The role of the Internet in alleviating social exclusion: The case of the Western Cape Province

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ABSTRACT

Information and Communication Technology (ICT) is perceived by many as a means of tackling the problem of social exclusion. This perspective has resulted in governments and donor agencies investing in the establishment of Internet access points (e.g. telecentres) in areas which are perceived to be socially excluded. Yet, beyond the belief of inherently beneficial ICTs, there has been little empirical work done to evaluate the impact of ICTs, notably the Internet, in addressing social exclusion. In this paper, we report on a study investigating whether the Internet contributes to alleviating social exclusion in developing countries. The cross-sectional study uses a qualitative research approach on four communities with government-funded Internet access points in the Western Cape Province, South Africa. The major finding of the paper is that the Internet plays a minimal role in alleviating social exclusion, and only a few members of the communities stand to benefit. The Internet on its own is not sufficient to address the problems of social exclusion; there are necessary preconditions which should be in place for the Internet to have an impact.

KEYWORDS: Social exclusion, telecentre, Internet, South Africa

1 INTRODUCTION

A community is said to be socially excluded if it does not enjoy or participate in the activities which are deemed normal amongst the citizens of the society in which the community is located [1]. The activities could be social, economic or political. Many believe that social exclusion culminates in many social ills such as crime, substance abuse and violence [2] [3], hence the need to address social exclusion. Many developing countries perceive Information and Communication Technology (ICT) as a means for tackling the problem of social exclusion. This perception has often resulted in governments and donor agencies investing in establishing Internet access points (e.g. telecentres) in communities which are perceived to be socially excluded. However, beyond the belief of inherently beneficial ICTs, there has been little empirical work done to evaluate the impact of ICTs, notably the Internet, in addressing social exclusion [1]. In addition, there is no empirical evidence on the relative benefits of investment in ICT infrastructure compared to investing in other social services such as education, health, roads and dams [4].

The role of ICTs in alleviating poverty and social exclusion remains contested. Marshall, Taylor and Yu [5] have argued that, in their Kenyan study, it was difficult to establish any significant causal links between some ICTs on the one hand and improving excluded people's lives on the other. Cisler [6] concurs with this observation; he disputes the assumed necessity for everyone to have ICT access by pointing out that millions of people are living happy and fulfilled lives without access to the Internet. The difficulty in showing the inherently beneficial link of ICTs has, however, not deterred governments from implementing ICTs to combat, amongst other things, social exclusion and poverty [2]. The claim to inherently beneficial ICTs needs further exploration to make sure that ICTs do not become a political distraction to real social issues such as poor education and health services [7].

This study builds on the work of Foley [8] who investigated whether there was any value in government policy that introduced ICTs, primarily the Internet, to address social exclusion in the United Kingdom (UK). Using Foleys study as a basis, this paper investigates possible impacts of the Internet towards reducing social exclusion in rural and semi-rural communities in developing countries. Data for the study was collected from four communities in the Western Cape Province, South Africa. All the communities in the study had the characteristics of socially excluded communities, and they all had government-sponsored Internet access points. The research findings are particularly relevant to many developing countries which continue to deploy Internet access points for excluded communities as a tool for addressing the problem of social exclusion.

The rest of this paper is structured as follows: Section 2 discusses work related to our study- the concepts of social exclusion and digital divide are discussed. Section 3 discusses the theoretical framework used in the study. The research methodology for the

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study is presented in Section 4 while the results are presented in Section 5. The results are discussed in Section 6, while Section 7 concludes the paper.

2 BACKGROUND: SOCIAL EXCLUSION AND DIGITAL DIVIDE

2.1 Conceptualisation of Social Exclusion

The term 'social exclusion' is relatively new in the English language [9]. Its usage has recently increased since it has been the centre of debate in the new European governments' 'socially inclusive' agenda [1]. The term refers to the situation where some segments of the society are not capable of consuming services which are deemed normal for the rest of the community [1], [10]. Byrne [9] posits that exclusion refers to the changes in society that affect only some of the people in that society through an ongoing process rather than in a timeless state. Social exclusion is therefore seen as the opposite of social cohesion, i.e. the state of equality in a community. In most cases exclusion is a result of systematic discrimination, for example based on gender, race, nationality or disability [11].

