# Managing Educational Technology for Value Re-Orientation and Sustainable National Development

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**ABSTRACT:** Information and Communication Technology (ICT) has become a backbone in educational sector for value reorientation and sustainable development in Nigerian schools. Its role has virtually diffused educational system, forcing technological changes and creating a culture of dependence on technology. The role of ICT in education for teaching and learning has successfully changed the social, economic, political and education environments in Nigeria. Undoubtedly, ICT has enabled the globalised world become greatly interconnected and interdependent and succeeded in breaking the border walls. The use of mobile phones, laptops, tablets, IPads, internet services, software, Artificial Intelligence (AI) and other ICT tools have become the new culture in academic and other institutions. The aim of this paper is to discuss how to manage educational technology for value re-orientation and sustainable national development. It is recommended among other things that government and private individuals alike should try and increase the accessibility of computer hardware and software to the citizens at affordable prices and also that citizens of Nigeria should be educated on the benefits of educational technology for value reorientation and sustainable development.

**KEYWORDS:** managing educational technology for value re-orientation and sustainable national development

# INTRODUCTION

Several definitions have been given to explain and interpret the acronym ICT and the one given below seems to be the closest: ICTs is a generic term referring to technologies that are used for collecting, storing, editing and passing on (communicating) information in various forms.' The above definition separates distinct fields of ICTs and at the same time links them together so as to operate as an entity. It is now a fact as evidenced by developments from other countries that ICT as a sector can contribute immensely to the national GDP of a nation and that ICT, acting as an enabler, can result in improved market competitiveness of a

nation's products and services. ICTs can impact positively on governance and other sectors of the economy.

Values influence people's behaviour and serve as a yardstick for evaluating the actions of other people in the society. In all societies of human beings primitive, civilized or inbetween, values exist in some perceptible manner. In primitive's societies, they are written values which exist in the social consciousness and which act as determinates of family and individual pursuits. In such societies, they are handed down from one generation to another by word and action. In civil societies, values are committed to writing. In the domain of education, values are paramount for they are tightly bound to the general idea of education and the operation of schools. Cultural values are those collective conceptions of things that are considered good, desirable and proper in a people's culture (Schaefer, 2003) in Okolo 2011). The negative values include bribery and corruption, human trafficking, kidnapping, economic sabotage, tribal and religious division, ritual killing, rape, robbery, terrorism, cultism, wanton destruction of government and individual property in the society. The acquisition of good values will enable the individual to determine how reasonable, right or wrong, true or appropriate his actions, attitude as well as relationship with others are. Therefore, if all learning and training cannot make one of good value, then education is a failure. Education is expected to be a transmitter of worthwhile values (Olatunjul990). Chuta (1999) posited that values are the indices of what a society expect of its members. Values are conceived of in term of what is accepted in any social system. The value system of each society emanates from the environment and how the individual in such environment use that environment. It is also transferred to upcoming generations of the environment as they act on the environment. ICT is, and will continue to be a catalyst in advancing economic growth and poverty reduction. New information and communication technologies overcome the barriers of distance and time, and significantly improve the accessibility of information and knowledge. As a result, the sharing information and knowledge quickly and effectively becomes feasible and acts as a key element in achieving development goals and mitigating the impact of unforeseen events such as natural disasters or outbreaks of disease. Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. Below are few areas were ICT has help in value reorientation and sustainable national development.

#### **Education for Value Re-Orientation**

Education had been defined differently by different people. One of the greatest educational historians, Cremin (1978) defined education as "a deliberate, systematic and sustained effort to transmit evoke or acquire knowledge values, attitudes, skills and sensibilities" Fafunwa (1987) saw education as the human act of informing, forming and strengthening of the powers of the body and mind; a process for transmitting culture for the knowledge to ensure social control and guarantee national direction of society. He also holds that the purpose of education is to develop attitudes abilities and behaviors considered desirable by society. Durkheim, (1956) a great sociologist posited that education is a systematic socialization of

