USING VISUAL DATA TO 'SAVE LIVES' IN THE AGE OF AIDS?

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ABSTRACT

This article outlines the use of a digital archive, a data set of staged photos around HIV and Aids related stigma, with educators in two rural schools, exploring their views on using it in their teaching to address stigma. A qualitative research approach, using community-based participatory methodology, was used with educators in two rural schools. The findings suggest that the use of ICT in a rural context can enable educators to access, create and share digital material, which is relevant and realistic and individually tailored, in creative ways to address HIV and Aids related stigma in the school. Technology can facilitate community participation in the production of local knowledge, however, language, computer literacy and access continue to remain a barrier. This work is exploratory and encourages further work around how visual data in a digital archive can facilitate social change.

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INTRODUCTION

Once seen as a death sentence, HIV and Aids, at least in the West, is now increasingly viewed as a chronic but manageable disease. However in sub-Saharan Africa HIV and Aids remains a critical issue, particularly in the province of KwaZulu-Natal where there are still districts where, for example, more than 40 percent of women attending ante-natal clinics are HIV-positive (CAPRISA 2005).

While there are many interventions and policies that are under exploration across South Africa, one area that remains under-studied is the extent to which participatory visual methodologies such as photovoice and participatory video as areas of intervention might contribute to engaging communities in not only identifying the key issues but actually participating in an analysis of the data. In our work with communities, one of the important areas that has been identified as a barrier to addressing HIV and Aids is the issue of stigma. For example, people may avoid voluntary counselling and testing (VCT) because they fear stigma, or they may avoid disclosure (and even the possibility of accessing grants and services) because of stigma.

In a photovoice project in rural KwaZulu-Natal where cameras were given to young people to document how they envisioned stigma (Moletsane, De Lange, Mitchell, Stuart, Buthelezi & Taylor 2006), we saw firsthand some of the ways in which stigma remains one of the challenges to addressing HIV and Aids. Their images and captions powerfully captured some of the despair that is attached to stigma (Abdool-Karim & Abdool-Karim 2005; Haour-Knipe 1993; Moletsane, De Lange, Mitchell Stuart & Buthelezi 2007; Poindexter, 2005).

In this article we are interested in how researchers working with the visual data that emerges in projects like the one noted above might draw on information and communication technologies (ICTs) and the notion of the digital archive as an "entry point" to community-based data analysis of photo data. A digital archive as explored in this article is an electronic "library" for managing, storing and disseminating visual data. To date, the idea of communities working with their own data (visual or otherwise) has been somewhat absent from the literature, even in participatory research. Here it is argued that an important new direction in social research in the area of HIV and Aids is the inclusion of ICT components.

Technology has become popular, accessible and applied to various fields. Roberto and Carlyle (2008) take this up and argue that the use of computers and the Internet could play an important role in HIV interventions, as such technologies are becoming more cost effective in reaching a large number of users, allowing individually tailored messages to be regularly updated and providing researchers and practitioners with a high level of control over implementation and monitoring. This article focuses on one application of ICTs in addressing HIV and Aids, highlighting the ways in which educators in a rural community participate in using a digital archive, with a data set of photographs of stigma, to address issues around HIV and stigma.

FRAMING THE STUDY

As much as the focus of the article is on ICTs, there is still a need to understand stigma itself, why HIV remains highly stigmatised, its relationship to gender and sexuality in the context of HIV and Aids, the psychosocial effects of HIV-stigma and how it has been or is being addressed, as it is a key barrier to HIV-prevention. The work is framed within three broad areas, namely (1) psychosocial approaches to addressing HIV and Aids; (2) the use of participatory visual methodologies for engaging communities and as a way to see the issues "through their eyes"; and (3) the use of participatory digital archives in working with visual data linked to psychosocial aspects of HIV and Aids.

Psychosocial approaches

In drawing on a psychosocial approaches we emphasise the effects of the immediate social and situational context on the person who stigmatises, on those stigmatised, and on their interaction and ultimately on the personal, social, affective, cognitive, and behavioural effects thereof on the persons. Stigma as it has been described is a social construct and the conceptualisation of stigma could provide an entry point to reduce stigma in all levels of the ecosystem (Dovidio, Major & Crocker 2000), i.e. the individual, the family and the school in a rural community.

