

IDIA International Development Informatics Association

**Proceedings of the 3rd International IDIA Development Informatics Conference
28-30 October 2009
Berg-en-Dal
Kruger National Park
South Africa
ISBN 978-0-620-45037-9**

Beyond Access: Technology as a Vehicle for Sustainable Community Development

Lennon, Mhishi
School of Arts
Monash South Africa, South Africa
lennon.mhishi@arts.monash.edu

Abstract

The use of ICTs for development by communities has been reiterated in a world in which numerous forms of technologies have taken centre stage. It is however important to explore the factors that may either enhance, or obstruct the realization of development and community empowerment, beyond the necessary access to the forms of technology. Without laying any claim to a panacea for a community or development informatics approach, the discussion hopes to bridge the technologically deterministic approaches, and those romantically emphasising the local and the social.

Keywords: ICT, community empowerment, development, Zimbabwe, gender, context, citizenship

Introduction

Development has been, and continues to be a very contentious and contested terrain, in which the tentacles of power and hegemony can be seen to extend in the jostling for discursive and practical dominance (Escobar 1995). No less can be said for the nature of information communication technologies (ICTs) and their relationship to the prevailing notions of development, whether the prescriptive, or the 'local and participatory'.

Africa, with a share of about 13% of the world's population, has only 1% of the total global telephone lines, 1 % of internet users, 1,2% of the total world internet sites and almost 0% of global ICT production (Adesina et al, 2006). In 2008, vice- president of Cisco's Africa Levanta Emerging Markets, Yvon Le Roux, pointed out that although Africa had almost 15% of the worlds population and 9% of the mobile phone users, it has less than 5% of internet users, less than 3% of the worlds PC's and a negligible proportion of broadband subscribers. Whatever shortcomings these statistics may contain, they converge in highlighting how Africa is lagging in the arena of ICTs.

Literature has reiterated in abundance the inevitable need for poor and disadvantaged communities to gain access to the forms of technology which can provide them with links to other sectors and activities, politically, economically, or otherwise, with the capacity to transform their livelihoods for the better. Gurstein (2003) provides an illustration of how technologies can be introduced and utilized in communities through what he terms community informatics (CI). Such technologies have been viewed as having the possibility of 'empowering' these communities, offering them new opportunities and strategies for 'development'. Trends in the introduction and utilization of ICTs have however revealed that the introduction of any form of technology, be it computers, mobile phones, and any other attendant technologies, does not, and cannot occur in a vacuum. It demands cognizance of contextual factors that mediate between the technologies and usefulness for empowerment and development.

Discussing women's position in development, Papart (2002) notes that there has been a tendency to romanticize the local, and development scholars and practitioners have tended to conceptualize 'communities' as wholly constituted entities, without adequate attention to the fissures that may be existent, and to the national and international factors which have a

considerable impact on the direction of the uses of technology and community empowerment. National ICT policy frameworks, levels of technological development, the nature of governance structures, whether there is transparency and ‘democracy’, are factors that certainly impinge on the nature of community development and empowerment with, and through ICTs. Similarly, the gendered nature of technology and development becomes pertinent, since considering them (technologies) as neutral independent processes clouds the embedded nature of the people who constitute these realities and the realities therefore.

The vitality of gender as an element that can be scrutinized, as pointed out already, as an exemplification of the micro-political elements that riddle empowerment, finds expression in how many scholars have sought to analyze the spaces that women have occupied in the realm of ICTs and development.(Hafkin,2003) In communities where women have been traditionally subservient to the entrenched patriarchal structures, their participation, and consequently ‘empowerment’ from the introduction and uses of ICTs, akin to that in any other sector, be it the economy or politics, has been limited and ‘unempowering’ producing further marginalization and disempowerment.

In scrutinizing the nature of community empowerment and development, using women as an epitomisation of the bedevillments that befall numerous efforts can provide a succinct case for what possible areas need further consideration, and in what ways. Technology is gendered in the manner that men, women, boys and girls may have different access and utilization.

The thrust in this paper is to explore the factors that may either enhance, or obstruct the realization that development and community empowerment, beyond the necessary access to the forms of technology. Without laying any claim to a panacea for a community or development informatics approach, discussion hopes to bridge the technologically deterministic approaches, and those romantically emphasising the local and the social.

A discursive framework of community and empowerment in development discourse is made drawing on arguments that have been made on what the concepts mean, and practical implications that accompany their use. This helps in providing an understanding of why it is vital to recognize the complex and contextual nature of what community empowerment and development may entail.

A discussion of the interplay of global and local factors that may impact on the use of ICT follows, in an attempt to locate community empowerment and development within the broader discourses on globalization, and also as an acknowledgement of the presence of transnational relations that influence local practices and development outcomes.

Examples will be drawn from the case of Zimbabwe, where the author has had personal experiences. The country's historical, socio-political, economic and other factors have created circumstances determining the utility of ICTs for community empowerment, and consequently for development. Zimbabwe will be used to exemplify the global –local-technology-development nexus, whilst examples will also be drawn from other areas to show the need for a holistic appreciation of ICTs for development. Gender can also, among other aspects, serve to show how aspects of power and ‘local’ socially and culturally constructed regimes have a role in determining the nature and extent of empowerment.

An interrogation of both the theoretical advancements and the praxis of community development is encouraged. In the mould of Giddens’ (1986) structuration theory, development informatics will benefit from acknowledging the limiting nature of global, national, and community structures on local people, whilst at the same time taking due cognizance of the locals’ agency and capacity to maneuver within those structures.

