
SOCIETY, INFORMATION SCIENCE AND TECHNOLOGY: THE NEXUS

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Abstract

The advancement of information and communication technology has made the world a global village, improved productivity and enhanced human existence to a large extent. The society has been improved upon and standard of living including knowledge economy advanced by this revolutionary trend-information science. However, apart from these benefits, information has brought some regrets or curses to the society. These curses include internet scam, immorality and nudity, as well as other social vices through social networking thereby making the society to be more corrupt than ever before. This paper examines these problems and their effects in the society, especially in Nigeria as well as the appropriate remedies in checking the negative impacts.

Key Words: *Information, Society, Technology and Effects*

In the modern world, information has the power to transform the lives of people and nations or societies. National development is influenced by the amount of available information technology and science.

According to Rao (2006) and Martin (1995), an “information society” can be defined as a society in which the quality of life, as well as prospects for social change and economic development, depends increasingly upon its utilization and exploitation in such a way that the society’s living standards, pattern of work and leisure are enhanced. The education system is influenced significantly by advances in information and knowledge.

Technology can be both a tool of development and a divider of the populace, when it is misused. Information and Communication Technology (ICT) can strengthen education, public service, government, agriculture and other industries.

Information and Technology have influenced the society both positively and negatively. In this context, Information and Communication Technology (ICT), including the social media, are online platform for social communications for information sharing on the internet. The social media tools include: Facebook, Twitter, LinkedIn, Friendster, YouTube, among others. Facebook is the most popular social media tool with more than 75 million users; however, lately, more than 50 million professionals globally are registered to LinkedIn, (Geldof, 2005) while LinkedIn is an online social media for business professional, which is designed especially for professional networking to help them find jobs, discover sales leaders, connect with potential business partners, etc

There is no gainsaying the fact that there is a nexus between information and technology and the society. The society depends on science, technology and information for its advancement.

When the society grows and develops positively in all, the relationship is positive; conversely, the relationship can be adverse or negative. According to Nwosu (2010), in developed countries, the internet is a mainstream medium, but this is still not the case in developing countries. There are 500 million internet users in the world, and 80 percent are in the developed world; while in developing countries, only two percent of the population has access to the internet. There is both anecdotal and theoretical evidence about the impact/effect of the internet and other features of the information society.

In a nutshell, everything in life is like the two sides of a coin, there is always a positive and negative side of every phenomenon. The effects of ICT look at how lives have been changed for the better and for the worse, by the impact of ICT. This work looks at the positive and negative effects of ICT on the society.

Meanings of Information Technology and Science

Oxford Advanced Learner's Dictionary defines information technology as the use of electronic equipment, especially computers, for storing and analyzing information; while science is the knowledge about the structure and behavior of the natural and physical world. Technology and science are used for the dissemination of information, research, education, knowledge, discoveries and development, among others.

The Positive Effects of Information Technology and Science on the Society

The application of information and knowledge to innovation and production has accelerated technological change in the society. The internet has broadened the number of people exchange information, products and entertainment. Digital technology has allowed for improved communications through voice (phone, Radio) and visual device (television, film) (Keck and Sikkink, 1998).

The advent of the internet and e-mail have certainly provided the tools for groups of people to form networks around the world in order to advance their views about how society should be ordered. Citizen association in the fields of the environment and women's issues, and labour groups has used the new technology to share information and mobilize support (Castells, 1996).

Information revolution is having prolonged effects on social life. Hence, new forms of communication allow people to organize themselves through network rather than hierarchies. In the network society, people build direct links with each other rather than working through institutions that have layers of authority. For example, people concerned about the environment may form a small environmental group rather than work through a political party. Universities might turn to distance learning rather than gather students in classroom.

The positive impacts on the society, individuals and organizations are in the areas of improved education, accessibility to information, new opportunities, job creation, etc.