Informed by the notion of Dovidio *et al.* (2000), as explained above, firstly, we also draw on the values of community psychology, concurring with Seedat, Duncan and Lazarus (2001) that the values of community psychology are useful to think about transforming the way in which psychological problems are conceptualised and how they are understood. Also, De Lange, Greyling and Leslie (2005) point out that HIV and Aids find its cause in the whole ecosystem, and therefore the solutions should be located in the whole *ecosystem.* Community psychology focuses on people within their social worlds and uses this understanding to improve their wellbeing, to facilitate care and compassion, self-determination and participation, respect for diversity, human dignity and social justice (Visser 2007). It is about understanding and helping, focusing on social issues and settings that influence groups and organisations (Visser 2007) and in this case, the focus is on the school setting. The goal is to optimise the wellbeing of communities and individuals by innovative alternative interventions designed in collaboration with affected community members (Duffy & Wong 2000). A community psychology approach is embedded in an ecosystemic approach (Donald, Lazarus & Lolwana 2002), which makes a valuable contribution by including a much wider social context in addressing HIV-stigma, which is not merely an individual's problem but has its origins in the broader social context (Eloff & Ebersöhn 2004).

Participatory visual methodologies

Participatory visual methodologies are appropriate for involving the community and especially the youth in HIV-interventions that seek to address the "sick of Aids" phenomenon (Mitchell & Smith 2003). These methodologies have shown the potential to bring about social change through democratic community-based participation while enabling the community's voice to be heard (Mitchell, De Lange, Moletsane, Stuart &

Buthelezi 2005). Visual and arts-based methods are a broad category that includes drawing, photography, music, poetry, dance, electronic media like video and computers. All these are used as tools to entertain, teach and learn, foster creativity, self expression and interpersonal communication and the relationship between visual art, history, culture and society (Mitchell 2008).

Digital archives in visual research

Building digital archives has become a key area in the field of information management including work in the area of HIV and Aids. Digital archives are valuable for present and future generations of researchers and the public at large (Park, Mitchell & De Lange 2008). However, the full potential of such material can be realised only if the resulting digital objects are easily accessible, have a suitable search function, can be manipulated and are accompanied by sufficient metadata to support the use of data (Linden & Green 2006). Metadata is data or descriptive information about a resource (Lombardi 2008). Gill (1998, in Park *et al.* 2008) defines metadata as structured descriptions – stored as computer data – that attempt to describe the essential properties of other discrete computer data objects, e.g. digital objects (photographs), in terms of the title, creator, subject, date, keywords, abstract, indexes finding Aids, hyperlinked relations between resources and annotations by users (Park *et al.* 2008).

Archives have a great deal to contribute to those who are exploring social life as it is unfolding. In the context of visual representations of HIV and Aids there is a strong case to be made for the use of archives to capture how the pandemic is unfolding. Alongside this is the need to develop systems for precise and consistent record-keeping in an attempt to satisfy the norms of transparency, verifiability and repurposing of data. Elsewhere the process of creating a digital archive is described in more detail (Park, Mitchell & De Lange 2007).

Working with educators, community health care workers and learners in the Learning Together project (De Lange 2003), and using photovoice to address issues around HIV and Aids, a collection of about 500 photographs was generated. In considering how these might be stored, managed and made accessible to researchers, community members and educators, a protocol was developed to pilot, working with a small data set emanating from working with Grade 8 and 9 learners around addressing stigma in their school and community. The photographs depicted the learners' awareness of HIV and Aids and awareness of HIV-related stigma and its impact, but also acceptance of personal agency and taking action (see Moletsane *et al.* 2007). The 125 photographs (from the larger collection) were scanned, coded by adding metadata, using Dublin Core (2008) and Greenstone Software (n.d.) to build the digital archive, which is currently hosted on http://www.disa.ukzn.ac.za on a restricted site.

METHODOLOGY

For this research project a community-based participatory methodology was adopted, and informed by the theoretical frameworks previously explained. Community-based participatory research (CBPR) aims to bridge the gap between knowledge produced and

practices used in communities to improve health (Clinical Information 2004). As a methodology, active community engagement in shaping the research and intervention strategies is promoted, as well as in conducting the research (O'Fallon, Tyson & Dearry 2000). CBPR is also an interactive cyclical process, incorporating research, reflection and action.