Locating Empowerment and Community in Development Discourse

Language has been recognized as capable of creating a perceived reality independent of that which may exist, or obfuscating the realities it seeks to enunciate, Staudt (1991). The use of empowerment and community in development cannot be exonerated from that ill, but neither should they be totally dismissed, for they may contain within them vestiges of a genuine desire for meaningful transformation and development. Such words can be conceptualized as carrying the allure of optimism and purpose that endow them with reasonable normative power. Cornwall and Brock (2005) note that there is something about today’s development language that is at odds with the hard-edged linearity of the dominant tropes in development thinking. In their opinion, such terms as poverty reduction, participation and empowerment in development have been buzzwords, and there is need to go beyond such superficialities.

Empowerment has been a 'motherly word' in development, as Papart(2002) notes. Having been popularized and constituted as a catchword, development organizations and practitioners were quick to jump onto the bandwagon of 'empowerment' as a fashionable concept

This 'empowerment' was in certain instances without the ostensible will and desire, or practical manifestations of any attempt to engage in any transformative activities which would actually see the transfer of 'power' from the 'experts' in development to the intended 'beneficiaries'. Twinned with the rhetoric on participatory development, empowerment has been imbued with unquestionable elements of power as it sought to dismantle the top-down, patronizing nature of previous forms of development practice that assumed an ignorant 'uncivilized' target population. Just by teaching a skill, or introducing a technology, an assumption to have 'empowered' was made. Swanepoel and De Beer (2006) however warn that practitioners must be careful that their 'mobilization' and 'empowerment' does not reek of tokenism. Empowerment entails a mixture of the right to, and the ability to make decisions. It means communities, or the individuals that constitute them should have the capacity to decide on the nature and trajectory of development initiatives, not to be subsumed under hegemonic constructions of development and underdevelopment and fall into the one-size-fits-all abyss.

Coming against the backdrop of top-down vestiges of colonial domination types of development practice, the local came into the lens. Critiques of Western paternalistic models of development, in the manner of post-structuralist and post or anti-development thinking, feminist scholars, and post-colonialism led the affront. Adesina et al (2006:186) even highlight that Africa's weak ICT infrastructure is tied to its history of underdevelopment through centuries of exploitation by the Western powers. Such an assertion brings to the fore the inevitable influence of historical and continuing exogenous influences on the nature of 'local' development, and consequently, empowerment.

These critiques, however, have tended to be at times totally dismissive of these 'Western' notions of development yet aspects of human rights and democracy, and international conventions were being utilized to fight for transformation in other realms of development. There still seems to be convergence on the ideals of human improvement and progress. Mohan and Stokke (2000), and Bates and Van Rensburg (2000) warn of these dangers of localism, arguing for a meaningful consideration of factors influencing empowerment and development

Acknowledgement of global and national influences become pertinent when one recognizes that emphasis on empowerment also bloomed at a period of the popularization of the neoliberal dispensation in Africa through Structural Adjustment Programmes (SAPs), aimed at reducing the role of the state, liberalizing the economies, and allowing the ‘free hand’ of the market to operate. One wonders where this detached free hand gets the impetus to act in the best interests of all, a benevolence which we are yet to fully realize in Africa. A critique of the form and content of neoliberal practices in Africa is not possible within the confines of this paper it is highlighted in this instance to give an example of how consideration of the context is imperative if any attempts at community empowerment are to resonate with the needs and situational realities of the communities in question.

Development, from such a contextual perspective cannot be ‘given’ to the poor. It requires attention to local knowledge and accumulated wisdom, respectful partnership, and participatory practice that will empower the poor so that they can determine their own development problems, goals and solutions (Papart, 2002).

It is thus that we arrive at the use of community, as it is highly intertwined with empowerment, in the attempt to move away from the hegemonic, top down approaches to a “bottom up” system. Rhetoric or reality, these efforts to abandon the “trickle down” modernization –theory- propelled approaches to development ushered in the emphasis on community. Vaunting for a new trajectory, this discourse may not have been prepared for the affront from the diversity and other challenges presented by, and within those ‘communities within communities’. In recognizing the amorphous nature of community, and the manner it has been utilized in development, Swanepoel and De Beer argue that community development must be one of the most abused forms of development over the last five decades. It has been used to placate unsatisfied people, get development done in a cheap way, soften up the people before the government bulldozers move in, and indoctrinate people to get their blessing, for programmes that have had very little benefit for them. The case of Operation Murambatsvina (Vambe, 2008) in Zimbabwe, where the government bulldozed peoples houses provides an example, though not in the realm of technology per se, of how the concept of empowerment can be manipulated to the detriment of communities.

Communities are a contested space. There is no one best way, akin to Taylorism, of typologising communities, hence efforts should be made to comprehend the peculiarities of any community, despite categorizations and generalizations that can be made. Communities manifest similarity and difference simultaneously. Such efforts at understanding contexts fall into the self reflexivity demanded in most development work, and what Chambers (1993) has called ‘the new professionalism’ in which development practitioners need to change their approach and methods. Hilhorst (2003) in her efforts to apply Norman Longs’ Actor Oriented Approach to Non-Governmental Organizations (NGOS’) further points out that some anthropological appreciation is needed by development theoreticians and practitioners in their efforts at ‘empowering’ communities.

