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Ethical research practice for community entry: using ICT4D in a deep rural context

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Abstract

Information and Communication Technology (ICT) has the potential to contribute significantly to the socio-economic development of rural communities. However, ICT failures in African developing context continue to outnumber success stories. In rural KwaZulu-Natal (KZN) South Africa (SA), several additional issues complicate community development initiatives. These include high rates of HIV infections, a high occurrence of Tuberculosis (TB), high unemployment, extreme poverty, child-headed households, illiteracy, polygamy and development inhibiting traditions. In this paper, the author reflects on a community development initiative by the Department of Informatics, University of Pretoria in deep rural KZN. The author scrutinises the need for culturally sensitive ICT rollouts, the need to understand the difficulties and concerns of deep rural communities in SA, the need for understanding Afrocentricity in intercultural communication and ultimately the need for ethical research practice in ICT for development and community entry. A number of interviews with key community members were incorporated in this paper to illustrate and explain how community entry was established. Several guidelines for ICT for development research practice are discussed.

Keywords: Afrocentricity, ICT4D, Community Entry

Introduction

Literature on ICTs for development (ICT4D) has scrutinised the potential role of ICTs in social development and community empowerment for a number of years (Chigona et al., 2009; Fong 2009; Avgerou & Walsham, 2000; Krishna & Madon, 2003). According to these authors, ICTs have the potential to contribute to socio-economic development and quality of life, elevating the issues and concerns of social exclusion, the digital divide, poverty and lack of access to basic human needs. However, ICT failures in developing countries continue to outnumber success stories (Avgerou & Walsham, 2000; Lunat, 2008). Authors consistently emphasise that ICTs alone do not guarantee success and development (Lewis, 1994; Chigona, 2009) and that ongoing culturally sensitive and context specific technology rollouts and community participation is necessary to ensure sustainability and success (Krishna & Madon, 2003; Heeks, 2005). In context of South African (SA) rural communities, poverty, social development and specifically health and education, the importance of socio-cultural context and intercultural communication and community empowerment are foregrounded as some of the most pressing concerns in ICT4D research (Heeks, 2005; Krishna & Madon, 2003; Avgerou & Walsham, 2000; Asante, 1983; Mukerji, 2008; Lewis, 1994; Phahlamohlaka & Lotriet, 2003).

A prominent issue that consistently arises in ICT4D research is that of establishing success factors and guidelines for research practice in ICT4D context including indicators for measuring the impact of ICTs in developing context (Heeks & Molla, 2008). A further difficulty evident in ICT4D literature is that IS theories, strategies and technologies established in a developed country context cannot necessarily be transferred to developing countries. There is a need to contextualise ICT4D and test the impact of ICT implementation (Heeks & Molla, 2008). According to literature, neo-liberal thinking and standardised modernist approaches to ICTs may contribute to the continued trend of ICT failures in developing context (Heeks, 2005; Lee et al., 2008). In the African context, several authors call for investigating the essence of Afrocentricity, social development and context specific technology rollouts in impoverished communities, including a practical approach for community participation (Heeks, 2005; Ndegwa, 1992; Asante, 1983; Lewis, 1994).

Synopsys of Happy Valley community

It is against this background that the researcher reflects on the community entry phases of an ICT4D initiative by the Department of Informatics, University of Pretoria, at Happy Valley¹ in deep rural KwaZulu-Natal (KZN), South Africa. Several guidelines, principles and ethical considerations for research practice in ICT4D as proposed by literature and confirmed by key community members from Happy Valley will be discussed in this paper.

¹ Due to the extremely sensitive nature of the research and the tension caused by HIV and AIDS, TB and poverty in the Happy Valley community, actual names of individuals and places are withheld in this report.

