

> *"I want to learn the internet to communicate with my relatives".*

The Smart Cape users talked of communicating with their families back in their home countries. One participant from Smart Cape said

> "*I benefit from it because it is free and I can make contact with my family and get information on them".*

Another Smart Cape user said

> *"I also discovered that many things on the internet are found, especially you know my emails, I need them to get in touch with the people from far away".*

Management of ICTs

Just as in the previous survey of the District, the maintenance of ICTs in the library came up as an important issue. The literature review in Chapter 2 revealed this to be a challenge in other countries (for example Sturges, 2002). As shown above, users of Smart Cape referred to problems and the Assistant Librarian complained in her interview of the frequent breakdowns of Smart Cape work stations and the delays in fixing them. Both she and Sue Alexander referred to the challenges of controlling the Smart Cape queues.

The computer room upstairs with Internet access was funded by EIFL and Edunova. It is managed by Nyasha Sithole with funds from Masicorp. Masicorp has promised to keep this support up for the next few years. But

Accessibility of ICTs

This theme is a sub theme of the management issues. The fact that the computer lessons are given for free attracts people. As already stated, one interviewee claimed to have conducted a whole court case through the library ICTs. One participant who had previously paid to learn computer skills and to access the computer said

> *"Yes I was paying money, so the time I came here I found out it was for free I was more happy and I had a curiosity to attend it".*

One young lady who is a user of Smart Cape said

> *" well it's free first of all, because if I like go to an Internet cafe I pay, so at least here it's free and I get the time".*

The interviews suggest that many of the ICT users do not make use of other library services.

5.4 Conclusion

The closer look at Masiphumelele Library provides insight into how a public library might bridge the digital divide through its ICTs and computer literacy programmes. Its role in

promoting social inclusion and social capital is clear. The data analysis shows that many people who use the library for their ICTs are young people from Masiphumelele who do not have jobs and are not enrolled in any school or tertiary institution. Many of the people from Masiphumelele attend the computer literacy class to be able to type their CVs in order to get better jobs. High school children use ICTs such as the Smart Cape computers to do school projects and to go onto social networking sites such as Facebook while the foreign people use it to communicate with their friends and families via email. However, it cannot be forgotten that Masiphumelele is a "special case" because it receives funding from NGOs such as IEFL PLIP and Masicorp. The question arises: Could the ICT programmes be run without this support?

The following chapter (Chapter 6) will converge the data across the two phases of the study in returning to the research questions identified in Chapter 3.
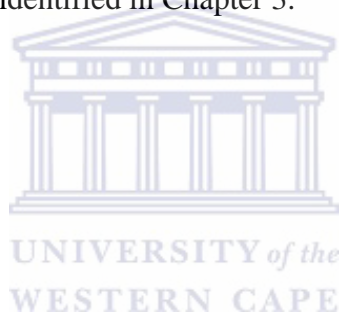
Chapter 6

Findings and Conclusions

6.1 Introduction

This chapter converges the two phases of the study in order to return to the research problem and answer the research questions which were identified in Chapter 3. As described in Chapter 1, the study was underpinned by two theoretical bases, the Diffusion of Innovation theory (DOI) and Jacob Nielsen's three stages of the digital divide.

This study investigated the role of public libraries in bridging the digital divide by a case study of one district in Cape Town. As explained in Chapters 1 and 3, the premise of the study is that, if public libraries help bridge the digital divide, then they are contributing to broader social inclusion. Access to ICTs is essential to compete in the information society. But "access" means more than physical access. It means knowing about ICTs and being able to use them to find useful information and solve problems. Jacob Nielsen's model says that just providing free access is not enough. There are other factors that shut people out of the digital world like lack of skills and knowledge, lack of literacy, and lack of confidence. The DOI theory suggests that providing ICTs is not enough as people will only adopt them if they know about them, know what they might be useful for, and have time to learn them.

There were two fundamental questions: if and how public libraries are playing a role in helping to bridge the digital divide by providing "access" to ICTs and the Internet; and what the conditions and pre-requisites are for libraries to be playing a meaningful role in narrowing digital divides. It was hoped that the research, by looking first at one district then more closely at one of its libraries with excellent facilities, might throw light on these questions. The research questions coming from the research problem are as follows:

- Are public libraries playing a part in narrowing digital divides? If so, how?
- Who uses the ICT facilities in a public library? And what for?

- How are public libraries equipped to help bridge the digital divide in terms of infrastructure and human resources?
- What sort of educational programmes are there in public libraries to narrow digital divides?
- What are the views of librarians on the role of public libraries in bridging the divides?
- How are they trained to fulfill this role?
- How do the users know about the ICTs?
- Why do the users adopt the technologies?
- What benefits does the use of ICTs possess for the users?
- What are the management issues related to ICTs in a public library?

6.2 Discussion of findings

The discussion in this section presents the findings from both phases relating to these questions.

- *Are public libraries playing a part in narrowing digital divides? If so, how?*

Both phases of the study attempted to answer this question. In the first phase the 22 library managers were asked in Question 2 of the 22 COCTLIS questionnaire if they believed that their libraries played a role in bringing people into the information society. All of them answered "Yes" to the question. When they were asked to elaborate on this question almost all the librarians said that their libraries play this role by offering SmartCape to the people. They reported that SmartCape was drawing a wider range of people to their libraries: being mostly used by foreign nationals and refugees, the elders of a community, and the younger people. Examples of their responses are:

> *"Yes it does - via SmartCape we have introduced a range of users to this technology"*

> *"Not all these people are library borrowers, but they have come to know the library because of the internet services".*

They stated that the library fulfills this role by providing *free* Internet access to the users. As one said: *"People queue up outside the library daily to make use of the free internet usage".*

As reported in Chapter 4, a few argued that, by providing books for leisure and educational purposes, their libraries were supporting people to be part of the information age. The respondents also said that the physical library is a social gathering place and mentioned that the Internet in the libraries has a social function in helping people keep in touch with their families. As one said:

> *"Often the members of the public are older and have never used email or the internet so we have to assist them through the whole process. We can't force people to use the internet for research".*

It seems that the free Internet attracts people of all classes. One of the librarians said:

> *"the middle class obviously would want to take advantage, because it is free".*

The second phase of the study in Masiphumelele Library, which serves a poor community, gave more concrete evidence. Its computer literacy classes attract all sorts of people. The observed dominance of foreign nationals from other African countries is relevant to the role of library ICTS in bridging social divides as well. When comparing the library's ICT with other facilities the library manager mentions that

> *"...here it's free and I don't think there's any tuition close by and tuition costs. False Bay college does a lot of IT training and that's the Fish Hoek campus and it's quite useful, but you need to have money for that".*

- ***Who uses the ICT facilities in a public library? And what for?***

Chapter 4 showed how varied the users of library ICTs are. Librarians kept mentioning that the ICTs in their libraries, especially SmartCape, are used by people from different walks of life. Some of the comments by the librarians include:

> *"from the very young who mostly play games to older users who use the internet for employment seeking and information (self-help)".*

This means that people from different age groups come to use the ICTs in the library for different reasons mentioned in the extract. Another librarian mentions what the people use the library for. She said "*older and middle aged persons keep contact with family abroad, teens do facebook, and children play games*"

One librarian who served in a library in a previously advantaged community said

> "*Firstly in our community, we have a lot of senior people. One would think that this age group would not be interested, but they are as their children or grandchildren encourage them to use it for communication (esp. As most of them their children live overseas).*"

Another librarian mentioned that people who have "*refugee status are significant users in the library*".

Refugees and foreigners certainly use the ICTs at Masiphumelele Library. They mostly use them for communication with their families and friends back home and for job hunting. One of the participants said they use ICTs because he wants

> "*to know from computers like facebook and meeting people through computers…*" and
> "*I want to learn the internet to communicate with my relatives*".

Not only do the ICTs in the library help them with communication, but also because it's free. Another participant said:

> "*I benefit from it because it is free and I can make contact with my family and get information*".

In Masiphumelele Library the ICTs are used mostly by the youth and high school learners for school projects and job hunting. It is true that in the second phase of the study no elderly people or senior citizens were observed in Masiphumelele Library. But, as stated in the earlier chapters, the visits to that library were restricted to Saturday mornings so no definite conclusion can be drawn. The DOI theory stresses the importance of "compatibility", which is the level to which an innovation is seen as being consistent with social cultural values, needs and past experiences

of possible adopters. The usability divide is when the technology is so complicated that people will not use it even if it is offered to them for free. As the usability divide states, it could be that old people in Masiphumelele find technology difficult to use or it could be that they are just not interested in knowing it. Social networking among the youth is one of the reasons why they go to the library to access technology such as computers

- *How are public libraries equipped to help bridge the digital divide in terms of infrastructure and human resources?*

As discussed in Chapter 4 the public libraries in Phase 1 were found to be playing a role by providing free access to the Internet through SmartCape. The librarians say that by having SmartCape in the library the library is now better utilized

The public libraries in Phase 1 were shown not to have tutors or qualified people for SmartCape support. Some of the libraries have volunteers who help with SmartCape. Question 3 of the COCTLIS Questionnaire asked the respondents what public ICT facilities they owned. As discussed in Chapter 4 only four libraries said that they had PCs with Internet in addition to SmartCape.

Masiphumelele Library, however, has a computer room which acts as an Internet café when it is not being used by a computer literacy class. The room was funded by EIFL PLIP together with Edunova. The class was sponsored with 17 working computers with Windows7 and Office 2010. The old computers have also been upgraded and the computer room has WIFI and high speed Internet access. In terms of human resources the classes are also supported by a computer literacy tutor, Nyasha Sithole. He is a former student of the class so he has been educated in computer literacy and now he is giving back some of his knowledge to his students. The tutor also has some of assistants who are also former students of his. One of the assistants said:

> *"By giving back to people, who do not know computers, giving back the information that I have learned."*

- *What sort of educational programmes are there in public libraries to narrow the digital divides?*

All the libraries in the District provide free access to the Internet. As discussed in Chapter 4, the librarians were asked in Question 8 of the COCTLIS questionnaire if they had educational programmes. Only six out of the 22 libraries were found to have educational programmes in their libraries with Masiphumelele Library being one of them. The six libraries offer Internet searching class and computer literacy classes. Many of the libraries unlike Masiphumelele cannot afford to offer educational programmes within their libraries as they do not get private funding from any NGOs.

Masiphumelele offers computer literacy classes to the public at no cost. The computer literacy classes are privately funded by Masicorp, an NGO which is active in the community. Masiphumelele also offers other social programmes that make use of the ICTs such as the job readiness course. The library manager had this to say about this course

> *"...she really concentrated on CVs and so many people just run the CV out and if you were a job employer you wouldn't even look further than the front page, because it is such a mess, it's been badly photocopied and it's been badly uhhh…and she's got them perfectly with the right sizing and the right print and everything."*

This course gives the users confidence to be able to create their own CVs.

- *What are the views of librarians on the role of public libraries in bridging the divides?*

As mentioned above, there was agreement in Phase 1 among the respondents that their libraries do bring people into the information society. As one respondent said: *"Without a doubt, both by providing SmartCape facilities and by keeping our collection of computer books relevant and up to date"*.

The librarians believe that Smart Cape plays a huge role in the libraries. One librarian mentioned that "the way people use the library is far better before we had SmartCape". It seems that SmartCape attracts more people and different people to the library. Other comments were:

"...via SmartCape we have introduced a range of users to this technology".

"Not all of these people are library borrowers, but they have come to know the library, because of the internet service."

