

INFORMATION SOCIETY: ITS MEANINGS AND IMPLICATIONS

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Abstract

Over the Centuries, there has been an evolution of human society through different kind of stages of development, the imperative for development has made the society to evolve from primitive, agricultural, industrial and now to an information society. The Paper discussed the information society: it's meaning and implications. Within the scope of the paper, the concept of information, the concept of information society, characterization of information society, criteria for information society and implications of information society were discussed. This paper recommended that government at all levels, individual and private entities should ensure adequate infrastructures to support information society are provided.

Keywords: *Cultural, Economic, Information, Information Society, Technology.*

Introduction

Information is critical and vital in every society. It has become a critical resource needed for the survival of any given society. In many countries of the world, information nowadays plays a tremendous and important part of our economic, social, cultural and political life. Ever since the 1980s, 'information society' has been one of the key terms used to describe today's world. It has been employed variously as a social, cultural, economic and technical concept. The concept of the information society can be linked to the post-industrialization era. Presently, the world is navigating from the era of industrialization where steel and mines are at the centre of development to the era of information and communication system as the indicator of national development. In this era i.e. information society era, it is pertinent for countries to embrace the idealism of information society if they don't want to remain in isolation and ignore rapid developments in the field of Information and Communication Technology. (ICT) Access to the right information at the right time in a convenient form can trigger new directions in research, development and managerial actions. A widely accepted fact today is that input in modern production systems is no longer confined to land, labour and capital only, it also includes information.

Karvalics (2007) notes that the term "information society" first emerged in Japanese social science in the early 1960s during a conversation between Kurokawa and Umesao. However, it was firstly cited by Masuda and Kohyma (1968) and Hayashi (1969)

through their books on the concept of the information society (Karvalics, 2007). According to Masuda (1980), the information society is a new type of society in which the possession of information (rather than material resources) is the driving force behind the development and transformation, and its development foundations are ICTs. Furthermore, the U.S. researchers have contributed to the development of information society (Ziemba, Papaj & Żelazny, 2013).

Concept of Information

According to Encyclopedia Britannica, ‘the term information refers to facts and opinions provided and received during the course of daily life: one obtains information directly from other living things, from mass media, from electronic data banks, and from all sorts of observable phenomena in the surrounding environment. A person using such facts and opinions generates more information some of which are communicated to others during the discourse, by instructions, in letters and documents, and through other media. Information organized according to some logical relationships is referred to as a body of knowledge. A semantic definition categorizes information into three aspects namely: information as a meaningful data about something or someone that may emanate from a systematic finding; secondly that communication and reception are inseparable components of information; and thirdly, that information usually has effects on the user, (though, the effect may be positive or negative)

More so, information may be defined based on the characteristics of the information society it is domiciled. For instance, in the technological information society, information is defined in terms of probabilities of occurrence of symbols and its quantity is measured in *bits*. Whereas in the economic information society, information is defined as the “data that have been systematically organized and communicated (porat and Rubin, 1977),

Machlup (1962) considers information as knowledge synonym. Economists also try to assign value to various economic activities in order to attain a quantitative measure of information. In an effort to commercialise education, research and art” unavoidably abandons the semantic qualities of information.

The word information is obtained from the word “inform”, which means “to give shape to”; therefore, information means determining the data to arrive at meaning in the eyes of the perceiver (Awad & Ghaziri, 2004). So, according to Awad and Ghaziri (2004), information is a set of data that makes a decision easy. According to Case (2000) the term information is synonymous with encapsulated knowledge; packaged human experience; a source that can provide a myriad of data; a resource that takes different formats (such as packaging, transfer media and varied methods of delivery); people (family, friends, tutors, fellow students); institutions (i.e. National University Commission or Nigeria Library Association).

Information could be defined based on technological, economic, and cultural definitions:

Technological Definition: In technological information society information is defined in terms of the probabilities of occurrence of symbols and its quantity is measured in bits.

Economic Definition: In the economic exposition of the information society, information is defined as the “data that have been organized and communicated” (Nath 2017, Porat & Rubin, 1977).

Machlup (1962) opines that in the economic characterisation of the information society, information is synonymous with knowledge.

Cultural Definition: In the cultural definition of the information society, the loss of meaning of symbols (information) due to profusion of information has been a major concern.

Based on the above definitions, Simeon, Akanbi and Kehinde (2018) conclude that information is key to human survival and prosperity as it is very important and necessary in day-to-day activities of the human being.

