Full Length Research Paper

Use of Information and Communication Technology in Teaching and Learning of History

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This paper examines the role of Information and Communication Technology in the Teaching and Learning of History in the Senior Secondary School in the 21st century. The new Information and communication technologies of internet and multimedia which have led to positive impact in the field of education in most developed countries are still at infancy or not used at all in the classroom instruction in the developing countries. ICTs are potential powerful enabling tools for effective teaching and learning. The paper argues that the central role of ICT is to provide additional strategies that can be used to address major educational challenges being faced by teachers and students of History in the 21st century. The paper therefore concludes that the appropriate use of ICT can influence and change traditional methods of teaching and learning of History thereby ensuring quality education.

Key words: ICT, History, Teaching, Learning, Education.

INTRODUCTION

Information and communication technology (ICT) is a force that has changed many aspects of human endeavours. The impact of ICT on various fields of human endeavour such as medicine, tourism, business, law, banking, engineering and architecture over two or three decades has been enormous. But when one looks at the field of education, there seems to have been an uncanny lack of influence of ICT and far less change than other fields have experienced. A number of scholars such as Soloway and Prior, 1996 have attempted to explore this lack of activity and influence of ICT on education and many others. In other words, though ICT has begun to have presence in education, its impact has not been as extensive as in other fields (Collis, 2002). Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. With the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important.

It has been suggested that information and communication technologies (ICTs) can and play a number of roles in education such as developing the kind of graduates and citizens required in an information society; improving educational outcomes and enhancing and improving the quality of teaching and learning (Wagner, 2001; McCormick and Scrimshaw, 2001; Flecknoe, 2002). Garrison and Anderson (2003) argue that the application of ICTs in the teaching-learning process can enhance the quality of education in several ways such as increasing learner motivation and engagement, facilitating the acquisition of basic skills, and enhancing teacher training. Since History is one of the major subjects being offered at both secondary and tertiary levels, its relevance and sustenance in the 21st century requires the adequate application of ICTs like video tapes, television and multimedia computer software that combine text, sound and colorful moving images which can be used to provide challenging and authentic content that will not only engage the student in the

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learning process but as well make learning concrete. It is against this backdrop that this paper is divided into five sections. The first section deals with introduction; second section focuses on the concept and relevance of History in the school curriculum; third section discusses the concept and challenges of ICT in Nigeria; the fourth section examines critically the role of ICT in the teaching and learning of History in the Nigerian schools while the last section is the conclusion.

The Concept and Relevance of History in the School Curriculum

Though there are many definitions of History as provided by many historians, for the purpose of this discourse, we will restrict ourselves to some few ones. E.H Carr (1954) sees history as the continuous interaction between the historian and his facts and an unending dialogue between the present and the past. Coolingwood (1973) asserts that history is the interpretation of traces or relics of the past in the light of the imaginary idea of the historian which is self-depending, self-determining and self-justifying form of thought. This means that historians have access to the traces of the past in terms of relics, monuments and documents, but each historian interprets such materials according to his understanding and imagination (Osokoya, 1997). What can therefore be deduced from the above definitions of History as viewed from different perspectives is that history though deals with human past, requires analysis and interpretation of the past based on evidences (historical sources) at the disposal of a historian.

Despite the encouragement of science subjects at the expense of arts subjects by the Federal Government of Nigeria in particular, the fact remains that the relevance of History in nation building cannot be overemphasized. The study of History does not only serve as bedrock for other disciplines but also furnishes man with the understanding of the process of change and continuity in human affairs. In fact, there is no discipline without history. The relevance of History in the school curriculum is enormous. These include;

It helps the students to know more about themselves by promoting their understanding of their past, in terms of both internal and external relationships

It satisfies man's instinct of curiosity about past developments in all aspects of life.

It promotes the habit of serious and critical examination of situations and ultimately offers opportunity for a special intellectual experience which sharpens the imagination and deepens one's knowledge about the developments of the society.

It enables people to orientate themselves amidst the bewildering currents of human diversity.

It inculcates in the people the habit of not accepting explanations on their face value but to identify the roots of happenings thereby promoting better understanding (Falola et. al. 1989).

The Concept and Challenges of ICT in Education in Nigeria

A number of scholars have viewed the concept of ICT from different perspectives and standpoints. The term information and communications technology (ICT) was said to have been introduced in the early 1990s to replace that of information technology (IT) in recognition of the communicating abilities and facilities offered by the computer. However, while most people adopted the term ICT, people in higher education used the term communication and information technology (C and IT) to refer to the same concept (Salau, 2005). The term ICT covers a whole range of applications, techniques and systems (Clarke, 2006). Lallana and Margaret (2003) clearly postulate that ICT "refers to a broad field encompassing computers, communications equipment and the services associated with them." This means that

ICT is not just considered as applications and systems but also as skill for life. In this sense, it is viewed in line with literacy and numeracy as a fundamental skill that every individual needs so as to live "confidently, effectively and independently in a modern or contemporary society (Clarke, 2006).