In this study previously produced visual data (the photographs) was taken back to the community that participated in the initial research, aiming to facilitate their accessing and working with the data to improve the health of the community. Involving the community is important, and Parker and Aggleton (2003) urge such involvement of the intended beneficiaries in all strategies related to HIV-intervention. CBPR recognises the unique strengths that each participant brings (Eloff & Ebersöhn 2004) and has been used in interventions for stigmatised mental illnesses (Cowie, Boardman, Dawkins & Jennifer 2004). In the process of exploring what educators can do with the data, community-based participatory methodology also enabled us to collaborate with the community in a way that facilitates agency (Marsden 2002). Although this was not an intervention programme, the participatory nature of the work can bring about social change, as it benefits the community and develops knowledge applicable to their settings but also transferable to other settings (Macaulay 2007). It is important to note that CBPR focuses on research which is of importance to the community and seeks to combine the knowledge with action and the intention of achieving social change (Cornwall & Jewkes 1995). More often the culture of the community can present itself as a barrier (Stuart 2006), and CBPR can help overcome cultural challenges when conducting research in culturally diverse or unique communities. This is also relevant in this research as the educators were working a rural area in KwaZulu-Natal.

Research setting

The two schools from which the participants were drawn are located in rural KwaZulu-Natal, where statistics indicate that the HIV and Aids prevalence rate (CAPRISA 2005) and Aids-related morbidity and mortality are having an overwhelming impact (MacQueen & Abdool-Karim 2007). As noted above, this research drew from secondary data of HIV-stigma staged photographs which were taken by Grade 8 and 9 learners in the Vulindlela district in exploring and addressing HIV-related stigma. The digitisation of photographs took place at the Centre for Visual Methodologies for Social Change which is housed in the Faculty of Education at the University of KwaZulu-Natal. The exploration of the archive with the educators took place in the schools in the rural district. Oe school had a computer laboratory with Internet access allowing us to work on the Internet; the other did not, requiring us to work with an interactive CD and on two laptops.

The sample

The participating educators for the ICT-based focus group interviews (Nieuwenhuis 2007) were purposively selected, as Mitchell *et al.* (2005) contend that voices of educators should be heard in debates about curriculum and care in addressing HIV and

Aids, as well as HIV-related stigma. Here we worked with teachers who are directly responsible for raising awareness and prevention of HIV and Aids; assisting the infected and the affected; dealing with the trauma of illness and death of others (Bhana, Morrell, Epstein & Moletsane 2006); as well as trying to address the issue of stigma.

The educators have a common problem, interest or goal, and therefore the 14 educators (5 males and 9 females) from two schools in Vulindlela district, where the data was generated previously, participated. Some of the participants had taken part in the Learning Together project where the educators at one school identified HIV-stigma as a barrier to the HIV- intervention programmes. Consequently photovoice was used in an attempt to address stigma in a different way. The selection of this specific group of people was deliberate as they had been involved in a specific part of the research project (Denscombe 2005). The choice of the participants was not only informed by the knowledge they have, but it was also driven by the data production method adopted. As part of the project each school was provided with a laptop and data projector and had been briefly trained in the use thereof.

Data generation

The data generation was based on engaging the participants in what might be described as a focus group/workshop approach. Building on the notion of focus group interviews which have the potential to encourage debate among participants about a particular topic which then enables them to build on each other's ideas, generating an in-depth view (Nieuwenhuis 2007), we set up a workshop environment with the educators. There they were able to generate different ideas on the use of the digital archive and they enhanced each other's ideas in suggesting several uses of the digital archive, as becomes clear in the explanation of the process.

The process

Part 1: Exploring the archive

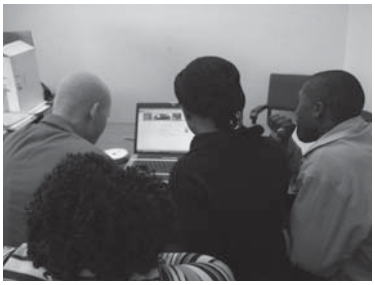
The initiating activity of the "workshop" was to consider what a digital archive is, what it contains and how to access it. Each participant in the group had an opportunity to access the data (through the website or interactive CD) and then to look at the data set which shows the nature of stigmatisation in this rural school through the eyes of Grade 8 and 9 learners.