Society

According to Aina (2011). Society is a term that generally refers to the way of life of a people. It also refers to human social interaction. People living together in a particular locality can be referred to as members of that society. Society begins with coming together of two individuals. Examples of society are family, clan, village, town, city, state, organization, institution etc. In Nigeria, there are different societies such as Yoruba society, Hausa society, Egba, Koma. Efik, Kanuri, Nupe. Tiv, Fulani societies, each of these societies consists of a group of co-operating individuals with distinct affinities and common interests, their common interests could be ethnic, religious, political, business amongst others.

Every society consists of a group of individuals. Each has a society structure beginning from the top (leaders) down to the members of that particular society. The society bears the responsibility of meeting the needs of its members which includes providing adequate security for them. In return, members of a society have the obligation to obey the rules and regulations that bind them together. We can trace the beginning of society to the creation of the world. When God created Adam and Eve in the Garden of Eden. Every society has a value system. The element that differentiates one society from another is culture.

Characteristics of a Society

1. Society consists of a group of individuals
2. It has structure, that is, each society has its organizational structure from the leaders down to the members.
3. Each society has rules and regulations that guide the members
4. Society has the responsibility of providing adequate security

5. Society returns cultures, norms and beliefs

Concept of Information Society

The term information society has been proposed to refer to the post-industrial society in which information plays a pivotal role (Nath, 2017). Obviously, it is a much broader term than information. However, there is no general agreement on one definition or on the defining characteristics. Over the last half-century, there have been several efforts to conceptualise the essential characteristics of the information society, in which direction, according to some thinkers, they will evolve. In various definitions that have been proposed over the years, there five underlying characterizations of an information society: technological, economic, sociological, spatial and cultural. I will briefly discuss each of them. According to Hilbert (2015), an information society is a society where the creation, distribution, uses, integration and manipulation of information is a significant economic, political, and cultural activity. Its main drivers are digital information and communication technologies, which have resulted in an information explosion and are profoundly changing all aspects of social organization, including the economy, education, health, warfare, government and

Masuda (1980) as cited in Karvalics (2007) defines “information society as a new type of society, where the possession of information (and not material wealth) is the driving force behind its transformation and development and where human intellectual creativity flourishes” (p. 9). Also, Cronin (1986) defines information society as “one in which labour has been intellectualized.

More so, Martin (1995), define “information society as a society characterized by rapid growth and use of information, widespread exploitation of varied information sources; a society where people know and appreciate what information they need, where to get it, how to get the information, and in the end, how to use it.”

The information society is a society where an increasing portion of social activities such as work, economic transactions, communications, and other interactions between individuals, private sector organizations, and governments are conducted via ICT networks or are dependent on ICT technologies, all of which are increasingly interoperable. An information society is a society where information and knowledge are increasingly important economic goods at all levels that is as determinants of wage levels for individuals, as factors of production for firms, and as sources of competitiveness among nations and/or regions (e-Europe, 2001)

In giving an explicit conceptualization to what information society is, Duff (2000) reports that the Research Institute of Telecommunication and Economics (RITE) explain that an information society is a society with the following features:

- i. a per capita income of more than 4,000 dollars;
- ii. the number of service workers exceeds 50 percent of the total labour force;
- iii. university students exceed 50 percent of the total appropriate age group of the population; and
- iv. the information ratio (ratio of household expenditure for various information related activities to total household expenditure) is greater than 35 percent.

Characteristics of Information Society

Information societies have three main characteristics. The first characteristic is that information is used as an economic resource. Organizations make greater use of information to increase their efficiency, to stimulate innovation and to increase their effectiveness and competitive position, often through improvements in the quality of the goods and services that they produce. There is also a trend towards the development of more information-intensive organizations that add greater amounts of value and thus benefit a country's overall economy.

The second is that it is possible to identify greater use of information among the general public. People use information more intensively in their activities as consumers: to inform their choices between different products, to explore their entitlements to public services, and to take greater control over their own lives. They also use information as citizens to exercise their civil rights and responsibilities. In addition, information systems are being developed that will greatly extend public access to educational and cultural provision

And lastly, the third characteristic of the information society is the development of an information sector within the economy. The function of the information sector is to satisfy the general demand for information facilities and services. A significant part of the sector is concerned with the technological infrastructure, the networks of telecommunications and computers.