The librarians also believe that their services attract different age groups. The digital divide is not only about the rich and the poor or black and white. It is also about age, gender, disability and all the other factors stated by Mphidi (2004) in Chapter 2. One respondent talks of the old people coming in to use Smart Cape:

"Firstly in our community, we have a lot of senior people. One would think that this age group would not be interested, but they are as their children or grandchildren encourage them to use it for communication (esp. As the children mostly live overseas)."
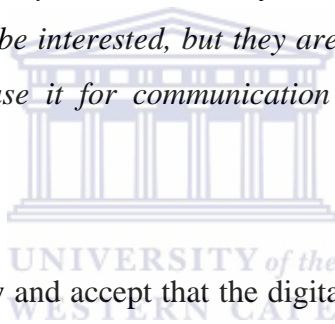
The librarians in both phases know and accept that the digital divide is a huge problem and that libraries play a big role in helping to narrow that gap. As mentioned in Chapter 5, the manager of Masiphumelele Library believes that libraries in poor communities should embrace ICTs and that they cannot be left behind in terms of ICTs. Social divides will be bridged through ICTs. Another point that struck the researcher from the library manager's comments was her and the computer literacy tutor's social consciousness.

- *How are library staff trained to fulfill this role?*

The Phase 1 questionnaire revealed that none of the public librarians were trained to fulfill this role. Maybe the volunteers were trained. It is a pity that none of the volunteers were questioned about their training.

In Masiphumelele only the tutor has further training in fulfilling this role of bridging the digital divide. Not only is he a former student of the class he teaches but he also has further training which was sponsored by Masicorp. The assistants of the computer literacy class were also once students of the class. The library manager states that they are now "clued-up enough" to be able to teach the class when the tutor is not there. They were taught by the tutor so now they are giving back what they learned to other people – an example of social capital building.

- *How do the users know about the ICTs?*

According to the DOI theory it is important that an innovation is visible. One of the questionnaire questions focused on the advertising and marketing of the libraries' ICTs. Most of the librarians mentioned that they have a SmartCape logo on the outside of their libraries. There were only a few scattered mentions of other ways to advertise their ICT services: noticeboards, flyers, local newspapers, social media, advertising inside the library, class visits and telling new members of the service. Two other innovative means were mentioned: Googlemaps and library bookmarks.
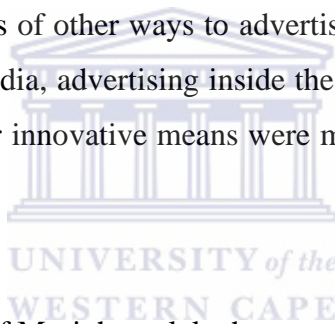
According to the library manager of Masiphumelele the users get to hear about their ICT services through word-of-mouth. The library also puts up posters in clinics and shops and the local newspapers. Through the interviews with the SmartCape users as well as the computer literacy class students the researcher found that most of the people heard about the classes and SmartCape through a family member or friend.

- *Why do the users adopt the technologies?*

Much like Masiphumelele the other public libraries also agree that the reason why most people come into the library is because the computer services that are offered there are free. A librarian who serves in a previously advantaged community said

> "*Users are from all age groups, all economic groups, many have own internet access, but still use SmartCape to save money*".

Most of the computer literacy class users come to Masiphumelele Library because there are no costs attached to them.

However, in Chapter 5 it was shown that they want to learn ICT skills because they believe they need them. They need to search for jobs and write good CVs. They believe that computer skills will get them better jobs. Other factors are desire for more knowledge and the wish to find information independently. In terms of DOI theory, they understand the advantages they will gain.

- ***What benefits does the use of ICTs possess for the users?***

This question can be looked in two angles, the benefits for the users and the benefits for the library. Because the library provides free access to the Internet the people in the community benefit from that offer. They are able to communicate with their relatives and friends using the internet through social networking and emails. A librarian said

> "*Free services attract patrons and children are eager to use internet or play games on the computer because these facilities are not available at home*".

Most of the users in Masiphumelele benefit from free access to the internet and computer services. They are able to search for jobs, type their CVs and go onto social networking sites for free. According to the library manager there are a few Internet cafés in and around Masiphumelele which you have to pay money for, but people prefer to come to the library because it is free and there are no costs involved especially if they want to learn computer literacy skills. One of the SmartCape users who also used the SmartCape for his job said:

> "*Well it's a tremendous benefit uhm... I did a whole court case using SmartCape*"

Another user said: "*"I benefit from it because it is free and I can make contact with my family and get information"*.

The ICTs are beneficial to the libraries because more people come into them. As the librarians say:

> *"Not all of these people are library borrowers, but they have come to know the library, because of the internet service"* and

> *"People queue up outside the library, daily to make use of free internet usage".*

One even admits that "*the way people use the library is far better before we had SmartCape*".

It seems that the empowerment divide, described by Nielsen, is narrowed as many people of the community make full use of the opportunities that the ICTs provide.

- ***What are the management issues related to ICTs in a public library?***

There are some management issues. Most of the librarians complained that there are not enough terminals for the users - to the point that people go back home without using the terminals, because of the long queues. The time limits they imposed were a problem as not enough time was allocated especially for beginner users.

The librarians also said the SmartCape PCs should have more frequent upgrades. Most complained about the hardware breakages and maintenance problems. One librarian said

> *"SmartCape (modum, e-boxes, Telkom line etc.) breaking down- users get upset when they come all the way just to find that SmartCape is not working once again"*

There were complaints about the city's IT helpdesk which has *"a different understanding of customer service, and is thus uncaring of the customer's expectations".*

Staff assistance was also an important issue that came up with regards to this research question. The librarians said that there were not enough staff members to assist. One said:

> *"We battle to find volunteers to help the users".*

The staff at Masiphumelele echo these complaints with regard to the SmartCape facilities. In her interview, the assistant librarian complained that some of the SmartCape computers were not working that day which made the queues for access long. She said in her interview:

> "*The computers like sometimes they switch off, most of the time and we have to report that. Maybe sometimes it takes a long time for the person to come to fix the computers, but they try by all means to come. They always say there are lots of clients so, or they can fix it on that side they have to switch it off and then they can try to put it on that side*".