FIGURE 1: THE DIGITAL ARCHIVE

Planning

Once the educators had seen what a digital archive looked like, and had scrolled down through the archive to see what the content of the archive was, a discussion on how the digital archive and its metadata could be used in facilitating the understanding of issues around HIV-stigma with learners was initiated. At this point each educator chose a photograph they thought they could use in their classrooms to address stigma. The purpose then shifted to designing their own exercises which they could try out with their learners. The planning phase was videotaped, audiotaped and supplemented by field notes.

FIGURE 2: WORKING WITH THE ONLINE ARCHIVE



Part 2: Trying it out

An unexpected component of the project was the fact that the educators insisted on trying out their designed lesson activities with their learners and enthusiastically discussed the practicalities thereof. In the end, one educator at each school was identified to try out the lesson plan with a class of learners. The process was videotaped.

FIGURE 3: USING THE ONLINE ARCHIVE IN A LESSON

Part 3: Reflecting

The educators returned to view the video recording of the lessons. This was followed by a group discussion, reflecting on their views on using the digital archive in the lesson. This again allowed for the refinement of their thoughts on the use of the digital archive with learners in their rural school. This too, was videotaped.

FIGURE 4: SAMPLE PHOTOGRAPH FROM THE ARCHIVE

Data analysis

Qualitative data analysis is primarily an inductive process of organising data into categories and identifying patterns among the categories (De Vos 2005). This process of interpreting data is done for the purpose of drawing conclusions which reflect the interest, ideas and theories of the study (Babbie & Mouton 2004). The data from the focus group interviews answer the critical question on how digital archives can be used optimally, and was analysed using Tesch's descriptive analysis technique to identify units of meaning and to look for emerging themes as described by Creswell (1994).

The scope of this article does not include the types of activities the educators generated, nor the lessons they tried out, but rather their views on how the digital archive might be used. The raw data was transcribed from audio-tape to text, including non-verbal cues. It is from the transcribed interviews that an analysis was done in order to come up with themes.

Ethical issues

Ethics, according to Neuman (2006) and Babbie and Mouton (2004), refers to the acceptable moral principles which guide the researchers' conduct and activities during and after the research process. Principles of equity, honesty and human consideration were adhered to. Furthermore voluntary participation was proposed as we explained and it was also indicated in the consent form that they could withdraw from the research process at any stage. Before each session we re-emphasised that the photographs in the digital archive were staged or were "made" by the Grade 8 and 9 learners to depict stigma, even though the participants were quite aware of it as it they had been part of the project. This digital archive, consisting of staged photographs and the accompanying metadata, is hosted on a website with restricted access (Maree & Van der Westhuizen 2007). This compels us as researchers to approach using the photographs with care, often using photographs which do not identify the participating learners.

Ethical clearance for the research was obtained from the University Ethics Committee. Permission from principals from both schools was obtained and all participants who volunteered signed informed consent forms. The focus group participants agreed that the focus groups discussions could be videotaped and transcribed to allow for accuracy of representation.

FINDINGS

In this section we present the findings from exploring the use of the digital archive of the staged HIV-stigma photographs. In so doing we look at five key thematic areas.

Pedagogical strategy

There was agreement from the participants on the use of the digital archive as a general pedagogic tool, using a photograph and its caption as a stimulus to evoke some response. Considering that the educators were working in a rural school with few technological resources, envisaging using the digital archive represents a shift in thinking. Their suggestions focused on different approaches to using the archive, varying from projecting a photograph on the screen using a data projector and working with the image collectively, to a more individual engagement with it. One of the participants, for example, suggested using the data projector to project the picture and allow students, in a group, to read the captions, critique them and suggest appropriate ways of treating HIV-positive people:

> *I can use it for my Life Orientation class. When I want to teach about HIV, I can allow them to talk about the collection… take one picture and talk and just talk about this issue of HIV and anything you can say. Then they come up with some ideas on the HIV-stigma, because even in subject you can use those pictures, because those pictures talk, they talk anything you want them to talk… help learners understand stigma using the picture in the classroom and that how all learners should help each other in eliminating the stigma.*