Some, for example Byrne [9], and Foley and Alfonso [12], see the usage of the term *social exclusion* as a departure from the depiction of the poor as the 'underclass' in a post industrial society — it is this contention that the 'underclass' depiction of the poor portrays their condition as self-induced. Atkinson [13] points out that social exclusion was previously called *new poverty*. It should be noted, however, that exclusion is not limited to economic poverty. People may be excluded for other reasons besides poverty. It is important to see social exclusion beyond the simpler notion of poverty. As Walker and Walker [14] argue, there is a distinction between poverty and social exclusion:

> *...poverty as a lack of the material resources, especially income, necessary to participate in British society, and social exclusion as a more comprehensive formulation which refers to the dynamic process of being shut out, fully or partially, from any of the social, economic, political or cultural systems which determine the social integration of a person in society.*

The concept of social exclusion overlaps with the concept of social economic inequality but the two are not synonymous [15]. Social exclusion deals with barriers to social participation [3]. It is possible for an individual who is not economically well off to enjoy (i.e. be included in) services which are available for most of the citizens, just as it is also possible for a well-to-do individual to fail to enjoy services, e.g. due to gender, racial or religious segregations.

Social exclusion can be categorised into three groups: economic exclusion, political exclusion and social activity exclusion. Some of the symptoms of economic exclusion may include unemployment, loss of income and loss of bargaining power. A community is said to be politically excluded when it cannot participate in the political process that affects the members, e.g. being excluded from voicing their concerns to political leaders or the government or from voting. The social aspects of exclusion deal with the inability to maintain social contact with others and to participate in a wide range of social services [2].

Economic Exclusion	• Inability to engage in an economically and socially valued activity. • The inability to accumulate monetary savings. • The inability to consume services deemed normal in society.	The role of the Internet
Political	• The inability to be involved in a collective effort to improve and safeguard one's social environment.	
Exclusion from social networks	• The inability to have significant social engagements with friends and family.	

Table 1: Sampling Plan for Qualitative Data

Selwyn [1] developed a framework of what constitutes social inclusion; i.e. the opposite of what defines social exclusion. It can be argued that those who are not capable of enjoying most of these benefits are socially excluded. Selwyns [1] five elements of social inclusion are:

- Production activity — engaging in an economically and socially valued activity.
- Savings activity — the ability to accumulate monetary savings.
- Consumption activity — the ability to consume services deemed to be normal in society.
- Political activity — involvement in a collective effort to improve and safeguard one?s social environment.
- Social activity — significant social engagement with friends and family.

Selwyns list is congruent with the three dimensions of exclusion; the production, savings and consumptions activities can be categorised as economic exclusion (see first two columns of Table 2.1).

Approaches attempting to address social exclusion have often been multi-faceted — a combination of education, training, and social schemes with the underpinning aim of helping people enter the labour market [3]. The question for our study is whether the Internet can help communities overcome the factors which prevent them from being included in the mainstream society (refer to Table 2.1).

2.2 Digital divide and social exclusion

In understanding the role ICTs may play in improving life-chances for the socially excluded, it is necessary to delve into the digital divide debate [16], [10], in order to understand what having access to ICTs actually means, and to establish whether ICTs are inherently beneficial and desirable [1].

While it is "somewhat complex to define the term *digital divide* Geach [17] (citing Rogers 2006), states that the problem which it encompasses is easy to pinpoint, namely *the gap between those with access to [ICT] and those without* [17]. There has been an interesting argument between the social exclusion discourse and the discourse that identified many potential benefits of ICTs [2]. The view of ICTs as a solution to social exclusion was evident even with the *dot.com boom*, with a growing belief that ICTs could be used to solve some of the world's problems around inequality [1]. The emergence of the 'digital divide' discourse also fuelled the linking of ICTs to social exclusion alleviation initiatives. The digital divide discourse ventured that those who did not have access to ICTs would be left behind, and would not enjoy the benefits of the new information age [16]. To illustrate the zeal with which the 'digital divide' was being targeted as an impediment to social participation and development, Foley and Alfonso [12] identified more than one hundred and twenty-two ICT projects in thirty-six developing countries. The Internet was by far the most popular ICT in developmental projects with one hundred and fourteen identified initiatives for social inclusion.

However, the original definition of the term 'digital divide' has been criticised as:

- being techno-centric,
- over-emphasising the presence of computers and connectivity, and
- ignoring issues which may have an even greater impact on use such as literacy, language, education and resources [18], [16].

The original definition does not go beyond the notion of having physical access, thereby equating physical access to usage and therefore the impact of usage on the technology [19], [20], [21], [16]. The effective use/benefit from ICT is a result of four types of resources: physical, digital, human and social [15]. Physical resources entail access to the computer and the Internet. Digital resources refer to the material available online for the community. Human resources deal with the cognitive skills that an individual possesses (e.g. training and literacy). Social resources refer to the community and institutional structures that support access to the technology. Foley [8] agrees that providing the physical infrastructure does not necessarily lead to usage and impact of the technology. He posits that this may rather take four steps of awareness of the technology: actual access to the technology, acquisition of skills and training, and actual use then impact — with the latter linking back to awareness (See Figure 2.2).

