Digital Divide: Impediment to ICT and Peace Building in Developing Countries

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The growing digitalization of global activities has left societies with the only option of joining the Information Communication Technologies (ICT) band wagon. It is obvious that the ICT capabilities of a nation to some extent determine its performance in the global economy, politics, education, health and socio-cultural playing field of the 21st Century. These technologies have been incorporated in the daily activities of the western World including peace building efforts. These same technologies are however still struggling to find expression in the developing countries. This paper examines challenges posed by digital divide in mobilizing ICT for peace building. As digital divide is a challenge in many places in the world, increasing information flow and other benefits of ICT first means increasing connectivity and breaking the barriers of digital divide.

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INTRODUCTION

The idea of peace building through computer mediated communication or ICT facilities brings to mind the concept of customization of messages to meet particular need or solve specific problems. Modern industrial society has witnessed a plethora of customized messages from targeted mass mailing to neighbourhood newspaper and from phone-in radio shows to cable television selection. Although the trend to customize media messages has existed for a considerable amount of time, the interactive nature of the internet and other new media has revolutionised the concept of customisation by allowing users to receive information that is tailored to each single or group of users interests and preferences (Ansari and Mela, 2003). Benigers (1987) notes that increasing personalisation of mass media messages makes mass communication approximate the feel of interpersonal communication.. Steady advances in ICT propelled education and growths of new communication media have enlarged expectations of the ordinary citizens in nearly all areas of their endeavours, including lasting peace.

Considering the Marshall McLuhan technological determinism theory which forms the frame work for this paper, ICT can really be instrumental in peace building. The theory stipulates changes in communication technology inevitably produce developmental changes in both culture and social order. The concept holds further that technology brings about change in how people think and how society is structured. That social, political economic and cultural change is inevitable based on the development and diffusion of technology.

Ronald and Teresa (2007) note that Information and communication technologies can be a huge aid in the effort to build lasting peace, by helping people communicate, view information, make decisions, and understand each other better. Peace is not created with a one-time act: the cease-fire, accord, or reconciliation is just a public point on a timeline between war and durable peace. True peace is built over time, with many different processes and approaches that move conflict into lasting, peaceful relationships. It requires action at many different levels, by different people, in different ways, and at different points in a conflict. Information communication technologies (ICTs)– hardware and software that help people communicate, understand data, and learn, via tools such as computers, the internet, mobile phones, and more - have proven to be a tremendous help in implementing peace-building methods such as arbitration, mediation, negotiation, reconciliation, peacekeeping (both civilian and military), conflict prevention, post-conflict reconstruction, institutional and organizational capacity building, demobilization and reintegration, monitoring and advocacy, conflict transformation, psychosocial rehabilitation etc.

ICT AND PEACE BUILDING

In general, information communication technologies can be used in peacemaking efforts in ways such as to provide information, to help people process information, to improve decision making, to reduce scarcity ,to support relationships, to help people understand each other (Ronald and Teresa 2007). There are instances where ICT facilities have been used for purpose of peace building. For example In the Philippines, large scale demonstrations organized via cell phones and SMS were a major factor in forcing President Joseph Estrada to resign, thus bringing about change without large-scale violence.

The United States Army is piloting a hand held system that contains maps and descriptions of civilian and militia inhabitants to help them gain a deeper understanding of the communities in which they are serving as peacekeepers. These kinds of handheld human terrain tools are also being put to use by humanitarian relief organizations working in places recovering from conflict.

During the fighting in Burundi, online discussion groups hosted by Burundinet and the Burundi Youth Council allowed Burundi of different backgrounds to discuss the situation, debate root causes, and figure out ways to move forward, after it became difficult to physically meet.

The service Videoletters.net captures video messages from former neighbors and friends and broadcasts them via public access channels throughout the countries of the Former Yugoslavia, allowing those who lost contact in the wars to reconnect.

In the KwaZulu-Natal province of South Africa the UmNyango Project is using SMS technology to allow those with cell phones to access information and report violence against women and children, as well as violations of women's right to own land.

