

Adopting Computer Technology to empower Rural School Learners: The Case for Katsande Rural School Library, Zimbabwe

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Abstract

In most countries, the introduction of computer technology in schools has seen the role of school libraries transformed. Adoption of new technologies are now seen to be enhancing school libraries' ability to perform their mission, vision and role, that is, providing learners access to a wide range of reading material to enable them to acquire knowledge as well as ability to read books online. This paper will address the impact computer technology is having on rural school learners at Katsande Primary School. It will explain how embracing of computer technology has influenced learners concerning achieving quality education.

Introduction

The adaptation of ICT's in libraries has resulted in the radical transformation of the role of library professionals and services and products provided by such institutions, argues Kawatra (1999). Furthermore, modern technology has helped to transform 'school' libraries from being mere silos to critical access centres for 'sustainable' information retrieval. This ICTs influence calls for a new thinking, new technology and new strategies, which will help to ensure these public social institutions remain vibrant and relevant in providing for the dynamic information needs and access of the society. ICT acceptance is an inevitable and necessary weapon for developing countries in order to contribute, shape and influence the direction of the international information order which is skewed heavily in favour of the resource endowed countries resulting in the information and digital divide. Kevin (1996:51 – 52) basing his arguments' on Ranganathan five principles describes libraries as growing biological organisms that adopt themselves over a period of time to changing environments. ICTs have become more pervasive as it now permeates all aspects of our daily lives, socially, culturally, economically and politically. In sub-Saharan Africa, Zimbabwe included school libraries are adjusting to ICT's amidst socio-economic and technical challenges.

Background Information

Katsande Primary School is located in rural Mutoko District in Mashonalnd Province of Zimbabwe. The School was opened in 1940. It started as a pole and dagga school with a thatched roof about two meters away from the main road. It had few blocks of classrooms which gave rise to hot seating and composite classes. Now the

schools boast of a compliment of four blocks of classrooms that contain more than seventeen classrooms. The school started with a total enrollment of 216 pupils of which 117 were boys and 99 were girls, with staff compliment of 7 teachers, comprising 4 males and 3 females. However since the road was so busy the security of learners was at risk. There was also no proper parking space and children playing area. The dust on the main road from Makaha to Mutoko was a health hazard so the school had to be moved to its present site. Today the school has an enrollment of over 500 pupils. The need to embrace computer technology was initiated after the School received Presidential computer donations. By then there was no one within the school community capable of teaching the advantages of using computers to enhance learning. So the computers were just housed in the library serving no particular purpose. With the ICTs becoming interdisciplinary and interpersonal in nature school pupils need to be provided with broader skills to meet their needs to learn to research at a tender age. For many rural school community library end users, ICTs are now an enabler, rather than a paradox and has become the domain of a broad user base. ICTs saturate each and every aspect of our lives and school libraries are no exception. This paper explores the extent to which the embracing of computer technology has impacted on Katsande School. It also explore the extent to which the schools has adapted to the ICT (r)evolution, emphasizing the challenges and opportunities for school libraries in the technology obsessed world of the new millennium. The paper also highlights the advantages and disadvantages of ICT's as applied to school libraries and provision of school library services. The author also looks at how ICT's can be used to promote access to information in order to enhance social cohesion.

ICTs

A school of thought unpacks ICT as a combination of telecommunication and computing techniques which makes possible new systems, services and products to help people at work, in education and at home. In school libraries ICTs maybe be perceived as the use or application of various technologies such as computer, reprographics, video recording and other electronic devices for the storage, retrieval, reproduction and dissemination of information in a library environment. The role of ICTs is that of a unified communications and the integration of telecommunications intelligent building management systems and audio-visual systems in modern information technology. Lalitha (2004) writes that ICT's consists of all technical means used to handle information and aid communication, including computer and network hardware, communication middleware as well as necessary software. A notable and simpler way to think about ICT is to consider all the uses of digital technology that already exist to help individuals; businesses and organizations use information for sustainable development. The use of information communication driven technology is fast spreading in almost all spheres of human, social and economic endeavors notes the United Nations ICT Task Force (2005). Vinitha (et.al) (2006) argue that activities which were carried out in libraries with soreness and nervous tension can now be accomplished with ease through the use of ICT's, for example, the organization of knowledge, circulation, acquisitions and other technical processing have become easier and more quantum of work can be accomplished in a stress-free mood.

