The Social and Political Implications of Information Communications Technologies (ICT) Diffusion in Africa: A Case of Economic Dilemma

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The diffusion of Mobile communication systems worldwide is so fast that there are about 4.6 billion mobile phones in the world (CBSNews.Com, 2010). Technology, particularly the communications revolution has its shortcoming. Cell phones, pagers and laptop computers make people accessible almost anytime, anywhere, causing some users to feel caught in an electronic web. At the other extreme are technology ‘addicts’ who have a compulsion to be connected. Addiction, distraction, interruption therefore are the most recognized problems associated with communications and media technology such as cell phones, computers, internet and television. This paper argues that every nation has been witnessing and experiencing the fastest global diffusion of any technology in human history over the last decade. The paper, using qualitative method of analysis, positsthat the purchase and usage of information communications technologies (ICT) must be responsibly considered, with economic implications of such a decision given the detrimental socio-economic and political effects of such spending. In addition, there is need to put people before technology and avoid squandering precious time and money on gadgets and software that are injurious to the consumers. The study concludes that there is a need for government to develop appropriate policy, through suitable agency like the Nigerian Communications Commission, to regulate the type and use of ICT in Nigeria.

Key Words: Socio-political implication; ICT; communications revolution; Technological Diffusion; Addiction and distraction; Economic dilemma

1. Introduction

All over the world it is not uncommon to find both old and young ones talking on cell phones. Even beggars might pause in their solicitations to make or take a call on their phones (High Technology, 2009). From cell phones to computers to television, technology has penetrated every nook and crannies of the world to the extent that it had reduced the divide between the rich and poor (Washington Post, 2009). It has also become part of life for everybody. The pervasiveness and ubiquitous of technology, without doubt, is apparent in the proliferation of cell phones, many of which are no longer just phones.
Advanced models enable users to access the internet, send and receive e-mail and text messages, watch TV, listen to music, take photos, and navigate by the Global Positioning System (GPS). A multimedia smart phone now has more processing power than did the North American Air Defense Command nor in 1965 (Washington Post, 2009). According to the newspaper, ‘there is now one cell phone for every two humans on earth’, and at least 30 nations have more cell phones than people (Awake, 2009).

There is no doubt the fact that every nation in the world is now witnessing and experiencing the fastest global diffusion of any technology in human history. The diffusion of Mobile communication systems worldwide is so fast that there are about 4.6 billion mobile phones in the world today (CBSNews.Com, 2010). It has equally been asserted that, worldwide, almost 60 percent of users live in developing lands, making the cell phone the first high-tech communication device to have the majority of its users in those lands. Afghanistan, for example, added about 140,000 subscribers a month in 2008, while in recent years Africa has seen cell-phone use grow nearly 50 percent annually (Awake, 2009). Nigeria, for example has over 60 million subscribers in a year, while in recent years Africans has seen cell-phone use grow nearly 83% Annually (High Technology, 2009). As at the end of January, 2011, the number of phone connections in Nigeria has passed the 158 million mark, according to the latest figures released by the Nigerian Communications Commission while the number of active mobile (GSM) subscribers is now 82.61 million, mobile (CDMA) subscribers top 6.18 million and active fixed/fixed wireless users stand at 1.03 million, for a total of 89.84 million active lines (BiztechAfrica, 2011). This is against the 20,000 telephone lines available in July, 2001 and which were usually available for the rich and government officials, the maximum lines that period was 500,000 out of which 25,000 were mobile lines (Tell Magazine, 2011).

Planners, policy makers and researchers hold highly polarised and equivocal views on the diffusion of Information and Communication Technology (ICT), its role in solving some of developmental challenges and issues such as poverty alleviation, universal education, reduction in mortality and health hazards, and sustainable development, and in bridging the digital as well as socio-economic divides in the world (UNDP, 2004). In fact, it has been asserted that many consider ICT to be the only possible means of achieving the objectives of any development agenda within a reasonable time frame, through technological leapfrogging (UNDP, 2004). Specifically, most policy statements, research reports and overview documents at both international and national levels have regarded positive impact of ICT on socioeconomic development to be self-evident (See World Bank, 1990; 1998; 2002; Wolf, 2001; Cairncross and Pöysti, nd; UNDP, 2004). This notwithstanding, this paper not oblivious of various positions regarding the utility of ICT and its diffusion. Strongly hold the view that technology, particularly ICT revolution has its shortcoming and could even be detrimental to the less developed world, particularly for populations that are economically and socially underprivileged.