Education and life skills training in schools are fundamental to effecting appropriate behavioural changes among youth (WHO 2008) and hence teachers are a crucial link in engaging learners with HIV and Aids and they therefore need to acquire good teaching strategies (Kelly 2002). UNAIDS (2002) suggests that national Aids programmes should aim to provide learners with Aids education addressing effective prevention, non-discrimination, and care and support for people with HIV and Aids. However, issues of sexuality and Aids education are often not discussed with children and young people in schools due to religious, cultural or social sensitivities to sexuality and HIV and Aids. Moreover, the availability of information does not guarantee its application and schools may teach information on Aids but not the behavioural skills needed for prevention and support. Kelly (2002) suggests methods that are interactive and participative to be considered because they allow for discussion and some form of action.

Other participants suggested allocating a computer to each learner allowing the learners to browse through the collection individually and make their own suggestions on

addressing the issue of stigma. Notwithstanding the technological and financial challenges to realising this as a viable option, the recommendation points to an innovative and sensitive way of raising awareness and allowing individual reflection and response to the stigma attached to the epidemic:

> *...if it is one-to-one everyone... he will be learning and thinking 'what am I going to say?' and 'how am I going to write?', everyone is working and the individuality...will also help stop the laughing at each other.*
>
> *... and the department has introduced the learner centred..., that is ... the teacher will just facilitate and the learner ..., and the learners are hands on...*

Although it is argued that technology can result in losing the dynamic, interesting, face to face discussion with students in the classroom, it does have the advantage of allowing thinking and reflecting on sensitive issues which are not easily publicly discussed with learners (Educational Technology Services 2008). Also, it has been suggested elsewhere that student participation – when using ICTs – improves because there is more depth and thoughtfulness in the online individual discussions (Education Technology Services 2008). The work could be more graphic, comprehensible and interesting to students when incorporating diagrams, photographs, videos available on the web or enabling an educator to give lessons and assignments via a CD-ROM. Learners can also repeat an exercise in their own time and at their own pace. The participating educators presented a similar idea in terms of using the digital archive.

Breaking the silence

The educators clearly saw how the digital archive consisting of a collection of photographs "made" in their own community has and could indeed open up a space to break the silence around HIV and Aids. As we have been working in the community since 2004 we now see how slowly but surely the educators are beginning to tap into their own willingness to intervene in the lives of their learners:

> *You know, I remember this project since 2005, when we were involved in this project. I could think when a person comes to me and tell me about his status, because you see, I couldn't imagine a person doing that. I don't know what I could have done during those years but now I sit with them and talk about it without any problem. I think this project has made some difference.*

A further suggestion in breaking the silence is extended beyond using the digital archive and its photographs with learners in the class, and to use it in an educational campaign in the community, in an effort to encourage both females and males to talk about the disease:

> *... because in this photograph ... I was just thinking of a campaign, educational campaign, directed to males so that they are as accepting as females, then the gospel spreads...*

> *Right now we are living in a stage where people would say I am going to Songonzima clinic because I have stomach ache… we should reach a stage where people talk freely about his illness.*

Forman (2004: 1) writes that the phrase "silence equals death" used during the eighties by American Aids advocates still describes the danger of a lack of information and communication around HIV and Aids. In South Africa people still do not communicate about issues of HIV (Deacon 2005) and lack of information still persists, even more so in rural areas. This is evident in the statistics of new infections and the number of people who are infected versus those who go for treatment (Steinberg 2008). Here, a lack of information and a lack of voice continue to be primary causes of infection among the worst affected groups – women and the youth (Campbell, Foulis, Maimane & Sibiya 2005).