Happy Valley is the administrative and business centre of a small rural district in KZN, SA. This district in KZN is one of most economically disadvantaged communities in SA, measured by per capita income and unemployment statistics (Interviewee3). In rural KZN, several issues complicate community empowerment initiatives. These include high HIV infections, a high occurrence of Tuberculosis (TB), high unemployment, extreme poverty, child-headed households, illiteracy, polygamy and development inhibiting traditions (Interviewee1; Interviewee3). The impact of these factors has been profound, and is intensifying. Large numbers of children are left orphaned and destitute while malnutrition, sickness and death result in a general feeling of hopelessness, impacting negatively on programs aimed at empowerment, social development and improving health (Interviewee3). According to Interviewee3 and Interviewee2 most people are either infected or affected by HIV. Happy Valley community is therefore a community in tension caused mainly by deteriorating health and extreme poverty.

Happy Valley is a community of extremes. In contrast to the dire circumstances described above, several very successful community-owned projects have been established in Happy Valley since the early 1990's. These include Happy Valley Private School, several orphan care projects, a hospice, employment initiatives and home-based health care projects. For the Department of Informatics, the most accessible and most appropriate projects where ICT support may be rendered, are the care unit for Orphans and Vulnerable Children (OVC), the hospice for terminally ill and HIV infected patients as well as Happy Valley School. These primary developmental areas, namely health and education, are foregrounded as most prominent in ICT4D literature. It also explains the researcher's rationale to start by empowering teachers, caregivers and nurses as a way to empower and gain better access to the greater community.

A number of fact-finding and exploratory projects have been initiated during 2009 where the overarching aim is to customize ICT solutions to be context specific and culturally sensitive. Unstructured interviews with community members took place during these encounters.

Research objectives

The overarching objective of this paper is to consider how one should approach ICT4D research and practice in deep rural communities in SA. Two sub-questions are put forward that address specific aspects of ethical research practice in deep rural South African communities.

- 1) What are the difficulties and concerns of deep rural communities in SA and how do these issues affect community entry and ICT4D research practice?
- 2) What is the impact of Afrocentricity on intercultural communication in deep rural communities in SA and what are the implications for ethical research practice in ICT4D context?

Afrocentricity and community engagement

Asante (1983) highlights the importance of understanding the impact of Afrocentricity in intercultural communication. According to Asante (1983), Afrocentricity is the frame of reference in which African social phenomena should be viewed in order to understand the perspectives of the African community. It is consequently the frame of reference within which this research is pursued. Asante (1983) argue that cultural differences are rooted in different views of reality. All definitions are contextual and grow out of a people's heritage. "While the European seeks to conquer nature, to subdue it, the Asian flees from the illusions of the world, and the African finds coexistence with nature and a harmonious relationship with all the elements of the universe" (Asante, 1983). Eurocentrism is associated with western culture and generally implies a critical view of concerns and values of non-Europeans. It is this view that often subconsciously manifests in supercilious ICT4D endeavours (Lewis, 1994). As a Eurocentric minded researcher, understanding Afrocentricity requires special effort, respect and openness to Afrocentricity in order to master its meaning and to enable intercultural interaction (Willoughby, 1928; Asante, 1983; Laughlin, 1987 cited in McGrath, 2005). Values, principles and protocol are the beginning of understanding meaning in intercultural communication context (Ndegwa, 1992; Asante, 1983; Lewis, 1994).

The difficulty for a European to understand Afrocentricity lies in the natural tendency of Europeans to view African social life in view of their own preconceptions (Willoughby, 1928). Eurocentricity implies natural dislike of the unlike while little in the traditional African religion appeals to the aesthetics of the European (Willoughby, 1928). European culture emanate from rituals aimed at "the magical reproduction of things that contribute to bodily comfort" (Willoughby, 1928). It is therefore that according to Western imperialism, developed countries or communities will often attempt to impose their own values, culture and desires on lesser-development communities (Dayton, 1979 cited by Lewis, 1994). Development efforts often carry with them a sense of compassion and a degree of superiority where less-developed countries are targeted in order to develop them (Lewis, 1994).