Another criticism of the current digital divide debate is its implicit notion of a binary division of haves and have-nots. Bearing in mind that providing access does not lead to usage, the notion that digital divide is binary cannot be true. Rather, it should be acknowledged that there are different scales based on different degrees of access and use [6], [1]. Murdock [22] maps three classes of ICT users, a departure from the binary definition in the 'digital divide'. The classes are:

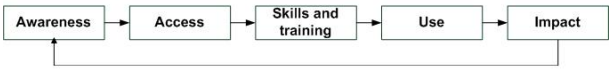

Figure 1: ICT Adoption Framework for Socially Excluded People (source: Foley 2004)

Core Users who display comprehensive and continuous use of ICT for information, communication and production of materials.

Peripheral Users who display limited and sporadic use of ICT for information, communication and production of materials.

Excluded Users who display non-existent use of ICT for information, communication and production of materials.

There are a number of examples where ICTs have been used to empower and emancipate societies [23], [19], [24]. The common channel used by the donor community and government to provide ICT access for the disadvantaged communities is community-based access points such as telecentres [25].

Despite the efforts to provide ICT access to disadvantaged communities, it remains arguable whether there are any benefits in providing ICT access to poor or socially excluded groups [5]. This is more questionable given that millions of people are living fulfilled lives without access to and use of the Internet and other ICTs [6]. Trauth and Howcroft [10] also question whether the resources spent on ICTs in 'left out' communities would not be better spent on building infrastructures such as roads, sanitation and clean water. Compaine [26] even argues that in the broader context the 'digital divide' is not worth the economic (and political) resources dedicated to it. Gurstein [19] points out, however, that the scepticism around the euphoria of anticipated ICT benefits should be blamed on poor management rather than on any faults inherent in the technology.

2.3 Theoretical Framework

The theoretical framework for the study was constructed by combining the three constructs of social inclusion namely economic, political and social networks [2] with the constructs from the social inclusion model [1]. The combination provides us with

the three aspects of social exclusion and their subcategories. The question we are addressing in this study is whether the Internet can be used to address these aspects of social exclusion. The question is summarised in Table 2.1.

We acknowledge that the question of usage and impact of the Internet is not binary, but rather a different scale of access/usage. Our study, therefore, also sought to identify factors which affect the usage of the Internet in what are perceived as socially excluded communities. We achieved this by using an adoption framework [8] which chronologically considers issues of awareness, access, skills and training, use and impact (see Figure 2.2).

3 CONTEXT: SOCIAL EXCLUSION IN SOUTH AFRICA

Like most emerging economies, South Africa has high economic inequalities and poverty [27], [28]. Due to the legacy of apartheid system of government, the inequalities in South Africa are mainly drawn on racial lines. The extent of the inequality is exemplified by the 2002 speech of the then Deputy President Thabo Mbeki when he spoke of the country having two economies. The first economy, predominantly comprised of the white population, is experiencing economic growth and has living standards comparable to those in developing countries. The second economy (predominantly black and Coloured), on the other hand, is mainly characterised by informal businesses and extreme poverty. Most of the socially excluded people are part of the second economy.

Inequalities are also evident amongst the countrys nine provinces. The Western Cape and Gauteng are, on many accounts, better off than the other provinces. For example, while the national average for households with telephone communication is 23.6

The South African government has implemented ICT initiatives to *bridge the divide* — including the establishment of the Universal Service Agency [20]. (This organisation has since changed its name to USAASA — Universal Services and Access Agency of South Africa.) The countrys universal access policy drives indicate a leaning towards the belief that levels of access to ICTs are significantly correlated to community economic and social participation [29]. The South African regulatory framework of the late 1990s also focused on the accelerated need to decrease the divide and lessen the risk of being left behind in the information age [29]. The South African government has followed many other developing countries in securing grassroot access to ICTs through community access points and multi-purpose centres. Tlabela, Roodt and Paterson [30] illustrated that the deployment of the centres, through various legislative frameworks, targeted population groups that were geographically isolated, had low income levels and poor opportunities.

Most of the initiatives used in this study are part of the Cape Access Project, one of the major government-funded ICT initiatives in the Western Cape Province. The Cape Access Project, a Provincial Government of the Western Cape (PGWC) initiative, aims at providing the residents of the province (especially those in the rural areas) *with access to technology and benefits that can be derived from it* [31]. The project aims at providing technological infrastructure to allow the public to interact with government and businesses. The areas where the centres were located are categorised into urban, rural and deep rural. The centres operate from Multipurpose Community Centers, libraries and schools [32].

Despite the extensive measures, coordinated ICT implementation in South Africa has not been optimised due to, inter-alia, largely dysfunctional ICT centres failing to draw substantial usage [32], [20].

4 RESEARCH METHODOLOGY

The study followed the interpretive philosophy in that it sought an understanding of the deeper meaning of complex issues and of how people make sense of their own realities [7]. The study was explanatory as it attempted to uncover a relationship between social exclusion and Internet access and use, and any other perceived benefits to socially excluded groups not revealed in the literature. Following this, a qualitative approach was chosen to unravel complex social phenomena and to acquire deeper meanings and insights from participant observation and participation. This helped uncover participants' feelings and experiences which added depth to the study.