Cell phones, pagers and laptop computers make people accessible almost anytime, anywhere, causing some users to feel caught in an electronic web. At the other extreme are technology ‘addicts’ who have a compulsion to be connected (Washington Post, 2009). Addiction, distraction, interruption therefore are perhaps the most recognized problems associated with popular communications and media technology (cell phones, computers, internet and television) (Washington Post, 2009). We are not unaware of the fact that these devices have also much benefit. How, then can we make a balanced maximum utilization of the devices is the focus of this paper.

2. What is Technology

Technology is the acquisition and application of basic ‘scientific intelligence’ to practically produce and economically utilise the materials and needs of society (Isehunwa, 2004). Explicitly, Technology denotes the whole or an organic part of scientific and empirical knowledge relating to industrial activities, material and energy resources, modes of transportation and communication, and other similar fields that are directly applicable to the production and improvement of goods and services (Egbetokun et al., 2007, Egbetokun and Siyanbola, 2008). Scholars, for instance, Aderemi (2006a) argued that technology has a broad definition and depends on the context in which it is used. It is commonly referred to as tools and machines that may be used to help solve problems. It may also be defined as a technique-current state of knowledge of how to combine resources to produce desired outcome (Aderemi, 2006).

Science and technology (S&T) have nowadays become symbiotic and interrelated (Egbetokun and Siyanbola, 2008). In fact, they have become so closely related that the one now depends on the other for its development (Ilori et al., 2002). The concept of “Science and Technology” means, nowadays, the totality of activities (Scientific and technology research, Experimental development, Scientific and technological services, Innovation and Diffusion) in a nation that lead to innovation (Ilori, et al; 2002; Ilori, 2006).

Thus, on a general note, we are not unaware of the fact that ‘pure’ science provides (theoretical) insight and understanding of the forces of nature, while technology
as ‘applied’ sciences provide the practical and applied skills required to exploit nature and produce materials and services needed by the society (Isehunwa, 2004). This notwithstanding, science is generally employing formal techniques, that is, some set of established rules of procedure, such as the scientific method. While technology, our focus, on the other hand, broadly involves the use and application of knowledge (e.g., scientific, engineering, mathematical, language, and historical), both formally and informally, to achieve some ‘practical’ result (Roussel, et al cited in Aderemi, 2006b).

3. Why we must pursue Technological Development

The benefits derivable from Science and Technology are not actually realised in an economy until innovation and diffusion occur (Egbetokun and Siynabola, 2008; Isehunwa, 2004). (Science and) Technology plays some important developmental roles in the life of any organisation, society and nation in general. History has demonstrated that Science and Technology has the potentials for improving the quality of life of the people. It can help to reduce poverty, enhance international competitiveness and build social capability (Olayiwola, 2003). Science and Technology is vital to national survival, security and industrialisation.

Science and Technology can be used to drive societal advancement. Today, there are plethora of examples of how it has helped mankind. One great example is the mobile phone and internet facilities. Ever since the invention of the telephone in 1876, society has been in need of a more portable device that could be used to talk to people. This high demand for a new product led to the invention of the mobile phone, which did, and still does, greatly influence society and the way people live their lives (Siyanbola, 2008). On the same arguementative plane, Mall Mann (n.d) for instance, asserted that:

In the past, we only had to be concerned about too much TV exposure. Now we have video games, computers and cell phones. It is overwhelming for young children (adults alike) and creates patterns of behaviours similar to addiction patterns... Their brains get used to too much auditory and visual stimulation—and in the absence of these stimulations, they do not know what to do with themselves.