However, the necessity is also being recognized to develop the industry generating the information that flows around the networks: the information-content providers. (Moore, 1997)

The widely known characteristics in the literature can be found in Bell's post-industrial society paradigm (Bell, 1973; Bell, 1980). Bell (1973) and Bell (1980) identified five important dimensions of the concept of post-industrial society, on the basis of which the framework of the information society is built.

1. Economic sector representing the change from goods-producing to a service economy.
2. Occupational distribution representing the pre-eminence of scientific, professional, managerial and the technocratic class.
3. Axial principle representing the centrality of the codification of theoretical knowledge as the source of innovation in technology and of policy formulation for the society.
4. Future orientation representing the control of technology and technological assessment.
5. Decision making representing the creation of new intellectual technology as a key tool of systems analysis and decision making.

Implications of Information Society

The implications of the information society would be considered based on its five dimensions.

The Economic implications of Information Society

The recent changes in the structure of the economy in which information has to play a defining role have become part and parcel of the information economy. It is hard to find a widely accepted consensus definition of an information economy. In general, this is the term used to describe a phase of the post-industrial economy that is increasingly based on information-related activities. This term, however, involves a certain degree of vagueness as information activities are difficult to define and measure. Knowledge economy, new term alternately used to refer to the same idea as an information economy. The most objective conception of the information society according to Bawden and Robinson (2012) is economics. Bawden and Robinson (2012) argue that when most of the economic activity and wealth of a society is based on intangible, information-based good, then it seems reasonable to describe this as an information society.

Sociological Implications of Information Society

Sociologists have conceptualized the information society in terms of changes in occupational structure and consider the preponderance of information works in occupations to have created a new social order.

The beginning of this school of thought is often created to Daniel Bell (1973), who, in his theoretical exposition of the post-industrial society, characterized by a shift from blue-collar manual jobs to white-collar service jobs, recognizes the importance and pre-eminence of information in white-collar service jobs. His idea of information society based on the underlying structural change of economy has some resonance in relatively recent writings.

The Technological Implications of Information Society:

The alarming rate of innovations in information and communications, the internet and satellite television, and personal computers, since the late 1970s, have been purported to revolutionaries our ways of life in such a way that it will define a new social order (Evans 1979, Martins 1978).

Toffler (1980) opines that the advances in information and communication technologies (ICT) herald the third wave of technological innovations and information resolution. These general-purpose technologies have already had widespread impacts on businesses, politics and even personal lives much beyond what was expected. For instance, because of ICT, it is now possible to design trousers or dresses in the US and get them stitched in Bangladesh, to develop the marketing strategies in Britain and sell them in the US. This kind of internationally distanced production processes has been made possible even in the production of services. The outcome is a more effective product that benefits both producers and consumers. In democracies, a wide range of involvement of the people in political debates and discussions on issues important to society has been more direct and democratic. Distance learning and social interactions

facilitated by ICT has not only benefited people in developed countries like Britain, US, India etc. But also developing countries like Nigeria, Ghana etc have benefitted tremendously in globalised impacts of ICT. Even personal life like keeping contacts with family and friends, making friends, searching for matrimonial matches etc have been greatly influenced by these unprecedented innovations. The exchange of information through ICT infrastructures, largely facilitated by technology, has been the foundation of an information society. Freeman (1987) observes that ICT innovations are the fundamental source of a new era that will have longer-term economic benefits. The information age is set to mature in the 21st century (Hall and Preston, 1988). Furthermore, this thesis of an information society associates the primary role of technology for social change. The background proposition appears to be that technology is automatic and society merely responds by adjusting its various aspects.

However, the suggestion that technology is determined outside the realm of society is unrealistic. This is because technological advances and innovations, more often than not, are the results of conscious decisions of a society that focuses on achieving certain goals. Although, the innovations often have wider implications far beyond what they were intended for ab initio. In the 1950s, computer engineering was developed as a part of military research during the cold war period. But since the 1970s, computer technology has received much wider applications beyond military purposes. Also, technology innovations reflect social values. For example, the design of a car intended for a family reflects the presumption of a family with two adults and two children.

An alternative and perhaps the most popular explanation is based on technology (Bawden & Robinson, 2012). Bawden and Robinson (2012) posit that when a society has sufficiently powerful and widespread information and communication technology (ICTs), then it should be counted as an information society.

The Socio-cultural Information Society: There are special and cultural accounts; most notably the ideas of the “network society” put forward by the Spanish sociologist, Manuel Castells in the 1990s (Bawden & Robinson, 2012). Bawden and Robinson (2012) people’s perceptions of time and distance, and to change the way we behave and interact in all aspects of our social dealings.