She also complained about the fact that most SmartCape users queue more than once to use SmartCape although the time allocation is 45 minutes a day. Masiphumelele is fortunate as it has funding from EIFL PLIP and Masicorp for more computers with internet.

The library manager in Masiphumelele did not have much to say regarding issues with ICTs, except for the fact that there was more paperwork for her since they were granted funding from EIFL PLIP for the upstairs computer room upgrading.
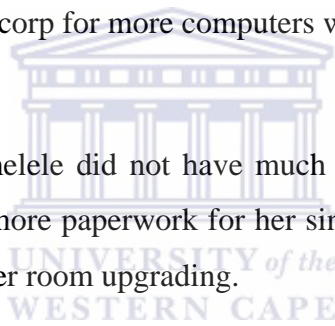
6.3 Limitations and significance of the study

It was pointed out in Chapter 1 that public libraries are used by only a small minority of South Africans. Their potential role in social inclusion and in the inclusive information society is undervalued according to the most recent draft of the LIS Transformation Charter (2009). The overall purpose of a case study is to see what lessons can be learned for the research problem. It was hoped that this small project could throw some light on how the "developmental" public library that the LIS Transformation Charter promotes could be achieved.

The study was limited to one library district in one South African city, and its findings might not be generalized to other contexts. However, as stated in Chapter 3, the value of case studies come from the "force of example" (Flyvbjerg 2006: 223). The District has a diverse mix of libraries.

Masiphumelele Library is in many ways an unusual library which is why it was interesting for the research problem.

6.4 Lessons from Masiphumelele Library

The researcher has learned the importance of partnerships from Masiphumelele Library. Masiphumelele Library is a library which is rich with partnerships, such as that with the NGO Edunova. The Library is implementing an extended internet access and youth centred ICT training services together with Edunova.

The outreach programmes that Masiphumelele Library hosts are usually presented by their partners and their team of volunteers. The staff of Masiphumelele Library share a vision of making the library as welcoming as possible to all the people of the community by providing over twenty outreach programmes for different groups of people.

Other libraries could also take lessons from the way Masiphumelele Library markets itself, making itself known for example by putting up posters in local clinics and shops.
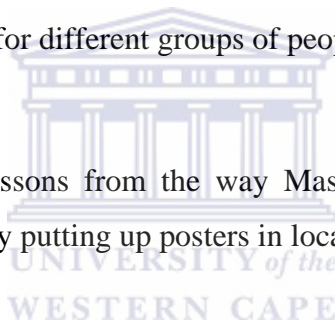
6.5 Recommendations and conclusions

Not only could other libraries take lessons from Masiphumelele, but the researcher in this section outlines some recommendations to the public library sector in terms of their role in bridging digital and other social divides. The following are the recommendations that this study suggests:

- Public libraries should consider having partnerships with NGOs and non-profit organizations in order to have a stronger support system.

- The value of volunteers is clear.

- The marketing of the library should be done in such a way that people from other areas know about the library. For example in Masiphumelele the white lawyer who was interviewed is not from the area, but he comes in to use their services as often as possible.

The library manager shared with the researcher that the white man has brought some of the children in his own area to Masiphumelele Library to use its ICT facilities.

- The libraries should have more outreach projects so that they can include more people of the community. Masiphumelele Library might for example try to bring in older people to the ICTs. But they would need to see the value, perhaps in accessing government and health information.

- Funding for public libraries is an important issue especially if the funder is not the City of Cape Town Municipality. Libraries could strive to get some funding from other organizations in order to be able to afford outreach projects such as computer literacy classes.

In terms of the important findings in Phase 1 librarians are positive about the role of libraries in the information society, but the focus of the study is the Digital Divide. Libraries have SmartCape, but the facilities are inadequate. There is shortage of staff, a lack of staff capacity and training of staff. There is no outreach in terms of letting people know about SmartCape and its benefits.

Other public libraries in the district as well as City of Cape Town as a whole can learn a great deal from the Masiphumelele library. Professor Jonathan Jansen (2012) says that Masiphumelele is one of the places where he has discovered the practice of social cohesion in the country. In one of his newspaper columns he says that the youth who go to Masiphumelele library:

> *"learned not only to do well in their academics, but to relate well to their white brothers and sisters who loved them and taught them despite the failings of the schools in the area".*

List of References

Aabo, S. 2009. Libraries and return on investment (ROI): a meta-analysis. *New library world*, 110(7/8): 311-324.

Alexander, S. 2012. *EIFL: knowledge without boundaries*. [Report on visit to EIFL meeting] Unpublished document.

Alexander, S. 2012. Personal communication.(14 July 2012).

Annual Report of the Divisional Council of the Cape. 2013. *Fish Hoek Valley*. In Wikipedia: Fish Hoek Valley. [Online]. Available at: http://en.wikipedia.org/wiki/Fish_Hoek_Valley

Australian Library and Information Association. 2011. ALIA Internet access in Public Libraries survey. 2011. [Online] Available athttp://www.alia.org.au/sites/default/files/documents/advocacy/Internet.Access.Survey.2011.pdf Accessed 5 November 2013.

Becker, S.; Crandall, M. D.; Fisher, K. E.; Kinney, B.; Landry, C.& Rocha, A.2010. *Opportunity for all: How the American public benefits from Internet access at U.S. libraries*. Washington, DC: Institute of Museum and Library Services.

Bertot, J.C.; McClure, C.R. & Jaeger, P.T. 2008. Public libraries and the internet 2007: Issues, implications and expectations. *Library and Information Science Research*, 30: 175-184.

Bertot, J. C.; Jaeger, P.T.; McClure, C. R.; Wright, C. B.& Jensen, E. 2009. Public libraries and the Internet 2008-2009: issues, implications and challenges.   *First Monday,* 14 (11) 2 November. [Online] Available at:http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2700/2351Accessed 18 February 2010.

