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A Critical Examination of Information and Communication Technology Policies: Effects on Library Services in Nigeria

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Introduction

The pervasiveness and importance of Information and Communication Technologies (ICTs) throughout the economy and society can't be ignored. The former United Nations Secretary-general Kofi Annan, stated that, "If harnessed properly, Information and Communication Technologies (ICTs) have the potential to improve all aspects of our social, economic and cultural life ICT can serve as an engine for development in the twenty - first century" (Annan, 2003). The question that readily comes to mind, how can the ICTs policy challenges be addressed at both national and international levels, and in all sectors? It is worthy to note that, there are other key areas of national development that collectively with IT development policies forms the complete web of national ICT growth oriented strategy. Adomi (2006), asserted that for the past two decades, most developed countries have witnessed significant changes that can be traced to information and communication technologies (ICTs). These multidimensional changes (technical, financial and economic, cultural, social and geo-political) have been observed in almost all aspect of life: economic, education, communications, leisure, and travel. Furthermore, the changes observed in these countries have led to what is now referred to as the knowledge society. ICTs have made it possible to find fast access to, and distribution of information as well as new ways of doing business in real time at a cheaper cost. However, a considerable gap exists between developing countries, notably African countries, and developed ones in terms of the contribution of ICTs to the creation of wealth. The gap tends to widen between developed countries, the technology suppliers, and the receiving developing countries. At the same time, the gap between the elites and the grassroots communities within these developing countries is also expanding in terms of their access to ICTs. If measures are not taken to make ICTs both affordable and easy to use, access to them will be insignificant in developing countries like Nigeria (Adomi, 2006).

The question of digital divide has appeared in library and information science literature frequently as impacting negativity on the provision of library and information services. The digital divide, a disparity in access to ICTs between countries and communities is caused by many factors. They include; inadequate infrastructure, high cost of access, inappropriate or weak policy regimes, inefficiency in the provision of telecommunication network, language divides, and lack of locally created content (Mutula, 2004). The divide creates an environment where the disadvantage groups in society are unable to contribute and benefit from the information age and global communities created by the Internet. In most countries of Sub-Sahara Africa, the high cost of access to telecommunication services, is an impediment to access to ICTs. This is exacerbated by the fact that IT has not effectively been integrated in the development agenda of most countries as reflected in the lack of ICT policies (Mutula, 2004). The question of digital divide phenomenon and its implications for the provision of information services should concern information professionals regarding how it should be addressed. The digital divide, if is not properly addressed, has the negative impact on the provision of information services, under-utilization of information resources in libraries, and information sharing. The diffusion of ICT into Africa is at a snail's speed, such that the gap between the information-rich developed countries and Africa continues to increase everyday. Africa has 13% of the world population, but only 2% of world telephone lines and 1% of Internet connectivity measured in terms of number of Internet hosts and Internet users (Ogunsola, 2005).

The advancement in technology has created so many ICT tools that are necessary and useful in the development process. These new technologies have become central to contemporary societies (Aswalap, 2005). Basic classifications of these modern technologies are:

- Information Technology: uses computers, which have become indispensable in modern societies to process data and to save time. The use of computers is so pervasive to modern development in commerce, education and government among others.
- Telecommunication Technologies: includes telephones-mobile, and broadcasting of radio and television-often through satellite etc.
- Networking Technologies: these includes the Internet, but which has extended to mobile phone technology, satellite communications, and other forms of communication that are still in their infancy. All of these have come to dominate modern society and become the basis for the survival of the modern man. Olubamise (2006) remarked that "there are two issues that are critical to diffuse information technology - access and liberties". Access has to do with making it possible for everyone to use the Internet and other media. In societies where only minorities have telephones, ensuring affordable access to the Internet is a huge challenge. Much of the response would rely on social solutions such as community or public access centers. In developed countries, basic access to Internet is available almost to all, and faster broadband connections are widespread.

Information Technology Policy in Nigeria.