the younger generation by which the latter learn religions. According to Okafor (1984) education is a process of the development of the potentialities and their maximum activation when necessary, according to right reason and to achieve thereby his perfect self-fulfillment" With the above definitions, one can deduce an idea of what education is. This shows that education is not and cannot be an end in itself. Education is used to mean the consciously planned systematic imparting or acquisition of knowledge in a system called schools. Many philosophers have articulated their individual reasons for education. Plato holds that "a good education consists in giving the body and the soul all the beauty and all the perfection of which they are capable" (Okafor, 1984). "While Mann (1990) stated that "education alone can conduct us to the enjoyment which is, at once, best in quality and infinite in quantity. Peters (1966) suggested that education "implies that something worthwhile is being or has been intentionally transmitted in a morally acceptable manner". For Dewey, education is to be considered as intelligently directed development of the possibilities inherent in ordinary experience. He regarded education as a reconstruction of experience -which aids a person to the direction of subsequent experience. His view is that education is a process of living and not preparation for future life. It is a continuous process of growth. For him an experience is an educative experience only when it can be transferred. Education is a means to life and living. The implication of this is that the greater part of education should be functional. The ultimate end of education is man's happiness. Like philosophy, education banishes ignorance and 90 Universal Journal of Humanities, Physical, Social and Management Sciences (USHPSMS, Vol 10, No 2, May, 2017 liberally criticizes people's values, life-options and redirects societal goals and pursuits. Plato in his laws for instance, decrees that it is education that determines whether man becomes the tamest or the wildest animal c earth. 1f man lacks education" he maintained 'he is the most savage of beasts". As a matter f ft the education and maintenance of a good society is the main objective of Locke's theory of edition. The great educationist John Dewey defined the task of education as "an emancipation and enlargement of experience". Education frees individuals from the prejudices and irrational assumptions of everyday life and enlarges their experience. It was also to emancipate the human mind from error, prejudices, false opinions and values that Francis Bacon advanced and classified his doctrine of the 'idols" and gave "power" as the aim of knowledge. For him, knowledge is power to master and interpret one's environment. With reference to the Nigerian society, what the Nigerian needs as an important starting point is a relevant, dynamic educational philosophy, a certain-pedagogy which ultimately should give him a new life and value system. Ignorance is heavily at work in Nigeria. Encrusted prejudices, wrong values, wrong priorities, disordered and disoriented ambitions and goals are manifestations of ignorance, the results of false opinions in life and false philosophy of life. The new relevant education and its philosophy in short, ought to make the Nigerian appreciate to be more (qualitatively) rather than have more (quantitatively).

### Value Re-Orientation

Any nation that would indeed be great must be established upon enduring national values that bind every individual in the corporate entity. National culture must be revisited as it influences national character and image. Corruption is referred as the bane of development in Nigeria but people often forget same does not exist by itself. What the nation lack is a system of values and nothing else. Many do not releases that skills and interests are not enough to

make a man great and indeed any nation. What determines how successful one would turn out in life is largely dependent on the values subscribe too. Thomas Edison was perhaps not the brightest scientist in his days but he stood out and invented the light bulb. After several thousands of failed attempts, Thomas reported that he became the more persistent where his colleagues may have relaxed. What saw him through were not his skills nor his interests but persistence-his value made him succeed. This is a reflection of the Nigerian experience, a nation so much talented and skilled yet, unfortunately unsuccessful. What the nation lacks is a value system. What must be done to restore Nigeria is the redefining of our national values. Nigeria need to take value most seriously and push the acceptance of same with the seriousness economic and public sector reforms enjoy. Nigerian youth must be told that there are things greater than money and that money is not the ultimate thing in life. Nigerians must learn to value hard work, integrity, honesty accountability over financial gains. The social evils which include wealth without work, please without conscience, science without humanity. Knowledge without character, politics without principle, commerce without morality, worship without sacrifice, which characterize the nation must be dealt with to ensure social sanity in the country.

