



INFORMATION AND COMMUNICATION TECHNOLOGY (ICT), GLOBALIZATION AND IMPENDING CHALLENGES

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ABSTRACT

This paper presents an attempt to examine the place of ICT and Globalization in the world economic activities but did not fail to note, list, and draw attention to the doom being perpetrated by this modern change. Apart from the discussion of some relevant and touchy topics in ICT and Globalization, the paper contains an examination of the concept of ICT, the role of ICT in the economies of the world and ending up in globalization of the entire human race. ICT and Globalization will lead to the risks that many of our valuable information will be lost, stolen, corrupted, or misused. Through the interconnected systems it has become so easy for people to penetrate into others privacy and such unpermitted access could cause harm and loss of computers and files. The gains and losses of ICT and globalization which ought to cancel each other out are in some cases insurmountable, putting nations at advantage over others.

KEYWORDS: Globalization, ICT, Curriculum, Telecommunication,

INTRODUCTION

In today's modern world, telecommunications is a crucial element in the infrastructure of nations and economies. In fact, no modern economy can be sustained today without an adequate and pervasive ICT infrastructure in place. The impact of ICT in development covers various aspects of a nation's socio-economic life.

In the words of (Suleiman, 2013, Wikipedia, 2014), "Information and Communications Technology is the single most important variable that has changed the global landscape in the last few years. It is globally recognized, accepted and under normal circumstances, embraced and harnessed as a tool for development. It is in fact the tool for ease of advancement as demonstrated by the developed world." These views were also mentioned in Wikipedia. (Wikipedia, 2014). Wikipedia felt that the mobile phones and the internet connected billions of people in new ways by the year 2010.

If you had sought for information on goods and services from a far away market, say, some thousands of miles away from you in days past, before the advent of computers and the internet, then the topic, "ICT, GLOBALIZATION AND IMPENDING CHALLENGES" would be much appreciated by you.

In those days one would always be checking with the Post Office to see if the catalogue had arrived. Having gotten the catalogue and the choice made, then a request is made to the distant market by post requesting for the product, having struggled with the old payment system. According to (Post, 1999; Appel et al, 2020; Rouse 2023), the Internet has rapidly become a leading method to contact customers and share information. Connecting a database to a Web site is a powerful method of providing up-to-date information and enabling customers to find exactly the information they need (Rane, 2023).

All those struggles and stress were in the past. In today's international market, powered by Computers and the 'big' networked internet, one would just need a few clicks to get a product on its way to his destination. The internet has revolutionized the entire world market, bringing all the markets to a close proximity, leading to globalization. It has in no small way boosted the world economy, leading to easy exchange of goods and services. As was identified by (Baylis and Smith, 1997), the term globalization precisely describes the process of increasing interconnection between societies such that events in one part of the world would more and more have effect on peoples and societies far away

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(such that the whole world becomes more or less one unified entity). Thus, a globalized world is one in which political, economical, social, educational and cultural events become more and more interconnected, and also one in which the impacts of these events in one society affect reasonably the lives of people in other societies.

Globalization in its entirety can never be possible without ICT as the bedrock that brought about the wide changes that have been awesome the world over.

The most dramatic impact of ICT in the economies of nations is undoubtedly obvious. It is now accepted that the productivity and competitiveness of all economic sectors and their capacity to innovate in terms of products, services and processes increasingly depend on Information and Communications networks.

ICT networks are making it possible for many countries to participate in the world economy in ways that simply were not possible in the years past, by enabling people to take advantage of ICT and its fast approaches in trade and industry.

Computer networking has since taken over localized computing all over the world to allow for resources and information sharing. The interconnection of computers and internet has brought about greater efficiency and better information sharing and management. Even in the developing nations of the world, the wide growth in ICT acquisition is highly commendable.