School Libraries: Embracing the ICT (R)evolution

It can be noted that school library (r)evolution has passed through various junctures, for example, the traditional, automation, electronic, digital and virtual library. The traditional school library consists of holdings in hard copy, while the automated one refers to the automation of library functions, for example, online public access catalogues (OPAC), circulation, acquisitions and reference services. In traditional libraries browsing was based on physical proximity of related materials, for example, hard copies of books are manually, classified, catalogued, indexed, and abstracted. Information is physically assembled in one place; equally important users must travel to the library to learn what is there and make use of it. The automated school library is a byproduct of the ICT's (r)evolution in the second half of the nineteenth century whereby library functions like acquisitions, cataloguing, classification, indexing and circulation automated while the holdings remained print based with a small number of electronic resources.

ICTs Changing School Library Services and New Skills for School Librarians

The skills that school librarians require for a modern school library are continuing to change due to the vigorous nature of ICTs. The impact of these ICTs has been validated in the changes in the nomenclature of the traditional librarian, for example, the use of such terms like, e-librarian, cybrarians, digital librarian, and so on. The world over school libraries are now providing a wide range of sophisticated services and this has resulted in new names to reflect the creation of new services, for example, information portals, OPACs, databases, learning and ICT's hubs services. ICTs are being manipulated to bring new services, for example, internet cafes, virtual library services facilitating access to resources to distance learners and clientele.

Impact of ICTs on School Libraries

ICT concepts entails technologies, the facilitation of communication, processing and transmission of information by electronic means, embraces complex communication technologies such as internet, the computer, geographical information systems and simple ones such as the television and radio notes Warren (2002). In the context of school libraries such technologies have the potential of assisting users to gain access, disseminate and respond to sustainable information in a faster and more far reaching way than ever before. ICT's covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form, for example, personal computers, internet, digital television, social media networks and email have become central tools with regards to provision of school library services.

Information technology has extended the availability and easy access of information thus school libraries are slowly embracing this opportunity to improve on effective information dissemination, acquisition, storage and organization and also start networking for wider resource sharing. ICTs facilitates or creates possible the storage, retrieval, manipulation, transmission or receipt of data and this becomes an advantage to the libraries especially the school libraries that caters for a diverse of clientele. Importantly, it is also concerned with the way these different uses can synergize with each other, for example, a virtual reference desk can be open to everyone with a computer and an internet connection independent of opening hours and location, and this enables patrons to use the library whenever they need. On the other hand the librarians can co-operate and help each other globally through established networks, in discussion groups, on mailing lists and they can create list serve archives or wikis for questions which they answer in real time.

Inter-school library co-operation and specialization has resulted in efficiency thus enhancing the quality of library services. ICT's also affects the provision of access to the catalogue and availability of resources online. Online catalogues have revolutionised the way in which materials are made available and are able to be viewed. The use of online catalogues facilitates an ease of use which has become critical in the age of

information technology. The Online Public Access Catalogue (OPAC) and Machine Readable Catalogue (MARC) facilitate easier access to online information Roush (2005).

Value for School Libraries in Using ICTs

Resource sharing among (school) libraries is imperative, as no single library can acquire all its needs according to Adekunle (1978). The concept of resource sharing is exhibited through interlibrary cooperation, inter-library loans, Interlending and document supply services and other initiatives. Resource sharing activities are imperative because there is nothing like “library autarchy” and hence the inevitable need for networking. ICT uses in school libraries has been encouraged as a positive learning and recreational practice that allows clientele to learn through access to ICT’s and to a wider communication networks such as the internet. ICTs provide an extended role to school libraries in terms of increasing the range of their services, linkages with other like-minded institutions and for sharing their resources and expertise.

Internet and the School Library

Commonly the internet is viewed as a worldwide interconnected group of networks. The networking of people through innovative communication and computer technologies has created limitless opportunities for accessing all existing forms of social learning and intelligence. The internet is a classic example of convergence because it represents the coming together of computers and communication. The relationship between content and the technology to deliver it are now closer. The emerging convergence of technologies will result in a set of new services, solutions, infrastructures and other opportunities for example, digital technology and audio video and textual technology has resulted in multimedia technology.

The human brain and school libraries do not exist in a vacuum but they are intertwined with other institutions and its critical to internet because:

- 1) Internet provides current information to users.
- 2) A number of information sources like electronic journals, electronic discussion forums, technical reports, catalogues, database, abstracts, and online educational material are available online.
- 3) Access to bibliographic and full text databases.
- 4) Facilitates resource sharing
- 5) Helps to overcome information overload
- 6) Helps to enhance visibility of the school libraries, librarians and other stakeholders.
- 7) Facilitates ability to locate / search huge amounts of data using search engines

The provision of free internet connections enables school libraries to develop library based websites as well as institutional repositories and this helps to create and sustain organizational memories, facilitate access to information and increase visibility.

