

Online Resources for E-Learning in Educational Institutions: A Case of COVID-19 Era

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ABSTRACT

Since the Covid-19 outbreak, there have been over 30 million cases of Covid-19 infections with death rate of about 925,000 globally. This has resulted to the outright lockdown of educational institutions. This has encouraged them to switch to e-learning where students can access online resources at the comfort of their homes. With e-learning platforms such as Course Management Systems (CMS), Messenger, E-learning 2.0, Skype, Google+, MySpace, blogs, Instant Messaging (IM), Wikis, Zoom, Google Meet, and Hi5, online resources such as e-books, e-magazines, e-newspaper, e-audio/ e-images, e-journals, e-databases, e-conference proceedings, e-reports, e-maps, e-pictures/photographs, e-manuscripts, e-theses, e-subject guide, e-newsletters and other internet/websites can be accessed for teaching and learning. But it is regrettably that most educational institutions are not implementing nor have access to developed online resources for e-learning activities for their students. Therefore, this paper discusses online resources and e-learning in the Covid 19 lockdown period; e-learning platforms that are used to access online resources for e-learning; and the challenges of online resources for e-learning during Covid 19 lockdown period. The paper concludes that with the advent of the ravaging Covid 19 virus which has claimed millions of lives, provision of online resources for e-learning has been implemented to cover the gap in the delivery of educational services. Recommendations were that government should ensure the provision of workable ICT policies that will encourage the use of online resources for e-learning in her educational institutions

Keywords: Online resource, e-learning, Covid 19, lockdown period, Educational institutions

INTRODUCTION

As the COVID-19 Pandemic runs its course with over 30 million cases infections and death rate of more than 925,000 globally (European Centre for Disease Prevention and Control (ECDC, 2020), many governments are implementing measures that limit the number of people congregating in public places. Such measures put in place were social distancing, self-quarantine, isolation, and lockdown to curtail spread of Covid-19 virus (WHO, 2020). This lockdown was placed on all major sectors of the economy most especially, the educational sector-its schools. With this development, normal functioning of schools have been disrupted as students have to sit at home. This has made the educational institutions to be handicapped in providing educational instructions to their learners. Most educational institutions have begun to implement alternative methods for students to continue with their lessons at the comfort of their homes without the need for physical contact. This new system of learning is the online education called electronic learning (e-learning).

According to Sharifabadi (2006), e-learning implies that the learner is at a distance from the tutor or instructor, that the learner uses some form of technology (usually a computer) to access the learning materials, that the learner uses technology to

interact with the tutor or instructor and other learners, and that some form of support is provided to learners. E-learning is viewed as an essential component for any modern educational institution in learning as well as teaching, and it has also challenged tertiary institutions to redefine their teaching and research practices (Castillo-Merino & Serradell-Lopez 2014). In this view, e-learning promotes distance teaching and learning using resources with experiences that are, in some way, delivered electronically. Such resources are referred to as online resources

Online resource also known as e-resources or internet resources are digital or automated text such as e-books, e-journals, e-leaflets, e-magazines, and all other reading materials that are enabled to be viewed online using the computer or any other connected device. Online or E-resources are the electronic representation of information which can be accessed via electronic system and computer network (IFLA, 2012). Online information resources are invaluable research tools that complement the print-based resources and are becoming more and more important for the academic community, nowadays (Egberongbe, 2011). The online resources have emerged as one of the primary sources of information for teaching learning activity and research. Although the present era is mainly depending on online, most of the students do not have adequate knowledge and skills necessary to exploit those resources for e-learning.

Online resources are expected to improve e-learning activities in schools. E-learning for schools should have sufficient online resource that will boost learning. As Covid 19 lockdown persist, many libraries in educational institutions have transformed their traditional collection into digital and virtual libraries, where books, journals and magazines have changed into e-books, e-journals, and e-magazines. One of the functions of the technological driven and electronic based learning is to provide the students with readily available online

information resources that will improve on their learning abilities due to restrictions on physical or classroom contacts.

Regrettably, most educational institutions do not have the required facilities for e-learning to thrive. Poor funding for the educational institutions may have played host to their inefficiency in providing e-learning services mostly to students in remote areas. Poor skills of teachers and students in the educational institutions on use of e-learning facilities may also hamper their access to online resource at this critical Covid 19 era. Many educational institutions still have in their collection, traditional and book resources in large percentage, thereby affecting their automation and provision of online resource. In this view, this paper will discuss the online resource for e-learning in educational institutions in the Covid 19 era.