4.1 Sample Selection

The sample was drawn from areas which are currently serviced by the Cape Access Project. We used judgemental sampling when selecting the communities in that the sample was representative of rural and semi-rural areas of the Western Cape and, according to [33], all these areas had high levels of deprivation. The communities which were selected were: George, Oudtshoorn, Struisbaai and Bitterfontein (in the Matzikama municipality). Table 4.1 provides an overview description of the communities and their mode of Internet access.

Data was collected from users of all levels (i.e. core, peripheral and excluded) of the centres. The sample was limited to a maximum of five participants per centre. The managers of each access point were interviewed to compare their perceptions with those of the communities served. To get the government perspective on why the access centres were developed, the programme administrator for the Cape Access Project was also interviewed. Most of the core and peripheral users were interviewed at the centres. However, since the excluded users (non-users) were not likely to be found at the centres, we interviewed them at their respective homes. Our sample was limited to houses which were close to the respective centres.

George (Cornville and Tembalethu townships)	Public access terminals in a school and a multi-purpose centre	Peri-urban to semi-rural setting 400 km east of Cape Town
Struisbaai	Public access terminals in a library	Semi-rural setting 250 km east of Cape Town
Bitterfontein	Internet centre	385 km north of Cape Town — representing a rural setting
Oudtshoorn (Bongolethu Township)	Internet centre in a library	Peri-urban setting 400 km east of Cape Town

Table 2: Summary of overview information about the sample communities

4.2 Data collection

Interviews, questionnaires and field notes were used to collect data. Secondary data sources, such as newspaper articles and government reports, were used to complement the findings and provide a historical perspective of the communities. The data was collected between July and August 2007. The interviews were face-to-face, semi-structured and lasted on average thirty minutes. Due to the diversity of the population, interviews were conducted in colloquial IsiZulu, IsiXhosa, English or Afrikaans depending on the language preference of the respondent. The data was audio-recorded with the permission of the respondents. Although conducted in various languages, all the interviews were transcribed into English for analysis.

The questionnaire (with both open-ended and closed questions) for users of all levels was based on Foleys [8] ICT adoption model for socially excluded groups. The questions were meant to determine factors that influence Internet use in socially excluded groups and what impact such use has on their social exclusion elements. The impact of the internet was assessed against the contribution of the Internet in alleviating economic, political and social network exclusion (recall Figure 2.2). The questionnaire first established demographical information and then moved on to ask about factors of social exclusion, awareness of the Internet, Internet access, skills and training, frequency of Internet use and its impact. The research questionnaire for administrators included the profiles of the users of the respective centres as well as reported or known Internet benefits.

4.3 Data analysis

Data analysis was conducted using Thematic Analysis. For coding and reporting purposes the respondents were assigned codes. The respondents codes were prefixed with three letters representing the community; for administrators the code was followed by an ? *A*, while for the users it was followed by a digit ranging from one to five. The Cape Access manager is coded as CAP-M.

Location	Participant	Age	Gender	Education	Employed?	Internet usage
Bitter	BIT-1	25	M	G 10	N	P
	BIT-2	28	F	G 12 + course	Y	P
	BIT-3	23	M	G 11	N	C
	BIT-4	37	M	G 10	Y	P
Bongo	BNG-1	26	M	G 12 + diploma	S	C
	BNG-2	28	F	G 10	N	E
	BNG-3	34	M	G 12 + diploma	Y	P
	BNG-4	22	M	G 12 + Tertiary certificate	Y	C
Tem	TMB-1	21	M	G 12	N	C
	TMB-2	22	F	G 12	N	E
Struis	STR-1	42	F	G 8	S	E
	STR-2	58	F	G 12	N	P
	STR-3	46	M	G 9	S	P
	STR-4	38	F	G 12	N	P
	STR-5	49	M	G 3	N Se	E

Legend			
Employment		**Internet Usage**	
Y	yes	P	Peripheral
N	no	C	Core
S	Self employed	E	Excluded
Se	Seasonal		

Location	
Bitterfontein	Bitter
Bongolethu	Bongo
Tembalethu	Tem
Struisbaai	Struis

Table 3: Summary of key demographic profiles of participants

Table 4.3 provides a summary of key demographic information of participants from all the centres. Internet usage shows the level of usage of the participants.

4.4 Challenges in data collection

Difficulty in finding participants for the interviews was a challenge during data collection, especially since some of the centres had low usage patterns. In Struisbaai the fishermen leave for the sea early in the morning and return tired in the evening. It was difficult to get an interview with tired fishermen who wanted to go home, get cleaned and sleep. The distance between the centres and Cape Town, where the researchers

were based, was another limitation.