Clearly, ICT is driving the new global economy. People, businesses and communities with ready access to information technologies are better equipped to participate actively in the global economy. International investors that demand efficient and reliable access to ICT as the basis for investing in markets are now taking ICT-based countries seriously because ICT access is now readily and speedily available in such places.

MEANING OF ICT AND GLOBALIZATION

ICT as described by Scott (2002) and cited by (Agbetuyi et al, 2012) as something that encompasses a range of applications, communications and technologies which aid information retrieval, research communication and administration. These include online databases, library services and online services and fax machine. It has become a global phenomenon of great importance and concerns in all aspects of human endeavor, spanning across education, governance, business, labour, market, shares, productivity, trade, agriculture, commerce and others. The expression was first used in 1997 in a report by Dennis Stevenson to the UK government and promoted by the new National Curriculum documents for the UK in 2000.

Wikipedia described ICT in the following ways: Information and communications technology (ICT) is often used as an extended synonym for information technology (IT), but it is a more specific term that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information.

The phrase ICT had been used by academic researchers since the 1980s, but it became popular after it was used in a report to the UK government by Dennis Stevenson in 1997 and in the revised National Curriculum for England, Wales and Northern Ireland in 2000. As of September 2013, the term "ICT" in the UK National Curriculum has been replaced by the broader term "computing".

The term ICT is now also used to refer to the convergence of audio-visual and telephone networks with computer networks through a single cabling or link system. There are large economic incentives (huge cost savings due to elimination of the telephone network) to merge the audio-visual, building management and telephone network with the computer network system using a single unified system of cabling, signal distribution and management.

The term Info-communications is sometimes used interchangeably with ICT. In fact Info-communications is the expansion of telecommunications with information processing and content handling functions on a common digital technology base. (Wikipedia, 2014)

The term Globalization refers to processes of international integration arising from the interchange of world views, products, ideas, and other aspects of culture. Advances in transportation and telecommunications infrastructure, including the rise of the telegraph and its posterity the Internet, are major factors in globalization, generating further interdependence of economic and cultural activities. (Wikipedia, 2014).

According to (Nayef and Al-Rodhan, 2006)," Globalization is a process that encompasses the causes, course, and consequences of transnational and trans-cultural integration of human and non-human activities" (Beerkens, 2004; Nikolaev, M & Magdeeva M 2020) opined that Globalization is the world-wide interconnectedness between nation-states becomes supplemented by globalization as a process in which basic social arrangements (like power, culture, markets, politics, rights, values, norms, ideology, identity, citizenship, solidarity) become disembodied from their spatial context (mainly the nation-state) due to the acceleration, massification, flexibilisation, diffusion and expansion of transnational flows of people, products, finance, images and information." "Economic 'globalization' is a historical process, the result of human innovation and technological progress. It refers to the increasing integration of economies around the world,

particularly through trade and financial flows. The term sometimes also refers to the movement of people (labour) and knowledge (technology) across international borders. There are also broader cultural, political and environmental dimensions of globalization that are not covered here.”(IMF) “Globalization can be defined as a historical stage of accelerated expansion of market capitalism, like the one experienced in the 19th century with the industrial revolution. It is a fundamental transformation in societies because of the recent technological revolution which has led to a recombining of the economic and social forces on a new territorial dimension.”(Lamy, 2006).

“The term ‘globalization’ has also been widely used to describe the increasing internationalization of financial markets and of markets for goods and services. Globalization refers above all to a dynamic and multidimensional process of economic integration whereby national resources become more and more internationally mobile while national economies become increasingly interdependent.”(OECD) “By economic globalization we mean the practice of economic agents (business enterprises, banks, and finance companies) working in different countries and serving the world market without a prevailing national base. These agents change their location between national territories on the basis of opportunities for growth and profit, and they grow not because they are supported or protected by the nation-state but through their own efforts. They carry out their economic affairs as if the boundaries which define the nation-state do not exist.”(Gaburro, 2003)

While ICT (Information Communication Technology) which has drastically changed the way we think, the way we live and the environment in which we live, is any electronic based system /equipment or interconnected system (subsystem) of equipment that includes all forms of technology used to create, store, manipulate/process, manage, move/transmit, receive, display, switch, interchange, transmit or receive information in its various forms ; Globalization in its simplest form is the unification of all economies using modern technologies. Hence ICT forms the backbone of globalization in its entirety. Globalization’ is commonly used as a shortcut to describing the spread and connectedness of markets, economies and technologies across the whole world.