Online Resource

Online resources are those which can be accessible through World Wide Web such as e-journals, e-books, e-databases, and online search engines; however, it comes under the broader term of electronic resources (Lavanya & Santharoban, 2018). Online resources connotes electronic or internet resources such as on-line databases, e-books, web-sites assignments, e-journals, on-line libraries, online encyclopedias, e-newspapers, e-mails, and online discussion forums. Available online resources for learning and used for students' project are academic journals database, search engines, electronic libraries, and blogs/forums.

According to Kenchakkanavar (2014) an online or electronic resource is defined as a resource which requires computer access or any electronic product that delivers a collection of data, be it referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD ROM, on tape, via Internet and so on. They refer to information sources

in electronic form. The different types of e-resources are, E-books, E-journals, e-Databases, CDs/DVDs, E-conference proceedings, E-Reports, E-Maps, E-Pictures/Photographs, E-Manuscripts, E-Theses, E-Newspaper, Internet/Websites - Listservs, Newsgroups, Subject Gateways, USENET, FAQs, e-Magazines, e-Audio/ e-Images, Data/ GIS, Digital Library Projects, Electronic Exhibitions, e- Subject Guide, e-newsletters, E-conferences proceedings and Web search tools on a range of topic etc. Online resources are information that is accessible through a computer network and stored in the form of electrical signals, usually on a connected computer

E-learning

E-learning has been provided with different terminologies such as “online learning”, “internet learning”, “distributed learning”, “networked learning”, “tele-learning”, “virtual learning”, “computer-assisted learning”, “web-based learning”, and “distance learning” (Sharifabadi, 2006). E-learning is taken to be all aspects of electronically supported learning (whether in networked/non-networked environments) whereby the learner is interacting with teachers, content and other learners regardless of place and time (Kisanga & Ireson, 2015). E-learning are applications and use of a computer connected to a network, that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means (Cojocariu, Lazar, Nedeff & Lazar, 2014), and can promote synchronous learning with a lot of opportunities for social interaction (McBrien, Cheng & Jones, 2009). E-learning includes all aspects of electronic delivery of pictures, text or sounds for a presentation or project, or using an interactive whiteboard in a lesson.

Electronic learning (e-learning) or online learning involves the use of internet and web connections to learn. Raheem and Khan (2020) defined e-learning as the ability to offer and share materials in all kinds of formats as e-mails, slideshows, videos, PDFs, and word documents. It is

also enabled when conducting webinars (live online class), communication with teachers via message and chat forum. E-learning are educational material that is presented on a computer, educational websites or computer software that facilitates information sharing. E-learning can be termed as a tool that can make the teaching–learning process more student-centered, more innovative, and even more flexible

Corona virus (COVID-19)

Corona virus disease (COVID-19) first appeared in the city of Wuhan, China as an infectious disease caused by a newly discovered novel strain of corona virus, SARS-CoV-2 (WHO, 2020). The corona virus belongs to a family of viruses that may cause various symptoms such as pneumonia, fever, breathing difficulty, and lung infection (WMHC, 2020). The World Health Organization (WHO) used the term 2019 novel corona virus to refer to a corona virus that affected the lower respiratory tract of patients with pneumonia in Wuhan, China on 29 December 2019 (Li, Guan, Wu, Wang, Zhou & Tong, 2020). The WHO announced that the official name of the 2019 novel corona virus is corona virus disease (COVID-19) (WHO, 2020). And the current reference name for the virus is severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). According to World Health Organization WHO (2020) corona virus seems to spread from person to person by the same mechanism as other common cold or influenza viruses-i.e. by face to face contact with a sneeze or cough, or from contact with secretions of people who are infected. The common symptoms include fever, dry cough, tiredness, shortness of breath, pains and aches, sore throat, and very few people will report diarrhoea, nausea or a runny nose (Agim, Oraekwe, Chivozo, & Emenari, 2020). The 2019 novel coronavirus disease (COVID-19) is currently the disorder with the greatest social impact (Ryu & Chun, 2020)

Online resources and e-learning in the Covid 19 lockdown period

With the imposed lockdown due to the Covid 19 pandemic, students access to educational services have been affected. This development has brought about the implementation of various learning platforms that will boast learning without physical contacts. E-learning in this regard has provided learners with access to digital devices and internet to download relevant online resources for their study. The call for online education in filling the gap in this lockdown period has provided educational institutions with capacities to redirect their focus on delivering alternative learning methods for students who are handicapped to attend physical classes. According to Kenchakkanavar (2014), online resources such as e-Databases, e-Journals, e-Magazines, e- Books/ e-Audio/ e-Images, Data/ GIS, Digital Library Projects, Electronic Exhibitions, e- Subject Guide, e-newsletters, E-conferences proceedings and Web search tools on a range of Topic which are delivered on CD-ROM / DVD, over the Internet has provided fast and equitable access for students to support their learning processes.