The above statement shows the level at which the use of technology (Information Communication Technology) has penetrated the fabric of our society.

Mobile communication systems have provided a rich resource for the way in which technology is currently being used to support creativity through encouraging learners to make connections, develop ideas, create meaning, collaborate and communicate (Avril, 2000). They can be use to browse the Web, take pictures, send e-mail and play games (Flynn et al, 2005). Rapid development of the Internet with its new services and applications has created fresh challenges for the further development of mobile communication systems (Wesolowski, 2002).

Some countries in Africa, specifically Nigeria, in the last few years, have successfully launched the first observatory and communication satellites in black Africa. The nation also boasts the fastest growing mobile telephony market in the whole world and successful drugs have been developed by some of her researchers.

It is as a result of this, for instance, that Isehunwa (2004) asserted that Africa’s hope of breaking the cycle of poverty, disease, ignorance and excruciating debt lies with the exploitation of the full benefits of Science and Technology under good governance. This is currently supported by Aderemi (2006) that socio-economic and indeed cultural development is largely dependent on the harnessing and application of Science and Technology achievements. This is particularly of vital importance as the largest concentration of least developed countries in a continent of the world is found in Africa. African countries represent the least scientifically advanced in the world in terms of basic input and output, with an almost negligible contribution on the basis of Science and Technology development of the Internet with its new services and e-mail and play games (Avril, 2000). They can be use to browse the Web, take pictures, send e-mail and play games (Flynn et al, 2005). Rapid development of the Internet with its new services and applications has created fresh challenges for the further development of mobile communication systems (Wesolowski, 2002).

According to UNDP (2004), the literature on the role of ICT in promoting socio-economic development is rich in terms of empirical rigour and diversity of opinions, despite having a short history. Most of the studies [Brynjolfsson and Hitt 1996; Lehr and Lichtenberg 1999; Oliner and Sichel 2000; Jalava and Pohjola 2002; and Dewan and Kraemer (in press)], according to UNDP report of 2004, pertain to developed countries (The first few rigorously empirical studies on this subject are those undertaken in...
the United States using firm level data on ICT investment and economic performance) - and suggested the positive impact of ICT on income and employment growth; and ICT on socio-economic development, provided a liberal political environment is maintained (See Baliamoune 2002).

4. Must the pursuit of technological advancement be unending?

The argument in support of the diffusion of ICT notwithstanding, it has been noted that the relationship between ICT and employment growth is absent in several Organisation for Economic Cooperation and Development (OECD) countries and particularly in developing countries of Africa where non-ICT investments tend to have a higher payoff than ICT investments (UNDP, 2004). This makes the relationship to be weak or absent. It is on this note that scholars have argued that growth of ICT should not become a 'techno-quick-fix' for solving development problems (UNDP, 2004) or seen or accepted as tradeoffs with items of the development agenda such as MDGs in less-developed countries (Wilde 2003). It was then posited that developing countries of Africa are just beginning to understand how the application of ICT relates to the achievement of social goals and economic growth and there are serious doubts whether the benefits truly outweigh the costs (Kenny 2003; Wilde 2003).

The most powerful argument made against the diffusion of ICT is that it has resulted in sharp differentiation not only among countries but across groups of populations, and such differentiation is likely to be further accentuated. The existing inequalities, particularly in the developing countries, in terms of access of households to natural and capital resources, have intensified with the launching of the programme of liberalisation (UNDP, 2004) while the legal and administrative structures that are considered important for providing equitable access to all sections of the population are yet to be institutionalised (de Soto 2000). As a result of this, the introduction and diffusion of a new technology strengthens the position of economic and political elites in relation to others, thereby deepened the problem of income inequality (Weakonomics, 2010). This is so in that these category of people have larger resources at their disposal or access the technology, can acquire the necessary skills easily due to their higher levels of education and economic status as well as their ability to establish links with other production and social sectors through ICT, for appropriating new facilities and opportunities (UNDP, 2004). For instance, it has been empirically established that ICT has a critical requirement of specific skill and that comes in the way of its adoption by underprivileged groups/regions, even with general improvement of literacy in a country (SIBIS Report 2001).

