RESEARCH ARTICLE

Beyond Y2K Compliance: The Impact of Multimedia Technology on Junior Secondary School Learners in Zimbabwe

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ABSTRACT

The need to be Y2K compliant took people by storm as the world entered the Third Millennium. Zimbabwe like the rest of Sub-Saharan Africa experienced the same grip of technological mystery, uncertainty and speculation. Educational multimedia technology is vital for a nation to be competitive in the globalized village. The various forms of multimedia systems shape the way learners communicate and learn. The paper focuses on the impact of multimedia technology on junior secondary school learners in Masvingo city, Zimbabwe. It does so by examining the use and abuse of the cell phone, satellite dish and the Internet. Although the Internet, in particular, was originally designed to survive the nuclear war, its use beyond Y2K poses an unprecedented moral time bomb in pedagogical contexts. Notwithstanding its merits, it will be further argued that the cyberspace through multimedia technology has undesirable consequences. However, it is our conviction that learners can be protected from the risks of using or abusing technologies. It is prudent that the knowledge of the Bible which says, 'Wisdom is for a protection, the same as money is for a protection' (Ecclesiates7:12 can be helpful if properly applied in education. Therefore, the paper ends by recommending for the need for schools and parents, as stakeholders, to collaboratively guide, control and manage the utility of the multimedia technology that promotes safety and effective learning. This insight is crucial in view of the need to inculcate moral and spiritual values that enhance citizenship education in Zimbabwe.
KEY WORDS: *Multimedia Technology, Mobile Phones, the Internet, Satellite Dish, Y2K Compliance, ICT and Moral Development*

INTRODUCTION

The multimedia technology is exerting an enduring influence 'like a North Star' on almost every facet of life across the world today (Kluver, 2000:1). The power of multimedia technologies continues to re-shape and re-define the nature and practice of politics, culture, commerce, religion and education. Specifically in the developing world, multimedia technologies are associated with the emergence of a new knowledge society, largely ascribed to a process called *informatization,* which is fashioned in the backdrop of today's globalisation. The concept of informatization refers to information technologies such as the worldwide web (www), which have transformed society. Wang (1994:5) describes informatization as a process of change due to information communication technology (ICT) to such an extent that they become the dominant forces in commanding societal transformations and popularity of information production and distribution. In his ground-breaking thesis, Masuda (1982:29) argues that societies have to re-align themselves in the light of the tremendous significance to the forces of the new technological innovations that are now part and parcel of the 'new order' for humanity in the new millennium.

It must be noted that the world entered the new millennium with uncertainty. The problem that gripped the world on the eve of the year 2000 has generally been known as the Y2K problem. The alternative labels for the same problem were the 'Millennium bug', 'Y2K bug' or simply 'Y2K'. This was a challenge for both digital and non digital data storage situations. This emanated from abbreviating a four digit to 2 digits. In computer-related programmes it was anticipated that a problem would arise upon the 'rollover' from 1999 to 2000. The acronym 'Y2K' is attributed to David Eddy, a Massachusetts programmer. Y2K is an abbreviation that combines the letter 'Y' for 'Year' and 'K', a prefix for 'kilo' meaning 1000, hence '2K' signifies 2000 (Wikipedia 2010, Accessed: 21.09.10). Notably, individuals, institutions and companies that dealt with hardware and software on ICT strived to accomplish Y2K compliance. The anxiety to become Y2K compliant at one point in time was blown out of proportion by the media. In some cases this reflected computer stupidity or a clever

marketing strategy of products (http://www.rinkworks.com, 2010, Accessed: 21.09.10). There were no significant computer failures that transpired on the 'rollover'. Nevertheless, this had a significant impact on the computer industry in that the multimedia technology expanded. The use and influence of ICT on modern society is a stark reality. Accordingly, this study focuses on the era beyond Y2K compliance, hence the caption 'Beyond Y2K Compliance'.