Having made a brief traversal of some of the discursive issues surrounding constructions of community and empowerment, forays can be made into understanding why only access to particular technologies, in the context of the complexities characterizing communities and empowerment, is not a panacea to development. Lenses that see beyond basic access, although it is an important factor, are required to ensure sustainability and the desired benefits.

The Interplay of the Global and the Local

Globalization, similar to empowerment and community, has in certain cases been taken as a given, a natural development or state of things, an objective force shaping the world. Appadurai (2001) aids in dismantling the romanticized picture of globalization, positing that globalization is characterized by relations of disjuncture, by disjunctive flows that generate acute problems of social well being.

Noting the significance of the endogenous in efforts at community empowerment and participatory development should not blind one to the exogenous influences that impact on the nature of development and adoption of certain forms of technology. Mohanty (1991), Oyewumi (2003), and many others have tried grappling with the overarching nature of certain discourses in the arena of feminism. Mohanty provides a useful perspective on the universalizing and homogenizing tendencies of feminism ‘under Western eyes’ utilizing categories such as ‘women’ in an obfuscating way. Sisterhood, like development, may not be global, neither is

brotherhood! Yet they exist in contexts which the global-local nexus has to be given due consideration, not throwing the baby out with the bathwater.

It is unfortunate, but a truism, that development efforts have come from outside, be it outside a community, a country, but still from without, what Theron (2008) has termed the ‘unfortunate and fundamentally erroneous externally introduced and controlled tradition in development planning’. The emphasis of community empowerment and development has tended to underplay the impact of both national and global power structures, discourses and practices. Constant calls have sounded for development to wear an ‘African face’, and as many will recognize, the success of this endeavour is questionable.

Yet the dominant discourse of defining the tenets of development was not radically transformed, and communities were, and may still be expected to toe the path travelled by others to classify themselves as developed. This also falls into the demarcation of Third and First world, what has been termed by others a semiological conspiracy of obfuscation, seeking to control not only the economic, but physical and social reality of those classified as ‘Third’. Even the women’s movement tried to claim that ‘sisterhood is global’ to have respondents, Mohanty being one instance, who critique feminism under western eyes.

The sustainability of efforts at integrating communities into dominant development precepts will definitely hinge on how they adapt to existing contextual realities. Harris (2003) makes the point that focus should be on the uses to which ICTs are put, independent from the intentions or aspirations of the providers of the technology, rather than on the institutional interests that often occupy the deployment of such technology.

The impact of the global has also been felt in the form of the lack a conducive overall environment due to the nature of trade , aid, and other international factors that have a huge influence on the direction and nature of ‘development’ in communities. Appadurai (2001) argues that the trappings of the development industry are part of a world that is ever more removed from the world in which poor people reside. The notion of the *development industry* conjures the work Graham Hancock into mind, with his narrations of the intransigence and extravagance of ‘development practitioners’ which has turned it into Development Inc. As Adesina et al (2006) reiterate, lack of access to ICTs in Africa is both a structural problem and a product of historical

phenomena. The development of ICTs is following the pattern of uneven development, and market policies constrain developing countries from providing access to affordable ICTs. They also note that there is at the global stage the monopolization of knowledge through unequal access to ICTs and use of World Trade Organization (WTO) instruments, such as the protection of intellectual property rights. This has made access to computer software and newer technologies more difficult for developing countries.

Calls for the rejection of 'development' have, however, been rejected themselves, due to the present overarching reality of the influence that etic forces have on the nature of emic developmental policy and practice. Papart (2002) is of the view that abandoning 'Western notions' is a romantic, uncritical evaluation of development discourse. She proposes syntheses of Western discourses on development and rights with various local understandings and goals. If empowerment entails the ability of communities or individuals within them to make autonomous meaningful decisions for their welfare, then one cannot speak from a position of privilege to dismiss what those being 'empowered' may desire. One cannot point to exogenous interventions only as sources of mal-development, when localities themselves have equal responsibility.

Corrupt and inept administrative practices, and autocratic systems of governance at the local level have also had their own part to play in the demise of existing ICT infrastructure and the attendant access, as the case of Zimbabwe, among many others rampant in Africa, can show. Misplaced priorities and an eagerness to jump onto the bandwagon of consumerism, coupled with impunity, lack of accountability and transparency in African bureaucracies has meant that available resources are channeled towards establishing and strengthening systems of patronage and clientelism, to the detriment of efforts at development in many areas, ICT included. In such contexts, 'empowerment and development become pipe dreams, more so incorporating a gender perspective is shunted to the background as political pragmatics take precedence.

Communities, being contested terrains, do not operate in a vacuum, and are impacted upon by national policies, and international practice and discourse.

Zimbabwe as an Instance of the Global-Local Nexus

We have seen that whilst technology can be seen as a driver for social change, it is entangled with other aspects which render it useful or not. Within nations and communities themselves, the power relations noted already are a hindrance to the introduction or uses of certain technologies achieving the intended results. Wilson (2004:6) notes that a strong, flexible and modern, national communication system has become a requirement for capital investment, both foreign and local.

Political turmoil and decadence in Zimbabwe also led to the souring of relations with the international community, which was a source of material and financial assistance. Raftopolous and Phimster (2003) and Sachikonye (2002) provide analysis of the crisis that Zimbabwe has faced, and the impact this has had on the socio-political and economic landscape. The withdrawal of this assistance, as a sign of disapproval of the regimes activities, saw the reduction of work in communities by both Northern and Southern NGOs, as sources of funding dried up. The country was also stripped of the ability to import technologies from certain countries, because of the soured relations, and lack of resources.