The federal Executive Council approved a national Information Technology (IT) policy in March 2001 with the establishment of the National Information Technology Development Agency (NITDA), charged with the implementation responsibility. The policy recognized the private sector as the driving engine of the IT sector. NITDA is to enter in strategic alliance, collaboration and joint venture with the private sector for the actualization of the IT vision which is to make Nigeria an IT capable country as well as using IT as an engine for sustainable development and global competitive. It is also used for education, job creation, wealth creation, and poverty eradication. Emphasis is to

be laid on development of national information infrastructure backbone (NIIB) as well as the human resources development (Federal Republic of Nigeria, 2001).The National Information Technology Policy has the following general Objectives. It will:

- Ensure that information Technology Resources are readily available to promote efficient national development.
- Guarantee that the country benefits maximally, and contributes meaningfully by providing the global solutions to the challenges of an information age.
- Empower Nigerians to participate in software and IT development.
- To ensure local production and manufacture of IT components in competitive manner.
- Empower the youth on IT skills prepare them for global competitiveness.
- Integrate IT into the main stream of education and training.
- Create IT awareness and ensure universal access in order to promote ICT diffusion in all sectors of our national life.
- Stimulate the private sector to become the driving force IT creativity and enhance productivity and competitiveness.
- Build a mass pool of IT expertise using the National Youth Service Corp (NYSC), National Directorates of Employment (NDE) and other platforms as "train the trainer" scheme (TTT) for capacity building.

It is sad to note that Nigeria has not made any headway in terms of implementing the objectives stated above in its National policy on IT. Till date, Nigeria still dependent on foreign countries for importation of computer hardware, software packages, and depending on foreign experts for the technical know-how (Adomi, 2006). Omoigui (2006), stated that in terms of information technology development, South Africa stands in sharp contrast to other Africa countries including Nigeria. It is estimated that there are about 270.000 Internet Service Providers (ISPs) in that country. The IT policy has a mission statement that says: "To make Nigeria an IT capable country in Africa and a key player in the Information Society by the year 2005, using IT as the engine for sustainable development and global competitiveness." As stated in the IT policy, by 2005 Nigeria was to become "an IT capable country in Africa." We are now already in 2009; can we say that Nigeria is a capable IT country? To put it plainly, Nigeria is not yet an average ICT country in Africa. The desire is there, the awareness has been created, but the will power to budget sufficient funds to propel the ICT wheel of progress has been lacking. If Nigeria is not yet an average IT country, her university libraries cannot be any better.

Telecommunication Policy in Nigeria

In 1998, the ministry of communications published the maiden edition of the National Policy on Telecommunications. The policy was approved and published three years after its production in 1995. Consequently, at the time of publication, certain prescriptions contained in the policy were outdated, overtaken by events or required further modification, in other to be consistent with new developments and emerging industry trends both locally and internationally. The need for Telecommunications Policy in Nigeria becomes compelling. The former President (Chief Olusagun Obasanjo) approved the National Policy on telecommunications presented by the committee on telecommunications policy for Nigeria and the policy was launched in October 1999 (Federal Republic of Nigeria, 2001). The overriding objective of the National Telecommunications Policy is to achieve the modernization and rapid expansion of the telecommunications network and services and social development, and integrate Nigeria internally as well as into global telecommunications environment. Telecommunications services should accordingly be efficient, affordable, reliable and available to all. Some of the short-term objectives of the National Policy on Telecommunications (Federal

Republic of Nigeria, 2001) are;

- To promote widespread access to advance communications technologies and services, particularly the Internet and related capabilities.
- To develop and enhance indigenous capacity in telecommunications technology.
- To participate effectively in international telecommunications activities in other to promote telecommunications development in Nigeria, to meet the country's international obligations and derive maximum benefit from international cooperation in these areas.
- To ensure that the government invests its interest in the state owned telecommunications facilities.
- To review and update telecommunications laws in other to bring all telecommunications operators under the regulatory control of Nigerian Communications Commission (NCC).