When multimedia systems are particularly applied to the field of education, it will be noted that this complex multi-level process of technological mediation between the local and the global, as an inherently communication phenomenon, is changing not only the content of education but also its pedagogical context. As the study envisions, educational planners have to take cognisance of the towering influence of the multimedia technologies in the education system in Zimbabwe. From a strict pedagogical perspective, any form of innovation in the broad field of education must factor in the role of the multimedia technologies as panacea for the effective teaching and learning experiences of pupils in schools. The study focuses on the impact of the use of three forms of multimedia systems that are common in Zimbabwe today. These are the Internet, cell phones and satellite dishes. Majority of pupils at junior secondary school level in urban areas are exposed to these technologies. In fact, Kirschner and Selinger (2003) as cited by Ferry (2008:295) observed that for the first time in history, many pupils are more adept than their teachers in using a variety of technologies to acquire and transmit knowledge. The pupils tend to be prolific and fearless users of technology to the extent that they can assimilate new software and hardware easily. In other words, present learners are 'light years' ahead of their parents and teachers in the use of ICT. Ferry (2008) further says that these 'net generation' pupils are fast becoming bored and frustrated with school to the dismay of their teachers and parents. In fact, junior learners are adolescents who normally are faced with psychological, social, moral and economic challenges. These constitute elements of pupils' identity crisis. In our perception, this is worsened by great exposure to multimedia technologies in educational and non educational contexts in Zimbabwe. Therefore, this is a concern that calls for an urgent attention in streamlining a responsible way of utilising ICT in the schools system in Zimbabwe. It will be noted that one study has shown that up to 750 000 predators may be on line on a daily basis trolling the internet chat rooms and dating services. In the U.K, 57% of youths between 9 and 19 years who use the Internet weekly have come unintentionally with pornography in most cases whilst doing homework (Watchtower, 2009). This endangers learners everywhere. The Zimbabwean education system has not been spared of this negative impact of ICT. This is the justification of the present study. Accordingly, the problem of the study can be stated thus: the influence of multimedia technologies in education is pervasive yet paradoxical in terms of its effects on pedagogical experiences in schools in Zimbabwe.

METHODOLOGICAL CONSIDERATIONS

The study utilised in-depth interviews and questionnaires to collect data from pupils. The population targeted were junior secondary school learners of the age range, 12 to16 years. Seven schools in Masvingo urban were sampled for the study. The schools included Mucheke High, Ndarama High, Kyle College, Masvingo Christian College, Victoria High, Great Zimbabwe College and Light House College. In respect to the in-depth interview technique, the researchers managed to consider some psychological and social factors, such as, attitudes and convictions of the respondents towards the use of ICT. The purpose was to detect experiences, emotions and aspirations of the school learners as respondents (Sidhu, 2003:149). The method also enabled the researchers to determine the extent to which pupils are detached, attached and involved with experiences in line with Information technology. In other words, the interviews allowed researchers to establish the impact of multimedia technologies on the learning experiences of pupils in schools. Another method was the questionnaire technique. It is a form of inquiry that was economic enough to accumulate first hand data, covering a relatively large a group at the same time (Sidhu 2003:138). The researchers administered 100 questionnaires to learners. Out of this number, 68 questionnaires were field in and returned. In relation to gender, 36 (52.94%) were boys, whereas 32 (47.06%) were girls.

NATURE OF MULTIMEDIA TECHNOLOGY

Multimedia technology can also be regarded as information and communication technology (ICT). It encompasses the use of the Internet, mobile phone, computers satellite dish and electronic and print media. As regards the Internet, it is a powerful technology that is accessed through computers in work

places, schools or even on mobile phones that are connected to the World Wide Web (www). However, although the Internet is of much benefit to learners in accessing educational information, sending e-mails or have entertainment, it is a potential danger to pupils as learners because they can get hooked on the Internet, for instance, when they access pornographic sites. In respect to the mobile phone (also known as the cell phone), has become ubiquitous in people's hands today. The mobile phones are complicated in nature. Some can have web access, in-built cameras, audio and video recording, support word excel and PDF files, can contain double sim cards, memory cards and internet facility. Through these facilities in the mobile phone, one can use them to support meaningful pedagogical experiences. Yet, it will be highlighted that the use of the mobile phone can be detrimental for pupils *visa vis* their learning experiences. Lastly, the study will explore the essence of the satellite dish on education. In Zimbabwe, the satellite dish has become popular around 2000 and beyond. Zimbabwe's foreign policy thrust on the Look East Policy after 2000 has yielded to an influx of electronic gadgets into the local Zimbabwean market. As Prichard (2004) has observed, "in virtual space, geographic and cultural distances are transcendent as users relate and interact within its determined codes of conduct and structures". It is on this basis that the study focuses on the impact of three multimedia technologies: the Internet, the mobile phone and the satellite dish on junior secondary school learners in Masvingo city.

