Examining OER Usage in an Open and Distance Learning Institution

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Abstract

Open Educational Resources (OER) are digitalised educational resources designed for use and re-use in teaching and learning that are openly available for use by educators and students without an accompanying need to pay licence fees. OER have generally become part and parcel of ODL worldwide and may be to some extent at Zimbabwe Open University (ZOU). Today ZOU is encouraging a multi-media approach to teaching and learning. However, print media (modules) are preferred. The purpose of this study was to measure the extent to which ZOU academic staff and students utilise OER. Participants were lecturers, students, module writers and editors. A qualitative methodology employing the case study as a research method was used for this study since it allowed an in-depth study of the phenomenon. Convenience sampling was used especially for module writers and lecturers who are likely to use OER. Questaviews with open-ended questions, structured interviews and focus group discussions were carried out to collect and generate data. Collected data were analysed using content and statistical analysis. The study revealed that for quality to be enhanced, module writers and lecturers may need OER in the preparation of these modules. OER at an institution like ZOU, where students rely mostly on learning materials, is critical in their development. Demand for modules has been necessitated by an increase in the number of students registering at ZOU. The extent to which ZOU academic staff and students have posted content on OER may be limited or non-existent. ZOU has published some journals whose content has not been placed on OER, but on the repository where there is limited access. Therefore, it can be concluded that ZOU tutors and module writers make use of OER as resources for tutoring and module writing. It was recommended that ZOU should consider the issue licensing for OER, upgrading of Internet connectivity and bandwidth and putting in place the OER policy. It is hoped that the findings will help ZOU not only develop quality modules using OER, but also create content for OER, for the benefit of other users elsewhere. It is also recommended that ZOU as an institution of higher learning, embark on further research on continuous usage of OER in line with current trends in teaching/learning materials development.

Key Words: Open Educational Resources (OER), Open and Distance Learning (ODL), Copyright, Connectivity

Introduction

Most Open and Distance Learning (ODL) institutions operate on the principle of teaching/learning at a distance with occasional face-to-face tuition and Zimbabwe Open University (ZOU) is no exception. Learners in ODL rely mostly on teaching/learning materials prepared by tutors and these take the place of a live tutor in a lecturing situation. This entails that teaching/learning materials have to be well written so
that they cannot only be easily accessed by the learner but can also impart the necessary knowledge and skills to the same learner. At ZOU, learners use modules prepared by module writers in various disciplines. This is where Open Educational Resources (OER) become critical in the development of quality modules.

Background to the study

In Zimbabwe, there has been an increase in the number of people embarking on university education. Conventional universities could not cope with the demand, hence, the opening of ZOU. This implies that, according to UNESCO (2012), ODL approaches and Information and Communication Technology (ICTs) present opportunities to widen access to quality education, particularly when Open Educational Resources are readily shared by many countries and higher education institutions. Altbach, Reisberg, and Rumbley (2009, p. iv) posit that, “In the early 21st Century, higher education has become a competitive enterprise. In many countries, students must compete for scarce places in universities and in all countries admission to the top institutions has become more difficult.” Most students, especially the more mature ones, opt to study the ODL way such as at the ZOU because they can learn and at the same time engage in their normal day-to-day activities, such as engaging in full-time employment. With ODL, learning is brought to the doorstep of the learner. ZOU also gives a second chance to school dropouts who, once again, desire to pursue university education. This therefore, calls for the development of quality learning materials using varied sources including OER.

According to Fasola (2015), effective teaching and learning requires the support of librarians and well-stocked libraries at any educational level. Books and other print media are available in libraries, but because they are expensive and in short supply particularly in most libraries in developing countries like Zimbabwe, readers cannot access them. In Zimbabwe, the cost of a university textbook ranges from US$100-150 (Weisbaum, 2014). Moreover, most higher learning institutions’ libraries have outdated books (Majoni, 2014). This is echoed by an article in (Newsday, 2011) where services offered by libraries are obsolete and “... not equipped to cope with the requirements of the information age.” Nyambi, (2011, p. 2) in her study on university libraries including ZOU found that there is slow uptake of institutional repositories in Zimbabwe due to problems related to funding, brain drain, political situation in the country, lack of IR policies, inadequate and very old hardware and power outages. These libraries are hence, slow in joining the Open Access movement. Due to the fact that cost remains an enormous barrier to development and accessing quality learning materials, reverting to OER cannot be an option. This has led to increased use of information such as OER on the Internet mostly in developed countries. As an institution of higher learning, it is imperative that the learning materials developed by ZOU be a source of recent and new knowledge for the benefit of other learners within the institution and elsewhere. Therefore, ZOU module writers can utilise OER since these materials are peer reviewed by experts and have been edited and proof read. Where ZOU wants to use the best tutors acclaimed globally, it can make use of OER. To date, ZOU is reviewing all outdated modules, so in this exercise they could make use of OER to keep abreast with what is happening globally and as one of the sources of information for the module content. Moreover, ZOU has introduced many more new programmes to cater for a wider sector of the Zimbabwean society. Hence this study has the potential to bring into perspective options for learning institutions to produce quality teaching and learning materials.
Statement of the problem