The country provides a good instance of how national circumstances have irrevocable impacts on communities and their capacity to use technology for their development, and how global factors, entwined with national ones, can have detrimental consequences for the development of communities. In sinking economy left the country bemoaning a huge loss of skill in many sectors, and the ICT field was not spared the brain drain. In a 'global world' where there is increased mobility of capital, labour also finds itself moving, in an osmotic way from the regions with a lower concentration of capital, to a region of higher concentration of capital. Skills development in ICT has thus become a challenge.

Braathen (2004) compared telecommunications development in Mozambique and Zimbabwe, using a Neo-Weberian institutional approach on engineers. Zimbabwe was discovered to have initially led, but lagged due to "repeated political-patrimonial manipulations of procedures and outcomes of business negotiations".(*ibid*:20) This contributed to the undermining of the managerial engineering capacity and thus investors confidence in Zimbabwe, resulting in less speedy and effective digitalization. Zimbabwe's predominance with nationalism and neo-patrimonialism compromised institutional efficiency, in turn limiting the capacity to use technology for empowerment and development.

A comatose economy and a stifling political dispensation are far removed from the conditions conducive to seeing gender being given credence as a factor in national and developmental activity. Gender may be vaunted only to the extent that it eats from and serves the whims of power, not for any well-meaning transformatory thrust. One could argue that the state of Zimbabwe has curtailed the progress that could have been made in empowering both women and communities. Efforts at advancement are hindered by a preoccupation with survival strategies, where women become cross-border traders, Muzvidziwa (2001, 2006), Vambe (2008), care-givers confined to the domestic sphere due to a collapsed national health system, prostitutes in an attempt to irk out a basic survival. The spaces occupied by these women offer little or no opportunity for obtaining technological skills and tools, even for their survival strategies. What with a virtually non-existent or flop-sided national ICT framework, gender becomes a speck, if not rendered invisible.

With the ushering in of a 'unity government' emphasis has been put in reforming laws that limit access to information, and improving the country's technology for the sake of development. Those NGOs that tried distributing radios are an example of how development practitioners need to consider the socio-political, economic and other factors which may lead to undesired consequences, as with arrest or victimization. Yet even now, conceptualisation of communities will demand revision and scrutiny after the reported violence and faults that divided people in Zimbabwe's political turmoil.

Zimbabwe fits into the factors identified by Wilson (2004) as hindering the use of technology for development. The country has experienced a dearth of money, technology and training, a lack of skilled ICT workers, especially due to the 'brain drain'. Zano et al (2008) note the "exodus of technical experts in search of economic refuge". Braathen (2004) gives the example of Strive Masiwa, owner of Econet Wireless, a mobile network service provider, who had to leave Zimbabwe due to political and economic reasons, although he was a brilliant engineer as shown by his growing enterprise.

In addition, Zimbabwe now has weak and inexperienced institutions that subvert the indigenous efforts to manage technological innovation and change. Zano et al (2008) have highlighted several factors affecting use of ICT in Zimbabwe. There is inadequate coordination of physical networking organizations, with a state controlled Telone having a monopoly of regulatory

frameworks. This is made worse by minimum involvement of research institutions in network building and diffusion in Zimbabwe. Power shortages, inadequate human resources and a harsh fiscal and financial policy environment are deterrents to either local or foreign interest in ICT investment and development. The country is an importer of hardware, software, and even content.

Under such grim circumstances, the impact of ICTs' for development and empowerment at community level are militated against by the constraints posed by Zimbabwe's political and economic situation. This environment also has ramifications for participation in political and other processes, factors which are considered in the section that follows.

Technology, Citizenship and Development

This section on technology, citizenship and technology is not meant to discuss the contentions over citizenship in Africa. Suffice to say, one may follow Halisi et al (1998) in recognizing that definitions of citizenship need to move, or have since moved from narrow, spatial, conceptual and Eurocentric confines. It encompasses the reciprocal expectations of citizens and their governments. In Halisi et al's view, the idea of citizenship is elemental to any social organization. By relating technology and development to the idea of citizenship, entailing aspects of democracy and rights, we may come to the realization that empowerment has to acknowledge the agency and capabilities of those intended, and the enlargement of their choices.

Wilson, (2004) advances that, "In the twenty-first century, the capacity to communicate will almost certainly be a key human right. Eliminating the distinction between the information rich and the information poor is also critical to eliminating economic and other inequalities between the North and the South and to improving the life of all humanity." Primo adds a voice emphasizing that rights related to access and use of the internet and electronic communication infrastructure allow the voices of ordinary people to be heard.

The case of Zimbabwe begs the question of the role that access and utilization of technology can play in governance and democracy, in the discourse on human rights. Can we have a right to technology? Is the right to technology equated with the right to information and to freedom of

expression? Women have as much right to technology as have men, so do any other citizens. States or governments, despite concerns with security, should offer opportunities for the utilization of technologies, or access to them for expression of views and opinions as a form of empowerment to communities. The importance of democracy for development, cognizant of the cultural context, has been discussed by Ake (1996). He contends that the authoritarian (and definitely patriarchal) structure inherited from colonial rule created an environment hostile to development. Development in this instance is characterized as an important concomitant of democracy, in which their simultaneous existence is the ideal.

Zimbabwe has enacted laws such as the Access to Information and Protection of Privacy Act, (AIPPA), and Public Order and Security Act, (POSA), Chari (2009). As a result of the political turmoil that has ensued in the country, these laws have been a bone of contention, being viewed as limiting the access to information of ordinary Zimbabweans, and also restricting the operations of the media. Mutula (2006) argues that Freedom of Information (FOI) legislation should support accountability, transparency and even anti-corruption measures. Zimbabwe seems to have followed the exact opposite.