The National Policy on Telecommunications also stated medium- term objectives such as;

- To provide a new regulatory environment that is sufficiently flexible to take into account new technological development and the international trend towards convergence.
- To ensure that public telecommunications facilities are accessible to all communities in the country.
- To encourage domestic production of telecommunications equipment in Nigeria and development related software and services.
- To encourage the development of information super-highway that will enable Nigerians enjoy the benefits of globalization and convergence.
- To create the enabling environment, including the provision of incentives, that will attract investors and resources to achieve the objectives earlier stated.

Nigeria lags behind compared to even less endowed African countries, let alone advanced countries. Large proportions of the Nigerian population which are rural dwellers are cut-off from having access to telecommunications facilities in the rural areas. The Nigerian Telecommunications commission (NCC) which was established by decree 75 of 1992 and was inaugurated in July 1993 with the responsibility of implementing the above stated objectives could not make telecommunication services available in the rural areas, thereby denying the rural dwellers from having access to telecommunication services. According to Keyami and Dymond (2005), "On average, 70 percent of the population in developing countries lives in rural areas; long administrative centers leading to the migration of most of these inhabitants are engaged in agriculture". There is great disparity between urban and rural economies, with the rural areas becoming more and more dependent on the urban areas and increasingly marginalized. A number of problems face the rural areas, including lack of job opportunities, long administrative centers leading to the migration of most of the young population to urban areas, and lack of essential social an economic infrastructure such as health, education, electricity, clean water, roads, and telecommunications. As a result, in Nigeria most of the poorest people live in rural areas and hence should be the main focus of any effort to alleviate poverty. The industrialized countries have started to do this through deliberate policy decisions that would ensure that the rural areas are brought in to mainstream of the national development goals (Olubamise, 2006). As the structure of urban economics changes with services growing much faster than the other sectors, this structural change is also being reflected in rural economic. Information-based services account for most of the growth in services, and other sectors are becoming increasingly information intensive.

Although this trend may not yet be evident in rural economies in Nigeria, rural activities are being drawn more and more into the global economy.

Manufacturers must now be able to respond to changes in demand; suppliers must be able to produce small orders for quick delivery; merchants must be able to update inventory and accounts records instantly. To stay internationally competitive, farmers must also resort to increased specialization and react to shifts in consumers demand. In order for this to happen, the information infrastructure in Nigeria has to be extended to the rural areas. The provision of telecommunications services, a major component of this infrastructure, is therefore critical to the development process. Left to the marketplace, rural service provision will continue to lag because of the perception that rural investments represent higher risk and lower returns.

Along with recognizing telecommunications operations as state-owned commercial companies, governments have applied a range of instruments to advance rural service extension in Thailand. One frequently used measure is to formalize services access and investment obligations as part of corporation's mandate. This has been the case, for example, in Thailand the National Telecommunications Operator, has assumed the primary responsibility of connecting every village and sub-village in the country to the network (Kayani & Dymond, 2005). Botswana represents one successful corporation in Africa. In Botswana, where the rural areas of the country are relatively high cost, the state-owned Botswana telecommunication corporation (BTC), under a clear government mandate, set itself the target of serving all identifiable demand in villages (Clarkstone, Dymond and Mrazek, 2003). A study of rural region in Ireland, Italy and the United kingdom reached similar conclusions, demonstrating that although the most rural and underdeveloped regions could potentially gain the most from investments in telecommunication (including significant employment gains) the highest benefits are actually derived in those areas which possess complementary activities and infrastructures and are ready for sustained economic take-off (Hanson, Cleevely, Wadsmorth, Bailey, and Bakewell 2005). This has lead to the general understanding that telecommunication is a necessary but not sufficient condition for rural economic development. As an investment, it is most productive when planned and coordinated with other physical and social infrastructural elements.