Sources on social development and ICT4D consistently call for the study of local context, culture and customs in community projects (Avgerou & Walsham, 2000; Krishna & Madon, 2003; Heeks, 2005; Lee et al., 2008; Lewis, 1994). In deep rural South Africa this requires a sympathetic study of Afrocentricity and specifically the social fibre of isolated communities. In a number of papers, authors specifically present communities and their concerns as a unit of analysis for doing research. It is typically where an Afrocentric minded researcher reflects on Afrocentric values, beliefs, concerns, cultures and agendas (e.g. Ndegwa, 1992, Willoughby, 1928 and Asante, 1983). What complicates a study of Afrocentricity is that African philosophy is not well represented in leading journals (Asante, 1983) and that traditional Africans have a natural reluctance to divulge

beliefs and intimacies about their customs to “strangers” they don’t trust (Willoughby, 1928). Although Willoughby’s assertion was made eighty years ago, the author argues that traces of this might still be evident in extremely isolated communities such as Happy Valley.

For the reasons mentioned above, a number of interviews are included in this study to provide perspectives on the topic of social development and community empowerment in rural South African context. Table 1 presents these expert interviewees and each individual’s expertise. Interviews were conducted totally unstructured and occurred mostly during community engagement where the researcher collaborated with the community at various levels. Due to the nature of the researcher-participator interactions, dialogue spontaneously covered various issues related to social development, community empowerment, ethics, the rural South African social fibre, technology in developing context, health and education, Afrocentricity, and so forth.

Name and title	Position	Date interviewed
Interviewee1	A Human Resources Manager, KwaZulu-Natal Department of Health.	March 2009
Interviewee2	Medical doctor at an NGO and hospice in a Happy Valley community in KwaZulu-Natal.	March 2009
Interviewee3	Project manager at a care unit for Orphans and Vulnerable Children (OVC) in rural KwaZulu-Natal.	March 2009
Dr Reineth Prinsloo	Department of social development, University Pretoria.	March 2009
Mrs Gernia van Niekerk	Community engagement practitioner, Department of Marketing, University Pretoria.	March 2009
Bennie Stadler	Community social worker, previously at the Department of Welfare, Oudtshoorn.	March 2009
Prof R. Klopper	Professor in Informatics, Communication Science, and Cognitive Science at the University of KwaZulu-Natal and previously at the University of Zululand.	March 2009
Prof Alta Kritzinger	Communication Pathology, University Pretoria.	March 2009
Interviewee9	Teacher at Happy Valley Private School, in rural KwaZulu-Natal.	April 2009

Table 1: Expert interviewees

Understanding poverty and hope

Discussing the role of technology as a tool in social development initiatives, several authors propose a holistic approach to community empowerment (e.g. Heeks, 2005; Lee et al., 2008; Lewis, 1994). The issue of encouraging hope of new opportunities in communities before technology rollouts as well as motivating communities to take hold of opportunities presented are often not given enough thought in development projects (Krishna & Madon, 2003; Lewis, 1994). According to (Lewis, 1994), a major challenge is to help the local people to see hope. After hope

there is the need for communities to become motivated to contribute to their own development and adequately assess their own talents, abilities and resources (Lewis, 1994). It is often a feeling of hopelessness that contributes significantly to poverty, social and moral deterioration and social development initiatives that fail in Happy Valley (Interviewee3). Many development and upliftment programmes fail because poverty, alienation and hopelessness are so deeply rooted in a community that it is impossible for them to believe that a hopeful future or anything better is possible. It is often these beliefs that have to be addressed through continued commitment of community champions and primary stakeholders before development programmes might naturally expand and be sustainable (Interviewee1; Lewis, 1994). A lack of such an insight has caused various ICT4D initiatives to fail in the past (Heeks, 1995; Lewis, 1994).

According to Lewis (1994) and confirmed by Heeks (1995) and Lee et al. (2008) there is “little hope for replicating the developed West in developing communities through massive doses of Western Technology”. In community engagement one should view ICTs as a tool for socio-economic development, sustainability and digital inclusiveness (Van Niekerk, 2009). Interviewee2 confirms that it is important to address cultural and context related issues to help people to recognise the value and need for ICTs. In context of ICT literacy training for nurses, Interviewee2 state that apart from addressing ICT literacy training for example “there is a need to create a culture of record keeping and statistics” among nurses.

