

Globalization: A Study of Cell Phone Use in Africa

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Abstract

Globalization is spreading to even the most remote parts of the world due to the use of cell phones. The cell phone is a portable, mobile, inexpensive device that is changing the way people in Africa live, socialize and do business. Three distinct areas were analyzed for the way they use their cell phones. South Africa, Zanzibar and The Gambia in South, Eastern and Western Africa, respectively, provide insight into how lives are being changes due to the use of cell phones. Traders no longer have to wait to get pricing information on goods and supplies. Social interaction is increasing and leading the way for new forms of social interaction. Educational systems are using cell phones to enhance learning. After a discussion on these three areas, the results and conclusions are presented at the end of this paper. A series of recommendations for further research are provided along with predictions about continued cell phone use in Africa.

Keywords: globalization, cell phone, mobile phone, ICTs

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Chapter I: Introduction

Cell phone use in Africa is on the rise. In the past five years, the rate of increase of cell phone use in Africa was 65%, twice the global average (Why Africa?, 2009). Previously, other Information and Communication Technologies (ICTs) have failed to take hold in African society and culture. Because cell phones are the first major ICT development to thrive in Africa, this issue is worth studying. This paper is timely and will focus on the great impact of ICTs, specifically cell phones, on globalization.

Overview of Information and Communication Technologies

According to Wikipedia (2010),

Information and communications technology or information and communication technology, usually called *ICT*, is often used as a synonym for information technology (IT) but is usually a more general term that stresses the role of telecommunications (telephone lines and wireless signals) in modern information technology. ICT consists of all technical means used to handle information and aid communication, including both computer and network hardware as well as necessary software. In other words, ICT consists of IT as well as telephony, broadcast media, and all types of audio and video processing and transmission. (para. 1)

The main forms of ICT in the United States are Television, Radio, Internet and Telephones (both landline and wireless). Many Americans take for granted the fact that they have access to multiple forms of ICT all the time. ICTs are firmly imbedded into our culture. According to the U.S. Census Bureau, "U.S. businesses spent \$296.3 billion on information and communication technology (ICT) equipment and computer software in 2008, an increase of 11.0

percent from 2007” (para. 1). Other areas of the world are not so fortunate. While much of the western world has easy access to any form of ICT anytime they want, the way of life in Africa is much different.

The Failing Continent

The population of Africa is roughly 819 million, and it has a Gross Domestic Product per capita of \$624. The life expectancy in Africa is 50 years old (Africa, 2010). In contrast, the population of the United States of America is roughly 310 million, and it has a Gross Domestic Product per capita of \$46,000. The life expectancy in the United States is 78 years of age (The World Factbook, 2010). This is a dramatic difference, and one wonders why the disparities are so great. In most of the 1800’s and early 1900’s African countries were controlled primarily by European countries (Lambert, n.d.). Great Britain, France, Netherlands, Germany, Belgium, Portugal, Morocco and Italy all owned, took over, or otherwise invaded parts of Africa throughout that time. Lambert states,

...in the early 20th century attitudes to imperialism began to change in Europe.

Furthermore, in Africa churches provided schools and increasing numbers of Africans became educated. They became impatient for independence. The movement for African independence became unstoppable and in the late 1950s and 1960s, most African countries became independent. In 1960 alone, 17 countries gained their independence.

However, Mozambique and Angola did not become independent until 1975. (para. 30)

Although the African nations were now independent, many did not have the tools and skills to cope with their new freedom. Many countries suffered civil wars and brutal dictators; most are still dealing with these problems today (Lambert). However, Africa is now undergoing an intense economic transformation (Kapstein, 2009). Since 1990, vast political changes in Africa

are providing hope and widespread progress to countries like Ghana, Cameroon and Benin.

Although the 1990s brought famine, disease, violent civil conflict, debt and corrupt governments, it also brought urbanization and democracy, which is part of the foundation for a capitalist revolution (Kapstein, 2009).