ICT is also seen as a key skill for learning different subject areas (Tanner: 2003 and Kennewell 2004). This identification of ICT as a skill for life informed its introduction in the school curriculum in the developed nations (Akudolu, 2007). ICT has three positions in the curriculum and these include learning about ICT, learning with ICT and learning through ICT. Learning about ICT refers to ICT concept as a subject of learning in the school curriculum while learning with ICT is concerned with the use of ICT as a medium to facilitate instruction (Akudolu, 2007). This view was also shared by Pelgrum and Law (2003). They maintain that "learning through ICT refers to the integration of ICT as an essential tool into a course/Curriculum, such that the teaching and learning of that course/curriculum is no longer possible without it".

Despite that, most schools do not provide Information and communication technologies for teaching. ICT can be an instructional medium or a source for learning. It can also be integrated in the learning process so that learning takes place through the learner's interaction with the facilities. Therefore ICT in education is considered as discipline, resource and key skill. Within these three broad areas, ICT offers enormous benefits to the society. This is based on the fact that ICT education and in education is concerned not only with equipping learners with knowledge and skills for the information age but also with boosting the economic and political status of the country (Akudolu, 2007).

Recent report revealed that the readiness of ICT in the Sub-Saharan Africa is still very low with most countries experiencing strong lags in connectivity because of the insufficient development of ICT infrastructures. While the developed world continues to witness development of ICT, sub-Saharan Africa is still lagging behind due to poor quality services (Global ICT Chart Report: Guardian, Friday April, 2012 p.6). The report also ranged African countries on the global ICT Chart. While Nigeria was ranked 112th on the global ICT Chart, other countries in the African continent like Mauritius, South Africa, Rwanda, Botswana, Kenya and Senegal were ranked 53rd, 71st, 82nd, 89th, 93rd and 100th respectively (Guardian, Friday April, 2012 p.6).

The report indicated that African countries suffer from severe weaknesses in all components of the index of ICT which ranges from poor connectivity caused by expensive and poor quality ICT infrastructure to very low levels of basic skills and a weak framework for technology (Guardian, Friday April, 2012 p.6). Generally speaking, a number of factors are said to have militated against the use of ICT in education in Nigeria. These have included such factors as lack of funding to support the purchase of the technology, lack of training of teachers, lack of motivation on the part of teachers to adopt ICTs as teaching tools in the classroom instruction and so on.

The Role of ICT in the Teaching and Learning of History in the 21st century

The teaching and learning of History in the Nigerian institutions most importantly in the 21st century have developed within the framework of theory and practice. In this technological age, the effective means of communication in the classroom instruction requires the use of communication technologies.

"The illiterate of the 21st century, will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

Alvin Toffler (cited in Shikshak, 2009). The above statement pointed out the relevance of ICT revolution in the 21st century education.

Haddad and Jurich, (2002) argued that there are four basic issues in the use of ICTs in education in the 21st century. They are effectiveness, cost, equality and sustainability. They pointed out that, in recent years, there has been an upsurge of interest in how ICTs most importantly computers and the internet can best be harnessed to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings (Haddad and Jurich, 2002).

The role of ICT in the teaching and learning of History in the 21st century can be seen in four major angles, namely, the impact on teacher, learner and the image of history as a discipline. Conventional teaching which is still common today in our schools emphasises content. For many, teachers of history in particular have taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse the content (Kamal and Banu, 2010). Meanwhile, contemporary settings are now favouring curricula that promote competency and performance. In the developed countries, curricula are starting to emphasise capabilities and to be concerned more with how the information will be used than with what the information is. The moves to competency and performance-based curricula are well supported and encouraged by emerging instructional technologies (Stephenson, 2001). Such curricula tend to require: access to a variety of information sources; access to a variety of information forms and types; student-centred learning settings based on information access and inquiry; learning environments centred on problem-centred and inquiry-based activities; authentic settings and examples; and teachers as coaches and mentors rather than content experts.

For many years, teachers wishing to adopt competency and performance-based curricula have been limited by their resources and tools but with the proliferation and widespread availability of contemporary ICTs, many restrictions and impediments of the past can now be removed (Otakhor, 2007) As students and teachers gain access to higher bandwidths, more direct forms of communication and access to sharable resources, the capability to support these quality learning settings will continue to grow (Oliver, 2000).