To effectively access impoverished communities, key strategic steps would include establishing and addressing people’s perceived needs (Lewis, 1994). According to Lewis (1994) care should be taken to work within the cultural boundaries or “givens” of the community. Changes must be desirable. Often the survival patterns of impoverished communities are so fragile that the side effects and risks of improvements may be disastrous especially if the subsistence levels of living are very low. Tools, food and new technologies must be carefully studied to insure that they are culturally and morally safe and appropriate as well as renewable and sustainable (Lewis, 1994). It is, therefore, necessary to employ a holistic approach to development programmes where basic needs are identified and addressed. If one were to create a culture of hope within a community, it is important to first focus on extending a community’s future vision (Lewis, 1994). A starving man cannot respond to a message of hope if his need for food and survival overrides any other possible interest (Lewis, 1994).

One cannot deliver ICT solutions and or even debate sustainability if people’s basic needs are not addressed, if child-headed households are at the order of the day and sickness and death as a result of the AIDS pandemic cause extreme community tension. According to Interviewee3 this is specifically the case in Happy Valley where she has been working for almost 20 years.

Community entry

Dealing with poverty and development issues, one will have to address the misconceptions and internalisations of both the rich and poor which include a sympathetic understanding of the poverty-sustaining environment people live in (Lewis, 1994; Interviewee1). To deal just with rural Afrocentric communities requires a profound and sympathetic study of them (Willoughby, 1928). Respect for the way in which a community functions and acknowledging their social structures and protocol is extremely important for successful empowerment initiatives (Interviewee3; Prinsloo, 2009; Interviewee1). When entering into a community it is important to know their customs and to act accordingly (Tlhagale, 2006, cited by Prinsloo, 2009). Weyers (2001) cited by Prinsloo (2009) suggests the “R.E.A.L.” approach to community participation:

- R = Respect the people and their customs, protocol, knowledge, values, views and standards
- E = Encourage them to share their knowledge and ideas by using appropriate techniques
- A = Ask questions and give feedback
- L = Listen carefully

In confirmation, Lewis (1994) states that most community development initiatives are a matter of building partnerships, inter-relationships and common sense of different cultures. The concerns highlighted above necessitate the researcher to specifically scrutinise the cultural values and social fibre of rural South African communities. According to Prinsloo (2009), “the process for community development as utilised in the field of social work is simple, yet efficient. Development is a social condition and strategies used aim at enhancing the living conditions of a population. The idea that the stimulation of entrepreneurship of individuals will contribute to their own development as well as that of communities is supported”. Weyers (2001) cited by Prinsloo (2009) proposes an indirect route for negotiating entry into a community:

- Identify community leaders
- Visit the community leaders and explain the reasons for the involvement in the community
- Use the snowball technique to get new contacts
- Make more informal contact with ‘ordinary’ community members
- Give community leaders and members the opportunity to express any negative feelings
- Give the community leaders and members hope for a better future
- Help community leaders and members to realize that they should accept responsibility to deal with their own needs and to become involved in the process
- Work towards mutual trust and being accepted by the community
- Encourage and enable community leaders to start working towards a plan for future action

Deep rural community engagement

In addition to these general guidelines for social workers, Interviewee3 proposes that in deep rural and isolated South African communities where traditional social norms and values are still very

prominent and indisputably practised one should explicitly follow the right social structures and cultural practices to gain access to the community and be accepted. According to Interviewee3 westerners are often driven by the need to meet deadlines and achieve objectives while reaching development goals are regarded highly as indicators of success. There is often little regard for local communities' desires, values and customs (Ndegwa, 1992). For these communities following the right social structures and protocol is *their* measure of success. Acknowledging community leaders at all levels of society is regarded much higher than achieving objectives and technical success. Successful outcomes in their minds imply having acknowledged the right people in the community and allowing time for a new idea to mature in their collective social fibre before a project commences (Interviewee3). It is when an idea has matured in a traditional community and they are "ready", that they will invite the community outsider/worker to participate. This invitation is normally the sign that entry has been successfully obtained. It is at this stage that promises should be kept and expectations be met (Interviewee3).

