Illiteracy is Insecurity: Education, Technology and Disability in South Africa

Charles Dube, M. Sc.
University of Fort Hare, South Africa

Abstract: This treatise argues that illiteracy is insecurity and, in South Africa, education has eluded the majority of disabled people. A technology divide is intensifying the able-disabled divide that has always existed in South Africa, thus creating a "cartel of satraps" that plunges the disabled into marginalization.

Key Words: technology, social cohesion, security

Introduction

In South Africa, access to primary and secondary, let alone higher education among disabled people has remained slim. Disabled students who have managed to enroll at higher education institutions have encountered a number of problems associated with unfavorable social and technological environments. Their disadvantaged position in relation to access to education has had cumulative effects. With limited professional expertise, disabled people have found it very difficult to penetrate the job market, thus plunging them into economic insecurity, with its attendant insecurities such as food insecurity, and health insecurity. It is estimated that more than 80% of South Africa's 2.5 million disabled people are unemployed (Statistics South Africa, 2005). The Commission on Human Security (CHS) defines human security in the following fashion:

> "Human security is concerned with safeguarding and expanding people's vital freedoms. It requires both shielding people from acute threats and empowering people to take charge of their own lives. Needed are integrated policies that focus on people's survival, livelihood and dignity, during downturns as well as in prosperity" (CHS, 2003, p. iv).

The above definition highlights that human security is multifaceted. In addition to these conventional forms of human security, Gregor Wolbring (2006), founder of the International Centre for Bioethics, Culture and Disability, adds ability security as well as self-identity security.

The over-arching argument of this paper is that illiteracy is insecurity. As is noted by the CHS, education can give people freedom to promote their human security and that of others. It is also education and knowledge that enables disabled people to identify common problems and act in solidarity with others. By making people effectively vocal, education and information can play a significant protective role and can thus further human security. This, however, cannot be achieved without the existence of a clearly defined legislative framework that opens disabled people's access to and use of support services that enhances their social, political and economic position within mainstream society.

Both education and appropriate technology have eluded the majority of disabled people in South Africa. Where technology has been used in higher education institutions as a means of support services to people with disabilities, it has been used within the medical model of disability, with its attendant assumption that disabled persons are objects of professional intervention, a burden for themselves and their families, and dependent on other people's charity. The medical model of disability is a model by which illness or disability is the result of a physical condition, is intrinsic to the individual (it is part of that individual's own body), may reduce the individual's quality of life, and causes clear disadvantages to the individual. In South African higher education institutions such as technical institutions, technology, however perceived and used (that is, whether within the social model or the medical model of disability), has been least provided to people with disabilities. Issues of targeting in the production and provision of technology have meant that those who are able to pay for the technical services are offered such services. This has created a technology divide between the financially muscular and the financially challenged. Where attempts have been made to provide technology to disabled people, little consultation has been made with them to ascertain their needs.

Closely related to the issue of financial targeting is lip service paid by the government to the practice of higher education transformation to cater for the needs of disabled students. As the paper argues, education transformation is a discourse that has not been turned into full practice. Because of this, South Africa has remained, as C. V. McClain (personal communication, June 14, 2002) points out, "A country of three nations." Not only is it divided along racial lines (that is, between blacks and whites), but also along the ability-disability divide. People with disabilities still face unacceptable social and economic exclusion, with the disabled people being among the poorest of the poor and more likely than able-bodied peers to be uneducated. Thus disabled people have come to constitute the third nation in the sense that the country is already divided along white-black divide, a divide which also determines differential access to socio-politico-economic resources (McCain, personal communication, June 14, 2002).

Against this background, this paper argues that a socially cohesive society becomes necessary. While disabled people's movements in general and disabled students in higher education in particular can unite and fight for inclusion within society, holistic social unity requires that government, civil society organizations, and disabled people's movements understand the need for such unity and collectively strive for a division-free society within education institutions. This is beneficial not only to disabled people, but also to the non-disabled people (Disabled Peoples' International North America and the Caribbean, 2008). The argument is that constructing "special" academic institutions for people with disabilities can intensify stigmatization of this group of people. Where such schools are constructed, for example, among Deaf people, questions relating to the social rather than technical need to do so have to be considered.