5 RESULTS AND DISCUSSION

5.1 Demographic and usage patterns

We noted a relationship between demographic factors (i.e. age and education levels) and usage patterns. We noted the differences between the use of the computers as stand alone terminals on the one hand and the Internet on the other hand. In all the centres, the youth were the main users of the stand alone terminals while adults were the main users of the Internet. When asked about who uses the centre, TMB-A answered, *Mostly young people. But we say the age limit is about 35 — we do not have seniors.* In contrast, adults were found to be the main users of the Internet. Most administrators pointed out that *... The Internet attracts older people, so when there is no Internet we get students and younger people.*

The difference in preferences was also evidenced by the usage pattern: in cases where Internet access was less consistent (e.g. Bongolethu), those centres were used mainly by the youth. The youth used the centre to play computer games. When asked about the reasons why users used the centre, BIT-A responded that:

> *Some of the people play games but we are not going to chase them away because we must let them get used to ICTs or computers because they are not educated in that type of things. [BIT-A]*

The adults used the centre for various activities such as typing documents e.g. curriculum vitae, for emailing, job searches, research and Internet banking

> *They [adult users] do tutorials through the computer. Check their emails, like when they want to apply for jobs. Others do their banking. There's a website for learners' licence. [BNG-A]*

The feeling among administrators was that the usage pattern mainly favours the young adults because the Internet centres and the value of the Internet had not been marketed to all the people. Even though Struisbaai had some older users, their numbers were far exceeded by that of the youth.

The educational level of the respondents also seemed to influence the level of usage i.e. whether a participant is a core, peripheral or excluded Internet user. The core users of the Internet in our sample had a minimum education level of Grade 11.

5.2 Perception on Social Exclusion — Self-reported

Participants were asked about the elements of exclusion: namely the savings activity, the production activity, the political activity, the consumption activity and the social activity. The participants acknowledged that the areas where they were based lacked services which were enjoyed in other communities. This was depicted by STR-1s explanation of the differences between Struisbaai and Cape Town:

> *... like ambulance services. We do not have emergency ambulance services. We must wait for a long time. In [Cape Town] it's all easy. They have enough of everything. We do not have that. For example, when working in a building site you get a wags of R500 a month. You would never get that in the Cape Town [STR-1] Yes, I do [feel excluded], we are deprived in terms of development. There is no local development [STR-5]*

In some instances the respondents felt they were ignored by the government and other communities were favoured.

> *Because we live in the gat [Afrikaans for hole] of the world, we are ignored. The things that happen are in Bredasdorp, they never come to Struisbaai. People that get work and projects are in Bredasdorp. Yes, we catch fish here but that's it. The contact people for things are in Bredasdorp. Why must all the people in charge of things be from Bredasdorp when there are capable people here. [STR-4] Yes there is nothing especially in our township of black people. The infrastructure is in other townships ... in town. [BNG-3]*

Even though the participants were from areas of high deprivation, their perception on whether they were excluded or not differed significantly. Most were of the opinion that they were not socially excluded even though they did not enjoy or participate in a number of activities. Participants believed they were a part of a normal society even when they did not enjoy the same activities enjoyed in other societies that might not be socially excluded. For example, none of the Bitterfontein participants considered themselves socially excluded. When asked if she felt isolated or excluded, BIT-2s response was: *I do not feel isolated. If someone tells me that I am isolated I will stand up and tell them that I am not.*

This response is in clear contrast with the official version of the area. A 2002 report by the Council for Scientific and Industrial Research [34] on vulnerable areas of the Western Cape portrayed Bitterfontein as a socially excluded community dealing with long-term unemployment, malnutrition, alcohol abuse and living below the bread line [34].

When asked if they would want to continue living in their current locations, only two respondents indicated they would want to leave and seek opportunities elsewhere. Participants in the same location showed differing degrees of enjoyment in the activities deemed normal in society. This suggests that social exclusion could be individual rather than communal.

The responses also showed that the people had different priorities from the expectations of people outside the communities. For example, while the external agencies (e.g. the CSIR) classify these areas as excluded, the communities considered a sense of security and close social ties to be of more value, and

would not want to change them for the glories of a big "included city. This is exemplified in the quotations below:

> *Our children and other people in the community would be affected by violent and strange crime like you have in places such as Cape Town. We need to be safe. In our community we have black, Coloured and white people staying together and for them to be doing that people must be proud to be doing that. We would miss that. In [Cape Town] you do not know each other. We are like a family in this community. I know everyone. [BIT-2] It's peaceful here. They will kill you in other places. [laughs]. The life in other places is better than here but their life is fast. It's not safe elsewhere. I can just stay here. [STR 1] ...the crime is not high. I am not going to leave for now. Everyone knows me. But there are things that make me want to leave because of access to things. I have to go to cities to get access. [TMB 1]*

5.3 The rate of adoption of the centres and the Internet

We looked at the adoption of the Internet using Foleys adoption phases (Figure 2.2). We noted a low adoption rate in both the centres in general and the Internet in particular. The low adoption rate was attributed to lack of meaningful awareness, lack of training, lack of relevance as well as problems with reliability of the Internet.