Amnesty International is running a campaign using satellite images. Eyes on Darfur focuses on 12 villages in high risk areas in Sudan. Some of the villages, for example, are located along the usual migration routes of nomadic farmers in the area. Grazing land in the north of Darfur was shared by everyone, Arabs and non-Arabs alike. But these days, because of the conflict, non-Arab farmers are no longer able to travel safely to these areas. Amnesty commissioned high-resolution satellite photos of the villages, which they, and expert researchers, regularly analyze to check for any signs of destruction by government or militia forces. Anyone visiting the website can also check the photos, look at satellite evidence of previous violence in the area, and read reports on each of the 12 villages. It is all about taking advantage of satellite technology to tell [Sudanese] that they are being watched closely to expose new violations. The goal is to put pressure on Sudan to allow the peacekeepers to deploy and to make a difference in the lives of vulnerable civilians in Darfur. While this is a new use of technology for Amnesty and its ultimate utility will need to be judged, one trend is clear - this type of technology will make it harder for regimes to take action in the dark.

As part of a peace process, militia members are often encouraged to turn in their guns for monthly stipends and training. This is a process known as demilitarization, demobilization and reintegration (DDR).In West Africa, users of Safaricom's mobile service can now send money via cell phone which can greatly aid in conducting DDR operations and reintegrating ex-warriors into society.

Mobile technologies such as cell phones are also very useful to support relationships, especially in countries which use various forms of censorship to control communications. Cell phones are a key way to facilitate a highly networked group of people that can react extremely quickly in changing circumstances. Smart mobs organized via SMS have had impact across the world: in the Philipines, large scale demonstrations organized via SMS are credited with bringing down President Joseph Estrada. In South Korea, groups of students organized using SMS to protest the intense entrance exams for elite universities.

The war in northern Uganda has driven thousands of people from their homes to live in camps. Now humanitarian organizations in Uganda have brought the internet and low-cost phone calls to the camps, giving the people a chance to tell their own story. provide internal emergency communications – between the Internally Displaced People (IDP) camps and the rest of Uganda; provide external emergency communications – between foreign and Ugandan officials and technical personnel; provide educational opportunities through the internet and in schools; enable the people in the camps to speak for themselves, and do their own advocacy campaigns via the internet; and allow users to use images, video and voice to focus the attention of the international media on the plight of what, until now, has been an invisible tragedy. Some people might ask: why provide internet services when those in the camps have a greater need for a well? The answer is that if they have internet access they can ask for a well. There are some other obvious benefits too. The people living in the IDP camps now have a communications system that will work in emergency situations, plus they have the chance to contact international humanitarian organizations and the media to inform them of their plight.

Among its education promotion activities in 30 African countries, SchoolNet Africa, an independent organization based in South Africa, trains former child soldiers in Angola, Liberia and Rwanda. It is expected that programme will expand to reach more than 100 children in the three countries, equipping them with computer skills and providing psychological counseling.

The role of ICT in peace building can never be over emphasized but there are impediments to effective utilization of ICT for peace building especially in developing countries. Digital Divide has been identified as an "all encompassing" impediment to ICT and peace building in developing countries. This paper examines this concept, Digital Divide and how it impedes on ICT peace building efforts in developing countries.

DIGITAL DIVIDE

The concept digital divide initially referred to gaps in ownership of computers between groups.The concept came into regular usage in the mid-1990s. President of the United States Bill Clinton and his Vice President Al Gore used the concept in a 1996 speech in Knoxville,though the term had appeared in several news articles and political speeches as early as 1995.Larry Irving, a former United States head of the National Telecommunications Infrastructure Administration (NTIA) at the Department of Commerce, Assistant Secretary of Commerce and technology adviser to the Clinton Administration, noted that a series of NTIA surveys were "catalysts for the popularity, ubiquity, and redefinition" of the concept.

There are various definitions of the term "digital divide". Bharat (2004) defines it simply as "the troubling gap between those who use computers and the internet and those who do not" Mutulu (2008) also sees it as inequitable access to ICT such as computers, telephones and other internet technologies (Specter, 2000). Norris (2001) notes that digital divide is a multidimensional phenomenon encompassing three distinct aspect, which include global divide (divide between the industrialized and developing countries),the social divide (divide between information rich and information poor in each nation) and democratic divide(divide between those who utilize digital resources to engage , mobilize and participate in public life. Mutula (2008) points out that digital divide may be perceived as a social division between those who are

very involved in technology and those who are not, which could be between countries, within countries

The concept as highlighted earlier, initially referred to gaps in the ownership of, or regular access to, a computer. As Internet access came to be seen as a central aspect of computing, the term's usage shifted to encompass gaps in not just computers but also access to the Internet. Recently, some have used the term to refer to gaps in broadband network access.The term can mean not only unequal access to computer hardware, but also inequalities between groups of people in the ability to use information technology fully.