Moreover, it has also been demonstrated empirically that diffusion of ICT in developing countries do not benefit the social sector in the same way as in industrial countries due to the existence of barriers to knowledge and information asymmetry in the former (UNDP, 2004). This, by implication, shows that the absence of skilled human capital, lack of funds for modernisation, among others in the social sectors becomes an impediment to the adoption of ICT and the dissemination of benefits throughout the countries. These factors therefore posed serious challenges to the ability or role of ICT in solving most of the developmental problems facing the developing countries of Africa.

There has been an opposing view to the above that harnessing the power of ICT and ushering in the 'digital revolution' can transform production processes, commerce, government and education and create new forms of economic growth that will benefit all sections of the population (UNDP, 2004). Specifically, it has been argued that, ICT can contribute to the realisation of social goals through greater dissemination of health and reproductive information, training of medical personnel and teachers, equitable access to education and training facilities, opening up of opportunities for women and expanding scope for citizen participation (Baliamoune, 2002). And that the case of Arab States which registered high growth rate in ICT, despite low literacy, have refuted the argument that specific skills and human capital are prerequisites for dissemination of ICT. These arguments notwithstanding, ICT diffusion has led to reduction in information asymmetry between the rich and the poor and between the educated and the uneducated. For instance, as it has been claimed, there is no reason why ICT in Asian countries cannot reduce the existing barriers to knowledge and bring down the inequality in accessing the information base, which currently is extremely high as it is linked to income inequality (UNDP, 2004; Caselli and Coleman, 1981).

In addition to the above, given the current socio-economic status of most African countries and as the world becomes more increasingly wired, many people cannot leave home without their portable media player or cell phones. And as these and other devices become more powerful, more versatile, and less expensive, the current flood/influx of communications technology may only intensify, creating even more domestic, national and international challenges for parents with regard to supervising, training and discipline their children on one hand, and for countries with regard to crime control, security and trade policy formulation with respect to industrialisation.

Not only this, while internet is certainly a beautiful tool in the way it has opened a vista for once unexploitable bastion of knowledge and bridged the gap between
cultures and settlements scattered across continents (Oruame, 2010), it is a monster capable of re-creating people. The powers of the internet are said not to be so latent that only very discerning observers will be able to see the great impacts of these powers on our psyche as individuals and communities of long established cultures (Oruame, 2010).

In Nigeria, as people with history, culture or heritage, a close examination of people attitude towards the use of internet facility shows that the country is witnessing the gradual invasion of most of these heritages. The implication of this was put into perspectives by Oruame (2010) when he posited that:

over time, the country may at the end of the day lose some of these invaluable heritages and thus became people totally severed from their heritage and who cannot find a place within the context of the present as established in an internet age, or what Western idealists have found a good euphemism for in the term, ‘global village’ or the more technical term, Knowledge age’ as frequently interchanged with ‘Knowledge economy’.

The reason for the above is that the country is gradually losing her cherished identity as the internet age and its utilisation become more pronounced. This is more so in that the language of the internet as is the language of global commerce is chiefly English. Almost 85 percent, if not more, of internet contents, are in English, then come French, Japanese, German, Spanish and the rest of them (Oruame, 2010).

It is of interest to note that, while Nigeria has her presence intimidated on the Net, some of the world’s most populous countries, China and India, with nearly two billion and close to one and half of a billion people respectively, have no intimidating presence on the Net as to be as influential as English in a global context. These countries are making efforts to have their identities established and their heritages protected and promoted online, although not as significant as does by South Africa. South Africa is launching a portal to carry everything about her eleven (11) official languages and the culture of the people who speak the language. It is a database that symbolizes one thing: the expressed determination of the South African government to protect and promote the heritage of its 45 million people (Oruame, 2010).