The general awareness of the centres amongst the respondents (including non-users) was high. However, the awareness of what the Internet is and what it can offer was low. Most respondents did not have a fair understanding of what the Internet is. Some users and non-users saw the Internet and computers as the same thing. There was often little differentiation between going to the centres to use the Internet or to type a document (e.g. a Curriculum Vitae). This perception was also evident in participants believing that the Internet would give them new skills in typing documents and preparing presentations using PowerPoint. There was also an instance where a participant described SMS technology as being the Internet. This participant in Bitterfontein said that the Internet helped her save money by notifying her when a government grant had been paid into her bank account. She no longer had to travel to her bank 80 km away to check her bank balance. On further questioning it became apparent that she was talking about an SMS facility that notified her of activity in her bank account and not the Internet. Both management and respondents attributed the lack of meaningful awareness to poor marketing. The Cape Access Programme Manager (CAP-M) pointed out that most of the users came to the centres out of curiosity and not because they had heard of some value to be gained from the Internet.

The slow diffusion and low usage level were blamed on a lack of user training. There had been little or no training provided. Most of the peripheral users felt they needed more training on how to use the Internet in order to realise its full value. CAP-M identified training as a gap and advocated targeted training programmes where the centres would also be linked to the developmental needs of the community.

> *I think training is one. What we need to do is have targeted training programmes where we can be able to show people how to effectively use the Internet. At the moment you have a selected number of people in communities using the centre maybe because some of them have had little experience or some of them grasp the idea of the centre. [CAP-M]*

As CAP-M noted, training would ensure awareness not only of the technology but also of the values the technology can bring to the lives of the community.

The question of relevance of the technology is not only linked to content but also to the language in which the content is presented. The dominant languages in the rural Western Cape are Afrikaans and IsiXhosa [35]- however, most of the content available on the Internet is in English [16]. A participant in Struisbaai said she had stopped using the Internet because she thought everything was in English and she could only speak Afrikaans.

> *Because it's in English that makes it difficult for many people. Many people are Afrikaans speaking and cannot speak English. That's why most of us do not go there. If it was in Afrikaans then we might go and use it. [STR-1]*

The low number of adopters was blamed, in certain instances, on the operating hours of the centres. The operating times were not conducive to those in full-time employment making use of the centres - by the time people return from work, the centres were already closed for the day.

> *We open from 10 a.m. until 5 p.m. We used to open from 10 a.m. until 7 p.m. That had to stop because books started going missing after library hours [after 5 p.m.] and the regional library manager started complaining. So now we close when the library closes. [BNG-A]*

Another factor that, according to our findings, influenced non-use or sporadic use of the Internet was the distance from the Internet facilities to where the targeted participants lived. Internet access points in Bitterfontein and Tembalethu were 3 km and 5 km respectively away from the communities they were supposed to serve.

The reliability of the Internet in some of the centres was said to impact on the rate of adoption. For example, Bitterfontein and Bongolethu had intermittent access and as a result the centres enjoyed a low number of adult users.

This finding confirms that having access to the Internet does not guarantee usage [16]. Usage is af-

fected by a number of factors including level of awareness of the technology, training, and reliability of the services. Training could accelerate the rate of adoption and enable peripheral users to become core users. This finding is consistent with previous findings which identified awareness [36], training [37], and reliability [38] as factors which may influence usage of public access points.

5.4 The contribution of the Internet towards alleviating social exclusion

According to the administrators, the centres were established to address social exclusion in these areas- to bring excluded communities closer to the global community and give the communities the required skills for competing in the global economy. According to CAP-M, some of the reasons for starting the centres were to allow the communities to seek employment online, to receive training on computers and to use the Internet for attaining better job prospects.

> *It was done because we felt the Internet would play a role in getting far-removed communities closer to the global world, to be part of the global world. To be part of the global information society. We felt that because the economy was changing — becoming a more information-based, knowledge-based economy and in order for our people to compete in that economy, they needed access to those tools. So this was a developmental thing. [CAP M]*

In the next sub-sections we discuss how the Internet was perceived as contributing towards addressing the different aspects of social exclusion.