In this Covid 19 lockdown period, utilizing online resources for e-learning has provided merits such as improved access to quality educational materials (Ally 2008); learning possibilities through simulations, multi-media presentations as well as electronic communication and collaboration (Guri-Rosenblit 2009); and learning flexibility such that learners can have control over the content, learning sequence, and pace of learning (Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012). The adoption of online resources have been very helpful for e-learning activities because of their easy portability and its feature of incorporating more than one book in a single hand held device and are published on open access platform. Online educational resources aims to support educational institutions in their bid to facilitate avenues for students to access

these resources and they will be better positioned to implement e-learning platforms that will ease access to these online learning resources for remote and other disadvantaged learners during the COVID-19 Pandemic.

The use of e-learning in the educational environment has enabled easy access to many online resources, and information sharing has, therefore, significantly increased between teachers and learners. The prevalence of this sharing has brought additional benefits since learners can access these online resources at their own pace, in any location and any time. This has improved learners ability to get the information required free of cost and bridge the digital divide. The use of online resources for e-learning in educational institutions covers licensing and usage of the information if certain rules are followed. Most online learning contents are accessible through different kinds (text, images, sounds, and artefacts) (Moore & Kearsley, 2012) and forms of media (adaptive, interactive, narrative, productive) (Laurillard, 2002). The informed user can employ various e-learning methods to access these online learning resources and create a learning environment that suits his personal learning needs (e.g. learning styles, individual accessibility needs, motivation, etc.).

According to Maja Lebeničnik, Pitt AND Starčič (2015) the benefits of digitalized online information and online learning resources represent one of the most common sources for learning among university students. Students nowadays are not limited to electronic resources produced and delivered by their universities and can access an abundance of online learning resources themselves. This increases the importance of informal learning environment and personal preferences in the modern university context. No wonder, in this Covid 19 lockdown period, some universities are providing distance education, and lately some provided video

lectures and online courses to facilitate teaching and learning for its students.

With the advancement of the Covid 19 scourge and the availability of information and communication technologies (ICTs), almost all educational institutions have introduced new dimensions in their teaching and learning structure. The organization and dissemination of the online resources in the virtual environment has been a top priority for them to cover the educational needs of students in rural or distance areas in terms of acquiring qualitative education. In this regard, e-learning has help students in searching, accessing and using the information by crossing the barriers like time, distance, geography, size, and language. According to Kattimani (2010), in the library of Honeywell, Bangalore, India, there are learning materials such as video cassettes, VCD/DVD's, with about 500 online e-books and e-journals which are subscribed to the users. E-learning services rendered to the users are through Internet, and databases like J-Desk, Books 24x7IT pro, Ebrary, Harvard manage mentor, Web-OPAC and learning homepage (Honeywell website 2010). These online resources can be highly used for e-learning in this Covid 19 lockdown period.

There are also other online resources provided for e-learning such as are e-content, e-library, dedicated e-learning portal as well as those e-resources from the World Bank's (2020) Edtech team for education activities during the Covid 19 lockdown period which are:

- EdTech Knowledge Pack on Remote Learning response to COVID-19
- Education TV Knowledge Pack
- Guidance Note: Remote Learning & COVID-19
- Rapid response reference note
- Remote Learning, Distance Education and Online Learning During the COVID-19 Pandemic
- Rapid Response Guidance Note

These edtech & covid-19 online resources are created to facilitate e-learning

so as to cover the gap in learning. Furthermore, in this Covid 19 lockdown period, e-learning is the sure means to carry out educational activities in the form of live lectures or classes; it is available at different learning systems and forums. With a view of recent shutdown of educational institutions, online platforms are needed where (a) video conferencing with at least 40 to 50 students is possible, (b) discussions with students can be done to keep classes organic, (c) internet connections are good, (d) lectures are accessible in mobile phones also and not just laptops, (e) possibility of watching already recorded lectures, and (f) instant feedback from students can be achieved and assignments can be taken (Basilaia, Dgebuadze, Kantaria & Chokhanelidze, 2020). Therefore, educational institutions will need to beef up its online resources to enable them develop e-learning structures that will mitigate the effects of teaching and learning in educational institutions

E-learning platforms that are used to access online resources for e-learning

As a result of the Covid 19 lockdown period which has closedown all educational institutions, various e-learning platforms have been carefully organized and adopted to aid easy access to online resources for the continuation of academic activities. Theses e-learning platforms have significant impacted on the educational sector-most especially tertiary institutions. This is because it enables learners to choose the most appropriate and flexible learning mode in accordance with their preferences or commitments, or both. Rajendra (2009) gave such e-learning platforms as:

Course Management Systems (CMS):

CMS tools are also known as virtual learning systems, content management systems, learning management systems, learning content management systems, etc. CMS tools help in the creation, and management of course material such as lessons/courseware, assignments, glossaries,

citations to other resources, etc. In other words these tools help in total e-learning. Moodle, Slodde, Lecture share, elementK, Blackboard, Author IT, digitalTthink.com India Web Developers, E-learning Solution are some of the course management tools.