However, in Nigeria, there is no such effort and that concerted efforts are required in this regard. This is against the backdrop of the report of a national daily on the death of a Nigerian language due to the death of the only individual that could speak the language within the same period the report was carried. In this same way, most of our indigenous languages would have died a natural death and gone into oblivion. In particular, some of the languages that are well or commonly used apart from Hausa, Ibo or Yoruba do not have bright prospects of fighting off the language stage siege on the internet (Oruame, 2010). Even, it has been argued that the most popularly used Hausa, Ibo and Yoruba do not have any programme for conservation. Thus, a time will come when the phonology, syntax as well as the literature written with some of these major languages and several other minor ones will simply go into extinction.

In our homes, there is the problem with making our children speak our local languages as they prefer to speak English influenced by the constant use of English language in the schools, on the television, radio, and so on. Consequently, our struggle is a lost one against the greatest motivator of the so-called ‘New Age-The Internet’ (The Nation, 2010). This is so in that every content clicked on in virtually all accessible internet points in Nigeria is foreign. Not only this, the language that is always used for conserving or expressing such content is English. As a result of this coupled with the fact that the internet has a profound influence on the mind, the tendency to end up having a generation of people that have been steadily severed from their heritage; who try as they may, cannot find an identity in the New Age because they were not properly groomed in it (Oruame, 2010). Hence, the idea of the New Age does not and should not presuppose that we should become castaways to become acceptable in a mix of cultures established within the core or hearth of Western values. Therefore, Nigeria, as did by the Chinese and the Indians, should found her relevance in the emerging Knowledge Economy not within Western tradition but within the core of her own oriental heritage.

The New Age Economy should be seen by Nigerian and African as just another concept to become more Nigerian or African in a global context, to which he/she as a Nigerian or an African can claim bona fide rights by articulating and sharing his/her own cultural attributes with another that has, by the design of the internet, become very contiguous.

Rapid changes in technology, low initial cost, and planned obsolescence have resulted in a fast-growing
surplus of electronic consumption and waste generation around the globe. For example, in the USA, 30 million computers are discarded each year and 100 million phones are disposed of in Europe each year. The Environmental Protection Agency estimates that only 15-20% of e-waste is recycled, the rest of these electronics go directly into landfills and incinerators.

The volume of ICT-waste being generated grossly outweighs the existing capacity to manage it in an environmentally sustainable way. Ironically, although the majority of e-waste is generated in the industrialized countries, much is transferred to developing countries, where environmental regulations and treatment capacity are significantly weaker. In the absence of adequate infrastructure, e-waste is commonly burnt in open air, dropped into bodies of water, and dumped in landfills, releasing toxic substances which contribute to air, water, and soil pollution and accompanying health problems.

ICT equipments contain different hazardous materials which are harmful to human health and the environment if not disposed of carefully. While some naturally occurring substances are harmless in nature, their use in the manufacture of electronic equipment often results in compounds which are hazardous. These constitute environmental hazard of ICTs due to the problems associated with a growing volume of e-waste and their disposal.

According to the United Nations Environment Programme estimates, as many as 50 million tonnes of e-waste are generated worldwide each year. Increasing at a rate of 3 to 5 percent per year (faster than any other category of waste), the global volume of e-waste produced annually is soon expected to double. Rapid technological change, product obsolescence, and sinking prices combine to increase the speed at which consumers replaces old technology. Meanwhile, more and more people become first-time consumers of electronics every day – especially in developing countries, such as Nigeria, South Africa, Ghana, etc, and countries with economies in transition.

Not only does increased consumption of products such as computers, cell phones and telephones generate substantial e-waste, but it also places a heavy burden on natural resources due to the quantities of water and energy used for producing these devices, not to mention the energy consumed during their use. In fact, a study by Eric Williams of the United Nations University reveals that the production of a single desktop computer and standard monitor consumes the same amount of fossil fuels and water as that of a medium-sized car (www.apc.org).

Health is further undermined through widespread informal recycling. In order to recover the valuable components of e-waste, people will sort through piles of e-waste with their bare hands and smash computer monitors, coming into direct contact with various hazardous substances.