These laws have been called Draconian in most instances, as at one point it is alleged villagers given solar propelled and hand charged radios were arrested and the radios confiscated as part of an alleged crackdown aimed at limiting access to information. People exercised their agency however by resorting to other forms of getting and passing on information in the absence of other technologies. Although they worked, the limitations were manifest in the lack of information or the time it took to relay and utilize information, academic or otherwise. Reports of mobile phones being actually confiscated at the height of political tension and incidences of violence in the rural areas were made, in exertions to limit access to information. Moyo (2009) provides evidence of what he terms “citizen journalism”. During the delays of the 2008 election results in Zimbabwe, mobile phones were used to convey information, as well as blogs and e-mails, forming a ‘parallel market’ for information because the formal channels were under excessive government regulation or inaccessible. As an exercise in agency, this “citizen journalism” also facilitated global information flows, engendering a negligible but important amount of transparency and discussion on Zimbabwe.

The operations of mobile phone network providers were, and still are restricted due to lack of access to much needed funds, and internet access very miserable, even University students struggled. The presence of a mobile phone, or a computer, never mind the shortage, was not a guarantee for communication or access to information. As Tettey observes, it “does not necessarily translate into access to the internet. With the enactment of the Interceptions of Communication Bill, the use of technologies for access to information, for both men and women, remains precarious. Mudhai argues that “...apart from Zimbabwe, hardly any Sub-Saharan African country has seriously embarked on the futile and expensive game, perfected by China, of internet censorship”.

In societies characterized as ‘information societies’, depriving citizens of a right to information is disempowering, whether be it women and information to reproductive and sexual healthy technologies, or to the general population through enactment of laws, scrambling signals and networks , or even physically confiscating technological tools.

Roy (2005:111) argues that information and communications technology has been championed as a major vehicle for creating, intensifying, strengthening and transferring conventional modes of politics and power to enable new forms of local, national and global governance. ‘Developed, industrialized and stable liberal and stable democracies are well placed to integrate ICT into their political systems’, unlike developing and transitional economies that are unstable, with shifting political structures

The world, perhaps largely excluding Africa, is replete with examples of how politicians can utilize forms of technology to keep their faces and voices in the electorates spaces, whilst at the same time giving the citizens opportunities to make choices based on the information provided. One avoids falling into the trap of valorizing certain forms of governance as ‘democracies’ or making comparative analyses of very different spaces, yet the thrust is to reveal how technology can be used as a tool for participation and empowerment in issues of governance, which have been identified as one of the factors that present obstacles to development. The ushering in, and sustainability of any development agenda is certainly dependent on a sense of ownership and identity, a certain amount of shared values, autonomy and localism.(Day and Schuler, (2004).

McEwan (2000), looking at South Africa, discusses the engendering of citizenship, where women have to be recognized as citizens, and that they also occupy spaces which allow them voice in democratic processes. In the context of women's and human rights, ICTs provide an important avenue through which citizens can voice their concerns, and a means through which governments in a democratic society keep the citizens informed of governance processes. Technology has the capacity to institutionalize the people's stake in their own governance, ushering in possibilities for transparency and accountability, democracy, and development.

Ownership, identity and shared values are not likely to result from autocratic systems of governance, which do not offer opportunities for citizen access and utilization of technologies for the enhancement and enlargement of choice, which in Jomo Kenyatta's words, captures the essence of development.

Gender (Women), Technology and Development

Looking no further than the gender dynamics characterizing most development work is an apt exemplification of the power dynamics which seem to cascade even from high offices and corridors of development institutions and entities to the projects themselves, from the impact of the 'global' to the 'local'.

The United Nations places lack of access to information as the third most important issue facing women globally, after poverty and violence against women. Gender has not been central to the many efforts to create and cement free and pluralistic forms of ICT in Africa. For most African women, the exercise of fundamental freedoms of expression and information are doubly constrained by patriarchal laws and practice, and by economic and political conflicts whose impact is also gendered.

Women have been seen to suffer the brunt of either development or mal-development, being spared by neither. For Hafkin (2003), looking at gender, ICTs and rural development, the challenge is to make it possible for poor rural women to use ICTs in ways that improve food security, provide sustainable livelihoods and improve the quality of life in rural areas. Even the arguments for 'appropriate' technology have engendered technology that is inappropriate for

women, leading to their overburdening and instead of empowerment, further disempowerment. Limited to the private and domestic sphere, most women are not given voice, and when they do get it, it is unlikely to be listened to anyway, and may in-fact be also disempowering as women are sometimes socialize into cultures of silence.

Due to the differing cultural patterns, there are communities where it has been noted that keeping quiet earns a woman more respect and honour, than voicing her concerns in public, considering that efforts to obtain opinions in communities are usually made through community gatherings in the public sphere. In the mould of Foucault, the regimes of knowledge in certain communities construct a reality removed from that of the development practitioners, and consequently such development discourse constitutes an affront to the edifice of gender and power erected in these communities. As Njeru (2009) points out, the effectiveness of technology is dependent on the culture under whose frames it was negotiated and can be transformed. Women cannot be divorced from their cultural context, and have multiple identities that interact with gender to define their access to technology, demanding that development practitioners be aware of this.