The future of technology is examined; whether it will be invented with issues of its implications for human security in mind; whether it will increase personal freedom or lock the human being within itself (technology); whether it will become a means to an

end or an end in itself; whether it will adapt to the human being or the human being adapt to technology; in a nutshell, whether it will be invented within the medical circles of disability or aligned to the social model and understanding of disability. For instance, this relates to whether a wheelchair is provided to enhance human beings or as a device that is used just as a bicycle is used by non-disabled people.

It is also important to note that while this paper focuses more on educational insecurity than other insecurities, it acknowledges the multifaceted nature of human security and also makes reference to other forms of security. The treatise also simultaneously addresses and proposes the way forward vis-à-vis existing gaps in human security and social cohesion in relation to higher education.

Developing a Person's Security: Illiteracy as Insecurity

Human security entails the removal of depriving contingencies to accessing education. According to the Commission on Human Security (CHS), "Educational deprivations are particularly serious for human security. Without education, men and especially women are disadvantaged as productive workers, as fathers and mothers, as citizens capable of social change" (CHS, 2003, p.14). From this statement, it emerges that governments have to prioritize education the same way as they do other forms of security such as economic security, environmental security, and national political security.

In South Africa's higher education institutions, broadly defined rights of disabled students to access to education as well as support services within educational institutions have not been very helpful to them, especially for the most marginalized black disabled people. A charity-based approach to the provision of education and support services has meant that the rights of disabled people are not clearly defined. This section provides a brief historical and current account of this state of marginalization with the goal of analyzing how this has contributed to the educational insecurity of the majority of disabled people in general and of students in particular.

Racial inequalities between blacks and whites characterized apartheid education in South Africa's 36 public higher education institutions (Howell, 2006). The majority of black disabled people of school-going age were highly insecure in relation to access to both lower and higher education. With increased attempts to democratize (however defined) the country from 1994 onwards, the government focused more on increasing participation of black disadvantaged students in higher education institutions than on disability rights, hence the peripheral status issues of disability rights occupied during this period. Matshedisho (2007) notes this when he says that the path towards disability rights and their relevance for support services for disabled students in South Africa has been overshadowed by struggles against apartheid. He observes that, " While disabled students in some developed countries fought for their rights and access to higher education, South African students were generally fighting for political rights and access to exclusively white higher education institutions" (Matshedisho, 2007, p. 694). Although he did not specify which students were fighting for political rights, it is almost clear that the majority, if not all, of these were blacks. To date, despite attempts to increase

participation of blacks, limited attention has been placed on addressing issues of access and participation for students categorized by the government's National Plan for Higher Education (NPHE) as "non-traditional students," among which are disabled students (Department of Education, 2001a, p. 28).

Because of this exclusion, many disabled people have not been able to access education, with 70% of disabled people of school-going age being estimated to be outside the general education and training system (Office of the Deputy President, 1997). For those who have been able to access higher education, the socio-technological environment has not always welcomed them. Depending on the institution, the provision of support services for the disabled students is between slim and zero. Research carried out by the Department of Education (DoE) (2001), through its Council on Higher Education, revealed that Technical institutions are least positioned to provide support services for disabled students, mainly because they offer career-specific qualifications, which might have prevented disabled people from participating in an already discriminatory recruitment and labor process (DoE, 2001). Those few institutions that have been able to provide support services for disabled students have done so with a medical perception of disability rather than a social one. For instance, within the medical model of disability, wheelchairs are provided to "correct" a "defective" body. This has not helped much in changing the perception of disability in society. As Riddell (1998) notes, while the provision of necessary assistive devices such as a Brailling machine may be necessary for some students, using that technology without understanding "the social context" will not bring about the changes that are needed (Riddell, 1998, p. 217), namely adapting the social environment to understand the needs of disabled people, not vice versa.

Feeding into this discriminatory system is the lower education schooling system, with its lackluster approach to the provision of advice to disabled students vis-à-vis subjects that prepare them for higher education. Odendaal-Magwaza and Farman, (1997) note that in higher education, disabled students have reported being denied access to certain courses because they are believed to be unable – due to impairment – to meet the course requirements. Examples include courses involving fieldwork or practical professional development in off-campus facilities; courses that entail the studying of visual material or the use of particular types of equipment; and courses which require extensive interaction with the public. All this has meant that those who have managed, and those trying, to enroll at higher education institutions live in insecurity of: whether they will fit into the general institutional environment or not; whether the wheelchair users will find conducive pavements to travel on or otherwise; whether the visually impaired will be provided with Braille; whether for those who are visually impaired, books in large print will be provided that enable them to read and to find information found in other small print sources; and whether disabled students will be able to complete their studies whether or the conditions will not permit them to do so.