Another role of ICT in the teaching and learning of History in the 21st century is the need for information literacy. In the 21st century, there has emerged the need for educational institutions to ensure that graduates are able to display appropriate levels of information literacy, "the capacity to identify an issue and then to identify, locate and evaluate relevant information in order to engage with it or to solve a problem arising from it" (McCausland et al., 1999, p.2). The drive to promote such developments stems from general moves among institutions to ensure their graduates demonstrate not only skills and knowledge in their subject domains alone but also to acquire general attributes and generic skills. Traditional generic skills have involved such capabilities as ability to reason formally, to solve problems, to communicate effectively, to be able to negotiate outcomes, to manage time, project management, and collaboration and teamwork skills. The growing use of ICTs as tools of everyday life have seen the pool of generic skills expanded in recent years to include information literacy (Kamal and Banu, 2010).

The role of ICT on how students learn history is significant. Just as technology is influencing and supporting what is being learned in schools and universities, so too is it supporting changes to the way students are learning. Moves from content-centred

curricula to competency-based curricula are associated with moves away from teacher-centred forms of delivery to student-centred forms. Through technology-facilitated approaches, contemporary learning settings now encourage students to take responsibility for their own learning .In the past, students have become very comfortable to learning through transmissive modes. Students have been trained to let others present to them the information that forms the curriculum. The growing use of ICT as an instructional medium is changing and will likely continue to change many of the strategies employed by both teachers and students in the learning process. Technology has the capacity to promote and encourage the transformation of education from a very teacher directed enterprise to one which supports more student-centred models which is manifested in the moves towards problem-based learning and increased the use of the Web as an information source (Kamal and Banu, 2010). The use of ICT in educational settings, by itself acts as a catalyst for change in this domain. ICTs by their very nature are tools that encourage and support independent learning. Students using ICTs for learning purposes become immersed in the process of learning and as more and more students use computers as information sources and cognitive tools (Reeves and Jonassen, 1996). The influence of the technology on supporting how students learn will continue to increase.

More importantly, the emergence of ICTs as learning technologies has coincided with a growing awareness and recognition of alternative theories for learning. The various theories of learning during the classical period pre-date the introduction of ICT into the school curriculum. The current theories of learning that hold the greatest sway today are those based on constructivist principles (Duffy and Cunningham, 1996). These principles posit that learning is achieved by the active construction of knowledge supported by various perspectives within meaningful contexts. In constructivist theories, social interactions are seen to play a critical role in the processes of learning and cognition (Vygotsky, 1978). In the past, the conventional process of teaching has revolved around teachers planning and leading students through a series of instructional sequences to achieve a desired learning outcome. Typically these forms of teaching have revolved around the planned transmission of a body of knowledge followed by some forms of interaction with the content as a means to consolidate the knowledge acquisition. Contemporary learning theory is based on the notion that learning is an active process of constructing knowledge rather than acquiring knowledge and that instruction is the process by which this knowledge construction is supported rather than a process of knowledge transmission (Duffy and Cunningham, 1996). The strengths of constructivism lie in its emphasis on learning as a process of personal understanding and the development of meaning in ways which are active and interpretative. In this domain

learning is viewed as the construction of meaning rather than as the memorisation of facts (Lebow, 1993; Jonassen and Reeves, 1996).

The sustenance and relevance of History in the 21st century in our educational institutions today require the application of modern technologies like video tape, television, internet, CD tape and other multimedia. The study of History has gone beyond story telling of the classical period. History as a discipline is both broad in its coverage and complex in study. In fact, it has embraced the whole spectrum of human endeavours as seen in its various branches like political history, military history, economic history, social history, diplomatic studies, cultural history, development studies among others (Adesote and Omojeje, 2011). This is why some scholars have argued that history is Art, a Science and as well a Social Science. Thus, appropriate use of ICTs in the teaching and learning of History in the classroom instruction help in making learning concrete and thus makes History a living subject/discipline rather than the study of dead issues.

CONCLUSION

The place of information and communication technology in education and training cannot be overemphasized. Its full integration in education helps to ensure quality education in various levels of education such as primary, secondary and tertiary. Despite the fact that some educators do not support the introduction and adoption of ICT into the school curriculum, majority of educators strongly feel that ICT is the most valuable tool to overcome the problem being faced in the teaching-learning process. ICT has become a major key tool in acquiring, processing and disseminating adequate knowledge especially in the 21st century. In fact, its effective use has become an imperative tool for measuring development of a nation in the 21st century (Adedoyin et al., 2010). Today, the academics are now being challenged by the rapidly growing new information technologies of multimedia, internet, WWW and other virtual computer technologies, which demand changes in the styles, attitudes and skill towards information handling and dissemination. Therefore, as we move on in the 21st century, many factors are bringing strong forces to bear on the adoption of ICTs in the classroom instruction. As argued above, conventional teaching of History has emphasized content. Thus, contemporary settings are now favouring curricula that promote competency and performance which require appropriate use of ICTs. This is because ICT acts as a powerful agent that can change many of the educational practices.