Interviewee3 suggests that "what integrity is to the white man, loyalty is to the traditional rural African" and it is often these conflicting values that cause the meltdown of intercultural collaboration in community engagement initiatives. According to Interviewee3 (and essentially confirmed by Ndegwa, 1992) several community projects have failed and have not proven sustainable in the area where she works mainly due to a disregard of community traditions and customs, their traditional leaders and lack of ownership by the community.

Technology in developing context

Klopper (2009) explains three basic approaches to the application of technology in a developing country context. The first is where western models are imposed on developing countries, the second is where developing countries aspire to western models and the third is the consulting model where community participation takes place, community ownership is established and technology is implemented culturally and contextually appropriate. According to Klopper (2009) and confirmed by ICT4D authors (Heeks, 2005; Lewis, 1994) the first and second approaches are doomed for failure due to its modernist "one-size-fits-all" and culturally insensitive stance (Heeks, 2005; Lewis, 1994). It is these approaches that are often subconsciously applied by Eurocentric thinkers in development initiatives where the underlying belief that, "when something is developed it is better", guides their efforts (Lewis, 1994). Heeks (2005) refers to this as neo-liberalism "that allows no deviation". It is where an invention of the "developed" is imposed on the "developing".

Often development efforts by developed groups are connected to capitalist motives to search for new markets, while the ultimate effect is the establishment of new consumers of western technologies rather than citizens or participators (Robins, 2002). Heeks (2005) warns against this

culturally insensitive approach in ICT4D context while Kritzinger (2009) asserts that enforcing western technology models and research approaches on a traditional community equates to abuse of that community. It is this prominent concern that highlights the value and importance of an ethical approach to ICT4D research and practice. This debate also leads one to re-evaluate and question the underlying aspirations of ICT4D research.

Willoughby (1928) alerts his readers to the fact that the unsophisticated spirit of traditional African communities is often mistakenly perceived by westerners as poverty, undesirable and not good. Interestingly enough, this manner of thinking has not changed much since Willoughby's counsel 80 year ago (e.g. Heeks, 2005). Eurocentric thinking naturally aims at the reproduction of things that contribute to bodily comfort and one should be cautious not to assume that traditional communities value the same aspirations (Willoughby, 1928; Asante, 1983). It is often a sense of subconscious superiority that is embedded in the value systems of those doing the development or those "reaching out". Community engagement therefore implies a change of attitude and beliefs in both "the developed" and "the developing" or the "haves" and the "have nots" and therefore individuals on both sides of the digital divide (Lewis, 1994). As researcher one must consciously heed against this potentially jeopardising approach to ICT4D research and practice.

Sustainability in ICT4D

Worldwide, there is a race to gain maximum benefit from ICTs with developed countries setting the pace (Krishna & Madon, 2003). The question in developing countries is not whether they should participate in the race but rather how these ICTs can be effectively applied in development. According to Phahlamohlaka and Lotriet (2003), an effective way of conducting pilot studies in development is to link them to research through tertiary institutions. According to Krishna and Madon (2003), however, most development initiatives are driven by the private sector with little involvement by tertiary institutions. Consequently, valuable lessons learned, follow-up research opportunities and context related teaching opportunities are lost because experience and success stories are not properly documented (Krishna & Madon, 2003).

According to Walsham (2001) cited in Phahlamohlaka and Lotriet (2003), "[T]he development of local people's skills and knowledge in IT, including those of the disadvantaged society, is the only long-term sustainable way to ensure the inclusion of the excluded". If development projects are grounded in local needs and undertaken with local consent, ownership and involvement are created for promoting sustainability. From an education and training point of view and based on literature highlighted earlier, sustainability starts with contextually relevant initiatives.

In a community project supported by the Department of Informatics, University of Pretoria, this also seems to be how a sustainable project originated (Phahlamohlaka & Lotriet, 2003). Siyabuswa

Educational Improvement and Development Trust (SEIDET) is a community initiated and community based educational project that started in 1991/1992 and is still doing well almost 18 years since its inception. It started as a supplementary tuition project for high school learners in selected areas such as English, Science, Commerce and Mathematics (Phahlamohlaka & Lotriet, 2003). The response from the entire community to the project at its start up was beyond expectation, highlighting the need for such an initiative and piloting a successful approach to ICTs in social development context.