THE IMPACT OF THE INTERNET
The Internet has revolutionised education practice in a number of ways. It needs computer literacy to access the internet. The study established that 57 (83.82%) pupils were computer literate. Majority of them were exposed for period ranging from two years to nine years. This statistic is not surprising in an urban set up, as there are several internet cafes in towns and also schools themselves networked. In fact, 24 (35.29%) pupils said they accessed the Internet from the town cafe as compared to 16 (23.53%) pupils who access the internet from the home whilst 19 (27.94%) pupils access the Internet from schools. It shows that the use of the Internet is pervasive. It was quite clear that pupils can be exposed to bad and good information due to high rate of accessibility to the internet websites. Whereas some pupils can establish social relations, like finding new partners, through the face book facility, others can visit sites that promote teenage gambling. In view of this observation, children need shrewd monitoring, whether by parents or school authorities. This resonates with the biblical advice that "[A good mother] is watching over the goings-on of her household" (Proverbs 13:16; 31: 27).

It is interesting to note that some existing literatures about the internet use have claimed that pupils may bump onto pornography when doing their school homework. These pornographic materials affect the sensual feelings and thereby making pupils to be easy prey of unscrupulous adults. These unscrupulous people are often called 'sugar daddies' and 'sugar mummies'. Nevertheless, the study established that only one pupil (1.47%) admitted having an interest in accessing pornographic sites on the internet. Although it seems to be an isolated case, it emerges as an iceberg in which some pupils visit irrelevant web sites. The general conclusion we arrived at was that most pupils as key respondents were not honest in their responses. In our interviews with pupils having their cell phones connected to the www, many accepted having visited pornographic sites to entertain themselves and share with friends. Therefore, the internet provides a window through which 'dangerous' information is being transmitted freely. It can be stated that pupils as 'kids' remain being kids and as such, they need firm monitoring at family and school levels.

The Internet is associated with cultural erosion. Pupils are exposed to many cultures as they goggle the Internet. Cultural fertilisation is theoretically good but when viewed from a cultural imperialistic perspective, it becomes bad. One culture is suddenly re-located to the periphery. The Internet is overwhelmingly an English language medium. Barber (1995) has observed, those who want to participate fully must have proficiency in English as a language. Clearly, around 2000, for instance, a high-level government panel in Japan recommended the adoption of English as the official language for the future (*English Imperialism*, 2000:21). This is an example of a centre-periphery dichotomy that may eventually function to re-enforce the superiority-inferiority relationships when applied in pedagogical situations. Evaluated in terms of cultural imperialism, if one language is marginalised through the Internet, it only means that the system of 'winner takes all' is pedagogically disadvantageous in the learning process.

Yet, it must not be forgotten that the Internet can be helpful for research work in schools. To show the importance of research in education, 40 (58.82%) pupils indicated that they use the internet for research whilst 23 (33.82%) utilised the Internet for purposes of entertainment. In addition, text books can be sourced from around the world through the Internet. People need not to travel outside of their country to get access to information. So, the Internet has positively impacted on education because it has come as part of empowerment.