REFERENCES

Adedoyin AA, Akinnuwesi BA, Adegoke MA (2010). The Prospects and Challenges of ICT in Nigeria Tertiary Education. Revitalization Afr.

Higher Educ. pp.278-285.

Adesote SA, Omojeje AV (2011). The Place of Educational Media in the Teaching and Learning of History in Nigerian Senior Secondary Schools. J. Educ. Adm. Plan. 3(1):9-14.

Akudolu P (2007). ICT and Educational Development. J. Educ. Stud. 10 (2): 12-21.

Carr EH (1954). A History of Soviet Russia: The Interregnum 1923-1924, London: Macmillan.

Clarke A (2006). Teaching adults ICT skills. Glasgow: Learning Matters Limited. pp.12-23.

Collingwood RG (1973). The Idea of History. London: Oxford University Press. pp. 10-23.

Duffy T, Cunningham D (1996). Constructivism: Implications for the design and delivery of instruction, Handbook of research for educational telecommunications and technology, New York: MacMillan. pp.170-198.

Falola T, Mahadi, A, Uhomoibhi A (1989). History of Nigeria 1.Ibadan: Longman Publishers Limited. pp.1-2.

Garrison R, Anderson T (2003). *E-Learning in the 21st Century: A Framework for Research and Practice*. Routledge Falmer, London.

Haddad W, Jurich S (2002). ICT for education: Potential and Potency. In W. Haddad & D. Drexler (Eds.), Technologies for Education: Potential, Parameters, and Prospects. Washington, DC: Academy for Educational Development and Paris: UNESCO pp.34-37.

Jonassen D, Reeves T (1996). Learning with technology: Using computers as cognitive tools. In D. Jonassen (Ed.), Handbook of Research Educational on Educational Communications and Technology. NewYork: Macmillan. pp.693-719.

Kamal BN, Banu AT (2010). ICT in Higher Education – A Study. Can. J. Data Inf. Knowl. Eng. 1(1):23-33.

Kennewell S (2004). The nature of ICT as a subject. In Kennewell, S; Parkinson, J and Tanner, H (Eds) Learning to teach ICT in the secondary school 18-36, London: Routledge Falmer. pp.23-29.

Lallana EC, Margaret UY (2003). The information age. Retrieved July, 25, 2013 from *www.eprimers.org* .

Lebow D (1993). Constructivist values for instructional systems design: Five principles toward a new mindset. Educ. Technol. Res. Dev. 41(3):4-16.

McCausland H, Wache D, Berk M (1999). Computer literacy; its implications and outcomes. A case study from the Flexible Learning Centre. University of South Australia. pp.6-9.

McCormick R, Scrimshaw P (2001) Information and Communications Technology, Knowledge and Pedagogy. Educ. Commun. Info. 1 (1): 37-57.

Oliver R (2000). Creating Meaningful Contexts for Learning in Web-based Settings. Proceedings of Open Learning 2000. Brisbane: Learning Network, Queensland. Ppp.53-62.

Osokoya IO (1997). Wrting and Teaching History. Ibadan: Laurel Educational Publishers. pp.11-21.

Otakhor EO (2007). Facilitating Improved Education Service Delivery in Nigerian Universities: The Relevance of Information and Communication Technology (ICT) Revolution. In Babalola J.B., Akpa G.O., Ayeni A.O. (Eds.) Managing Technical and Vocational Education in the Era of Globalization. NAEAP Publications. pp.27-35.

Pelgrum W, Law N (2003). ICT in education around the world: trends problems and prospects, Paris: Learning Matters Limited. pp.12-24.

Salau KK (2005). Computer Application and Information Technology. Ilorin: Nathadex Publishers. pp.36-45.

Shikshak S (2009). Information and Communication Technology for Quality Education Academy of Fine Arts. Vikramshila Educ. Resour. Soc. pp.1-20.

Soloway E, Pryor A (1996). The next generation in human-computer interaction. Communications of the ACM. 39(4):16-18.

Stephenson J Ed. (2001). Learner-managed learning- an emerging pedagogy for online learning. Teaching and Learning Online: Pedagogies for New Technologies. London, Kogan. pp.1-10.

Tanner H (2003). The place of ICT in secondary education. In Kennewell S; Parkinson J; and Tanner, H. (Eds). Learning to teach ICT in the Secondary School 37-46, London: RoutledgeFalmer. pp.12-25.

Wagner AD (2001) IT and Education for the Poorest of the Poor: Constraints, Possibilities, and Principles. *Tech KnowLogia*, July/August, 48-50.

Newspaper

The Guardian, Friday April, 6, 2012 p6.