A person's level of education can either increase or reduce their employment status, and the ability to use available technical, social and political resources to increase his or her freedom, choices and control over his or her life. With the intensification of the

use of science and technology to "enhance" and "perfect" the human being, there is need for disabled people to stay abreast with the local, regional as well as global trends in technological research and developments. This will help discern its utility for the intended beneficiaries. This can only be done if the disabled are educationally empowered to discern the negative and positive impacts of emerging technologies. People's security and quality of life are put at stake if they are unable to read and write. This is so because "illiteracy and innumeracy are themselves insecurities" (CHS, 2003, 14).

While much has been said by the government about educational transformation to cater for the needs of the disabled students, very little has been done to effect this. There is over-reliance on the discourse of transformation, which is not accompanied by the practice of such transformation by the government and higher education institutions. Evidence of such lip service to transformation is found in government documents such as, "The National Plan for Higher Education" (NPHE) (2001), formulated by the Ministry of Education to set down guidelines on the transformation of higher education in South Africa. The NPHE recommends the development of regional strategies to support disabled students. After acknowledging a lack of data on students with disabilities, the paper concludes in the following fashion:

> "The Ministry recognizes that it may not be possible for every institution to provide the full array of infrastructure needed to service the specific educational needs of disabled students. This provides an opportunity for institutions within each region to develop regional strategies, which would ensure that disabled students are catered for within the region. However, at a minimum, all institutions should have the basic infrastructure to allow access to the campus for disabled parents and members of the community more generally" (Ministry of Education, 2001, p. 41).

As sound as such propositions are, very little, if anything, has been done to see to it that basic infrastructure has been provided in institutions to allow access to the campus for disabled students and members of the community, let alone providing opportunities for institutions to devise regional strategies to cater to people with disabilities. The government and higher institutions of learning, therefore, recognize the need for cohesive policies within the disability circles but have very relaxed follow-up mettle. One of the reasons for this lip service to the provision of support services has been a lack of adequate funds to provide them, hence the "Education White Paper 6 on Special Education," released by the Department of Education in July 2001, acknowledged the need to establish these support services, however, on a minimum basis because, "It will not be possible to provide relatively expensive equipment and other resources, particularly for blind and deaf students, at all higher education institutions" (DoE, 2001, p. 31).

With such a "vague commitment" (Howell & Lazarus, 2000, p. 1) towards addressing the concerns of disabled people, little attempt has been made in the process of policy implementation to address the barriers in the education system, which continue to

exclude learners with disabilities from higher education institutions and/or from the process of teaching and learning. Similarly, to date, initiatives to accommodate diversity and the building of equity have failed to specify mechanisms towards addressing the full spectrum of learning needs among the learner population (Howell & Lazarus, 2000, p. 1).

Science & Technology and Targeting (S & T)

Issues of affordability, accessibility, availability, usability, and utility of current and emerging S & T need to be considered from disabled people's perspectives. There is a need to question whether technology increases the independence of its user, both the disabled and the non-disabled and most importantly, whether the technology is provided within the social model view of how such technology is to benefit disabled people. Independence has to be defined by the intended beneficiary of such technology, not by the service provider. When it comes to the production of technology perceived to benefit disabled people, there has always been little, if any, consultation with disabled people. The expert bias that pervades research and development means that disabled people are relegated to the status of users only.

The invention of technology is not always influenced by altruism. While genuine grounds to help may exist on the part of those who invent a particular technology, there is almost always the business aspect of such inventions. Concerning S & T, the World Council of Churches (WCC) notes that science and technology applications are not value-neutral. The intentions, purposes, and actions that shape the direction, advances, and policies for science and technology use, research and development embody the perspectives, purposes, prejudices, particular objectives, and cultural economic, ethical, moral, spiritual, and political frameworks of different social groups and society at large (WCC, 2005, p. 57).

For disabled people who have been able to get education in South Africa, this has been viewed as an act of goodwill rather than viewing it as a right. Consequently, even services to cater for them, especially in institutions of higher learning, are very limited. Matshedisho (2007) notes this when he says that the provision of support for disabled students in South Africa finds itself in a contradictory position of espousing disability rights and the social model of disability, yet being embedded in the practice and legacy of benevolence. A lack of political will on the part of government and higher education management structures to provide disability support services is testimony to this benevolence.