THE IMPACT OF THE CELL PHONE
The cell phone is also known as the mobile phone. There is an extent to which the cell phone can be used in the learning and teaching situations. The ownership of mobile phone has become a practical necessity as well as a status symbol for young people who grapple with forces of peer pressure and conformity. Some of the cell phones may double as digital cameras, like the G-Tides, Smaldal and Nokia brands. Mobile phones can function as e-mail, SMS and web access. This of course depends on the type of the cell phone. The study findings, 65 (95.59%) of the respondents possessed cell phones, for periods ranging from 2 years to eight years. This shows that almost every pupil owns the mobile phone. Again, this has an enduring impact on the education of pupils. From the research, the study observed that the major functions of cell phones included music in which 37 (54.41%) pupils accessed, games with 43 (63.24%) pupils playing them, memory cards whereby 43 (63.24%), double SIM cards for 13 (19.12%) pupils, and 9 (13.2%) pupils utilised their cell phones for the internet facility. Although all schools visited for the study indicated that they do not tolerate the use of cell phones by pupils during the learning hours, a substantial number of pupils tend to abuse cell phones. Abuse of cell phones was seen through the sending of SMS messaging, picture sending and jokes during school business hours. The study found out that some pupils transmit nasty text messages as a form of bullying. On this note, the findings of the study concurs with Selian (2004)'s observations concerning addiction therapy. In part, Selian notes that pupils are addicted to SMS and compulsive checking of the mobile phones. This compromises the effective use of learning and teaching times.
It can be analysed from this data music, memory card and games are the mayor priorities to which cell phone are being used by pupils. The memory card can store information ranging from pornographic material, music and pictures. Although a few learners with the internet, if there is no adequate monitoring from parents concerning the web sites that pupils access, there can be disaster because chatting on the Internet could be fatal, in terms of moral conduct. SMS messages were seen to be popular with 30 (44.12%) pupils. This resonates with the observation of Selian (2004). Selian observed that texting SMS is "the note-passing of the new millennium". Pupils can be exposed to social problems, usually linked to acts of misbehaviour like having more multiple partners whilst young.

THE IMPACT OF THE SATELLITE DISH
The satellite dish is one of the ways in which globalisation has taken its toll. Pupils are often glued to many satellite channels at their homes and at their schools. The study established that 63 (92.65%) pupils have access to satellite dishes, either at home or school or both. Pupils frequently watch programmes on the satellite dishes. A significant number of pupils, 52 (76.47%) watch the programmes daily. Those who watch the satellite programmes twice a week were 8 (11.76%) pupils. Those who rarely watch satellite programmes were 5 (7.35%) pupils. These figures show that majority of pupils spend much of their time glued on the T.Vs watching some movies whereby 42 (61.76%) pupils see movies, whilst 50 (75.53%) pupils listen to musical channels and 19 (27.94%) pupils prefer sports. The picture that emerges is that musical and movies constitute the most popular channels with pupils.
It must be realised that without parental and institutional guidance about proper channels to view, some pupils may be tempted to revert watching all-adult shows. Adult shows on pornography, with obscene language and violence. If pupils watch shows screening violence, there is a high chance that pupils can be socialised to 'adopt' violent behaviour. This is detriment to pupils' personality development and moral growth.

CONCLUSION AND RECOMMENDATIONS

The study has shown that multimedia technologies such as the cell phone, the Internet and satellite dish are now part and parcel of possessions in the hands of junior secondary school learners in Zimbabwe. These multimedia systems confirm that modern society is now a globalised village as a result of technological networking. It was also made evident that these technologies have merits and demerits when used or abused in pedagogical situations. In particular, the demerits of using these technologies in the field of education lies in the lack of clear monitoring of pupils in the way they utilise the said technologies. In essence, the study revealed that multimedia technology is beneficial in educational processes but learners have a tendency to abuse it. Accordingly, the study recommends that:

- Parents must guide and control the use of multimedia technologies in possession of their children. Parents are indispensable stakeholders in the success of the education experiences, particularly in the moral and religious domains of their children. It is vital to instil suitable values in children so that they make wise decisions even when they are absent (cf. Philippians 2: 12).
- Schools must instil discipline to learners who abuse some technologies in their possessions. As a matter of principle, teachers act as *in loco parentis*. They should advise learners concerning the length of time learners can be online, the type of sites to be visited or channels to be watched. This is important in time management and protecting pupils from predators lurking in the cyber space.
- Curriculum planning or innovation must be re-oriented around multimedia technologies. The underlying factor is that technology is an epitome of civilisation in the modern era in Zimbabwe. Therefore education has a crucial role to inculcate norms and values which promote good citizenship.

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