Most developing countries are only just beginning to develop basic waste management systems and policies, and do not have the infrastructure nor the resources to effectively managing e-waste. Moreover, in light of pressing developmental challenges such as poverty alleviation and human health, e-waste is simply not seen as a priority. This underlies the lack of both e-waste legislation and recycling in developing countries. (Katherine Walraven, 2007, for APCNews)

In Nigeria, for example, people’s earning powers are low and importation policies are not as strict. Thus, the country, in some regards, is a dumping ground. Specific areas where these manifest include the existence of technologies within the country which are already abandoned in more advanced countries. For instance, devices that use CFC-based refrigerants are still in considerable use in the country. Added to that, since citizens can hardly afford new vehicles, the prevalence of older models and used vehicles is high. These, invariably, have higher CO₂ emission levels. These, together, constitute significant sources of environmental pollution.

Also, for reason of infrastructural deficiencies, especially in public power supply, most households and businesses run power generating sets that use gasoline or diesel as fuel, with no strict emission control (Siyanbola, 2008). Ultimately, the CO₂ emissions have made our cities much warmer with an accompanying imbalance in the natural ecosystems; and the resulting pollution has led to death in many cases.

Additionally, certain regions of the country have suffered grave environmental degradation as a result of petroleum mining activities. In the Niger Delta region, for instance, farmlands have been utterly destroyed, whole villages rendered uninhabitable, water bodies contaminated to the point that they become non-supportive to life. Thus, the country’s domestic capabilities in dealing with these challenges presented via technology are rather low.

Besides, in many homes, TV is a child’s introduction to technology. In fact, TV often becomes the babysitter. Yet, some mental-health professionals believe that premature and excessive exposure to TV can foster disinterest in physical exercise, confusion between reality and fantasy, emotional problems, and latter in the classroom, inattentiveness (Awake, 2009). According to Mali Mann
(n.d), some children get diagnosed incorrectly with Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD), or even be erroneously labelled with bipolar disorder. It is on this note that some authorities recommend no television viewing for children under the age of two. The effects of communications technology are not limited to children; adults too feel the impacts as many gadgets that were designed to connect people may at times seem to put emotional distance between them. The reaction of an adult to text messages rather than phone calls put this point into serious perspectives thus:

Katherine, who is in her 20s, uses a computer at work. But at home she found herself constantly surfing the web, shopping on line, and keeping up with countless e-mails. Still, her use of technology was moderate compared with that of younger colleagues. “Why do they bother me all the time with silly text messages? She asks. “I’m a human! Why can’t they talk to me on the phone?” (Awake, 2009).

The irony in the above statement by Katherine is that phone is seen to be an indirect contact or link. It is true that many gadgets that were designed to connect people and ease their ways of life may, in some cases put emotional distance between them. This notwithstanding, it is very important to find a good balance in ones use of technology.

In some countries, for instance in Nigeria, a lot of problem has been associated with the use of technology. In the area of software, huge capital flight is involved in Nigeria as a result of high dependence on foreign software in the banking sector (The Punch, 2010). This reliance on foreign software and the rate of their piracy has equally been a major setback to the development of indigenous software and local initiatives in the country.

According to the Business Software Alliance, an international association representing the global software industry, in a recent study, the Nigerian economy lost a whooping USD156m to software piracy in 2009, a USD24m increase compare to 2008. The size of Nigeria's software industry is estimated at over N15b. In 2004, the estimated import value of software products was USD900m (The Punch, 2010). All these show the effect of unending and reckless pursuit of technology on the economy. Hence, Nigeria as well as most African countries has not been able to reap positively the abundant benefits of the global information society and the information economy (Ogunsola, 2005)

Given the above expositions, it is imperative to ask how we can understand the power of technology to influence our home, country and region in a positive or negative way, and strive to make it to have positive impact on our socio-economic and political life. In other words, how can we make a good use of the current Information Communications Technologies diffusion to solve our domestic, national, regional and international challenges?