On the other hand, telecommunications is an important enabler of and catalyst to other economic activities. Once business potentials exist and basic infrastructure is available, the absence of reliable telephone services can be a critical hindrance to economic growth. Clarkstone, Dymond and Mrazek (2003), found that despite abundance natural resources and educated people in certain rural areas, there were virtually no productive enterprises if no telephone services were available. Conversely, in rural areas with telephone services, business activities flourish. The availability of telephone services fosters business development, which in turn further demand for service. Their study also indicated that telephone was proving vital to the emergence and growth of small business, diversification of the local economy, and creation of job opportunities for women (through having access to a phone in the locations used by them for emerging business) (Clarkstone, Dymond & Mrazek, 2003).

Obviously, it is clear that the telecommunications development in Nigeria so far is fully depended on foreign technologies. In most cases, investments by multi-nationals have being a mere relocation of facilities without the transfer of ability to innovate since all the elements of technology required to make telecommunication succeed are most often transferred in a packages. The main constrain to rapid telecommunications development in Nigeria have therefore been attributed to lack of science and technology, capacity for operation and maintenance of facilities, technical and managerial activities etc (Alabi, 2004). Poor policy design hampers implementation of the objectives spelt out in the policy statement leading to constrains such as inadequate science and technology infrastructure including S & T manpower, S &T information, materials, instruments and apparatus for training scientists and technologists in telecommunications. Limited dissemination of and utilization of research results

in telecommunications practice in Nigeria has also been identified as a definite constraint to telecommunications development in Nigeria. Also, another factor that militates against telecommunications development is lack of co-ordination and proper planning of projects implementation. Poor studies on project scope and costs resulted in implementation of projects of doubtful economic viability. In some cases projects were later abandoned which involve huge economic losses.

National Policy on Computer Education in Nigeria:

Before 1998, courses in computer science were envisaged strictly for the tertiary level of education such as the Universities, polytechnics and colleges of education. Technologists were expected to teach courses in computer science and produce graduates in that discipline. The resultant effects of the above state of affairs was that only few Nigerians had access to tertiary education and only a negligible percentage of this number were admitted into departments of computer science. Thus, only few Nigerians were trained in computer technology. In an attempt to solve all the above mentioned problems, the Federal Government of Nigeria (Federal Republic of Nigeria, 2004) decided to formulate a computer education policy which will not only address the need for more awareness and also ensure that sound basis for computer education and utilization is laid. The Federal Government constituted a committee on National Policy on Computer Education in Nigeria. The committee outlined the following as the general objectives of the policy (Federal Republic of Nigeria, 2004);

- Ability to use and programme computers.
- Knowledge and ability to develop software packages.
- Understanding of the structure and operation of the computer.
- Appreciation of the economic, social and psychological impact of the computer.
- The use of the computer in problem-solving.
- Producing university graduates who are considered computer literates irrespective of their course of studies or major disciplines.
- Producing computer engineering graduates who constitute the core professionals in the practice and advancement of computer technology
- Conducting research and developing hardware, firmware, software, which will enable the country to attain the latest computer technology capability; and
- Ensuring the provision of the manpower and other resources required to meet the broader objectives of computer literacy at the tertiary, secondary, and primary levels of education, and at the societal level.

The above -mentioned laudable objectives could not be achieved due to lack of implementation of ICT policies in Nigeria. The fact remains that the number of computers per population in this country is very low, including secondary schools. Many of the already installed computers are low grade computers. According to Olubamise (2006), ''all the computers and telecommunications facilities in Africa are not up to 50% of those of New York City in the USA". A good computer education programme should therefore aim not only at teaching Nigerians how to use the computers effectively for national development but also at preparing them to master computer technology with a view to ensuring the maintenance and eventually the production of computers. As Kofi Annan (2003) has put it, "the Internet holds the greatest promise humanity has known for long- distance learning and universal access to quality education... It offers the best chance yet for developing countries to take their rightful place in the global economy... And so our mission must be to ensure access as widely as possible. If we do not, the gulf between the haves and the have-nots will be the gulf between the technology-rich and the technology-poor".