- The greatest effect of Information and Technology on the society is the huge increase in access to information and services that have accompanied the growth of the internet.
- The use of ICT to access information has brought to the society new opportunities for leisure and entertainment.
- Another positive effect of information, science and technology on the society is that it gives access to new tools that did not previously exist.
- Improved access to education like distant learning and online tutorials is another positive effect of information and technology on the society. Others are interactive multi-media and virtual reality, new job opportunities like flexible and mobile working etc (Fensham, 1985).
- The radio and television are important to the society as they educate, inform, entertain, publicize, socialize, communicate and liberate individuals and society, including children, from pettiness and shortsightedness. According to Bavan (1999), children could also learn good manners and etiquettes like respect to elders and authority through listening to radio and/or watching television programmes.
- Information, technology and science have been of immense help to the society in the area of sending bulk email messages like through twitter. The world has been made a village through social media, internet, etc., as families, groups, friends interact easily.
- Through the internet, business contacts are made which would not have been possible without technology, science and information. Social media have created easy and rapid awareness in the society. According to Balci (2010), users of social media, for example are more globally aware since they have access to global issues and the chance to read about global events.

- Employment or job opportunities have been made possible in the society via information, technology and science. Many youths are now self-employed in the areas of business centers and computer repairs.
- Social networks help the businesses in a variety of ways. With social media, businessmen can connect with their targeted customers for free, the only cost being energy and time. Through Facebook, Twitter, LinkedIn, etc., one can lower marketing costs to a significant level (Marina, 2013).
- Probably the largest effect that ICT use has on society is allowing members of society to have greatly increased access to information.
- ICT can have an important impact on poor and marginalized people, and can improve education, training and employment; ICT can be used to alleviate poverty. However, there are still concerns about the social impact of ICT.

The Negative Effects of ICT on Developing Economies

Information, technology and science, especially ICT have affected all aspects of life in both positive and negative ways. This has led to consideration of information ethics.

Rose (2005) defines information simply as that which provides an answer to a question as well as that for which knowledge and data can be derived". Information provides answer to a question or it is the input to system or organism. Simply put, it deals with data and knowledge. When a data is derived, it is analyzed and knowledge or value is gotten from it.

However, technology is the collection of tools, machinery, modifications used by humans.(Wikipedia)

In the same vein, ICT is an umbrella term that includes any communication device or application in encompassing Radio, Television, computer, Network amongst others (Rose,2005).

The negative impacts of ICT and science on the society are briefly explained below:

- One of the effects of ICT is the loss of a person's job. This has economic consequences such as loss of income and societal respect and recognition etc.
- Information, technology and science have reduced personal interaction in the society, but there can be negative aspects as well. Most people need some form of social interaction in their daily lives and if they do not get the chance to meet and talk with other people they may feel isolated and unhappy (Solomon, 1993).
- A third negative effect of ICT is that users may adopt a more sedentary lifestyle. This can lead to health problems such as obesity, heart disease, and diabetes. Many countries have workplace regulation to prevent problems such as repetitive strain injury or eyestrain, but lack of physical exercise is rarely addressed as a specific health hazard (Miller, 1996).

According to Osborne (2000) if the digital divide becomes more severe, new generations could be come estranged from their own culture as we have in Nigeria and other African countries presently.

- Originality and creativity, which are the hallmarks of youthful ingenuity and vigour, are gradually loosing grounds in our globalized generation. From purely moral perspective, the radio and the television have contributed enormously to the degradation of human habits in generation: Bad habits, manners and cultures which are show-cased, without censorship are easily copied by children without much discernment. The increase in violence, cultic activities, man's inhumanity to man, which are prevalent in the human society today, could be traced to the remote or overt influence of the radio and the television, sexual immorality, corruption and atheistic tendencies are also part of the cultures introduced through the radio and the television (Livingston, 2004).
- A lot of atrocities are being committed these days because of information, technology and scientific advancement in the society. These include cyber-crimes, internet frauds, nudity, cyber bullying. The social media have reduced the reading culture amongst the youth especially in Africa. The handsets have become indispensable tools to students in committing examination fraud. The telephone sets are used to photocopy materials, transfer questions and answers in examination halls, thereby reducing the quality and standards of education.

Suggestions and Recommendations

Science and technology can lead the society to life or death, if they are able to lead us to both, then we should be wary about them. No doubt, the society is better-off with information, technology and science, despite the negative impacts. However, if the following actions are taken, the negative effects will be minimized.

Firstly, parents should monitor what their children are doing with the computers and handsets in order to reduce the level of moral decadence in the society.

Secondly, the social media should not be abused, but rather seen as tools for educating, enlightening, informing and contacting new good friends and keeping the old.

Facebook and Twitter majorly used by everybody especially the youths should be used for the promotion of good morals and habits and culture.

Thirdly, the use of portals of the competence authorities in accessing necessary information should be sustained. The public services are now working in the paperless environment, through the e-services (electronic services) in the area of e-government (electronic government) development (Adamu, Abubakar and Idriss, 2013).