ICTs in Africa

With all the turmoil in Africa, it is easy to see why the continent would have so many problems in implementing new technologies. Because citizens are desperately in need of the basics, like clean drinking water, food to eat, and a roof over their heads, technology falls to the wayside. Technology implementation has been tried in the past, some ICTs implemented semi-successfully and some not executed successfully at all. In 1972, Radio Gambia began broadcasting in English and five other major languages. It has been, and continues to be, the major way people get information in The Gambia (Harvey & Sturges, 2010). It was not until 1996 that The Gambia got its first television station. The Gambian national television broadcasts a few hours a day and usually only in the evenings. The Gambian Government was hesitant to even let the television station broadcast because they feared increased political awareness (Harvey & Sturges). The same fears can be heard from governments across the African continent. Landline phones were implemented in 1984 but proved to be unsuccessful. Landline phones have failed across much of Africa because they are costly, hard to maintain, and floods and thefts of copper wire often get in the way of signal transmission (Ngowi, 2005). It is interesting to point out that The Gambia had access to the internet in 1998, only two years after their access to television began (Harvey & Sturges, 2010). Although Gambia Telecommunications offers four internet service providers in the country, internet has been relatively unsuccessful. The lack of electricity and fixed lines along with the high cost of

computers has hindered Gambian resident's access to the internet. Add into that the lack of computer skills, teachings, resources and overall awareness about the internet's existence and the internet is destined to failure (Harvey & Sturges, 2010). With government repression, lack of money, and few resources, it is not any wonder why ICTs are rarely used in Africa. Therefore, this staggering cell phone boom is making people around the world take notice. Despite the lack of success with implementing ICTs, there is a host of benefits as stated by Alzouma (2005):

ICTs are first believed to be media through which intellectual content is developed, information circulated, and ideas and objects exchanged, which all contribute to creating wealth and empowering community members. (p. 341)

ICTs can undertake the marginalization of Africa. Africa has been trying to leapfrog technologies for a long time, mostly unsuccessfully. Alzouma (2005) points out, "...Southern countries should participate in the globalization process of the information age to fully share its benefits" (p. 340). Could cell phones be the answer to Africa's quest for growth and independence both politically and economically? ICTs promote democracy by facilitating participation and providing public access to information. Although many think that Africa will be unable to leapfrog beyond ordinary development problems, there is still hope. The cell phone boom can help, and Africans can reap the many positive effects of cell phones. Alzouma lists a few of the many positive effects of cell phones: "These include economic growth, agricultural and industrial productivity, efficiency of public administration and participation in democracy" (p. 341).

Mobile Phones in Africa

Ten years ago, the cell phone market in Africa barely existed. Today, the market is worth

\$25 billion (Ngowi, 2005). Africa is the world's fastest growing mobile market (Alzouma, 2005). In Kenya, there are 5.6 million cell phone subscribers, yet only 200,000 households in the country have electricity (Why Africa?, 2009). Worldwide, there are 3.5 billion cell phone users, of that, 300 million are in Africa (Greenemeier, 2009). The number of mobile phone users is expected to hit 4.5 billion globally by 2012; that increase will be in large part to the enormous growth in Africa (Judd, 2009). These statistics all prove how this change is massive and is a key factor in globalization. Through this research, the author will be investigating and searching for answers to the following research questions: RQ1: What are the economic benefits of cell phones in Africa? RQ2: What are the cultural ramifications of cell phone use in Africa? RQ3: How will cell phones be used in the democratization of Africa? RQ4: What are the benefits and drawbacks of cell phones as a primary ICT in Africa? RQ5: What are the implications of continued cell phone use in Africa?

Chapter II: Case Studies

Entrepreneurs all over Africa are coming up with innovative uses for cell phones. Cell phones are used to send money to families, to buy food and supplies, get jobs and check market prices on supplies (Why Africa?, 2009). Cell phones provide a link with customers, brokers and markets. In addition, it is a way for husbands and wives to keep in touch with each other (Ngowi, 2005). Phones have become the primary way people communicate in the continent. Cell phones can do many of the same things as a computer, and are much cheaper. Mobile phone service providers are offering banking services on cell phones and allowing people to book tickets to sporting events (Judd, 2009). This advance will allow Africans to move up in the world and help them climb up the global ladder. Judd (2009) states, "Thanks to an emerging class of social applications, farmers in Uganda have something in common with Madison