5.4.1 Addressing economic exclusion

The Internet played a role in people's ability to save on traditional costs for goods and services that would normally be far from their communities. According to the respondents from Struisbaai, fishermen benefited from the Internet in that it provided them with valuable weather information. The fishermen used the information to determine whether it was safe and economically viable to go to sea on a particular day. The fishermen preferred the weather forecast on the Internet to the television (TV) weather reports because the Internet report addressed the local forecasts as opposed to the more generalised TV weather reports. The fishermen also found the Internet report more reliable. For instance, STR-5 reported that, *There is television weather, but sometimes they say there will be a little wind and we have a storm.*

The fishermen also benefited through the streamlined process of applying for their fishing permits electronically instead of travelling to Cape Town to apply for the permit- each trip to Cape Town costs more than R500 in bus fares.

> *. . . and things started to improve in a way especially when they apply for quotas [permits] and things like that, we can do it online for them and we can fill out their forms online and save them an average amount of money. Before they used to travel to Cape Town and have to fill in the forms and come back and wait for an answer. Then they have to go back to get an answer which might be a rejection. In the meantime their expense was so high just for travelling and paying for the applications. [STR-A]*

A number of economic benefits were recorded in Bitterfontein. A participant saved money by reading news online instead of buying a newspaper. Another participant was able to make extra money by quoting on and being awarded a tender from a government website. The administrator in Bitterfontein reported that a user in the community had applied for and been awarded a university study bursary online. Another participant showed that she saved R6 by using the Internet to research on flu medication for her sickly daughter instead of consulting with a doctor at a clinic. *I have a 7 year old kid and she is always sick with flu. I go to the Internet to see how I can treat that.* [BIT-2]

Only one participant found gainful employment directly through the Internet. Other reported benefits included the cost of using email as opposed to buying stamps at the post office (in Bongolethu).

There was a perception that the Internet would help in starting small businesses. Some participants felt the Internet could equip the youth with skills and resources for starting their own businesses. For example, when asked what benefits people in Bongolethu would enjoy from using the Internet, BNG-3 said:

> *They would use the Internet on how to start their businesses. Getting information from the Internet on how to start and doing their business plans and whatsoever. [BNG-3]*

5.4.2 Addressing political exclusion

The management of the centres saw the Internet as providing opportunities for socially excluded people by allowing them to participate in some level of local decision-making, having information about what was happening in other parts of the country and in the world, and communicating and collaborating with others. However, only three participants felt that the Internet had enabled them to participate effectively in local decision-making. This participation was as a result of them having access to relevant information. A participant in Bitterfontein reported that the Internet had helped the community in communicating with the municipal authorities.

> *Yes. The Internet helped a lot because in the past you had to write a memorandum of about 475 pages about community issues to get a reaction from our local or provincial departments. Now we just email issues or memoranda that must reach national, local and provincial eyes. [BIT 3]*

A general feeling amongst most participants was that they had little or no voice in local decision-making and the Internet played no role in improving their non-participation.

5.4.3 Creation of Social Networks

The participants felt they already had strong social networks and therefore did not appreciate the role of the Internet in that regard. All the communities were small and closely-knit. All the participants had lived in their respective communities for more than 20 years. The majority of the participants did not want to leave. They sited the perception of crime in other areas and good social networks in their current locations as their main reasons for this.

Not much was reported on the use of the Internet for social purposes, although TMB-1 reported the Internet as highly valued in his quest to network and collaborate with others.

> *For me it helps me get connected with lots of people. I am in a forum where I network with other forums in different cities. I can network with the other forums on what their problems are and share our problems so that we can share solutions. [TMB-1]*

It should be noted that TMB-1 was a core user and had a high education qualification and therefore his views are not generalisable to the rest of his community.

Participants saw the Internet as a valuable communication tool from which they could benefit. The perceived value of the Internet from both users and non-users is supported by the fact that all participants responded affirmatively when asked whether they wanted to have Internet access at home.

However, there were areas where the value of Internet was not registered. For example, no benefits from the Internet with regard to consumption of social services were registered. A participant stated that the Internet may allow people to become aware of services; however, physical access of the services was still required. Such physical access may not be available for people who stay in remote areas.

> *. . . Because if you look at it ? those people are still physically close to facilities. I have to go through the Internet to access things. If I have to go for interviews the venues might be 10 kilometres for those people and I have to travel more than 100 kilometres. [TMB-1]*

5.5 Informediaries within communities

One of the findings of the study is the existence of information intermediaries (informediaries) in the communities. The informediaries allow people who cannot themselves access the computers or the Internet to benefit from the services. There were a number of individuals who had become so adept at using computers and the Internet that other community members depended on them for information or information products. This was mostly apparent in Struisbaai where some fishermen — who did not use the Internet — relied on Internet users for critical information related to fishing. The informediary printed out the weather reports and posted them on a notice board for general consumption. The informediaries also applied electronically for fishing permits for the fishermen.