Similarly, Al- Anari (2006), asserted that ''the progressive increase in the use of ICTs in education has drastically changed teaching/learning process" He

further stated that the field of education has been affected by the penetrating influence of ICTs. ICTs has undoubtedly, impacted on the quality of teaching, learning and research in various educational institutions. In concrete terms, ICTs can enhance teaching and learning through its dynamic interactive and engaging students in learning, helps to relate school experience to work practices, enrich and deepen skills, help to create economic viability for tomorrows makers, contribute to radical changes in the school teaching process, and provide opportunities for connection between schools and the world (Adomi, 2006). The federal government of Nigeria for instance has in the National Policy on Education (Federal Republic of Nigeria, 2004) recognized the prominent role of information and communication technologies in advancing knowledge and skills necessary for effective functioning in the modern world and therefore integrated ICTs in education in Nigeria. In other to actualize this goal, the document states that government shall therefore provide basic infrastructure and training at the primary schools. At the junior high school (junior secondary school) computer education has been made pre-vocation elective and vocational at the senior high school (senior secondary school). It is the responsibility of the Government to provide necessary infrastructures and training for the integration of ICTs in the high school system in recognition of the role of ICTs in advancing knowledge and skills in the modern world. It should be noted that it was not in 2004 that Nigerian Government made the first attempt to introduce computer education to schools. In an earlier attempt to keep pace with development in computer education, Nigerian Government had, in 1988, enacted a policy on computer education. The plan was to make computer education necessary in secondary schools and then to primary schools, unfortunately, at the stage of distribution and installation of personal computers to schools, the project did not take off.

Adomi (2006), remarked that "computer is not of classroom technology in over 90% of Nigerian public schools". This implies that the chalkboard and textbooks continue to dominate classroom activities in most Nigerian high schools. The Federal ministry of education has launched an ICT driven project now as School Net (www.snng.org) with the intention to equip schools in Nigeria with computers and communication technologies to enable teachers and students benefit from networked information resources and promote e-learning in the schools, but the project also failed due to lack of proper funding and co-ordination of the project. The New Partnership for African Development (NEPAD) in June 2003 at the African summit of the World Economic forum held in Durban, South Africa launched e-schools initiative intended to equip all Africa high schools with ICT equipment including computers, radio and television sets, phones and fax machines, communication equipment, scanners, digital cameras, copiers, among others. It is also aimed to connect African students to the Internet. The NEPAD capacity building initiative will be executed over ten-year period, with the high school component being completed in the first years. The project is in three phases and an estimated 600,100 schools are expected to benefit. The aim of the initiative is to impart ICT to improve, enrich and expand education in African countries (Aginam, 2006).

NEPAD has in a study scored the level of African continent students experience with their proficiency in using them very low; 55% of the students within the continent including Nigeria, Algeria, Burkina Faso, Cameron, Republic of Congo, Egypt, Gabon, Lesotho, Mali, Mauritius, Mozambique, Rwanda, Senegal, and Uganda that are participating in the first phase of the e-schools initiative had no experience at all in using computers; that African typical environment neither provides much opportunity for students access to computers and related ICTs nor the training use them, while 75% of responding teachers have no or very limited experience and expertise regarding ICT educational applications the other 25% do have a good level of competency and are applying it in the classroom and that this obviously reflects both the training they have received and the ICT resources available to them in the schools (Aginam, 2006). Although in the case of Nigeria, Government in 2004 edition of the National Policy on Education planned to integrate ICT into the school system

and provide the schools with the ICT facilities and trained personnel. Goshit (2006), opined that "most schools in Nigeria do not yet offer ICT training progarmmes". The NEPAD e-schools project is expected to take care of estimated 600,100 schools on the continent of Africa. This means that not all schools will benefit from this initiative. It has accordingly been noted that through most of the countries participating in the NEPAD e-schools project have an ICT development policy or are developing one, but very few have clear implementation plans (Aginam, 2006). It is sad to note that, the federal, state and the relevant institutions particularly the universities, polytechnics, research institutions and some of the government ministries have abandoned the dream towards the achievement of the set objectives stated in the policy on computer education in Nigeria. Below is a Table showing the various ICT policies in Nigeria, when they were established and the body responsible for implementation of the policies.