Avenue advertisers; they both use their mobile phones to do business” (para. 1). The fact that Africans can adapt to mobile phone technology shows the value of inexpensive, mobile computing for, “...a people representative of the 1.4 billion mobile phone users living in the developing world today” (para. 4) (Why Africa?, 2009). It is interesting to note that pre-paid minutes are the preferred usage in most Africans countries. Low-cost phones are a perfect fit, and the prepaid phones allow neighbors and friends to share and use one phone. “Air minutes have even become a form of currency, transactable from phone to phone by text message” (para. 8) (Ngowi, 2005). Cell phones are changing the way Africans live and do business. Now a fisherman can check market prices to justify a trip before sailing to a neighboring port. Traders do not have to walk around for two weeks looking for fresh produce; a simple phone call can give them the information they need. In addition, cell phones make traders more competitive, and that gives farmers better prices (Ngowi). It is clear to see how cell phones are having a great affect on the lives of many in Africa. But, will this cell phone boom come at a cost for Africans? While cells are flourishing, hackers and scammer are already plotting their next move. With poor cyber security in Africa, one wonders if cell phones will be the next ICT under attack. The biggest concern is that mobile devices and networks will be vulnerable to malware, hackers and theft, just like computers (Greenemeier, 2009). The solution lies in technology advances and better cell phone batteries because decrypting information uses much of the phone’s battery power. For now, African nations should try and do a better job securing information at the network level. Greenemeier (2009) states, “As it stands, Tunisia is the only one of 54 African nations that has a national Computer Emergency Response Team” (para. 4). Next, the author will provide an in-depth look at some specific areas in Africa to find out what kind of affect cell phones have there.

South Africa: Khayelitsha, Cape Town

Khayelitsha is located on the urban fringes of Cape Town, South Africa. Researchers Skuse and Cousins spent time there to learn about how the people of the area use cell phones. Within the poor communities of South Africa, around 36 % of people have access to a mobile phone. Compare that to the 16% that have access to a landline and one can see why there is a significant difference in access for those who have mobile phones (Skuse & Cousins, 2008). Many poor households prefer cell phones, but the high cost of pay-as-you-go phones limits them. Most families just wait for incoming calls because they are cheaper, and with some companies, free. Cell phones allow poor people to reach out in a farther physical distance and gives them better access to health professionals. The South African government sees cell phones as supporting social development and alleviating poverty. Cell phones can enhance access to market information, mentoring and business services (Skuse & Cousins). Additionally, cell phones are used to identify housing and can mobilize large numbers of people within the community (Skuse & Cousins).

Skuse and Cousins surveyed the type of calls that people in Khayelitsha were making, and they found the following: 9% of calls were for romance or a sexual relationship, 15% for making plans to socialize, 14% to keep in touch, 10% to arrange travel, 9% for birthday greetings, 9% for death, 9% work related, 10% health related, 10% for remittance and 5% for education, housing or welfare. Most of the calls were short, one to two minutes and were information heavy. Most calls were made to surrounding areas. In many situations, cell phones were used for receiving calls for the whole family and sometimes neighbors. Some people let their neighbors and friends bring over their individual SIM card to put in the cell phone. This

allows them to check their voicemail and respond to messages without owning their own phone (Skuse & Cousins, 2008).

Not only does the cell phone provide the people of Khayelitsha with economic benefits, but the cell phone has some unique social and cultural implications as well. Some cell phones can be expensive, so they signify wealth (Skuse & Cousins, 2008). If a person owns one, it can provide them with an edge to upward social mobility. This urban affluence shows social, cultural and technological literacy. These new cell phones communicate youth, potential, power, attractiveness and a connection to others (Skuse & Cousins). The cell phone in Khayelitsha is only one example of what certain countries are experiencing with cell phone growth and use.

It is important to note the differences in how people in South Africa use cell phones as compared to the rest of the world. While a cell phone is integrated into American culture, the cell phone in South Africa is so much more. There, it can be the difference between an evening meal and going hungry, finding a place to live and slumming on the streets, and learning about a death in the family or not finding out until a month later. Americans take these types of technological advances for granted, but in Africa, something as simple as a cell phone is changing many lives.