It must be realized that globalization is not, and would never be limited to the financial markets, but encompasses the whole range of social, political, economic and cultural phenomena of human life.

PROSPECTS OF GLOBALIZATION

There are numerous and good prospects for the use of ICT in the world today as evident in the developed economies, where its use has brought remarkable changes. The following major areas suggest the range of applications that computer can serve in our economies.

First, Globalization can enhance economic activities in the most remote part of the world. For instance

farmers in Kenya now know when to send farm products to the urban markets from their villages using ICT facilities. This they do because these prices are online and could be viewed from the local areas where these products are farmed.

Secondly, Globalization through the use of ICT can serve administrative functions. They can ease the laborious exercise of filing papers in filing cabinets and shelves where records accumulate dust over a long period of time. Another administrative application of the ICT is their use for budget planning, accounting for expenditure, writing correspondences, stock taking, presentation and reports generation. All these are made available online for whomever that cares to read, download or save.

Thirdly, Globalization will offer the great improvement in the techniques of research. The cumbersome exercise of searching by hand through the library’s card catalog or periodical indexes can be made easier by typing few key words pertinent to the research topic into a computer and the researcher can receive extensive list of related sources as in books and journals in just a matter of minutes.

PRESENT CHALLENGES

A major problem is that of the enabling environment (i.e. policy, legal framework, etc) and heavily deficient infrastructures such as poor telephone networks, regular power outages, very low level Internet connectivity. Successive governments, over the years, were not sincere with this great idea. Suffice it to say that ICT requires huge investments in terms of human and material resources. Most nation of the world, more especially in the developing and under-developed, are still far from putting machinery in motion for smooth take off this mystery. In places where the power is available, it may be epileptic, and telephone lines may be without services.

Despite all the advantages, Globalization still has some disadvantages. One of the greatest disadvantages of Globalization is that it will lead to unemployment in some parts of the world. Most countries may not be able to enjoy the facility to render services for which they have economic advantage over others, this is because services are available everywhere for everybody.

ECONOMIC GLOBALIZATION AND GLOBAL CRIME

Apart from the above listed prospects of Globalization, the disadvantages abound.

Indeed, corruption is one of the greatest challenges of our contemporary world, and is being greatly enhanced by globalization. Globalization fast tracks crime, but never seems to do same to investigation, judgment and punishment. It undermines good government, fundamentally distorts public policy, leads to the misallocation of resources, harms the private sector and particularly hurts the poor. Many aspect of bribery and corruption include accepting

gratification, giving or accepting gratification through agents, fraudulent acquisition of property; fraudulent receipt of property. Offences hitherto committed through postal system with delay and difficulties are today easily achieved through the internet. Other dangerous offences include but not limited to deliberate frustration of investigation, making, sending of false statements or returns, gratification by and through agents, bribery of public officer; using office or position for gratification; bribery transactions; false or misleading statements to the commission and attempt (conspiracy) punishable as offences. In a globalized world all these mentioned crimes take frequently. An attempt to solve economic

problem through the acquisition of certificates in a globalized economy is even a worsened situation. The upsurge is just starting. Corruption respects no national boundaries and it deepens poverty around the globe by distorting the political, economic and social life of people. Transparency International (TI) was born from the experience of people who witnessed firsthand the real threat to human life posed by corruption. Today, corruption at the highest levels captures headlines everywhere, and people are becoming aware of its disastrous consequences. No day passes without one news or the other of people being duped in an interconnected ring of fraudulent activities on the net. Statistics has shown that there is robbery on the internet every minute of the day.