These findings support the notion that judging the level of access to the Internet by the number of people who have direct access to the Internet may be misleading. For example, such statistics would classify all the fishermen who were benefiting from the Internet as having no access. The findings also point out that illiteracy as a hindrance of Internet access can be circumvented. At the same time, there is need for further research to understand the impact of accessing Internet through an informediary.

6 LESSONS LEARNT

We now address two lessons learnt from this research: firstly, the inadequacy of the Internet in addressing social exclusion and, secondly, that provision of access may perpetuate divides.

6.1 Inadequacy of the internet in addressing social exclusion

Even though some of the participants expressed preference in investment in providing Internet access over investment in other forms of infrastructure, it is evident that Internet on its own has no capacity to create economic, political or social opportunities. There need to be underlying support processes such as a vibrant local economy, education and skills, and a responsive government. In fact, the Internet should be seen as a supporting technology. There is, therefore, a need to downsize the expectations administrators have. There is also a need for donor and government agencies to reconceptualise the use of Internet as a weapon against social exclusion. The Internet should be conceptualised as part of an integrated package of solutions to the problems of social exclusion and not as an independent solution to the problem.

The belief (both from literature and centre managers in this study) that having Internet or ICT skills leads to better job opportunities is a distortion of facts. Internet access is but one contributing factor in the employment equation. One needs to have the required skills for the job before he or she can find employment through the Internet. The users who found employment were not employed because they had ICT skills, but rather the Internet acted as a conduit to a job opportunity. Another example is drawn from the respondent who indicated that one still needs physical access to goods and services which are promoted via the Internet. This can be illustrated by an analogy from the health care domain- it would not be helpful to know that an ailment is treatable if one cannot access the treatment due to lack of medical infrastructure within a reachable distance.

Another example which shows the importance of

Internet access in a supporting role as opposed to being the main contributor is found in the case of Struisbaai. Of the four communities, Struisbaai was the only centre where the actual economic benefit of the Internet access was observed. In Struisbaai the fishermen get accurate weather reports and apply for fishing permits online (via an informediary). The fact is that Struisbaai has an established fishing community with natural resources conducive to the activity- the Internet simply servred to support the economic activity.

6.2 Provision of access may perpetuate divides

We noted that the provision of Internet may help only a few members of community and thereby perpetuate already existing divides in the community. How much one would benefit from the Internet depends, to an extent, on the level of usage. Minimum economic and social benefits were recorded for excluded and peripheral users. This suggests that only Internet core users are likely to benefit from using the Internet. While it may be argued that some of the excluded or peripheral users are less likely to progress to becoming core users due to other factors such as level of education, there are factors, in control of authorities, which can make a difference to the adoption and usage of the technology. Such interventions would include provision of user training and considering the other activities in the community when revising the operating hours for the centres.

The case of Struisbaai was unique in that the fishermen, who were excluded users, were indirect beneficiaries of the Internet. However, there is still a need to investigate why the fishermen fail to use of the technology directly and explore ways of addressing the problem. It would also be interesting to investigate the consequences of indirect access on the informediaries and the fishermen, as well as the power relationships in the community.

7 CONCLUSION AND SUGGESTIONS FOR FUTURE WORK

In this study we evaluated whether the Internet contributed to redressing social exclusion in the Western Cape. According to the existing literature, the Internet has a role in redressing the political, social network and economic dimensions of social exclusion. Administrators of the public access centres shared the view that establishing the centres and providing Internet access would bring excluded users closer to the knowledge economy. We found that the use of Internet in giving people a voice or increasing participation in local affairs was minimal. While some participants cited using email to send memoranda to government departments, there was a definite sense that such instances are rare. Participation in political affairs and the running of the participants environments still largely happened in traditional ways that did not involve the Internet. In places where participants felt they had no participatory voice, there was nothing to show that the Internet did anything to alleviate this. With regard to economic exclusion, the findings suggest that the Internet played a role in providing better prospects, but this role was limited. The study also found that access to the Internet did not automatically lead to usage.

The findings of this study differed somewhat from literature about the role of the Internet in the political and social networks and the economic dimensions of exclusion. According to our findings, the role of the Internet in redressing political exclusion in the areas under study was almost non-existent; the role of the Internet in creating virtual social networks was absent due to the fact that the people already had rich social networks; and the role of the Internet in creating economic opportunities to alleviate economic exclusion was confirmed, albeit with limited beneficiaries. However, this is not to say that the Internet does not play a role in alleviating social exclusion- it does. However, the role of the internet is limited. The limitation is reflected in the fact that few participants have reaped any direct benefit and where they did, such benefits were one-dimensional and limited.

While it may appear that the study and research question (Does the Internet contribute to the alleviating of social exclusion?) could be answered by a simple yes or no, it is evident that the answer is not so simple. In fact, there are degrees to which the Internet contributes towards alleviating social exclusion. An investigation into the extent to which the Internet contributes to alleviating social exclusion could be the next logical step in this study.

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