Technology itself has been conceptualized and constructed as a male realm, a masculine domain. Remnants of colonialism are not few and far between as some may argue, believing those who see them are trapped in the past. Colonial practice introduced new forms of technology to men, in line with their own gender ideologies in which women were excluded. Etienne and Leacock, as early as 1980 point out the case of the Baule of Ivory coast, where the colonial administration excluded women from agricultural mechanization, establishing it as a masculine realm, yet women were traditionally in charge of agriculture. Together with this ‘defeminisation’ of agriculture came new crop technologies, varieties embraced as cash crops, which ultimately led disempowered women and general undernourishment.

A perpetuation of this trend, conscious or not, can be gleaned in the postcolony, as women have lagged in the adoption of new technologies, especially in the ‘communities’ that development practitioners ‘target’. Hence the women, or girl children lack time due to domestication, are discouraged, through verbal appellations and other means, from preoccupying themselves with technologies in the public realm, because their place is the kitchen, and ‘they will get married anyway’. Primo (2003) argues that women are underrepresented in all decision-making structures in the ICT a sector and this undermines the negotiation of gender sensitive investment

decisions and introduction innovative patterns, standards and policies in the ICT sector. Further to this, the content and language utilized usually does not consider the women's viewpoints, knowledge, experiences and concerns.

The nature of the technologies introduced in communities has also in some instances been macro focused, on integrating communities into the global economies, without equipping the communities with the necessary skills to compete in the competitive global arena. Women traditionally involved in certain forms of crafts cannot be expected to compete with internationally established powerful entities that have better technologies and markets than them.

Huyer and Sioska (2003) provide a powerful discussion on the gender digital divide. They point that advocates for the use of ICTs for development have been critiqued by those arguing that women, and the rest in Africa are faced with challenges of getting water, clean water, adequate food, improved health and better education. This view seems to be derived from a determinist view of technology, which fails to recognize that technology can indeed be utilized as a tool to facilitate access to these above mentioned things. Huyer and Sikoska (*ibid*) use a case by Mijumbi (2002) of the CD-ROM experience in Uganda, which contained simple, useful information on how to set up and run a small enterprise. The information was made available in both written and oral form, as well as in the local language and in English.

Further to that, women in these "communities" require information and education which familiarize them with new technologies, and aims at making them understand the developmental nature of that technology, for them to transcend the inhibitions of 'traditional' or 'cultural' tenets which may be limiting. Huyer and Sikoska (2003) add the importance of scientific and technological literacy in the exertions to empower women through ICT. Aminuzzaman et al (2003) provide the instance of the Grameen Bank Village Phone scheme, noting how it socially and economically improved women's and family status, and contributed empowerment. Donner (2005) also gives the case of Rwanda where mobile phones are issued by both male and female entrepreneurs to widen business networks and conduct other business transactions.

Integrating, or involving women in the introduction of new technologies should entail consulting them, not just men, on the appropriateness of the technology, and also, ensuring the sustainability of such technologies by neutralizing the impact power dynamics that may render the technology

redundant. The involvement of women in the production of the technologies in the first place would go some way in better customizing them.

Hafkin (2003) goes further to point out that empowering women is a central precondition for the elimination of poverty because women form the majority in the rural areas, and play instrumental roles in food security, and household welfare.

Zooming in on women is not to ignore the fact that there are men, young and old who are also marginalized, but an acknowledgement of how women are overrepresented in the unconnected and disconnected. Even amongst men themselves, the hierachisation of technological knowledge and practice is present, in terms of age. Younger or older men, depending on class and status, education and other factors, can either be excluded or familiar with certain technologies and not others, putting them either at the forefront, or the margins of new technologies.

Some studies on the use of ICTs such as computers and the internet in education, (Derbyshire 2003) in Africa have shown that the definition of technology as a masculine realm at times puts pressure on the male students to be all knowing, hence limiting their ability to ask questions, whilst girls, represented as ignorant, have more room to explore and ask questions. It was also noted that teachers had a tendency to delegate technical tasks to boys in classes, and let boys fiddle with the technologies, but were quick to rush to the aid of girls and do it for them, denying them the chance to explore for themselves.

These complex and varied findings serve to show how social contexts are instrumental in informing the manner in which a technology or technologies are accessed and utilized, and to what ends. This is reminiscent of the social shaping of technology approach, which recognizes the socially constructed nature of technology, and the dialectical relationship between technology and society. In Giddens structuration terms, rather than see a duality, one needs to see a dualism of technology and society, where the structure-agency of both signifies a simultaneous and mutual existence in which one cannot be considered independent of the other.

Gender and development, and community empowerment, in this case in the realm of technology, would do well to recognize the intricacies of the processes entailed, and to combine, as previously pointed out, the theory and praxis in pursuit of ‘empowerment and development.’

Another Impasse in Development?

Having experienced what Schuurman (1993) has called an impasse in development studies in the 1980s, one wonders if the discourse of development is at its low in its ebb and tide, and we are headed for another impasse.

Schuurman (1993) provides an account of the deadlock, the vacuum in development theory and practice created by the failure of preceding modes of development thinking, modernization theory, dependency and underdevelopment schools and other Neo-Marxist vantage points. The postmodern trajectory came into being, with the arguments on post and anti development (Sachs, Escobar, etc) and the ushering in of the Actor Oriented Approach (AOA), adopted from Giddens' structuration theory by Norman Long, and the participatory approaches such as Participatory Rural Appraisal (PRA) by Robert Chambers.