East Africa: Zanzibar

Zanzibar is a small island just east of Tanzania in East Africa. People who inhabit the small island are merchant people; their culture and society is based off trade and seafaring (Pfaff, 2010). In Zanzibar, trade is seen as a guarantor of wealth. In order for merchants to be culturally and economically successful, they have to be flexible, mobile and engage in commerce. Merchants have to work very hard to become rich and move up the social hierarchy (Pfaff).

Zanzibarians have two distinct uses for cell phones. One is as a material object; something to trade. The other use is purely as a communication tool; to organize trade (Pfaff, 2010). In addition, cell phones are linked to the traders' process of identification. Pfaff discusses how cell phones are the catalyst for change in Africa. Cell phones have an economic and educational potential greater than any other ICT that has come into Africa. Cell phones can be used to access information about markets, politics and health (Pfaff). While cell phones create connectivity, centrality and empowerment, for those that do not have them, there is a feeling of disconnection and social exclusion. The great thing about cell phones is that they travel very well, despite changing tower connections. For most developing countries in Africa, time and space are the real communication constraints (Pfaff).

In the article, *A Mobile Phone: Mobility, Materiality and Everyday Swahili Trading Practices*, Julia Pfaff took her research to a new level by conducting a study on one particular cell phone. In America, that type of study may prove worthless. Most Americans hold on to a phone for a while. When the phone dies or a person wants to upgrade to a new plan, they throw it away. Inversely, in Africa, cell phones are a hot commodity. Pfaff followed a Siemens CF62 cell phone around Africa as it was traded and sold to different users. The phone came to East Africa with a Canadian volunteer worker. In order for the Canadian aid worker to use the phone, she had to buy a new SIM card for the phone so she did not have to pay the high cost of international calls. The phone was useful to the Canadian, and she used it primarily for access, news, emergency and security. After three months, the Canadian went back to Canada but left the phone with her African host family (Pfaff, 2010).

The next person to own the phone was a Zanzibarian woman. She immediately replaced the SIM card for a new one that was more popular. For this woman, the phone was a status

symbol. She spent roughly the equivalent of US\$1 a day on the phone. She mainly used the phone to communicate with female friends and relatives (Pfaff, 2010). This phone was a tool of independence for the woman, and using the phone brought something special to her life. The phone was new and thus, appealing. Whenever the woman went out, the phone was carried in her hand so other people could see it. After a while, the phone became “unfashionable” and the woman tried to sell it. While she waited for the phone to be sold, friends and relatives frequently borrowed the phone, practicing a new kind of material exchange (Pfaff). The woman enlisted the help of her younger brother, a salesperson, to help her sell the phone. The phone traveled with the brother who replaced the SIM card yet again and looked for buyers as he traveled around selling other goods and products. Finally, the cell phone was sold to a young man who lived on the Island of Pemba, one of the islands made up in a group off the coast of Tanzania (Pfaff). It was the young man’s first cell phone. He purchased it because he was moving to Dar es Salaam, Tanzania’s largest city and a regionally important economic center. He wanted to have the phone so he could stay in contact with friends and family back in Pemba. He also used the phone to contact and meet potential employers. The phone elevated the young man to a new social level, and allowed him to connect with others while he was on the go. The story of the phone ends as the young man failed to set up a trading practice and sold his phone to a friend before going back to Pemba (Pfaff).

It is interesting to see how cell phones have different uses but connect people in the same ways. The fact that people discard older phones for newer ones is a sign of status symbols. In addition, by not having the same phone for a long time, a person can avoid the ordinary. For women in Africa, a phone is an expression of their sense of self; something they do not get to express normally. Finally, young travelers feel reachable while on the move if they have a cell

phone. According to Pfaff (2010), cell phones in Africa are "...involved in complex practices of exchange and processes of acquisition, appropriation, abandonment and selling that includes its different means and the role of mobility" (p. 352). To sum, the cell phone plays a crucial role in trading practices in Zanzibar and is the social glue holding the area together.