Blogs: This enables the dissemination and access of specific information. Blogs can be used by students as well as by instructors to provide updated information. They are useful to initiate discussions. Coyle and Vaughn (2008) in their survey found out that blogs were overwhelmingly used

Wikis: Wikis is a piece of software where individuals under the control of an editorial board, can upload contents or modify existing contents. Wikis is a useful source for getting information and extensive links to information. Wikipedia and Knol are other examples of wikis.

E-mails: E-mails as well as e-mail-based discussion forums are useful in delivering contents as well as communications about e-learning.

Messenger: Messenger such as Yahoo Messenger, MSN Messenger can be used for synchronous interaction. Facilities like eZmeeting can also be used for realtime conferencing. The ACRL, for example, has live chat series called OnPoint. Using this tool the ACRL organizes e-learning events for various occasions.

Other e-learning platforms that can facilitate access to online resources in this Covid 19 lockdown period are social media tools such as Facebook, Twitter, WhatsApp, Twitter, Instagram, YouTube, Pinterest, Podcasts, Flickr, Instant Messaging (IM), Rich Site Summary (RSS), LinkedIn, Skype, and Google+, MySpace, Zoom, GoogleMeet, Library thing, Ning, etc. Educational e-learning media such as Academia.edu and Hi5 can also facilitate access to online resources. These tools are seen as e-learning and web-based channel of information dissemination and learning which has permeating all aspects of education. Due to the outbreak of Covid 19

and the imposition of lockdown, educational institutions have started considering the relevance of inculcating and adopting e-learning tools that will enable remote learners to access their online resources for an effective educational service delivery.

Challenges of online resources for e-learning during Covid 19 lockdown period

In this era of Covid 19 lockdown, there have been myriad of challenges in the adoption of online resources for e-learning activities in educational institutions. There is the lack of comprehensive Information and Communication Technology (ICT) policies which have affected the urge for educational institutions to develop online resources for effective e-learning in schools. Some educational institutions do not have updated e-libraries with sufficient online resources. Most online resources available are outdated. There is still almost 70% hard cover books in most countries educational institutions' libraries. Poor connectivity and network issues have also affected the downloading and use of online resources for e-learning in rural areas where educational institutions are located. Omolara, et al. cited in Yekini, Adigun, Ojo and Akinwale (2020) also noted that lack of Internet access, affordability of computers and lack of computer skills, and poor infrastructures are components of digital divide in adopting e-learning. Most of the equipment and infrastructure for accessing online resources for e-learning are inadequate to support mobile learning in schools. Most of the tertiary institutions lack a proper virtual education system and there is non-availability of recorded virtual lectures in most educational institutions. Also, there is an evidence of little or no implementation knowledge, and non-availability of e-library domain in the most schools (Olutola & Olatoye, 2015) and this will affect access to online resources for e-learning. Most staff in educational institutions is not ICT compliant in their access and use of online resources and digital devices for e-learning. There are

also problems ranging from downloading errors, issues with installation of e-learning software, login problems, poor audio and video connection have also posed a challenge for access to online resources for e-learning.

CONCLUSION

With the advent of the ravaging Covid 19 virus which has claimed millions of lives, provision of online resources for e-learning has been implemented to cover the gap in the delivery of educational services. In this view online resources have been built and provided to learners via e-learning platforms to enable students continue their education. Online resources have served as a reliable information source for students to acquire unlimited access to current information even at their remote ends. Therefore, the inadequacies of most educational institutions towards use of online resources for e-learning have been developed and thus, served as an improvement in the educational sector.

Recommendations

In view of the challenges in online resources for e-learning in this COVID-19 pandemic, a number of recommendations have been given:

- I. Government should ensure the provision of workable ICT policies that will encourage the use of online resources for e-learning in her educational institutions
- II. All educational institutions should as a matter of urgency, automate and digitized all her hard cover books to enable students access to the online resources since libraries and schools are shutdown
- III. Educational institutions should develop an up to date online resources like e-content, e-library, and a dedicated e-learning portal to support e-learning activities
- IV. Skills in accessing online resources and e-learning facilities should be provided for the teaching staff and students to

improve their online teaching and learning

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