These approaches were viewed as filling the void created by the futility of past efforts and over the years there have been numerous transformations in development discourse, from participation and empowerment, to Women in Development, Women and Development, Gender and Development on the gender front, Basic Needs Approach, Capacity Building and Development, Sustainable Development and Sustainable livelihoods, to mention but a few of the concepts that have been in vogue. Still the 'development problem is with us. Then came the Poverty Reduction Strategies (PRSP's), the New Partnership for Africa Development (NEPAD), and the Millennium Development Goals (MDG's). None of these has been a panacea to the problems of poverty, disease, war, social justice and a plethora of other ills that bedevil the disadvantaged countries and communities, and none should be seen as a magic bullet. These efforts can achieve desired results with concerted efforts and meaningful appreciation of how embedded the notion of development is in other phenomena and processes, which may be constraining or enabling, hinging on the peculiarities of differing contexts.

The gap between theory and practice may need to be bridged in certain instances, where collaboration between researchers and practitioners has to be upscaled, and channels for relaying results of research to policy makers refined, so that ICT policy is inline with community developmental needs. Integrating practice, policy and research is of mutual benefit, to both researcher and practitioner.

Communities view research as abstract and irrelevant, Day and Schuler (2004). Through meaningful engagement, research can be shaped and targeted to ensure relevance and appropriateness to issues in the community environment. Mack (2001) advances that for certain people, technology will not be adopted on a widespread basis unless and until it is shown to be relevant to their daily lives. The solution to ICTs for development lies not only in simply providing computers but in also addressing fundamental issues that have served as barriers to the advancement disadvantaged communities. Morgan et al (2004) advance that whilst it is well recognized that access to ICT resources is important, addressing access alone is insufficient to avoid a gender gap in ICT engagement, neither is it enough to bring about progress in socio-political, economic and other ways.

Conclusion

It is difficult to identify factors which may be perceived as pivotal in the use of technology for development, or any efforts at community empowerment, for they are numerous and seem to mutate with the changing contexts

What one hopes this discussion has revealed are the varied, complex and contradictory contexts within which the discourse and praxis of community empowerment and development are found. Further to appreciating the local, there is need to interrogate it and avoid valorization. Neither does pontification on exogenous efforts or their absolute dismissal provide a solution to the bedevils of development. The position of women and the case of Zimbabwe in the global-local-technology-development nexus highlight the need to consider factors such as power, socio-cultural constructions, and the agency and knowledgeability of those to be 'empowered'.

Communities and development cannot be taken as givens, when groups, such as women, may have different positions and experiences, yet they are not given voice and adequate consideration. Similarly, national economic, socio-political circumstances play a huge role in shaping the manner in which communities are constituted, and how technologies are utilized in those communities, well illustrated by Zimbabwe's economic and political context. The uneven nature of the global playing field, in various aspects such as trade, and hegemony over

knowledge, also have the capacity to impinge on the nature of community empowerment and development, through technology, or any other means.

A viable synthesis of the research and theoretical formulations, and the practitioners' facet has to be made. Efforts should be made to constantly revise the nature of development theorizing and practice, and these have in certain instances produced meaningful impact. As Abot (1995) has noted, focus should eventually not be at the failures of community development, but at why successful community development succeeds, taking into consideration the numerous factors that constitute it.

One hopes that these constant reformulations and critiques of forms of development and community empowerment are not conceptualized as continuous failures, but efforts to refine areas of weakness in previous attempts, and at obtaining better results in the future.

BIBLIOGRAPHY

Abot, J. 1995. Community Participation and Community Development. *Community Development Journal* 30(2)

Adesina, J. et al (eds) 2006. *Africa and Development: Challenges in the New Millennium; The NEPAD Debate*. CODESRIA: Dakar.

Ake, C. 1996. *Democracy and Development in Africa*. Washington: The Brookings Institution.

Aminuzzaman, S. et al 2003. Talking Back: Empowerment and Mobile Phones in Rural Bangladesh. A study of the Village Phone Scheme of the Grameen Bank. *Contemporary South Asia* 12(3)

Appadurai, A. 2001. *Globalization*. London: Duke University Press.

Bates, L. and Van Rensburg, D. 2000. Community Participation in Development: Ninie Plagues and Twelve Commandments. *Community Development Journal* 35(1)

Braathen, E 2004. Institutions Matter: Engineers and Telecommunication Development in Mozambique and Zimbabwe. *Telematics and Informatics* 21(1)

Chambers, R. 2004. Rural Appraisal: Rapid, Relaxed and Participatory, in Murkherjee, A (ed) *Participatory Rural Appraisal: Methods and Applications in RURAL Planning*

Chambers, R. and Pretty, J.N. 1993. *Towards a learning paradigm: New Professionalism and institutions for agriculture*. Brighton: University of Sussex Institute of Development Studies.

Chari, T 2009. Ethical Challenges facing Zimbabwean Media in the context of the Internet. *Global Media Journal* 3(1)

Derbyshire, H 2003. Gender Issues in the use of Computers in Education In Africa <http://imfundo.digitalbrain.com/imfundo/web/learn/genderissues>. Accessed 12 June 2009

Donner, J. 2005. The use of Mobile Phones by Micro-Entrepreneurs in Kigali Rwanda; Changes to Business and Social Networks. Submitted to *Wireless Communication and Development: A Global Perspective* 7-8 October 2005

Escobar, A. 1995. *Encountering Development: The Making and Unmaking of the Third World*. New Jersey: Princeton University Press.