In planning a community project such as SEIDET several themes emanate from ICT4D literature. Considerable levels of pre-development activities during planning is necessary where community members react to identify educational needs and form various management structures to establish and run the project (Conradie, 1998 cited by Phahlamohlaka and Lotriet, 2003). Conradie (1998) cited by Phahlamohlaka and Lotriet (2003) propose several key guidelines for community owned development initiatives:

- The need for local pioneers with vision
- Clear objectives
- External organisations involved in supporting roles
- Significant community response to participate and help
- Teachers and community members offering their services as teachers trainers and facilitators
- “Train-the-trainer” types of initiatives financed by external stakeholders
- Abundant evidence of co-operation and collaboration among parties involved
- A community centered management approach followed through creating ownership
- Accountability and transparency and awareness of changing environment
- Processes in place to monitor and evaluate and adjust to changes
- Constant awareness of pitfalls to be avoided such as the project being led by technology instead of community needs or trying to do everything with ICTs

Ali and Bailur (2007) discuss sustainability as a central concern in ICT4D initiatives and highlight five types of sustainability, namely financial, social, institutional, technological and environmental. They offer *bricolage* as a potential answer to the sustainability challenge, debating the realities of sustainability in ICT4D context. According to Ali and Bailur (2007) sustainability is may elude those researching and implementing ICT4D especially if ICT4D research is evaluated against a set of known benefits or expected success factors. They argue that unexpected consequences and improvisations resulting from ICT4D implementation should be embraced as bricolage rather than a threat to sustainability. As a result of this argument they suggest that less emphasis should be placed on sustainability as a measure of success for ICT4D projects by rather adopting an openness to bricolage as a form of justification of unexpected ICT4D project outcomes.

A methodological approach to ICT4D

Ndegwa (1992) states that understanding the difference in the values, commitments and agendas between the research community and the existential African community in which research is conducted is fundamental to intercultural engagement. Ndegwa (1992) urges the researcher to expand their “conceptual toolkit” to also consider those values, concerns and variables that local people consider important. This according to Ndegwa (1992) is necessary in order to produce sound academic and practical knowledge. The best way to understand meanings is to live among the people being studied. The second best way is to seek causes, meanings and values that are attached to the intrinsic perspectives of the community under investigation (Ndegwa, 1992). Ndegwa (1992) argue that care should be taken to blindly apply theories that have evolved in western social science. These theories potentially carry with them impediments that constrain their value and applicability in African context. Afrocentrism and Eurocentrism are different views of reality and may well bring about that methods and conclusions in Afrocentric research are diametrically opposed to European intellectual traditions (Asante, 1983).

In the context of Afrocentric thinking, Parpart (1995) contends that post-modernism questions the ideas of modernism and specifically the idea that “rational thought and technological innovation can guarantee progress and enlightenment in humanity”. In ICT4D research Heeks (2005), Lee et al. (2008) and Lewis (1994) alert their readers to a neo-liberal and modernist stance in developing context. In an effort to expose the foundations of neo-liberal thinking, Parpart (1995) suggest that there is a need “to question the foundational myths of western society in their construction of the African reality” including a study of the current and historic impact it has on African people. Parpart (1995) proposes a post-modernist stance to studies of African communities by acknowledging the importance of subjective experiences and the construction of social phenomena through interpretive efforts. Parpart (1995) emphasises the need for local, specific and historically informed analyses that is carefully grounded in cultural context.

According to Krishna and Madon (2003) and confirmed by a number of authors (Asante, 1983; Westrup et al., 2003; Avgerou & Walsham, 2000), an interpretive critical stance and action research (Kritzinger, 2009; Bless & Higson-Smith, 1995) designed to produce practical research outputs and specific interventions in a real situation is common to social development research. Participatory collaborative approaches seem to frequently appear in ICT4D and social research (Krishna & Madon, 2003; Lee et al., 2008; Avgerou & Walsham, 2000; Bless & Higson-Smith, 1995). Westrup et al. (2003) note that culture, which is an interpretive study of meaning, should be acknowledged in ICT4D research.