West Africa: The Gambia

According to Harvey and Sturges (2010), "...the cell phone now has to be taken seriously as a truly influential technology which is enabling society to achieve a host of benefits, some small and some large, that were previously unachievable" (p. 148). Located on the western shores of Africa, The Gambia is the smallest and most densely populated country in mainland Africa (Harvey & Sturges). The population of The Gambia is 1.7 million. Like many African countries, The Gambia was under British rule until 1963 and gained full independence in 1965. The Gambia is the least developed country in Africa, and it is made up of diverse ethnic groups. In 1998, the United Nations Development Programme started an ICT (e-government) initiative within The Gambia (Harvey & Sturges).

As previously mentioned, The Gambia currently has a radio station, television station, a handful of landline phones and scarce internet access. Despite all that, mobile phones are thriving. The cell phone is now the most effective and reliable form of communication in The Gambia. As people move and change locations, the demand for a better, continuous source of communication increases. Mobile phones allow people to communicate without tying them down to physical proximity or spatial immobility (Harvey & Sturges, 2010).

Harvey and Sturges (2010) studied the use of cell phones in the following five locations: the office, the cybercafé, the household, educational environments and the market. The following paragraphs detail their findings in each location.

For office use, the cell phone is in constant use. Of the people surveyed, 97% were cell phone users. In addition to that, 65% of those surveyed ranked the cell phone as positive or essential. The cell phone's main use in an office setting was as an organizational tool (Harvey & Sturges, 2010).

While at the cybercafé, Harvey and Sturges noted that most respondents were young, male and educated. Of those interviewed, 63% said cell phones improved their lives. Many said the phones allowed them to tap into different sources of income. Of the respondents, 58% said the mobile phone enhanced their lives in a social and cultural sense. Also noted was the fact that cell phones are seen as a strong indicator of wealth (Harvey & Sturges, 2010).

In the household, cell phones allow those at home to keep in touch with family members who work outside the home. Of the respondents, 49% said they received their cell phone as a gift. Most participants remarked how cell phones make information more readily accessible to them, and cell phones keep them organized. Of the participants, 90% said the mobile phone was an improvement to their lives (Harvey & Sturges, 2010).

In educational environments, cell phones are used to listen to the radio and play games. Cell phones are not only used for communication but as a multi-media device. It is a portable form of internet and an instrument of knowledge sharing. Many use the phone for personal security while others see it as merely a social tool. For most, it is an organizational tool and signifies a wealthy status (Harvey & Sturges, 2010).

In the market, the cell phones assists with doing business. Traders can organize buying, marketing and selling goods through the use of their cell phone. People in the market arrange stock deliveries via their phones. The cell phone also allows traders to provide more options to

the consumer by talking and doing business with more people. The cell phone has changed the way business is done and is enhancing lives every day (Harvey & Sturges, 2010).

A digital divide does exist in The Gambia. This divide lies in affordability and choice, not in literacy, gender and age, which are common in most countries. Distrust and monopolization between companies has obstructed success, but cell phones continue to boom. While looking at The Gambia, an understanding about different cultural centers can be made. The office, cybercafé, household, educational system and market all provide a different look into the use of cell phones in a variety of locations. Similarities and differences lie in each, but the themes are similar throughout each of the regions this paper has looked at.

Conclusions

Each of the three case studies has provided information about three distinct areas in Africa and how cell phones are used. Many similar themes that run through each region. Increased communication for marketers, traders and business owners is one of the key elements. Cell phones are changing the way these people are getting information, thus allowing them to expand their business, save money and provide more goods to consumers. The social aspect of cell phones is an interesting one to note. The fact that cell phones are seen as an object for the wealthy could hinder the advancement of the poorest of the poor in Africa. However, many poor people in each area share phones. The mobile and commodity aspect of the phone may allow many to rise above this social stigma and get better opportunities for themselves and their family. Finally, the cell phone is expanding the distance of communication in Africa. This may provide the younger generation with more opportunities for schooling and work since they will not need to be tied down to home. In the discussion section, the author will delve deeper into these themes and discuss the research questions that were posed earlier in the paper.