5. What can we do to make judicious use of Information Communications Technologies diffusion?

Psychologically, there is need for the development of the thinking faculty. Even scripturally, adults and children are encouraged to develop their ‘power of reason’ or thinking ability (Romans 12:1; Proverbs 1, 8, 9; 3:21). This, in turn, enables us to distinguish not only right from wrong but also what is wise from unwise. Why it is believed and accepted that it is not illegal to spend hours playing computer games or watching films/TV or buying the latest electronic gadgets or software, the most important question is whether this attitude is wise and the best. How then can we help our homes and nation to develop a wise heart and best attitude in the use of technology?

At homes, when it comes to technology and the internet, children are quick learners; however, they lack the necessary wisdom and experience which make them to be naive. In this situation, there is need for proper education and counselling on the accompanying dangers and how these can be avoided. For instance, allowing children to join some online social networks may give them opportunity to express their identity and meet other young people. These sites are equally a “shop-mall” for sexual predators and others with bad motives (1 Corinthians 15:30; Awake, 2009; Awake, 2008; Awake, 2007). Not only this, it has also been claimed that some teens also use cell phones to send lewd images of themselves to their friends. This is termed “sexting”, the practice, which according to Awake (2009), is not only debasing but also foolish, for regardless of the sender’s motive or purpose, the photos are often shared with others. What children (adult inclusive) therefore need is a broad range of activities that expand the mind and nurture patience and tenacity. While we are not oblivious of the children and every other person’s right to privacy, it is our conviction that this must be commensurate with their level of maturity. Therefore, as parents and individual, we have both the God-given authority and the responsibility to train and supervise our children.
(Proverbs 22:6; Ephesians 6:4) and further extend these roles and responsibilities beyond our homes for societal harmony.

In addition to the above, appropriate limits to the use of technology can also be set on children and society. For example, it has been argued that at home, if a child is in the habit of isolating herself or himself for hours on end watching TV, surfing the internet, or playing computer games, establishing technology-free times and zones in the home could be an option. This may help them learn and understand the fact that "for everything there is an appointed time" (Ecclesiastes 3:1). Reasonable rules, consistently enforced, give family/state life structure and help children as well as adult develop good manners, consideration for others, and sociability (Awake, 2009).

Moreover, in the moderate use of cell phones and computers, there is need to treat others with respect and show good manner. This can be properly done by arming oneself with the principle that "all things, therefore, that you want men to do to you, you also must likewise do to them" (Matthew 7:12). The fact that we may be able to use a cell phone almost anywhere and at any time does not mean that we should abuse the use.

It must also be noted that "how you walk is not as unwise but as wise persons, buying out the opportune time for yourselves" (Ephesians 5:15, 16). Time is a precious gift from God and it will be very unwise to for it to be squandered. It has been widely documented that technology saves time. The internet, for example, can speed up research, banking, and shopping. It can at the same time, if care is not taken, steal and waste time if not wisely used particularly surfing of the web. Another potential time waster is multitasking-working on a computer while watching TV and talking on the phone, or toggling between, for example, e-mail and other programmes. Multitasking could be counterproductive in the sense that "it is impossible to gain a depth of knowledge of any of the tasks you do while you are multitasking" (Grafman, n.d). This is particularly correct in that, we cannot focus on a number of things at the same time; something has to suffer. Hence, multitasking can result in superficiality and poor retention (Awake, 2009).

According to a report in the Time magazine, the rapid-fire switching of attention causes people to make more mistakes and take "far longer-often double the time or more-to get the jobs done than if they were done sequentially".

Moreover, there is the need to be conscious of the fact that material consciousness or possession, no matter how costly or fancy, cannot give life or true happiness. This is so in that "happy are those conscious of their spiritual need (Mathew 5:3). As a result of this, one must guard against every sort of covetousness, because even when a person has an abundance his life does not result from the things he possesses (Luke, 12:15). One should not be deceived by the commercial world that equates happiness with material things. Instead, there is need to be wise, analyse ones motives and needs before spending on hi-tech products as they rapidly changes and depreciate in value because there is always the latest.