Fourthly, the radio and television should lay much emphasize on moral education.

In other words, the ways of maximizing the benefits of the radio and the television in the moral education of the younger generation and indeed in the proper social development of the human society.

Fifthly, since information is power, people should be encouraged and advised to post only authentic, verifiable and truthful messages/information in the internet.

Conclusions

The world is now controlled by the revolution of Information and Communication Technology (ICT) and internet revolution.

According to Uzoh (2012) countries are no longer ruled by the natural resources in their land but what they can do with ideas and knowledge to move their country forward. It is the spin-off of the “information Technology” revolution that has been the “new economy”.

The impact of science and technology on society has long been acknowledged. That impact can be beneficial or detrimental. The detrimental aspects have attracted considerable comment and analysis, especially in recent years and these studies have led naturally to a consideration for the adverse impact of science and technology on human rights and society.

Information and technology should be seen as tools for the enhancement of knowledge, improved standard and living academic and research development, employment opportunities not for negative or adverse purposes that are antithetical to the societal well-being.

It must be stated that moral education, specially, is a function of good moral philosopher or a real pastor of souls, or he / she who is unmistakably concerned with the ultimate good of the society.

The moral sage, the responsible media practitioners and the God-fearing pastors of integrity should be part of the censor team to monitor, evaluate and recommend items that should be parts of the programme for public consumption through the mass media of the radio and television. This call for censorship of the materials for public influence, consumption and knowledge by censorship teams is very important now that we are living in a society bereft of sound morality.

The government, education agents, religious and moral formations, instructors, directors, parent and well-meaning individual should see this call for information

ensorship as urgent for the sanitization of our existential habitat in our age of free information flow.

References

- Adamu, I, Abubakar, J & Idriss, S (2013) ICT and Public Administration in Nigeria *International Journal of Social Sciences, Accra*, Vol 7, No.6 May pp224-235.
- Balci, S.J (1999) Turkiye de e-ogrnne: Gelismeler ve Uygulamala (pp465-48). (E-learning in Turkey: Development and Applications). Ankara: Cem Web Offset.
- Baran, S.J (1999). *Introduction to Communication: Media, Literacy and culture*, London: Mayfield Publishing Company.
- Castells, M(1996). *The Rise of the Network Society*, Oxford, Blackwell
- Fenacham, P.J (1985). Science for all. *Journal of Curriculum Studies*, 17: pp415-435.
- Geldof, M (2005). Becoming an information Society: The role of new information technologies in development. Retrieved December 18, 2009 from www.wiltonpark.org.uk.
- Keck, M & Sikkink, K (1998) *Activists Beyond Borders, Advocacy Networks in International Politics* I thacca, NY: Cornell University press.
- Kumar, D & Chubin, D (2000). *Science Technology and Society: A sourcebook or research and practice*. London: Kluwer Academic.
- Livingston, S. (2004). Media literacy and the challenges of New information and communication technologies. *The communication. Review* 7(1),3-14
- Martin, J.W (1995). *The global information Society*, England: Aslib Gower.
- Miller, R (1996). Towards as science curriculum for Public understanding. *School Science Review*, 77(280): pp 7018.
- Marina, B (2013). Positive Technological Development: The multi-facated nature of youth. Technology Use towards improving self and society, Tufts University, Elliot.
- Neelameghan, A.O (1999). Information economy and knowledge society. *Information studies (2 parts) part 1*: 107-12, part 2: 169-196.

- Nwosu, O. (2010). "The impact of the information society on the library and information science profession". *Library Philosophy and Practice*, Vol 2, No.1
- Osborne, J (2000). Science for citizenship. In *Good practice in Science Teaching* (eds). Monk, M and Osborne, J: Open University Press. UK.
- Richardson, G & Blades, D (2001). *Social studies and science education: Developing world citizenship through Interdisciplinary partnerships*.
- Rao, M (2006). The nature of the information Society: A Developing world perspective. Retrieved December 18, 2009 from <http://www.itu.int/visions>.
- Solomon, J. (1993). *Teaching Science, Technology & society*, Philadelphia, CA: Open University Press.
- Uzoh, A.B (2012). Human Capital Development: A strategy for moving Nigeria into the knowledge economy". *International Journal of Development and Management*. Vol.7. No1 June, pp99-105.