Braun, V. and Clarke, V. 2006.Using thematic analysis in psychology.*Qualitative research in psychology*, 3(2):77-101

Bray, R.; Goosen, I.; Kahn, L.; Moses, S.&Seekings, J. 2010. *Growing up in the new South Africa: Childhood and adolescence in post-apartheid Cape Town*, Cape Town: HSRC Press

Bridges.org. 2006. *Images of the Digital Divide*. [Online] Available at: http://www.bridges.org/RA_images Accessed 18 February 2010.

Britz, J.J. 2004. To know or not to know: a moral reflection on information poverty. *Journal of Information Science*, 30 (3): 192-204.

Britz, J. J. & Blignaut, J. N. 2001. Information poverty and social justice. *South African journal of libraries and information science,* 67(2): 63-69.

Butler, A. 2004. *Contemporary South Africa.* Basingstoke: Palgrave Macmillan.

Charity SA. 2012. *Edunova.*[Online]. Available at: http://www.charitysa.co.za/edunova.html Accessed 30 October 2012.

Chigona, W.& Licker, P. 2008. Using Diffusion of Innovations framework to explain communal computing facilities adoption among the urban poor. *Information technologies and international development.* 4(3): 57-73.

Chisenga, J. 2004. *The use of ICTs in African public libraries: A survey of ten countries in Anglophone Africa*. Oxford: INASP.

City of Cape Town. 2013. *City of Cape Town- 2011 Census Suburb Masiphumelele*. [Online]. Available at: http://www.capetown.gov.za/en/stats/2011CensusSuburbs/2011_Census_CT_Suburb_Masiphumelele_Profile.pdf Accessed 13 September 2013.

Creswell, J.W. 1994. *Research design: qualitative and quantitative methods*. Thousand Oaks: SAGE.

Creswell, J.W. 2007. *Qualitative inquiry & research design.* 2nd ed. Thousand Oaks: SAGE.

Digital divide. 2004. [Online]. Available at: http://www-cs-faculty.stanford.edu/~eroberts/cs201/projects/digital-divide/start.html. Accessed 24 September 2011.

Donner, J., Gitau, S. & Marsden, G. 2011. Exploring mobile only internet use: results of a training study in urban South Africa. *International journal of communication*, 5(2011):574-597.

EIFL. 2012.*Enabling access to knowledge in developing and transition countries*. [Online] Available at: http://www.eifl.net/home. Accessed 27 September 2012.

Fishhoek.com. 2006.*Masiphumelele*. [Online]. Available at: http://www.fishhoek.comm/Masiphumelele.html Accessed 1 March 2011.

Flyvbjerg, B. 2006. Five misunderstandings about case-study research. *Qualitative inquiry*, 12(2): 219-245.

Gomez, R.& Gould, E. 2010. The "cool factor" of public access to ICT: Users' perceptions of trust in libraries, telecentres and cybercafés in developing countries. *Information technology & people,* 23(3): 247-264.

Hart, G. 2006. The information literacy education readiness of public libraries in Mpumalanga Province (South Africa). *Libri*, 56(1): 48-62.

Hart, G. 2007. Social capital: a fresh vision for public libraries in South Africa? *South African journal of libraries and information science*, 73(1): 14-24.

Hendry, J.D. 2000.Social inclusion and the information poor. *Library review,* 49(7): 331-336

IFLA/UNESCO. 2001. *The public library service: IFLA/UNESCO guidelines for development*. Munchen: IFLA Publications, 97.

Ikamva Youth. 2010. The future is in our hands: South Africa. [Online]. Available at: http://ikamvayouth.org .

International Telecommunication Union. 2012. *Measuring the information society 2012*. Geneva: ITU. [Online]. Available at: icttindicatorportal.icasa.org.za/Portal/docs/measuring_the_information_society.pdf. Accessed 8 November 2013.

Internet World Stats. 2012. *Internet World Stats: Usage and population statistics*. [Online]. Available at: http://www.internetworldstats.com/af/za.htm Accessed 20 September 2013.

Jansen, J. 2012. Politicians must stay out of it. *Times Live, 12 July.* [Online.]Available at: http://www.timeslive.co.za/opinion/columnists/2012/07/12/politicians-must-stay-out-of-it. Accessed September 2012.

Kaniki, A. 2008. Libraries and information service in facilitating knowledge production and management for the Millennium Development Goals. In Njobvu, B &Koopman, S. Eds. *Libraries and information services towards the attainment of the UN Millennium Development Goals.* München: K G Saur: 15-27.

Kennan, M. A.; Lloyd, A.; Qayyum, A. & Thompson, K. 2011. Settling in: The relationship between information and social inclusion. *Australian academic & research libraries,* 42(3): 191-210.

Kinney, B.   2010. The Internet, public libraries, and the digital divide**.** *Public library quarterly,*29 (2): 104-161.

Knight Commission on the Information Needs of Communities in a Democracy. 2009. *Informing communities: Sustaining democracy in the digital age.* Queenstown MD: Aspen Institute

Leedy, P.D. & Ormrod, J.E. 2001.*Practical research: planning and design*. Upper Saddle River: Pearson Education International.

The Library Council of New South Wales. 2009. Enriching communities: the value of public libraries in New South Wales. *Aplis,* 22(1): 6-12.

Living   Hope.   2010.   *Masiphumelele*.   [Online].   Available   at: http://livinghope.co.za/masiphumelele.html Accessed 1 March 2011.

Lloyd, A.,Lipu, S., & Kennan, M. A. 2010. On becoming citizens: Examining social inclusion from an information perspective. *Australian academic &research libraries*, 41(1): 42-53.

Lor,   P.J.   2003.*National   libraries   and   the   digital   divide*.   [Online].   Available   at: http://cdnl.info/2003/09digdiv.pdf Accessed 4 March 2009.