#### **Sustainable Development**

The concept Sustainable development has been defined in many ways, but the most frequently quoted definition of sustainable development which may be useful in this research is the one proposed by Brundtland Commission Report (1987) as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs (Cerin, 2006; Dernbach, 1998; Dernbach, 2003; Stoddart, 2011). However, Nwankwo, Nweke, Okechi, and Onvishi (2015) postulated that the above definition does not limit the scope of sustainability. The explanation does, however, touch on the importance of intergenerational equity. This concept of conserving resources for future generations is one of the major features that distinguish sustainable development policy from traditional environmental policy, which also seeks to internalize the externalities of environmental degradation. The overall goal of sustainable development is the long-term stability of the economy and environment; this is only achievable through the integration and acknowledgement of economic, environmental, and social concerns throughout the decision making process (Rachel, 2015). Barbiar (1987), in his definition stated that sustainable development is concerned with the plight of the populations of the third world. His focus is on combating the pervasive and deepening poverty and improving the quality of life. According to Barbier, the concept of sustainable development as applied to the third world is therefore directly concerned with increasing the material standards of living of the poor at the grassroots level, which can be quantitatively measured in terms of increased flood, real income, education services, health-care, sanitation and water supply, emergency stocks and cash, etc, and only indirectly concerned with economic growth at the aggregate national level. Goodland and Ledec (1987) defined Sustainable development as a pattern of social and structural economic transformation (i.e. development) which optimized the economic and social benefits available in the present,

without jeopardizing the likely potential for similar benefits in the future (Nwankwo, Nweke, Okechi, and Onyishi, 2015).

According to Ayodele, (2007), sustainable development can be broadly defined as the ability of the economy to support the needs of the people of a country over a time, taking into consideration the economic, social and ecological constraints of the country. Looking at the above definitions as cited by the different authors, one can say that the primary goal of sustainable development is to achieve a reasonable and equitably distributed level of economic wellbeing that can be perpetuated continually for many generations. Therefore sustainable development is a developmental process which aims at enhancing individual and expanding public's well-being. It is development that enables us to understand ourselves and the world at large. By and large, ICT for sustainable development on the other hand represents a process for social change that seeks to foster through education, training and public awareness of the values, behaviours and lifestyles required for sustainable future. It is about learning needed to maintain and improve our quality of life of generations to come. It is about individuals, communities, groups, business and government to live and act sustainably; as well as giving them an understanding of the environmental factor, good moral behaviours and economic issues involved or needed in the society (Ayodele, 2007). Objectives of ICT for Sustainable Development in Nigeria Saidu, Soba and Tukur (2009) outlined some of these objectives relevant in ICT for sustainable.

## **Roles and Current Uses of ICT in Education in Nigerian Schools**

The role of Information and Communication Technology in education has become a vital tool for academics and students so that there is an inextricable intertwinement between ICTs and academic processes within universities in Nigeria. For instance, Patrick and Ugochukwu (2014) listed some of the closer look at the existing roles of ICT tools in universities in Nigeria which reveals the following:

**Computers:** The use of laptops, palmtops, and notepad and desktops computers in universities in Nigeria has become a relevant ICT tools in teaching and learning between the academic lecturers and students to enable them process and store their softcopies works for future references. At present, the use of ICT tools has enhance teaching and learning especially where academics lecturers now give out lectures with the use of ipad, iPod, Tablets, Notepad, Mobile phone to exchange communications and as well store useful information.

**PowerPoint**: Be that as it may, classroom teaching is today made possible through the use of PowerPoint presentations for seminar, conference, workshop and lectures which bring more life, interactivity and connectivity to pedagogy. With the use of ICT in universities, teaching is no more a stale, blackboard, chalk and talk phenomenon but is now typified by visual as well as audio learning processes which enhance teaching and learning results.

**Electronic Mail:** Many academics lecturers and students now rely on emails to sustain interaction and improve communication between and among them. Through the use of emails, assignments, lecture notes, assessment, results and academic updates are now given to

students and also submitted to tutors, research such as e-interview can be conducted, academic questions can be asked and tutors can reach out to their students, among others. Also, the use of emails services has become so useful in educational institutions which have today lead to e-administration.