Chapter III: Discussion

RQ1: What are the economic benefits of cell phones in Africa?

As discussed in the research, the economic benefits of cell phones in Africa are enormous, and the potential for economic growth with cell phones is expanding daily. Tradesmen are now able to call around and get the best price to offer consumers. Seafaring men can call ahead to the port before making an unnecessary trip, saving them time and money. Those looking for work can leave a number to call instead of waiting each day to see if work is available. A husband can call home to his wife and let her know the going rate for each type of meat so she can plan out the week's meals before anything is purchased. These are just a few examples of the economic rewards due to cell phone use. Global companies are looking into bringing business into Africa to tap into some of the wealth created by increased cell phone use. This could be the economic edge that could catapult Africa out of poverty forever. Only time will tell what other economic benefits may surface with increase cell phone use, but one can bet with results like these, Africans will not be giving up their cell phones any time soon.

RQ2: What are the cultural ramifications of cell phone use in Africa?

In a cultural sense, the research showed the high value and importance placed on cell phones in society. Cell phones are a status symbol. The better the phone, the more wealthy and hireable you appear. Cell phones are also changing this culture as people will no longer have to live so close to a big city. They can still keep in contact with people through the use of their cell phones. Many women are the heads of their household, and the cell phone is providing them with new opportunities. Many women are finding a voice; they are able to communicate with friends and family members in new ways, all thanks to the cell phone. In an educational sense, the cell phone is giving students new and different opportunities. Many phones with games and

internet access can be used to enhance student learning and gives teachers better ways to teach. Culturally, cell phones are seen as the next big thing; the goal is to have the latest and greatest but just having one, elevates a person to a new level.

RQ3: How will cell phones be used in the democratization of Africa?

Although this point was only touched on briefly, it is a point worth noting. As more Africans gain access to cell phones and the internet, is it only natural that they will gain access to more information. Communication fosters information gathering and political awareness so as more people get cell phones, a larger amount of the population will become aware of the world around them. Since the cell phone boom is so new, there is not much research on the topic. One can only guess that as more and more people become aware of the world around them, the quest for a stronger, better government will increase. This rise in awareness may lead to riots and a coup d'état, but that is just speculation. The knowledge gathering provided by cell phones will probably make more Africans aware of democracy, if they are not already. It will be interesting to come back to this subject in five or ten year and see just how much cell phones have affected democratization in Africa.

RQ4: What are the benefits and drawbacks of cell phones as a primary ICT in Africa?

The benefits to cell phones are vast, as previously discussed. The economic, political, educational, social and cultural benefits are colossal. However, reliance on just one form of ICT may end up hurting Africans in the end. As mentioned earlier, poor cyber security in Africa could end up causing them more harm than good. It is never a good idea to risk everything for one form of technology. If African nations can see the dangers of malware and hackers, perhaps they can step in and bolster their cyber security tactics. If this is done, the threats to cell phone use will no longer be a factor. That said, if and when African nations begin to pull themselves

out of poverty, perhaps there will be more opportunities to use other forms of ICT. In sum, cell phones provide a great resource and tool to African people, but security measures must be put in place so cell phones are not the victim of the next large cyber attack.

RQ5: What are the implications of continued cell phone use in Africa?

While no one can predict the future, there are many implications of continued cell phone growth in Africa. A growing economy, a shift in political awareness, stronger educational system and increased family communication are just a few. With that comes a negative aspect of scammers and hackers. From the research, it is clear to see that cell phone use is going to keep rising in Africa.

Recommendations

Further research on this subject is needed. In just a few years, the cell phone boom in Africa has surpassed much of the world. The data in this paper is already out of date because even the most recent articles were published earlier this year. A study involving political awareness should be done in the next two to three years. In addition, looking at the changes in African society, specifically the roles between men and women, would be interesting. As cell phone use continues to grow, the significance of a cell's social status should be further reviewed. The affects of cell phones on globalization are in the early stages. As more companies get into the cell phone business, more opportunities will arise for Africans. One can bet that cell phone use in Africa is going to be something people are going to talk about for many years to come.

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