Masicorp. 2012a. *Masiphumelele Library and Learning Resource Centre (LRC).* [Online]. Available at: http://www.masicorp.org/MasiLibrary.htm Accessed 20 September 2012.

Masicorp. 2012b. *Masicorp: partners in education and enterprise*. [Online]. Available at: www.masicorp.org. Accessed 20 September 2012.

Masicorp.2012c. *Life in Masiphumelele*. [Online]. Available at: http://www.masicorp.org/MasiTown.htm Accessed 6 June 2012.

McMenemy, D & Burton, P.F. 2005. *Managing access: legal and policy issues of ICT use.* [Online]. Available at: http://facetpublishing.co.k./downloads/file/sample_chapters/chapter2managingaccess.pdf

Minishi-Majanja, M.K. &Kiplang'at, J. 2005.The diffusion of innovations theory as a theoretical framework in Library and Information Science research. *South African journal of libraries and information science,* 71 (3):211-224

Moe, T. 2004. Bridging the digital divide in Colorado Libraries. Survey results from the Colorado Public Libraries and the Digital Divide 2002 study. *Public Libraries*, July/August: 1-10

Mphidi, H. 2004. *Digital divide or digital exclusion? The role of libraries in bridging the digital divide*. 1-11.[Online]. Available at: http://www.comminit.com/en/node/185694 Accessed 4 March 2009.

National Planning Commission. 2012. *National development plan2030*. Pretoria: The Presidency, Republic of South Africa.

Nielsen, J. 2006. *Digital divide: the three stages*. [Online]. Available at: http://www.useit.com/alertbox/digital-divide.html. Accessed 10 February 2010.

Nkondo, M. et.al. 2009. *The Library and Information Services (LIS) Transformation Charter*. [Online]. Available at: http://www.nlsa.ac.za/downloads/LIS%20Transformation%20Charter.pdf Accessed 20 July 2010.

Pateman, J. 2008. Public libraries and the digital divide. *Information for social change,* 26: 52-55.

Shuva, N.Z. 2005. Implementing information and communication technology in public libraries of Bangladesh.*The international information & library review*, 37:159-168

Sithole, N. 2012.Personal communication.18 October.

Smart Cape.2010. [Online].Available at: http://www.smartcape.org.za/about.html. Accessed 20 June 2011.

State Library of Victoria. 2012. *Internet and PC usage in Victorian public libraries: technical report.* Melbourne: State Library of Victoria.

Sturges, P. 2002. *Public internet access in libraries and information services.* London: Facet.

Terre Blanche, M.J., Durrheim, K.& Painter, D. 2006.*Research in practice: applied methods for the social sciences*. 2nd ed. Cape Town: University of Cape Town Press.

Tise, A. 2009. *Access to knowledge through libraries: information services and information literacy today*. Stellenbosch: Stellenbosch University: 1-9.

Tlabela, K.,Roodt, J., Paterson, A. & Weir-Smith, G. 2007.*Mapping ICT access in South Africa*. Cape Town: HSRC Press.

UN Department of Public Information. 2010. *The Millennium Development Goals*. [Online]. Available   at: http://www.un.org/en/mdg/summit2010/pdf/List%20of%20MDGs%20English.pdf Accessed 27 October 2013.

University of Cape Town. Development Policy Research Unit.   2010. *Income and non-income inequality in post-apartheid South Africa: what are the drivers and possible policy interventions*.   Cape Town: University of Cape Town.

Van Dijk, Jan A.G.M. 2005. *The deepening divide: inequality in the information society.* Thousand Oaks: Sage.

Vinson, T. 2009. *Social inclusion: the origins, meaning, definition and economic implications of the concept social inclusion/exclusion*. Canberra: Commonwealth of Australia.

Weiss, R. 2012. *Libraries and the digital divide*. New York: St John's University.

Were, J. 2006. *Libraries as ICT and information access points in Africa: success cases and best practices*. Nairobi: University of Nairobi

Wilhelm, A G. 2004. *Digital nation: towards an inclusive information society*. Cambridge, Mass: MIT Press.

World Wide Worx. 2012. Internet access in South Africa 2012. Executive summary.   2013. [Online]. Available at: http://www.worldwideworx.com/wp-content/uploads/2012/12/Exec-Summary-Internet-Access-in-SA-2012.pdf Accessed 8 November 2013.

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Appendix A

UNIVERSITY *of the* WESTERN CAPE
DEPARTMENT OF RESEARCH DEVELOPMENT

UWC RESEARCH PROJECT REGISTRATION AND ETHICS CLEARANCE APPLICATION FORM

This application will be considered by UWC Faculty Board Research and Ethics Committees, then by the UWC Senate Research Committee, which may also consult outsiders on ethics questions, or consult the UWC ethics subcommittees, before registration of the project and clearance of the ethics. No project should proceed before project registration and ethical clearance has been granted.

A. PARTICULARS OF INDIVIDUAL APPLICANT		
NAME: Patricia Mponeng Khati Ms		TITLE:
DEPARTMENT: Library & Information Science		FACULTY: Arts
FIELD OF STUDY: M. BIBL		

ARE YOU:				
A member of UWC academic staff?	Yes	☐	No	☐
A member of UWC support staff?	Yes	☐	No	☐
A registered UWC student?	Yes	☒	No	☐
From outside UWC, wishing to research at or with UWC?	Yes	☐	No	☐

B. PARTICULARS OF PROJECT

PROJECT NUMBER: TO BE ALLOCATED BY SENATE RESEARCH COMMITTEE:

EXPECTED COMPLETION DATE: 2011

PROJECT TITLE: The role of public libraries in bridging the digital divide: a Cape Town case

THREE KEY WORDS DESCRIBING PROJECT:
Digital Divide, Public libraries, ICT (information Communication Technology)

PURPOSE OF THE PROJECT: Masters degree requirement.