On the other hand the expectations from the community are changing, they want "everything" and the speed of access to it is "immediate", they want prompt delivery of the answer, rather than guidance or instruction. This can be traced back to why they ask for information. There has been an increase in questions people carry and transact on behalf of others, such as school assignments and projects. This however can only be solved through

the use of providing e-recourses, digital libraries and the internet making it imperative for school libraries to use ICTs to develop their services.

School Librarians Training on Computer Technology

Most Schools in rural Zimbabwe have been receiving Presidential Computer donations. Instead of these Computers being utilized to provide Library skills to learners they were merely used for typing examination tests, and teachers typed their marking schemes. Through an Organisation called Aussie Books for the Zim, the author engaged Katsande School Head. A total of twenty schools were invited and participants comprised forty participants, School Head and the School Librarian. The following skills training were provided:

Each computer was installed with Koha open source software and participants were provided skills on the following modules:

Circulation Module

Cataloguing Module

Circulation – Skills training centered on circulation management, that is charging and discharging, books. School Library automation saves essential time in storing information, information handling, information processing and information access and retrieval. Technical library operations and procedures are done with higher speed and the time lag between the acquisition of documents and their availability to users will be reduced significantly. Automated school libraries are not limited to physical boundaries and the users need not to go to the library physically and people from all over the world can gain access to the same information, as long as an Internet connection is available. The same resources can be used simultaneously by a number of institutions and patrons.

The user is able to use any search term (word, phrase, title, name, and subject) to search the entire collection. Automated school libraries can provide very user-friendly interfaces, giving clickable access to its resources and making information retrieval less painful. While traditional libraries are limited by storage space, automated libraries have the potential to store much more information, simply because digital information requires very little physical space to contain it.

Makori (2009) notes that, the cost of maintaining a automated library is much lower than that of a traditional library especially with regards to space. A traditional library incurs high costs in paying staff, book maintenance, overheads, and additional books. Automated school libraries may reduce or, in some instances, do away with these fees. Both types of library require cataloguing input to allow users to locate and retrieve material. Automated libraries may be more willing to adopt innovations in technology through providing users with improvements in electronic and audio book technology as well as presenting new forms of communication such as wikis and blogs, conventional libraries may consider that providing online access to their OPAC is sufficient.

Omekwu (2006) singles out some important advantage to automation as increased accessibility to users. They also increase availability to individuals who may not be traditional patrons of a public library, due to geographic location or organizational affiliation.

Zimbabwe School Libraries ICT Challenges

However, there are always challenges in embracing computer technology. In Zimbabwe the ICT (r)evolution in school libraries faces the following challenges: the major being that ICTs are a relatively new concept not yet fully embraced, as most school libraries are still steeped in traditional way of doing things.

- 1) Poor communication networks (slowly improving with massive laying of fibre)
- 2) High costs of maintaining ICT infrastructure (limited or no financial resources)
- 3) Limited access to ICT hardware and software (heavily depend on donations)
- 4) Lack of funding to provide ICT infrastructure
- 5) Digital and information divide
- 6) Neglect of ICT resources
- 7) Computer /Information illiteracy
- 8) Technological obsolescence
- 9) Poor Policy guidelines (national and local government levels)
- 10) Technological dependency as technology begets more technology
- 11) Utilizing technology to promote indigenous knowledge
- 12) Limited ICT based services (popular being internet and Wi-Fi)

Conclusion

There have been lessons learned from Katsande. Despite having a Librarian and a small computer laboratory, most rural skills are not aware of skills how utilization of open source software can be used to enhance the skills acquisition by the learners. School Administrators also need to be well informed that computers can only be put to good use as long as the end-users are taught about benefits of computer technology. Thus therefore the installation of useful computer software can go a long way in bringing about vital knowledge on how computer technology can be enhanced in the teaching and learning process.

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Biographical Note

Hosea Tokwe - Mr Tokwe is a holder of a Higher National Diploma in Library and Information Science. He is currently studying for a BSc Library and Information Technology with the Zimbabwe Open University. He was one of the key members in the revival of the Zimbabwe Library Association in 2009 and held the post of National Treasurer from 2010 to 2016. He first worked at Mkoba Teachers College as an Assistant Librarian and was College Librarian from 1997 to 2005, he then assumed the post of Chief Library Assistant at Midlands State University Library, a post he holds to date. Currently he is Advocacy Officer for Zimbabwe Library Association Midlands Branch and also Library Advocate for Aussie Books for Zim, a Not-For-Profit Organization based in Australia. He is a member of International Association of School Librarianship and also a member of the Chartered Institute of Library and Information Professionals (CILIP) – UK.