Table 1: A summary Table showing the various ICT policies in Nigeria, the year they were approved and the body charged with the responsibility to implement the set objectives of the various policies.

Policies	Year established	Body charged with implementation responsibility.
Information Technology (IT) policy	2001	National Information Technology Development Agency (NITDA)
Telecommunication policy	1998	Nigerian Communications Commission (NCC)
National policy on computer Education	1988	Federal, State government and the various institutions

On a general note, the strategies lack all that is needed to achieve or realize the stated objective of the various ICT policies in Nigeria. Hence the successful implementation of such policies is elusive. Widespread corruption leading to lack of genuine commitment incapacitates and renders policy implementation unsuccessful, because anticipated goals are never realized for execution of any policy. Ogunsola (2005) observed that: Countries like USA, Canada, and a number of European countries, as well as Asian countries like India, Singapore, Malaysia, South Korea, Japan, and South American countries like Brazil, Chile, and Mexico among others, and Australia and Mauritius either already have in place comprehensive ICTs policies and plans or are at an advanced stage of implementing these programmes across their economies and societies.

Finance is involved in addition to the human and technological resources especially the ICT policies. In the strategies for finance and funding, it is stated that government shall provide incentives to investors to enable them grow rapidly and efficiently. Such incentives shall include: Taxes and import duties shall be no less attractive than those for essential electrical and electronic goods, fiscal incentives shall be provided to encourage the local manufacture of telecommunications equipment and development of related software. Policy statement should be terse, straightforward in order to achieve the set target or goal. Specific modalities should be mapped out on how, who, where and when to execute such policies that must advance the nation to her peak. Finance can be a clog in the wheel of a well-articulated policy let alone the one prepare with ulterior motive that is detrimental to the good. The persons through whom the funds are allocated often divert such funds other resources to their private use, thereby rendering implement of an articulated policy impossible.

It has been observed that in the area of universal access/service policy, the success is dependent upon strong political support at the highest level that recognizes the role of ICT as a tool for development rather than just a viable source of government revenue. The Information sector in this nation is not

treasured. Until that is done, the information and communication technology policies will continue to suffer lapses. There is regrettably lack of proper planning of policy with constructive analysis and consultation of people in the field for the realization. There seems to be the rush to borrow what exist in the developed world without taken cognizance of the different circumstances and peculiarities of operation.

Successful policy implementation requires a great deal of political will or courage to challenge powerful elites and interest groups who may be stumbling blocks in the ways of achieving desired results for the general good. In a bid to position Thailand in a technology-driven and interconnected world, Thailand government created a separate ministry for Information and Communication Technologies (Aswalap, 2005). The problem of insufficient and unreliable data is a perennials one. The quality and reliability of the statistical data on which policies are based are weak, unrealistic or simply non-existent. There is also the problem of inter- ministerial personnel and departmental rivalries coupled with corruption. In addition, excessive caution and resistance to innovation and change creating cumbersome bureaucratic procedures, become a hindrance to successful policy implementation.

Global Information (GI) and Libraries

For years, libraries have been acquiring, processing, circulating and preserving information materials in all media, although emphasis has been on paper-based materials such as books and journals. Introduction of information technology in libraries generally has improved and changed the face of information acquisition, processing, dissemination and storage. Information is being acquired both in paper and electronic formats and libraries are able to convert some of their old collections to machine readable formats. Information technology has also facilitated electronic networking, creation and accessing of remote electronic databases, putting at the disposal of libraries and library users a wide range of information services and products. Use of information technology and access to electronic information networks is slowly transforming libraries from book centered to information centered institutions (Chisenga, 2000). Emphasis is shifting from book collection and storage to access and provision of electronic information services. In this shift of emphasis, GI is playing a very important role.