Implications of Information Society: Nigerian Situation

Traditional society is a non-literate society. The members of the society can neither read nor write and so they depend on their memories for records and information dissemination. Alagbeleye in Nwalo (2000) describes professional historians in the traditional society to be the palace drummers and balled singers the *Arokin* and *Onirara* (these are traditional praise singers in Yoruba traditional setting, a major ethnic group in Nigeria). They are responsible for the preservation and transmission of certain categories of tradition among the Yorubas of Nigeria just like in other tribes in the African setting. In additional society, communication is mainly oral.

Information on Rural Non-Farm Economic Activities people will need information on activities that are usually carried out in their areas. These embraces (a) food processing

and banking ; (b) textiles are weaving-including spinning, weaving, dyeing, mat making raffia work and tailoring; (c) services such as barbing, hair-plaiting, shoe-making and repair; (d) woodworks like carving and carpentry; (e) metalwork such as goldsmithing, blacksmithing, welding and fitting; (f) repair services for radio, vehicles and watches; (g) building activities including masonry, plumbing, painting and fittings; (h) pottery and other artworks; and (i) miscellaneous activities like soap marking and herb processing. (Fountain publications, 1990).

A very significant aspect of cultural change in Nigeria is the transition from a predominantly oral culture of that of writing and documentation of information Nwalo (2000). This has eradicated the challenges posed by oral culture. Writing marked the evolution of the means for preserving or communication information. The writing system is the representation of oral language. The earliest systems of writing were cuneiform, hieroglyphics and now we use alphabets to communicate in writing. At the beginning of writing, information was documented on different materials such as clay tablets, stones, bones, palms of the tree, tortoise, shells, papyrus sheets and parchment, among others. Paper was invented by the Chinese. Johannes Gutenberg is credited to have invented the printing press with replaceable wooden or metal letters in 1436. The invention of information and communication technologies (ICT) brought a dramatic change to the way in which information is being created, processed, preserved, stored and disseminated in this present age.

Libraries in the Information Society

The path to the information society is of possessing the knowledge, producing it and using its power. In today's information age, societies unable to reach, use and take the advantages of the information are obliged to standards of the industrial and even the agricultural societies. In the information age, a country has power at the extent of the information that it produces and uses as well as the technology and innovation that it develops. Developed countries of the information society period secure the happiness and wealth of their citizens by using the power of information as well as the opportunities of their information and communication technologies in the countries' e-strategies and politics at the national level. When the "power" was possessed by the ones having the machinery and labour force in the agricultural and industrial communities, the "power" in the information society is of the ones using the mind (Tonta, 1999). The libraries are cultural and social institutions having the catalyst effect in the transformation to the information society as they are collected, preserve, serve the information, aim to meet the information needs of the society and focus the information (Yilmaz, 2010). They are one of the institutions which contribute to the upbringing of the qualified people who could lift the public to the information society level. Access to the cumulated recorded data is enabled via libraries. In an environment where the intellectual projects are recorded in touchable forms, the librarians are responsible for the definition and formation of the recorded data. Private communication, corporate records and the other unpublished documents are generally their owners' private properties. They can only be the part of the information pile of the public after published or evaluated by the librarians due to their potential research values (Neavill, 1984).

With the transformation to the information society process, conventional libraries and other information centres shifted for something different than the institutions which used to preserve the books and other documents and serve them (Karakas, 1996). Today, libraries are stated as one of the places where lifelong learning abilities could be developed. There is a direct link between the information society and the libraries contextually as the main feature of the information society is information and the libraries are the places where the information is collected, kept and served.

Conclusion

Human society has been evolving through various stages of development; the society has evolved from primitive, agricultural, industrial to the information society. Unarguably, the information society is the most advanced development stage in human 'life. The information society is generally a society that makes the best possible use of the advancement in information and communication technology (ICT). Despite the information proliferation, unimagined by previous generations the paradox of choice, the pressure and inequitable nature of access to information have led to concerns about information explosion and anxiety.

Recommendation

This paper recommends that corporate bodies and private entities should ensure adequate infrastructures to support information society are provided. It is pertinent for every society to be information society because that is requisite for the knowledge society.

Group and individual should undertake further research on the concept of Information society and its implications in every sector of our lives.

Federal Government of Nigeria should make the fund available to relevant Universities, Research Institutes to enable them to embark on empirical and viable research studies bordering on novel information, that can move the nation forward as a formidable modern Information society with its attendant myriad of benefits.

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