**Online Peer Review:** Recently, peer review, which is an important process or activity that enhances the quality of research and academic works has been digitalized. For instance, researchers can send draft copies of their papers for publication electronically to the email addresses of their publishers or editors for reviewers via online. This can be downloading on their laptops, notepad, and mobile phone or through any portable electronic devices to enable them read and review the paper and sent back in the same way, electronically. This use of email services can save time, labour, money and papers for both the researchers and their reviewers.

**Digitalization of School Processes:** As part of the push for a green economy, universities in Nigeria in any case are forced to absorb the use of digitalization as a global best practice in education for sustainable development. For instance, application letters, admission process, confirmation of acceptance, students' registrations, all charges services, e-communication channels, salaries and internal memorandums in universities in Nigeria are now conducted through online processes and these has made for speed and time saving advantages especially with the cost of hardcopy printout. Also, the use of digital papers is also replacing physical papers which take up space and create environmental eyesore when they are being disposed. In other words, physical libraries are gradually giving way to the emergence of elibraries. Thus, universities in south-east Nigeria are not left behind in this regard.

**Websites:** Almost all the universities in Nigeria now have a website and sub-domain which contain their corporate information and other details. Through the website, universities are able to connect with their students and staff, and meet the needs of other stakeholders. Also, websites have become very marketing tools for universities just like University of Nigeria Nsukka which embark recently on marketing places to explain their programmes and activities to the members of the public and as well boast their multiple benefits or objectives.

**E-conference**: Half of the universities in south-east Nigeria are currently focusing on harvesting the benefits of e-conference. Through this process, e-learning and distance learning opportunities can be created. E-learning Tools: There are several e-learning tools that are gradually becoming the norm in universities in Nigeria. These include online resources, tools, software and platforms that enable teaching and learning within and outside the classroom. Imhonopi and Urim (2011) and Adul, Emunemu and Oshati (2014) postulated some of the tools such as the internet, blogs, e-groups, SMS, socializing portals, e-dictionaries, e-encyclopedia, PowerPoint presentations with audio and video clips, webcam, and audio-video materials. Others are teleconferencing (text-based, video and audio conferencing), interactive television, digital satellite television, audio graphics, internet chats, bulletin boards, podcasting, electronic portfolios and conference alerts among others.

**Mobile Phones**: Although not yet fully deployed, to a large extent, few of educational institutions in Nigeria currently use mobile technologies such as mobile phones, Tablets, IPads, iPods and others to prosecute learning, teaching and research efforts. These instruments help for the easy generation, processing, storage and transmission of data. They also provide multimedia advantages which offer multiple learning advantages and real time communication between and among academics and their students.

**Online publishing:** Before the emergence of ICTs, publishing of research and academic papers was done physically and only on hard copies in their various format. A major disadvantage this form of publishing had was that journal materials are not easy to access as the print copies could read them. This situation limited knowledge expansion because only few people could access the research works that could have enhanced their epistemic bases. However, nowadays, the role of ICT in education in Nigeria have introduced online publishing with the advantage of open access journals which make it easy for both scholars and researchers to access information online (Patrick and Ugochukwu, 2014).

## **Expectations for The 21st Century**

The 21st century is the period that is generally believed that the education and economy will be revitalized. That is, revitalization would affect both the socio-economic, physical and political aspects of the Nigerian and Nigerians. Thus revitalization should be aimed at raising the standard of living of the people in the society.

### **Conclusion and Recommendations**

In conclusion, Nigerian universities should perceive education as a social institution for society in the pursuit of sustainable development and value reorientation and should critically reflect on learning environments processes for students studying in higher education, they should also reflect on their role in creating an enabling environment that can enhances lifelong learning processes in future. To minimize challenges that affect the implementation of the role of ICT in education for sustainable development, the following recommendations were proffered:

There is a need for teachers to adopt new learning outcomes with the use of ICT facilities to enhance teaching and learning environment, as well determine whether educational pedagogies, tools and learning environments are really helping to educate citizens to live sustainably and shape values.

Nigerian educational technologists should take necessary measures on proper implementation of ICT facilities to achieve the goals of sustainable development and value reorientation in Nigeria.

Federal government should provide adequate fund to procure ICT tools and maintain and service departments of educational technology in higher institutions of learning.

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