M-DEGREE: M. BIBL   D-DEGREE:

POST GRADUATE RESEARCH:

1

C. PARTICULARS REGARDING PARTICULAR RESEARCHERS

	FAMILY NAME:	INITIALS:	TITLE:
PRINCIPAL RESEARCHER:	Khati	P M	Miss
OTHER RESEARCH PROJECT LEADERS:			
OTHER CO-RESEARCHERS:			
THESIS: STUDENT RESEARCHER:	Khati	PM	Miss
THESIS: SUPERVISOR:	Hart	G	Prof.

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WESTERN CAPE

C. GENERAL INFORMATION

STUDY LEAVE TO BE TAKEN DURING PROECT (days):

IS IT INTENDED THAT THE OUTCOME WILL BE SUBMITTED FOR PEER REVIEWED PUBLICATION?
YES ☐   NO ☒

2

COMMENTS: DEPARTMENTAL CHAIRPERSON:

SIGNATURE OF THESIS STUDENT RESEARCHER – WHERE APPROPRIATE:

DATE 13-09-2010

SIGNATURE OF THESIS SUPERVISOR – WHERE APPROPRIATE:

DATE

SIGNATURE OF PRINCIPAL RESEARCHER – WHERE APROPRIATE:

DATE:

SIGNATURE OF DEPARTMENTAL CHAIRPERSON:

DATE:

NOTE: THESE SIGNATURES IMPLY AN UNDERTAKING *BY THE RESEARCHERS*, TO CONDUCT THE RESEARCH ETHICALLY, AND AN UNDERTAKING BY THE THESIS SUPERVISOR (WHERE APPROPRIATE), AND THE DEPARTMENTAL CHAIRPERSON, TO MAINTAIN A RESPONSIBLE OVERSIGHT OVER THE ETHICAL CONDUCT OF THE RESEARCH.

E.   DESCRIPTION OF PROJECT AND RESEARCH ETHICS STATEMENT

Abstract

This research project will look at the role of public libraries in bridging the digital divide which is both a symptom and a cause of social exclusion. Public libraries offer free information services to ordinary citizens by means a wide range of media, including the Internet. But they offer more than just access as their information literacy programmes educate people in the use of the various media. Across the world there are many initiatives employed by public libraries to help bridge the digital divide. The purpose of the proposed project is to investigate if and how libraries in Cape Town are taking on this responsibility. The project will have two parts: a survey of one district of the city's libraries and a closer case study of one selected library in the district.

Ethics Statement

At all times the researcher will adhere to the rules of the Research Committee of the University of the Western Cape. The rights of the participants to remain anonymous will be respected at all times and confidentiality will be maintained throughout the research project. Participants will be informed of the purpose of the study and that they have the right to withdraw from the research when they wish. The people interviewed at Masiphumulele will be asked to sign a consent form.

3

Please type below, or attach a typed document, usually between 500 and 5000 words, setting out the purpose and process of the research. Please include a clear research ethics statement. The onus is on the applicant to persuade UWC that the research will be conducted ethically. This will normally require evidence of an up to date research ethics literature search in the particular discipline; evidence of what the world standard ethical practice is, in the particular discipline; an explanation of how the proposed research is to be conducted ethically; a detailed justification of any proposed departure from world standard ethical practice; and a clear undertaking to conduct the research ethically. It may be useful also to agree to conduct the research in line with the published ethical rules of a national or international disciplinary association. UWC reserves the right to stop or suspend any research undertaken by its staff or students, or by outsiders on its property or in association with it, if the research appears to be unethical.

Appendix B

Private Bag X17, Bellville 7535, Cape Town, South Africa

Telephone :(021) 481 3898 Fax: (021) 481 3993

E-mail: 2548233@uwc.ac.za

M.BIBL

Letter of Consent

I……………………., have had the opportunity to ask any questions related to this study, and received satisfactory answers to my questions, and any additional details I wanted.

I agree to take part in this research.

I understand that my participation in this study is voluntary. I am free not to participate and have the right to withdraw from the study at any time, without having to explain myself.

I am aware that this interview might result in research which may be published, but my name may **be/not** be used. (Circle appropriate).

I understand that if I don't want my name to be used that this will be ensured by the researcher.

I may also refuse to answer any questions that I don't want to answer.

 Date: _____

Participant Name: _____

Participant Signature: _____

Interviewer Name: Patricia Khati _____

Interviewer Signature: _____

If you have any questions concerning this research, feel free to call Patricia Khati at +27785759615 or my supervisor, Prof. Genevieve Hart at +27727481263

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UNIVERSITY *of the*
WESTERN CAPE

Appendix C

UNIVERSITY OF THE WESTERN CAPE
DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

PUBLIC LIBRARIES AND THE DIGITAL DIVIDE
MBIBL (INFORMATION STUDIES)

This MBibl (Information Studies) project is part of a case study of the role of public libraries in social cohesion and social capital. The focus of this questionnaire is how your libraries might be helping to bridge the so-called "digital divide" through their provision of access to ICTs. It asks you to name your library since the community you serve is pertinent to the research problem. But your library's name will not be used in the dissertation or any subsequent report.

1. Please name your library

2. Do you think that your library does play a role in bringing people into the *information society*? Please explain your answer and comment freely.