Action Research aligns well with the critical paradigm and its emancipatory interests as well as its underlying critical aim to study social change through participatory action (Baskerville & Pries-Heje, 1999; Lindgren, Henfridsson & Schultze, 2004). The advantages of Action Research include that it is suitable for studying complex, multivariate social phenomena (Baskerville & Pries-Heje, 1999; Baskerville & Wood-Harper, 1998; Lindgren, Henfridsson & Schultze, 2004) and that it assists in the social construction of theory and results (Martensson & Lee, 2004). Baskerville & Wood-Harper (1998) highlights a number of characteristics of Action Research:

- It assists in understanding change processes in social systems;
- it uses data feedback in a clinical process;
- it is undertaken within a mutually accepted ethical framework;
- it is performed collaboratively;
- it assists in understanding of the immediate social situation;
- it focuses on practical problem solving; and
- it is rooted in pragmatism.

Fieldwork in Action Research assumes the cyclic implementation of a number of stages of action and reflection. These stages are 1) the analysis of a multivariate social setting, 2) highly interpretive assumptions about the observations, 3) a practical collaborative intervention by the researcher, 4) participatory observation of implemented changes, and 5) a reflective study of change in a social setting (Baskerville & Meyrs, 2004; Baskerville & Wood-Harper, 1998; Lindgren et al., 2004; Martensson & Lee, 2004). Typical researcher actions include for example being a participatory observer of social change, collaborative involvement, facilitative involvement and expert involvement (Baskerville & Wood-Harper, 1998; Iversen & Matthiasen, 2004; Lindgren et al., 2004). In ICT4D research, the assumption is that action and research are not separated from each other. In Action Research this process of implementation and reflection will follow a cyclic approach that will continue until such time that the themes and emancipatory results show maturity and the research questions are answered.

Community entry at Happy Valley

This study is the community entry phase of a greater study on ICT4D in Happy Valley. It is the observations of the researcher that, in deep rural context, one should take extreme care to follow the right customs, gestures and intercultural communication so as to not offend community gatekeepers. In the beginning stages of community engagement, this is crucial to gain access to the right people and build relationships. In Happy Valley, for example, one should acknowledge the prominent role of men and traditional leaders as guardians of the community. According to Interviewee3 Happy Valley community will not trust outsiders at face value or based on what they can provide. They are generally a very proud group and may easily be offended by perceived

supercilious endeavours of ignorant outsiders. Special effort need to be made to ensure their buy-in in development initiatives. The researcher, in addition, should regard personal, friendship level relationships highly and respect community members. The researcher should basically be embedded in the community during and after the community engagement research.

According to Interviewee3 an outsider company recently almost distorted a good opportunity in Happy Valley due to certain individuals not following the right protocol and social structures during community entry. In a community meeting with some members from the company, a man was asked to keep quiet to give a woman an opportunity to speak. To the men in the meeting and to the community this was highly offensive behaviour due to their specific social structures and women being regarded as much lower in the social hierarchy. No conflict erupted from this socially incorrect behaviour, but the locals just disregarded any efforts from the company until such time that the issues were resolved. Even after the issues were resolved, relationships between the company and community remain tense.

An example of embedded involvement is where a number of academics from the Department of Informatics and the Department of Information Systems and Technology from the University of KwaZulu-Natal visited Happy Valley School to engage with and motivate school children with regard to tertiary studies. It was especially the Grade 12 learners that expressed concerns and asked questions regarding the “big city Universities”. In an open conversation with the Headmistress, academics proposed that their departments may be able to assist with ICT literacy training for teachers. According to Interviewee3, one should propose to community members what is possible and then give them an opportunity to respond within their own time schedule and social structures. We did just that and after a number of weeks and a couple of reaffirmations of ICT possibilities, the Headmistress phoned us and requested that ICT training be done for teachers during school holidays. That was the key indicator that successful entry has been established. According to Interviewee3, this is often the area where development initiatives fail, because goal driven westernised entrepreneurs often storm in and unknowingly mistreat communities. The fact that the two University departments actually spend honest and quality time with the school, without any strings attached or capitalist motives opened the doors to further engagement opportunities.