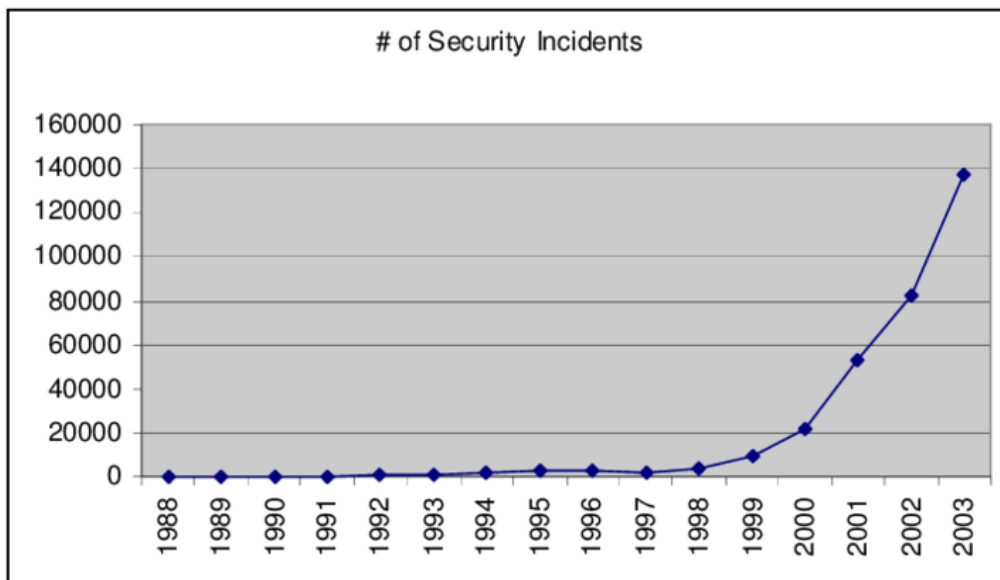


Figure 1: Overview of Internet Security (from <http://www.researchgate.net/publication>)

As of 1996, the Internet connected an estimated 13 million computers in 195 countries on every continent (as depicted in figure 1), even Antarctica (1). The Internet is not a single network, but a worldwide collection of loosely connected networks that are accessible by individual computer hosts in a variety of ways; including gateways, routers, dial-up connections, and Internet service providers. The Internet is easily accessible to anyone with a computer and a network connection. Individuals and organizations worldwide can reach any point on the network without regard to national or geographic boundaries or time of the day. However, along with the convenience and easy access to information on the internet came new risks. Among them are the risks that valuable information will be lost, stolen, corrupted, or misused and that the computer systems will be corrupted. If information is recorded electronically and is available on networked

computers, it is more vulnerable than if the same information is printed on paper and locked in a file cabinet. Intruders do not need to enter an office or home, and may not even be in the same country. They can steal or tamper with information without touching a piece of paper or a photocopier. They can create new electronic files, run their own programs, and hide evidence of their unauthorized activity.

GLOBALIZED POPULATION OF THE WORLD

If you have access to the internet, then you are part of the globalized world. Any amount of time spent on the web is ones part of the globalized world. The table below shows that a good number of the world population is on the internet. (ITU, 2013). It is estimated that Africans have the smallest population of 16.3 % of its inhabitants on the internet while Europe has the highest population of 74.7%. As at that time Asia had 31.9%.