GI is providing libraries and information institutions with an opportunity to implement electronic networks and achieve the provision of access to remote computerized information services and products, much easier than before. Libraries are taking advantage of facilities available on the Internet and integrating them into their daily operation. The Internet facilities are being used to link to other libraries' online public access catalogues (OPACs), access remote electronic databases, publish electronically on Web servers, enhance and improve library collection development programmes, communicate using e-mail facilities, and provide reference services. Information technology brought about a replacement of manual card catalogues with online electronic catalogue. Dedicated telecommunications lines, (local, national, regional and sometimes international) have been used to access remote online catalogues and commercial databases. Sitting at computer terminals, Librarians and their clients have access not only to information on their local library collections but also to other collections located in other remote libraries, databases, and electronic journals online.

ICT policies if properly implemented in Nigeria will provide libraries with the infrastructure and facilities through which access to OPACs, electronic databases and co-operative resource sharing can be done. Libraries today are putting up their library computer servers on the Internet thereby making available their information resources and facilities to millions of users around the

world. Commercial electronic databases are also being made available on the Internet. Using the Internet's telnet facilities, librarians and other users can access these products and services. A line to a local Internet Service Provider (ISP), or connection to a local area network which is connected to the Internet, is all that is required. In the Republic of South Africa, libraries are using the Internet for electronic publishing on the WWW, accessing electronic catalogues and databases using telnet facilities, file transfers using file transfer protocols, and communication using e-mail (Chisenga, 2000).

In libraries, e-mail is being used for both official and personal communication. It is being used for the transmission of interlibrary loan requests, making of order inquires and placing of orders, receiving reference questions from library users, sending reference questions to other libraries and receiving answers to reference questions. E-mail is also being used to set up library based news groups through which information about the library can be disseminated. On a personal and professional level, librarians are using e-mail facilities to access electronic conferences, and discussion groups. There is no way these services can be utilized without provision of ICT facilities and Internet connectivity in Nigerian libraries.

Lack of Information Policy in Nigeria

Effective ICT use for Africa should be built upon a strong information policy, an instrument that is presently absent in many African countries. Alabi (2004) has made a case for the need for an information policy in Africa embracing information technology and other related policies. The absence of an information policy would impinge upon the full utilization of information technology policy, irrespective of how well it was defined. There exist initiatives both at the continental and intercontinental levels, which should have compelled Nigeria and other African countries to take steps in developing and implementing national policies on information.

In some African countries such as Botswana and South Africa, there exists evidence of information policies, which recognize the role of information communication and technologies. Ifidon (2006) in his inaugural address described Nigeria as "a nation without information policy." The lack of information policy coordinating, the acquisition, organization, and dissemination of information, especially for developmental purposes tends to be a major problem in all the African countries (Mostert, 2001). The absence of such policy leads to poor co-ordination between related information systems as well as to unnecessary competition he added.

Factors Hindering Internet Connectivity

The question that may be asked is, why is it that large number of libraries in Nigeria are not linked to the Internet and take advantage of the potential provided by Internet facilities and use them in the provision of library and information services? The answers to this question according to Chisenga, (2000) are: inadequate funding; inadequate telecommunication infrastructure and high cost of telecommunication facilities; and a general shortage of skilled IT human resources in libraries. To become part of the GI infrastructure, libraries will require sufficient funding to support their activities. Funds will be required for purchase and installation of information technology, establishment of local electronic networks and connection to external networks, conversion of materials to electronic format and training of library staff in various information technology skills. In most Sub-Sahara Africa, the high cost of access to telecommunication services, is an impediment to access to ICTs (Enakrire & Onyenania, 2007). The Nigerian library and information sector is willing to join the globalization of information, if the country revaluates its poorly-developed information

infrastructure, poorly-equipped information services personnel, under-funding of library and information institutions sector, inconsistent and even lack of government policies relating to the library and information sector. According to Uhegbu (2008), library automation, which facilities globalization of information and has been adopted by most libraries in the developed parts of the world, has yet to take firm root in many libraries in Nigeria.