Therefore, to use your cell phones and computers considerably in ways symmetrical to good mannerism, the paper subscribed to the following suggestion:

- Avoid taking or making a phone call when or where you may disturb others. Turn your phone off if necessary;
- Do not let your phone disrupt important face-to-face conversations unless absolutely necessary;
- When you are talking on phone, give the person you are speaking to your full attention;
- Do not take someone's picture with your cell phone if this may be impolite or embarrassing to the individual; and
- Resist the temptation to forward every "interesting" e-mail you receive. The recipients may not appreciate it (Awake, 2009).
6. Conclusion.

In this paper, the argument is that many products of Science and Technology are practical and can save us much time and energy. This notwithstanding, their purchase and usage must be responsibly and economically considered in line with their impacts on our socio-economic development at all levels by all the stakeholders. There is need to put people before technology and avoid squandering precious time and money on gadgets and/or software that may ruin our domestic homes and country as a result of negative addiction.

For Nigeria and Africa in general to really develop and move forward, we should not follow the standard set by the Western world blindly but in relation to our socio-economic, political and cultural environment. In other words, the impact of ICT in a home, a country or a region should be weighed against the nature, the purpose of its deployment and its spatial spread, besides the economic, administrative and social environment backing up the strategy of its diffusion. In this context, assembling empirical evidence on the impact of ICT on human development is of key importance before its adoption (UNDP, 2004). Although, it is believed that he who started cooking before you normally will have more broken pots, wisdom will be that you learn from the mistakes of those who have gone before you (Urama, 2010). Africans need to be cautious, avoid the mistakes of the developed worlds and learn from the good things they have done, decode it and do it better. This is the only way can we catch up development. For instance, it has been opined that development in the West has caused a lot of problems such as environmental degradation. At times, we hear of climate change on which people gathered recently in Copenhagen to discuss the effects and implications on human behavior, industrialization, capitalism and so on. We can utilize science and technology to grow and create cultures of growth that are actually efficient, increase in productivity, increase in socio-equity and not creating more problems than we are seeing now in the West. In this way, we can then have a more sustained society that lives in peace with nature, lives in peace with the people and also lives in peace with the economy and then we have the right relationship, a balance between the socio, the economics and ecological system that sustains us (Urama, 2010).

In the above respect, the role and activities of the Nigerian Communications Commission becomes critical. The Nigerian Communications Commission as the independent National Regulatory Authority for the telecommunications industry in Nigeria is responsible for creating an enabling environment for competition among operators in the industry as well as ensuring the provision of qualitative and efficient telecommunications services throughout the country.

The Commission has, over the years, earned a reputation as a foremost Telecom regulatory agency in Africa. To further maintain this status, achieve its mandates, and attain its vision and mission, the Commission should be strengthened by the government to be able to effectively and efficiently perform the following functions which are specifically and directly related to the proper control of ICT diffusion and its utilization in the country. These functions, among others, include:

- Fixing and collecting fees for grant of communications licences and other regulatory services provided by the Commission;
- The development and monitoring of performance standards and indices relating to the quality of telephone and other communications services and facilities supplied to consumers in Nigeria having regard to the best international performance indicators;
- Making and enforcement of such regulations as may be necessary under this Act to give full force and effect to the provisions of this Act;
- Proposing, adopting, publishing and enforcing technical specifications and standards for the importation and use of communications equipment in Nigeria and for connecting or interconnecting communications equipment and systems;
- The formulation and management of Nigeria’s inputs into the setting of international technical standards for communications services and equipment;
- Carrying out type approval tests on communications equipment and issuing certificates on the basis of technical specifications and standards prescribed from time to time by the Commission;
- Representation of Nigeria at proceedings of international organisations and fora on matters relating to regulation of communications and matters ancillary and connected thereto; and
- The general responsibility for economic and technical regulation of the communications industry (NCC website).

Above all, the divinely inspired and time-tested principles found in God’s written word and common sense should be applied.
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