Giddens, A. 1986. *The Constitution of Society; Outline of a Theory of Structuration*. University of California Press.

Gurstein, M. (ed) 2000. *Community Informatics; Enabling Communities with Information and Communications Technologies*. Idea Group Publishing: Hershey.

Gurstein, M. 2003. Perspectives on Rural and Urban Community Informatics; Theory and Performance, Community Informatics and Strategies for Flexible Networking, in Marshall, S. et al (eds) *Closing the Digital Divide: Transforming Regional Economies and Communities with Information Technology*

Hafkin, N.J. 2003. *Gender, Information Technology and Rural Development*. Presentation to World Bank GENRD Brown Bag

Halisi, C.R.D. et al 1998. Guest Editors Introduction: The Multiple meanings of Citizenship; Rights, Identity and Social Justice in Africa. *Africa Today*, 45(3/4).

- Harris, R.W. 2003. Information and Communication Technologies for Rural Development in Asia: Methodologies for Systems Design and Evaluation, in Marshall, S. et al (eds) *Closing the Digital Divide: Transforming Regional Economies and Communities with Information Technology*. London: Praeger.
- Hove, S. et al 2008. Cost Effective Wireless Community Networks and Internet Connectivity in Remote and Rural Areas in Zimbabwe, *Journal of Sustainable Development in Africa* 10(1)
- Hove, S. et al 2008. Factors Affecting the Future of Information and Communication Technologies in Zimbabwe. *Journal of Sustainable Development in Africa* 10(2)
- Huyer, S and Sioska, T. 2003. *Overcoming the Gender Digital Divide: Understanding ICT'S and their potential for the empowerment of Women*. In straw Research Paper Series 1.
- Le Roux Y. 2008. *Networks; A way forward for Africa*. www.connect-world.com/magazine/emea, retrieved 12 June 2009.
- Mack R.L. 2001. *The Digital Divide; Standing at the intersection of Race and Technology*. North Carolina: Carolina Academic Press.
- McEwan, C. 2000. Engendering Citizenship: Gendered Spaces of Democracy in South Africa. *Political Geography* 19(5)
- Mohan, G. and Stokke, K. 2000. Participatory Development and Empowerment: The Dangers of Localism. *Third World Quarterly* 21(2)
- Mohanty, C.T. 1991. Under Western Eyes; Feminist Scholarship and Colonial Discourses, in Mohanty C.T. et al (eds) *Third World and the Politics of Feminism*. Indianapolis: Indiana University Press.
- Morgan, S. et al 2004. *Researching ICT-based Enterprises for Women in Developing Countries. A Gender Perspective*. Manchester: University of Manchester.
- Moyo, D. 2009. Citizen Journalism and The Parallel Market for information in Zimbabwe's 2008 Election. *Journalism Studies* 10

- Mudhai, O.F. 2004. Researching the Impact of of ICTS as Change Catalysts in Africa. *Equid Novi* 25(2)
- Mutula, S.M 2006. Freedom Of Information in the SADC Region: Implications for Development and Human Rights. *Library Review* 55(7)
- Muzvidziwa, V.N. 2006. Women without Borders: Transborder Movements as a Coping and Investment Strategy. *Africanus* 36(2)
- Muzvidziwa, V.N. 2001. Zimbabwe's Cross-Border Women Traders: Multiple Identities and Responses to New Challenges. *African Studies* 19(1)
- Oyewumi, O. 2003. *African Women and Feminism; Reflecting on the Politics of Sisterhood*. New Jersey: Africa World Publishers.
- Papart, J. 2002. Lessons from the field; Rethinking Empowerment, Gender and Development from Post(Post-?) Development Thought, in Saunders, K. (ed) *Feminist Post- Development Thought; Re-thinking Modernity, Postcolonialism and Representation*. Zed Books: London.
- Primo, N. 2003. *Gender Issues in the Information Society*. UNESCO Publications for the World Summit on the Information Society. www.unesdoc.unesco.org. Accessed 12 June 2009
- Raftopolous, B. and Phimister, I. 2003. Zimbabwe Now; The Political Economy of Crisis and Coercion. *Historical Materialism* 12(14)
- Roy, S. 2005. *Globalisation, ICT and Developing Nations: Challenges in the Information Age*. New Dehli: Sage.
- Sachikonye, L. M. 2002 Whither Zimbabwe? Crisis and Democratisation. *Review of African Political Economy* 29(91)
- Sachs, W. 1992. *The Development Dictionary; A guide to Knowledge as Power*. London: Zed Books
- Schuurman, F.J. 1993. *Beyond the Impasse; New Directions in Development Theory*. London: Zed Books.

Staudt, K.A. 1991. *Managing Development; State, Society and International Contexts*. London: Sage Publications.

Swanepoel, H. and De Beer, F. 2006. *Community Development: Breaking the Cycle of Poverty*. Juta Company Limited.

Tettey, W.J. 2001. Information Technology and Democratic Participation in Africa. *Journal of Asian and Africa Studies* 36(133)

Theron, F. 2008. *The Development Change Agent; A micro-level approach to development*.

Vambe, B 2008. Murambatsvina's Assault on Women's Legal and Economic Rights: An Interview with a Cross-Border Small Trader, in Vambe, M (2008). *The Hidden Dimensions of Operation Murambatsvina*. African Books Collective.

Wilson, J. 2004. *The Information Revolution in Developing Countries*. Cambridge: The MIT Press

Wolfe, M. 1996. *Elusive Development*. London: Zed Books.