The question of digital divide, lack of ICT, and information policies phenomena and their implications for the provision of information services in libraries should concern information professionals regarding how they should be addressed. Due to harsh economic conditions and government apathy to library development in Nigeria, the state of ICT in university libraries is mediocre. Due to the same economic conditions and government apathy, the content and quality of services of most Nigerian university libraries have deteriorated to such a level that the quality of the products of such universities has also been adversely affected (Womboh, 2008). With the installation of the ICT in the library, there will be simultaneous access for many people at the same time, and library users will have self-service to replace the unreliable service they may have received from library staff. Any university library without a functional ICT connectivity will eventually become extinct and obsolete. Ajayi (2005) observes that:

Any industry that sidelines ICT has simply signed a "death warrant" on its continued relevance. The library represents one area that has experienced this revolution. The fact that we live in knowledge based society with the need for universal access has made it necessary for the library to redefine its role and mode of service delivery. The traditional "brick and mortar" libraries need to give way to libraries that are not limited by geography. It is essential for libraries to reinvent themselves if they hope to develop and facilitate access to information in this digital age.

The Federal government of Nigeria has ICT plans and policies for the country that have yet to materialize (Womboh, 2008). Emphasizing on the relevance of ICT to effective modern library management and services, Aina (2004) asserted that:

Information and communication technology (ICT) has radically transformed most of the services provided by a library. ICT is heavily utilized in the storage, processing and dissemination of information. It has made the organization of information very efficient, the delivery of basic information services more effective and the dissemination of information to users easier. It has eliminated a lot of routine and repetitive tasks in a library.

Conclusion

Libraries in Nigeria will be able to take advantage of the infrastructure that is slowly being established only if ICT policies are been properly implemented to pave the way for well funded, equipped and staffed libraries. Otherwise, they will only be spectators in the establishment of or contribution to the GI infrastructure, and in the final analysis they will be cut off from the rest of the electronic world. According to the former minister of science and technology in Nigeria Professor Turner T. Isoun as cited by Idris (2006), that India, Ghana and Mali were very successful in ICT development. The expedient passage of IT policy bill by the national assembly is not enough. What is needed here also includes the harmonization and convergence of the IT bill with existing policies such as the National Telecommunications policy. Technology driven sectors that once used to be operated independently have now become mere interdependent, this also calls for these various multi-sector ICT industries such

as energy generation infrastructure, mass media and communications, education to develop convergence and harmonization strategies. The telecommunication development authority must also have a capability to decide what level of service is needed at the village level and can be justified from socio-economic and developmental perspective. The Nigerian Technology Development Agency needs to jointly formulate ICT investment promotion strategies, also to harmonize the National Economic Development Plan, and the National Information Technology Policy. A policy is only as effective as it's implementation, policy initiatives must be irrigated with a National environmental and culture that permit and catalyze their execution. The most significant aspect of ICTs and globalization that should concern the developing countries like Nigeria is the fact that it has led to unprecedented inequalities in the distributing of benefits between developed countries and the less developed. Certain prerequisites, such as reliable power supply to operate the computers, a well-functioning telephone network to transmit data, foreign currency to import the technology, and the computer literate personnel are necessary for successful use of IT. It is disheartening to note that such infrastructural elements remain inadequate in many Sub-Saharan African countries. Since technology is a major driver of globalization, the center piece of preparedness must be a focus on investments that expand the technological capability of Nigeria - institutional development, Research and Development (R&D) spending, venture capital for innovative initiatives, and a forward looking educational curricula that prepare its graduates for the challenges of globalization.

Recommendations

- Review of the National IT policy document - update to reflect today' ICT Environment;
- An assessment of the National information and communication infrastructure process, as recommended by the Nations Economic commission.
- NUC should implement, as soon as possible, its proposal to sponsor university librarians to tour university libraries in USA and UK. This will enable librarians to be exposed to be exposed to the ways in which ICT is used in offering modern library services.
- A comparison of the National ICT program with the world summit on information society (WSIS) declaration of principles and action plan to see areas of synergy and benefit.
- The government should set up powerful V-SATs and pay for adequate size of bandwidth in all federal and state tertiary institutions.
- Redesign of educational curriculum to become more ICT centric.
- The government should increase funding to Nigerian universities, in order to implement the National ICT Policies.
- Periodic ICT policies performance review.

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