Allowing for projection of feelings

It is interesting that the educators explored the idea of how the photographs could possibly allow learners to project their feelings about the disease. In a community where it is difficult to talk about HIV, the importance of accessing and using the visual to create opportunities to talk about it objectively as "out there" and away from self, is much safer and critical to get the issues out in the open. The educators thought that the captions, written by the original photographers and included in the metadata, could be used to trigger further dialogue and expression of different views:

> *…captions, I like that because it has something that can open … open up some discussions ... the way people who are HIV positive should be treated …*

Using the photographs without their captions could also allow for projection of the learners' own feelings, without being influenced by the captions:

> *I can give them a task, take any picture, any picture without the captions and let them say anything about the picture and relate it with HIV stigma. What can they say about the picture?*

Web-based education for the youth may be especially useful in certain cultural contexts and specifically around sensitive health issues like HIV and Aids as it allows for engagement with sensitive information (Berger, Wagner & Baker 2005) and can be accessed any time. In a rural area where resources are scarce, the digital archive can become a rich resource for learners not only to learn to use it, but also to contribute their own views on health issues including the issues of stigma, and in so doing contribute to producing knowledge relevant to the youth and their particular culture and context.

Influencing school policy from grass roots

Various viewpoints on the use of the digital archive were expressed by the participants, also using it as a resource to draw on when developing a school policy. This is what Wang (1999) intended and achieved when she worked with the marginalised female farmers in Yunnen province in China, engaging them in photovoice to make their voices heard and to influence policy makers. In this study one participant suggested:

> *I am thinking of a possibility of using the whole collection, especially because it concerns their school, they can give their views in trying to come out with an HIV and Aids policy.*

It is often said that policies are easily generated, but not implemented. If the policy is informed by local and relevant information from grass roots level, the chances of implementation and bringing about change could be better. This concurs with the UNAIDS (2002) notion that maximum effectiveness of a policy requires partnerships between policy-makers, religious and community leaders, parents, and educators in formulating sound policies on Aids education; using curricula adapted to local culture and circumstances; focusing on life skills rather than biomedical information; teaching learners to analyse and respond to social norms and to understand which norms are potentially harmful and which protect their health and well-being; and training of teachers and peer educators.

Information and communication (and the technologies that facilitate them) are key elements of a community's response to the epidemic, enabling advocacy, mobilisation, and empowerment of people living with HIV and Aids, women, and other vulnerable groups. ICT also increases democratic participation. An example of using ICT to better understand the educational and sexual health needs of secondary school students and to share this knowledge to improve policy and services for adolescents is the TeenWeb (Halpern, Mitchell, Farhat & Bardsley 2008). The use of the digital archive with educators in their rural community holds potential to inform policy making, particularly so at school level, but also at other levels.

Creating a sense of agency

The responses of the participants indicate that the digital archive containing photographs addressing issues around stigma can be used to enhance a sense of agency. One photograph showing a deserted classroom, according to a participant, can evoke discussion about where the learners had gone and can create the opportunity to discuss the need for personal agency, such as changing own behaviour and contributing to social change in the community:

> *... the fear that this photograph leaves, could make them start talking ....and start developing lessons on the prevention of the disease because it makes you feel obligated to do something before this gets worse. You can use it to develop a whole chapter on prevention*.

Another participant elaborated on that:

> *As a learner is using this kind of learning which interest I think they can develop a positive attitude.*

The above points to the educators' agency, while the data in the archive also showed learners rethinking their role in stigmatisation, suggesting how they themselves might take action. Individually tailored and relevant web content targeting learners has shown promise although little evidence is currently available on the usefulness of web-

based health education strategies for students in low resource settings (Halpern *et al.* 2008). Our work here is beginning to suggest that it could be useful in various settings, but in particular in this under-resourced rural setting. Neuhauser and Kreps (2003) concur that health promotion efforts that are mediated by computers and other digital technologies may have great potential to promote desired behaviour changes through unique features such as customisation, interaction and convenience. E-health communication can improve behavioural outcomes (Neuhauser & Kreps 2003). However, we have yet to learn whether the technical promise of e-health communication in this study, i.e. the digital archive, will be effective within the social reality of a rural landscape.

The challenge is to use this body of visual knowledge (photographs and its metadata) contained in the digital archive to create space for engagement and to inform interventions at school and community level that will facilitate taking action, individually but also collectively. An effort to transfer and to share the information using the digital archive in this research could allow educators and learners in a rural area to address the issues of HIV and Aids stigmatisation.

Transferring information on ARVs

The participants suggested that if intervention strategies fail to address the seriousness of the pandemic, classrooms will remain empty, as depicted in Photograph 1.