Issues on digital divide often are tied with other concepts. Servon (2002) argued that the digital divide "is a symptom of a larger and more complex problem -- the problem of persistent poverty and inequality. Mehra (2004) highlights the four major components that contribute to digital divide to include socioeconomic status, with income, educational level among other factors associated with technological attainment. New forms of enterprise, new types of skills, new sources of wealth and new forms of social interactions are among the benefits of the Information Society. Businesses and governments alike promote the new technologies for the benefits they will bring. But, if these developments are seen as being beneficial, then the lack of them is seen as a cause for concern. Many people, mostly those already poor or socially disadvantaged in some other way, cannot or do not have access to the new technologies and the opportunities they bring. These people that are socially excluded in the current ICT driven society are said to stand on the wrong side of the "digital divide". Developing countries by reason of factors such as economy, ICT contents, infrastructure, literacy, culture, non implementation of ICT policies, politics etc have continued to trail in the dynamic information society.

Given the speed with which Information Communication Technology (ICT) is developing and the breadth of their socio-economic impact, it is imperative that developing countries especially Africa are not excluded from the technological revolution. The use of ICT has been integrated into virtually every aspect of commerce, education, governance, and civic activity in developed countries and has become a critical factor in creating wealth worldwide. Yet in most developing countries, ICT has barely taken a foothold. Computer illiteracy and the lack of access to ICT which make up part of the digital divide are widely recognized as an increasingly powerful obstacle to civic and political development in these countries.

Recognition of digital divide as an immense problem has led interest groups such as researchers, policy makers, and the public to understand the potential of the ICT to improve everyday life for those on the margins of society and to achieve greater social equity, empowerment and peace.

CHALLENGES
Peace building according to Curle (1971) requires careful management and involves three key activities- education, action and advocacy. Other areas include vibrant governance through open discussion on issue of interest to the people which strengthens their engagements with justice and peace.

Education and Peace Building

One of the most popular development use of ICTs globally is in education. "Virtual" universities and other institutions are springing up to meet the challenge of providing education to a growing number of students with limited resources. Less well known are attempts to use ICTs to rehabilitate child ex-combatants especially in Africa. In Sierra Leone, more than 200 young people affected by war have participated in a project run by the non-governmental International Education and Research Network. Their multi-media showcase on the Internet includes essays, images and music that tells of the human toll of their civil war, however due to digital divide, inaccessibility of the Internet in this country has been the biggest challenge facing the project. This exercise is painstaking as project organisers must hire bus to get access to the Internet in urban areas. Sometimes the students walk and then often have to queue up for hours waiting for computers at Internet cafés. The project has touched the hearts of many people around the world. The UN office of displaced persons is considering form of ICT facilitated education as a potential model for use in four additional parts of the world that have been affected by war, Cambodia, Palestine, Sri Lanka and Uganda. (African Recovery, 2005)

In South Africa a group of academics recently launched an online Northern Sotho-English dictionary -- the first of its kind -- to help develop a language, one of South Africa's 11 official ones, that has historically been neglected. In Uganda, an online counseling service exists to train teachers and students to counsel young people in HIV prevention and care. But many local ICT initiatives such as these are hindered by the lack adequate access to ICT due to digital divide.

Information and Peace Building

Knowledge is power, when people are well informed they are empowered. ICT has made this possible in many countries. Information reach people through cell phones, internet, satellite television and radio stations. Sadly due to problem of digital divide a lot of people are cut off from this remarkable benefits of ICT. For example In Zimbabwe, the Kubatana project, a website linking 230 civil and community-based groups, provides information on new legislation, the electoral system and voter registration procedures, as well as major social issues confronting the country, such as HIV/AIDS. Owners of the website describe their work as "electronic activism." Users say the network is particularly useful given the current clampdown on the media in Zimbabwe. It reaches out to Zimbabweans who do not have computers at home or at work through public Internet facilities emerging across the country. During major rights campaigns, members of the network have asked those with computers to print campaign material and hand it out or post it to those without access.

Increased understanding – of different cultures, languages, and concerns – can go a long way toward reducing conflict. Communication technologies, especially the internet, can make distant situations more understandable and other people seem more like us. For example:

Literally understanding each other's language is a first step to deeper understanding. While the tools for automated translation are in its infancy, it will be important to watch how it develops. The United States Department of Defense has invested millions in the development of handheld translation devices to aid soldiers in Iraq and Afghanistan. Translation is not an easy challenge: sometimes words appear to translate across language barriers, but secretly hide deep cultural differences of perspective.