Against this background, groups that fight for the integration and inclusion of disabled people become more needed than ever. Because social cohesion involves a definition of who is "in" and who is not (Beauvais & Jenson, 2002), disabled people need to strengthen their fight for representation, inclusion, and participation through a united front.

The question of targeting also accounts for the availability of very limited means of public transport for disabled people. In Morocco, Sarah Touahri chronicles the

difficulties faced by disabled people in accessing public transport. She narrates the story of Raja Fatini, 25, who lost both her legs in a terrible automobile accident seven years ago and how this shattered her dreams of becoming a doctor. "I got over the distress of my disability," she says, "But my broken dreams still haunt me." The synopsis of her story is as follows:

> "I was prepared to catch the bus with my wheelchair. However, public transport does not provide access for people like me, just the same as public buildings. My future was destroyed not because of the accident, but rather because disabled people are marginalized by the state" (R, Fatini, personal communication, April 25, 2008).

The above story highlights that education is also dependent on accessibility issues. It is because of this perception that the Union of the Physically Impaired Against Segregation (1976, p. 4) defines disability as:

> "The disadvantage or restriction of activity caused by contemporary social organization which takes no or little account of people who have physical impairments and thus excludes them from participation in the mainstream social activities. Disability is therefore a particular form of social oppression" (Union of the Physically Impaired Against Segregation, 1976, p. 4).

Fatini thinks that the Moroccan government should be responsible for integrating disabled people into society and the labor market. These sentiments echoed by Fatini also pervade the minds of many disabled across the globe.

Reflecting on Social Cohesion

Against this background of charity-based approach vis-à-vis provision of support services to disabled people, there is need for an integrated stance by people with disabilities to fight for access to such services. Social cohesion becomes crucial for the attainment of such services. Through social capital, social networks can be established that, subsequently, will lead to a cohesive front on the part of disabled people. Although attempts have been made to credit L. J. Hanifan with the first use of the concept of social capital (Putnam, 2000), the first direct mainstream use of the concept was by John Dewey (Farr, 2004). As Farr notes, Dewey used the very term "social capital" in four different publications (1900, 1909, 1915, and 1934), three of which preceded Hanifan's usage. Social capital appears in Dewey's writings for the first time in The Elementary School Record. Hanifan clearly read and prominently cited Dewey in the bibliography of his 1920 book on the community center, a topic upon which Dewey had famously spoken much earlier. However, Hanifan did not cite Dewey in his original Annals essay of 1916 (Farr, 2004). Developing on Dewey's writings, Hanifan, in 1916, argued the importance of community involvement for successful schools and invoked the idea of "social capital" to explain why. For Hanifan, social capital referred to:

"Those tangible substances [that] count for most in the daily lives of people: namely good will, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit....The individual is helpless socially, if left to himself....If he comes into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community. The community as a whole will benefit by the cooperation of all its parts, while the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbors" (as cited in Putnam, 2000).

From then on the concept of social capital gained popularity among social scientists and has continued to gain usage in more or less the same meaning (Putnam, 2000; Portes, 1998; Salisbury, 1969). As defined by Berkman (1984), social networks occupy an important position in the fulfillment of a number of basic needs such as intimacy, self-worth, a sense of belonging, and the satisfaction of both giving and receiving help. Among the disabled South Africans in higher education institutions, the formation of self-help groups helps them deal with isolation and enables them to develop their potential. As they gather in these self-help groups, disabled students share experiences with other disabled students in a way that will enable them to help each other. In such groups, the disabled students gain socio-politico-economic empowerment while at the same time boosting their self-confidence. Students also share information and experiences that will strengthen one another. Perhaps the most effective way of empowering people with disabilities is to provide them with the means to come together to benefit from the liberating effect of sharing common experiences (Ellis, 1993).

It is also important, however, to note the dark side of social capital. Portes (1998), for instance, identified four negative consequences of social capital: exclusion of outsiders; excessive claims on group members; restrictions on individual freedom; and downward leveling norms. At the same time, such negative consequences have been associated with "bonding," as opposed to "bridging," social capital.