> *I think I can bring to their attention that there are anti-retroviral now available so there is no need to wait until the classes are empty while there are ARV. I can inform the learners that there is the treatment that prolongs [living with] HIV because many people are dying because they lack the knowledge. Then they can even spread the news at their homes that people must come out and get tested so that they get the treatments at the right time before we see empty classes. People should not be afraid to go and get the treatment.*

Sharing the fact that HIV and Aids is a medically treatable condition and that anti-retrovirals (ARVs) are available may reduce the stigma ascribed to people with HIV and Aids. Treatment is one of the greatest possible incentives for people to be tested, and therefore they need to be informed regarding prevention, intervention and care. Steinberg (2008), in *The three letter plague*, explores how HIV and Aids plays itself out in a rural town in the Eastern Cape, and concurs that people prefer to die rather than to be tested and face the stigma of Aids. Educators suggested using the digital archive to disseminate the critical message to the community – that there is life after testing, and that knowing you status, if positive, can put you on the path to treatment and life.

DISCUSSION

While resource limitations and infrastructural shortages hamper both extensive ICT connectivity and significant scaling up of a comprehensive response to HIV and Aids, South Africa has the human resources necessary to enable an effective response to HIV and Aids. The Department of Health has initiated a Telemedicine pilot project aimed at

developing a cost-effective e-health system in the country and are exploring various bandwidth solutions for rural areas in the province (Muchie & Baskaran 2006).

An example of an innovative solution is seen in Rwanda. The use of ICT ensures rapid diagnosis and dispensing of drugs in areas where infrastructure is limited. In Rwanda, TRACnet was established and implemented by TRAC (Treatment and Research Aids Centre), an institution of the Ministry of Health, in 2005. It is a dynamic information technology system designed to collect, store, retrieve, display and disseminate critical programme information, as well as to manage drug distribution and patient information related to the care and treatment of HIV and Aids. TRACnet uses solar energy chargeable mobile phones, which can be used in the most remote parts of the country (TRACnet 2008).

Such initiatives indicate the potential that ICT holds in addressing the HIV and Aids pandemic in general, but specifically so in rural areas. The South African Ministry of Education is trying to increase ICT access in schools and gazetted a White Paper on E-Education (DoE 2004). Various projects are also underway to provide ICT access to rural schools, but it still remains too little (Dlodlo 2009).

However, we concur with Muchie and Bakaran (2006) that technology is not an object to be aimed at, and limited to specific areas, but a tool to be used for the benefit of all and in this case, to benefit people living with and stigmatised by HIV. Forman (2004) asserts that a primary impediment in the fight against Aids is a lack of information and communication about the disease. ICTs hold vast potential to combat the spread of the disease, as key elements of all aspects of HIV/Aids strategies, including prevention, treatment and care and protection of human rights. They offer potential solutions to misinformation and myths, silence and denial, and stigma and discrimination against people living with HIV and Aids. They are also key to a civil society response to the epidemic, enabling advocacy, mobilisation, empowerment, and participation.

CONCLUSION

In making the case for community engagement with a digital archive in two rural schools, we believe that there is a great deal of potential to "save lives" in the age of Aids. By this we mean that the findings suggest that the use of ICTs can enable people to access relevant, realistic and suitable information, which may help to counteract negative feelings, fear, embarrassment and the stigma of HIV and Aids in a rural community. Technologies appear to be very effective in facilitating community participation in the production of local knowledge and perspectives even though language, computer literacy and access can be barriers. More than anything we saw how imaginative, creative and problem-solving oriented educators can be in relation to the digital archive. While this study is exploratory and calls for further work to be done, we see it as a promising entry point to the engagement of educators and communities in finding their own solutions to addressing HIV and Aids.

Endnotes

[1] This data set emanates from the work done in the Learning Together Project involving teachers, community health care workers, parents and learners in rural KwaZulu-Natal in addressing issues around HIV and Aids (NRF 2004-2006) (Naydene de Lange, Claudia Mitchell, Relebohile Moletsane, Jean Stuart, Thabisile Buthelezi, Myra Taylor and Fikile Mazibuko).

[2] This notion takes up the idea of the *Digitization and Data Management with Visual Data in Social Research: Giving life (to data) to save lives* project (NRF 2008-2011) (Naydene de Lange, Claudia Mitchell , Relebohile Moletsane, Jean Stuart, Thabisile Buthelezi and Myra Taylor).

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