Reading informal accounts of events or lives through a blog can be a powerful way to understand different cultures and ways of life. The Global Voices online network, for instance, was formed to highlight, support and amplify the voices of those who are often underrepresented by traditional media. The network focuses on supporting bloggers who blog in countries and on topics that rarely get mainstream coverage.

Relationship and Peace Building

Establishing and maintaining contact is one vital way of ensuring that relationship flourishes. ICT has proven that it can facilitate this through its various services on establishing global friendship.ICTs can be a tremendous help to those trying to maintain or form new relationships. The ability to communicate through the written word, photos, sound clips, video clips, and web cameras can keep people connected regardless of how far apart they are geographically.

Millions of people have put up personal profiles, with statements, photographs, and more on web sites such as MySpace, face book, tagged etc. Like blogs, these profiles can help to understand people who are different than us, and show the similarities across cultures and geographical boundaries.

A "friendship tree" -- a contact list of about 100 Zimbabweans -- is activated by owners of the site every time an activist is arrested to ensure that witnesses are available to monitor the court proceedings. There are several other friendship sites which has fostered on line peaceful coexistence globally However because of the digital divide such opportunities are not available to million of people who lack access to ICT facilities.

Online Dispute Resolution (ODR)

In addition to helping to process information, ODR tools can facilitate better decisions. For instance, SpaceDebate.org, a website built using software called Open Debate Engine, allows users to publicly discuss the many aspects of space weaponization. A structured debate like this can make it much easier to see all the points of view and come to an effective decision. These technologies are far from the reach of most people in the developing countries due to digital divide.

Reducing Scarcity

Conflict has many possible causes, and can not be detached from   scarcity of resources – food, water, money - is often a contributing factor. Technologies that alleviate or change relative scarcity can improve efforts to bring about peace. For example easy communication technologies like mobile phones can greatly increase the efficiency of markets, especially in the developing world. For example, a cocoa farmer can use a cell phone to find the market with the highest price and make the best sale.

Governance and Decision Making

The state of peace or conflict is often greatly influenced by a single decision. Technology can help to improve decision making skills, the ability to see the critical information and likely results of decisions, and the environment in which decisions are made. To deal with its daunting challenges, developing countries will need more candid and vigorous dialogue between ordinary citizens and their leaders.

Over the last decade, African leaders have adopted declarations and resolutions to speed the development of information technology on the continent. In 1996, the Organization of African Unity adopted the Africa Information Society Initiative as the guiding framework for ICT efforts in Africa. Under the initiative, heads of state agreed that their countries would develop national ICT policies and strategies. Many are yet to do so. Efforts have been made to urge African countries to remove duties levied on ICT hardware and software. Digital divide has deprived governments and citizens alike, the opportunity of discussing with policy and decision makers on issues that directly affect them due to digital divide.

CONCLUSION

Technologies may not create peace. But they can certainly contribute to a society where people can more easily communicate, understand the current situation, visualize the implications of their actions, understand each other's point of view, and form meaningful relationships with people who are geographically or culturally distant. All of these are important aids in the peace-building process as we strive towards a world of lasting peace. This benefit is however been hindered by digital divide which could be between countries, within countries and even social class.

Across the developing countries, new information technologies are rapidly changing the lives of a small but growing number of people (Gumusai, 2005). In rural area somewhere in Asia or Africa , rice , cocoa or palm plants farmer gets real-time information on market prices across the globe through a cellular phone. Entrepreneurs who in the past were not able to get a dial tone on their land-line telephones can now connect immediately using Internet telephony, technology that allows phone calls to be made through the Internet. In some countries, Community Information Centre downloads programmes from Learning Channels and rebroadcasts them on local radio and television stations. Global friendship has greatly been enhanced with people meeting on line to discuss issues of common interests. Level of discussion has greatly improved between leaders and their subjects (e-governance). ICT is indeed a huge boom to global information sharing. However, as digital divide is a challenge in many places in the world, increasing information flow and other benefits of ICT first means increasing connectivity and breaking the barriers of digital divide. International organizations, government, NGOs and individuals should work toward solving this problem by bridging the divide to create room for effective utilization of ICT for peace building in developing countries.

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