As a result of this visit, the Headmistress also approached us and requested that we facilitate a campus tour for Grade 11 learners. This involved University Pretoria marketing personnel from a number of faculties addressing the learners on an informal basis. The school requested information on studies in specific disciplines. The researchers, however, acknowledge the fact that in the long term, skills and studies should also benefit the community, since recycling and retaining skills within the community will ensure better chances for sustainability and ongoing empowerment. As a result, the researchers also invited speakers from key social development disciplines (e.g. Health

and Social work) that could benefit the community should students return and work in the community. The researchers also used this opportunity to explain and market all the different ICT related degrees at UP with a pertinent focus on those that does not require Mathematics for entry. A number of learners only have Mathematics literacy and we wanted to assist them to gain access to ICT education. Information on finances, university application procedures and career guidance were included in the interaction. Special and personal attention was given to this community so as to ensure future and follow-up engagement and relationships. The visit included subsistence, board and lodging as well as some learners staying in our homes for a night or two, a sincere reality check for those of us who wished to “keep a safe distance” or did not realise the essence of deep rural participant-observer activities.

In some cases where the community requested ICT solutions, unique approaches had to be established to tailor-make ICTs. The first was a request for a database to manage the care unit for OVC. Due to limited funding, limited skills of users and volunteers, such as that some key workers at the unit only completed two years at school and the need to slowly phase in ICT solutions and training, we could not provide state of the art database solutions. Currently, all data is managed using spreadsheets and OVC care workers have grown accustomed to a “specific way of doing things”. The first phase of the data management involves adapting the spreadsheet program to keep its current look and feel and at the same time automate its report generation and data management activities. It basically implies a data management program designed in a spreadsheet environment. After we have accustomed ourselves with the data needs and cultural requirements for an OVC care database, a solution in an affordable database program may be development in a follow-up phase.

To assist with management of financial and academic data, an outside company donated a school administration system to Happy Valley School. According to the school, it seemed very useful at first. However, after some use, school teachers soon realised that the school administration system will not work for their environment because “it was designed for a white school” (Interviewee9). Because of the huge number of orphans in the district a parent or guardian may assume many possible roles, e.g. caregiver, neighbour, aunt, granny, etc. and the software does not allow for deviation. Also, invoices for school fees printed should be very simple in its layout, because many parents are illiterate and are unable to understand “complex” financial terminology. It is one example where western technologies cannot be directly transferred into the socio-cultural context of developing communities. The school administration software will have to be customised to support the specific cultural needs of Happy Valley School.

Conclusion

In the section below, the researcher will briefly show how the research questions were answered. Follow-up research intentions at the Happy Valley community will also be discussed:

- 1) **What are the difficulties and concerns of deep rural communities in SA and how do these issues affect community entry and ICT4D research practice?** This paper foregrounds the need for a context specific and holistic approach to ICT4D in deep rural South African context. Several issues and realities of sustainability are discussed including how poverty and hopelessness affect sustainability, motivation, empowerment and ICT4D research and practice.
- 2) **What is the impact of Afrocentricity on intercultural communication in deep rural communities in SA and what are the implications for ethical research practice in ICT4D context?** The author highlights the importance of understanding Afrocentricity in intercultural endeavours and shows how it may assist in gaining access to isolated rural communities in SA. The paper stresses the importance of community gatekeepers, building relationships, community ownership, participation and respecting local customs and protocol.

In June/July 2009 the researcher and a team of academics from the Department of Informatics, UP and the Department of Information Systems and Technology, UKZN will present two basic computer literacy courses for school teachers at Happy Valley School. It is the researcher's intention to further test the theory presented in this paper using Action Research and a participative approach and to develop an updated model for ethical research practice in ICT for community development. It is expected that the teacher training initiative will result in further ICT4D research and action. The results of this Action Research in community engagement will be presented in a follow-up publication by the same author.

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