Beauvais and Jenson (2002) have combined an interest in social cohesion with social capital to show the interactive elements of the two. With its emphasis on the importance of relationships (Field, 2003), the twining of social cohesion and social capital also point to the importance of a strong sense of belonging and a concrete experience of social networks in building communities. This calls for more than the work of disability movements in building such cohesive communities. The term social cohesion has been subjected to a diversity of definitions from the time it was coined by Emile Durkheim at the end of the 19th century. Theoretical and ideological orientations have influenced such definitions. As Jeanotte notes:

"The OECD (Organization for Economic Co-operation and Development) had the narrowest implicit definition of social cohesion, focusing almost exclusively on the economic and material aspects of the concept. The

Council of Europe, on the other hand, had an extremely broad definition of cohesion – so broad, in fact, that it had separated cohesion into three interrelated categories – democratic cohesion, social cohesion and cultural cohesion. The European Union has characterized its approach to social cohesion as being consistent with "the European model of society", founded on a notion of solidarity which is embodied in universal systems of social protection, regulation to correct market failure and systems of dialogue" (Jeanotte, 2000, p. 2).

Because of the absence of a single definition of social cohesion, it is still debated whether social cohesion is a cause or a consequence of other aspects of social, economic and political life (Beauvais & Jenson, 2002).

As a form of social cohesion, mainstreaming is also important in education. Within the education discourse, mainstreaming is the idea that students with disabilities can and should be educated alongside students without disabilities (DPINAC, 2008). In view of this, higher education institutions should not be separated into "special" and "ordinary" institutions. More often than not, this separation has meant a subsequent differential and unequal allocation of resources to "special" institutions. When financial resources are scarce on the part of the government, it is these "special" classes that attract secondary attention. The positive impacts of mainstreaming in education are illustrated in the following fashion:

"Segregating students in separate special education classes isolates and stigmatizes them, and often fails to maximize their academic potential. By placing students with special needs into a regular classroom, they are able to learn from, develop friendships with, and model their behavior after students without disabilities. Students with disabilities aren't the only ones who benefit from this arrangement; students without disabilities benefit as well…They learn that persons with disabilities are capable of achieving much more than that which most people generally give them credit for. They learn that all people deserve to be treated equally, with dignity and respect" (DPINAC, 2008, p. 14).

However, when and where separation is done, it has to be based on thorough assessments of the need to do so. For instance, some disabilities may require that such "special" schools be provided, for example, among the deaf. Because of the sign language they use, they may need to work in institutions outside conventional institutional settings. In such circumstances, provisions have to be made to ensure the availability of relevant support services and the training of personnel to work in such institutions. At the same time, it is in these institutions that 'special' technological inventions first find their way, where they are 'tested' to assess their efficacy in 'enhancing' personal ability. This means that in such institutions, the other dimension of human security, i.e., personal security, is put at stake (Linton, 1998). It should also be noted that some advocates of inclusive education are critical of a divisive sign language

education that targets only the deaf, advocating for universal instruction in sign language (Linton, 1998).

Conclusion

This paper has highlighted that illiteracy is insecurity, the neglecting of which can lead to other cumulative forms of insecurity. The treatise is that for the majority of the disabled people in South Africa a lot still needs to be done to enable them to access higher education. Some negative developments in relation to the structuring of education in general and higher education in particular have also been brought to light. This structuring manifests itself in the construction of "special" and "ordinary" schools for the disabled and nondisabled people respectively, a feature that reinforces discrimination against the disabled people in higher education. It is in view of such structuring that the author has argued for mainstreaming in education to help clear the ability-disability divide within higher education institutions. The "altruistic" tendency guiding the provision of technology has also been deconstructed, especially in view of cost-benefit drives that direct such production and provision. In view of the market-oriented motives that govern the production and provision of technology, the exposition emphasized the point that targeting becomes the norm rather than the exception, where those who can financially afford technology are targeted in its production. The analysis also revealed that where technological provisions have reached the disabled, this, more often than not, has been done within the medical, rather than social, model of disability. This has not helped clear the negative societal perception towards disability.

Charles Dube, M. Sc., in Sociology and Social Anthropology is currently pursuing a Master of Social Science in Development Studies with the University of Fort Hare, South Africa. Charles is also an Associate Editor, International Journal of Interdisciplinary Social Sciences, Australia (www.charlesdube.cgpublisher.com). His research focuses on disability rights and technology.

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