Table 1: World Population using the Internet

	(%)								
	2005	2006	2007	2008	2009	2010	2011	2012*	2013*
Africa	2.4	3.3	3.9	6.4	7.8	10.1	12.4	14.3	16.3
Arab States	8.3	11.1	13.4	16.1	19.8	25.5	29.8	33.7	37.6
Asia & Pacific	9.4	10.6	13.4	16.2	18.9	22.5	25.6	28.8	31.9
CIS	10.3	12.6	16.8	19.5	23.8	34.0	40.9	46.4	51.9
Europe	46.3	49.7	56.0	60.2	63.2	66.9	69.0	71.2	74.7
The Americas	35.9	38.8	42.7	44.2	46.1	49.3	53.4	57.2	60.8

Source: ITU World Telecommunication/ICT Indicators database.

The figure below indicates also that a sizeable number of households have access to the internet in their homes, confirming that greater number of

people are connected at every time, irrespective of distances between them.

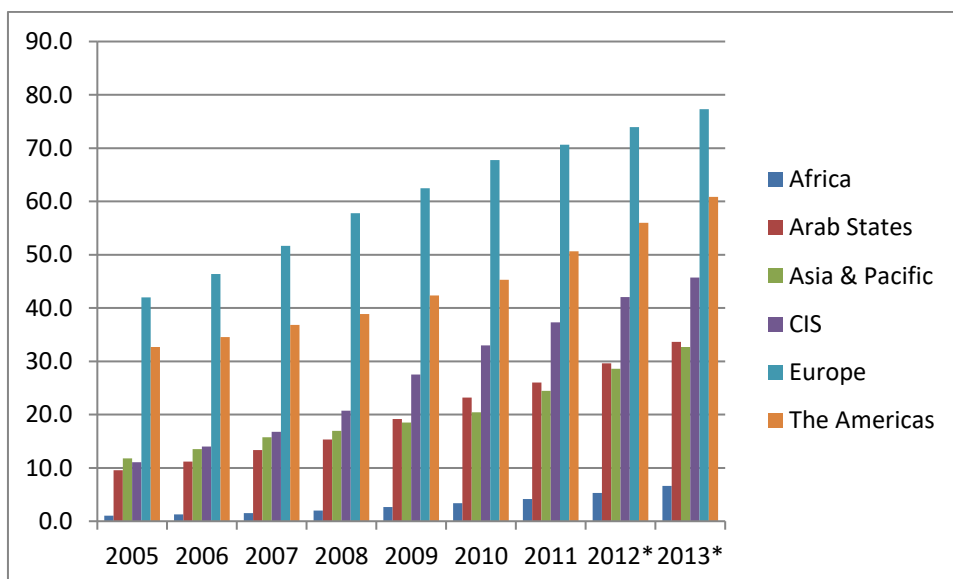


Figure 2: Percentage World Household with Internet facility at home (Source: ITU World Telecommunication/ICT Indicators database)

THE RATE OF ABUSE OF THE INTERNET

The abuse of the internet occurs regularly that it is almost as if it is same as the tickling of the clock. Everybody is a writer, editor and a publisher and can write and send out at will whatsoever he or she wishes to give out to the public, as the internet has no restriction. All manner of junks are sent onto the internet every second of the day. The amount of information on the internet today has become a huge job to data analytics, such that every attempt to use big data tools to measure the amount of information chipped out on the internet has become impossible. Today it has become impossible to count the quantity of information on the net in millions of megabytes; billions of terabytes...give it any name and quantity but it will not help. We keep generating names and how to measure data on the internet, and as we do,

the measure becomes outdated immediately – this is a major problem and seems not to have an immediate solution.

CONCLUSION

Information and Communication Technology revolution is the central and driving force for globalization and the dynamic change in all aspects of human existence is the key by-product of the present globalization period of ICT revolution. The world telecommunication system, the convergence of computer technology and telecommunications technology into the Information Technology, with all its components and activities, is distinctive in its extension and complexity- and is also undergoing a

rapid and fundamental change. The results of this are that National boundaries between countries and continents become indistinct and the capacity to transfer and process information increases at an exceptional rate. The global information communication has been called "the world's largest machine," and it is very complex and difficult to visualize and understand in its different hardware and software subsystems.

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