3. What ICT facilities do you have *for the public*? Please tick what applies in the following list & provide the numbers of each

			How many?
1	SmartCape work stations		
2	PCs with Internet (in addition to SmartCape)		
3	Dedicated OPACs (library catalogues)		
4	Printing facilities		
5	Faxing facilities		
6	Photocopiers		
7	E-book readers		
8	Other? Please specify		

4. Do you have your *own* web site / blog / wiki / facebook page? (apart from the City of Cape Town Library's web site)

1	Yes	
2	No	

5. How do you advertise your ICT facilities to the community? Tick as many as apply

1	A SmartCape logo outside the library	
2	Our public ICT facilities are listed on a noticeboard outside the library	
3	In community newspapers	
4	In flyers at community centres etc	
5	Through the social media (e.g. Facebook)	
6	Others? Please specify	

6. Do you have any people available specifically to support the users of SmartCape & other computer facilities?

1	Yes	
2	No	

7. If you answered yes to Question 5, please give more information on the support staff by ticking the appropriate box.

1	We all take turns	
2	One (or two) of the library staff members takes special responsibility	
3	We have somebody not on the library staff who is paid to do this (even if only a "stipend")	
4	We have community volunteers who come in	
5	Other? Please specify	

8. Apart from one-to-one support, do you have any educational programmes to teach people ICT skills?

1	Yes	
2	No	

9. If you answered yes to Question 8, please tick what applies in the following list.

1	Computer literacy classes	
2	Internet searching classes	
3	Other? Please specify	

10. Please comment on your chief challenges in managing the ICT facilities in your library.

Thank you! Contact Patricia Khati for more information Email: patricia.khati@gmail.com

Appendix D

UNIVERSITY OF THE WESTERN CAPE

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

PUBLIC LIBRARIES AND THE DIGITAL DIVIDE

MBIBL (INFORMATION STUDIES)

Interview protocol for assistant librarian

1. Who looks after SmartCape?

2. Which problems do you usually encounter regarding SmartCape?

3. What is the policy of SmartCape in terms of social media and games?

4. How do you manage when SmartCape is full? How much time do you give each user?

5. If a person wants to do other work like typing or printing, are there other computers they can work from besides the SmartCape computers?

Appendix E

UNIVERSITY OF THE WESTERN CAPE

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

PUBLIC LIBRARIES AND THE DIGITAL DIVIDE

MBIBL (INFORMATION STUDIES)

Interview protocol for computer literacy tutor

1. Do you get any feedback from students who attend the class?

2. What kind of feedback is it?

3. What in your opinion are the benefits of attending this class?

4. Who attends this class?

5. Do you this room only for computer literacy classes or can someone just come in and use it?

6. Is there anything else you can tell me about the class?

Appendix F

UNIVERSITY OF THE WESTERN CAPE

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

PUBLIC LIBRARIES AND THE DIGITAL DIVIDE

MBIBL (INFORMATION STUDIES)

Interview protocol for Computer literacy class students

1. Why do you attend the computer literacy classes?

2. How did you hear of the classes?

3. How often do you come?

4. Have you attended computer literacy classes anywhere else before?

5. If yes, how did it differ from this one?

6. How has this class helped you with your computer skills?

7. How have you used the things you have learned in the computer literacy class in the library in your life?

Thank You!!!

UNIVERSITY OF THE WESTERN CAPE

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

PUBLIC LIBRARIES AND THE DIGITAL DIVIDE

MBIBL (INFORMATION STUDIES)

1. How do you think do ICTs contribute to social inclusion and justice in South Africa?

2. What are the public ICT centres in Masiphumulele? How do your ICT programmes compare with them?

3. What are the ICT programmes at Masi Library? Who runs them?

4. What is included in the computer literacy programmes? (for CL teacher)

5. How does Masi Library bridge social divides with its ICT programmes?

6. What benefits do you see the users of your ICT programmes gaining? Have you specific examples?

7. How many people do you estimate come in the week to make use of your ICT programmes? Who are the main users of your ICT programmes?

8. Are the ICT programmes a major draw to your library? Are there people who come to the Library just for the ICTs?

9. How do they know about the ICT programmes?

10. What are the chief challenges the users of ICTs in your library experience?

11. What ongoing support do the users of ICT in your library get?

12. Masi, as a satellite library of Fish Hoek Library, has been in many ways a special case with its support from MasiCorps& other bodies. Now you are incorporated into the City LIS, how do you see the future? How will you ensure the sustainability of your ICT programmes?
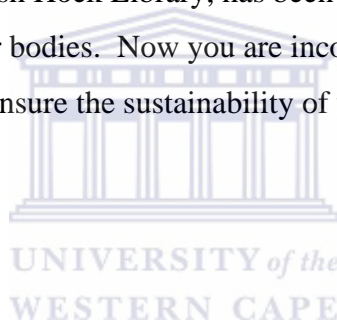
Appendix H

UNIVERSITY OF THE WESTERN CAPE

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

PUBLIC LIBRARIES AND THE DIGITAL DIVIDE

MBIBL (INFORMATION STUDIES)

Interview protocol for SmartCape users

2. Why do you come into Masiphumelele Public library?

3. How often do you come to the library?

4. Do you mostly come in to use SmartCape?

5. What do you use SmartCape in the library for? Please tick what applies in the following list

Emailing
Finding jobs
Updating CVs
Looking for information for school and university assignments
Facebook/twitter
Looking for health information
Coping information
Government websites (City of Cape Town)

To pay bills
Browsing the world wide web
Printing out documents
Other

6. Do you use the library for anything else other than ICTs?

Yes	No

7. If yes, for what else?

Borrow books
Classes (which one)
Study
Reading
Photocopy
Fax
Meet friends
Other

8. Do you have access to the Internet anywhere else except the library?

Yes	No

9. If yes, please say where else you use the Internet

10. Do you find SmartCape difficult to use sometimes?

11. What do you find difficult about using SmartCape?

12. Do you get help using SmartCape?
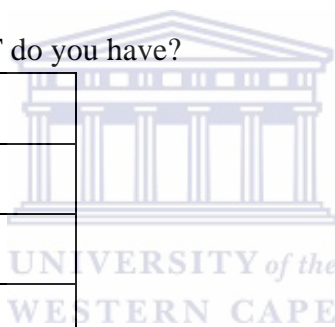
Yes	No

13. If yes, who helps you?

14. How did you know the library has SmartCape?

15. Of what benefit is SmartCape to you?

16. Which of the following ICT do you have?

Cellphone
Smartphone
PC at home
Internet access at home
Other.

17. If you have access to the internet at home or at work, why do you come to use SmartCape in the library?

Thank You!!!