Availability and use of high quality learning materials guarantee academic performance at any educational level. This study sought to make an examination of OER usage in an ODL institution such as Zimbabwe Open University which depends on both electronic and print teaching and learning materials.

Research questions

This study was guided by the following research questions:
1. What are the benefits of OER in module development?
2. What is the role of ICT in the utilisation of OER?
3. What challenges can be encountered through utilisation of OER?
4. In what way do copyright issues influence utilisation of OER?

Conceptual framework

The conceptual framework guiding this study was that openness in learning materials implies that anybody can freely access the content of material at any given time. In this context, distance is not an issue as technology has bridged the gap. Openness varies depending on licences being used. Openness in OER entails using the materials without using any money, “freedom to copy and make more copies, freedom to take away and re-use without asking prior permission, freedom to make derivatives (but not necessarily freedom to make profits from them)” (Lane, 2009).

Theoretical framework

The theoretical framework for this study is the Current Open Educational Resources Logic Model, by Atkins, Brown & Hammond (2007). The aim of this model is to sponsor high-quality content, remove barriers, understand and stimulate use and equalise access.

Figure 1: The Current Open Educational Resources Logic Model, by Atkins, Brown & Hammond (2007)
Another framework is that of Wiley (2009) with his 4Rs Framework that stipulates that OER can be used in four different ways, that is, one can re-use, revise, remix and redistribute accessed learning materials freely. These are based on the premise that OER, as a public good, can be shared and accessed by all. Therefore, as ZOU module writers develop learning materials, they may consider maximising full utilisation of information on OER platforms to their advantage at the same time ending up with an almost home-grown product of high quality as the the OER movement seeks to provide more equal access to knowledge and educational opportunities (Growing Innovation, 2015).

What are Open Educational Resources (OER)?

Open Educational Resources (OER) are digitalised educational resources designed for use and reuse in teaching and learning that are openly available for use by educators and students without an accompanying need to pay licence fees. In other words, “OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others” (Smith & Casserly, 2006, p. 8; Atkins, Brown & Hammond, 2007, p. 4). OER are generally becoming part and parcel of ODL worldwide and may be to some extent at Zimbabwe Open University (ZOU). Today ZOU is encouraging a multi-media approach to teaching and learning, however, print media (modules) is preferred. In ODL, for socio-economic transformation, OER can play a pivotal role in the development of teaching and learning materials. ODL theorists, such as, Peters (1993) realised the importance of industrialising teaching and learning materials, which means a lot of teaching and learning packages have to be developed and delivered to so many learners in the global village. With the advent of technologies, according to Peters, the mode of the industrial era can no longer fit in with new demands of ODL in the post-industrial era. There is, therefore, a shift in the way ODL institutions are run. These sentiments are echoed by Garrison (2000) who says theories should also capture recent and rapid technologies. The recent technologies are meant to bridge geographical constraints and trials of production and delivery of learning packages in line with the post industrial era of the 21st Century. The implications of these sentiments are that OER are likely to be utilised more due to the fact that people have access to the Internet and other different social media. OER are meant to provide “more equal access to knowledge and educational opportunities” (nfoDev.org/oer, 2015).

To date, in developing countries like Zimbabwe, people, including students and their tutors, utilise varied sources of teaching and learning materials. The variety is determined by the availability of the teaching/learning materials, technological gadgets and the knowledge of the users on when and how to use the materials productively.

How can OER be used?

There are a variety of ways of using OER. OER can enhance existing courses or can improve existing materials. New content or some parts of content can be created through re-purposing and re-using OER. This is supported by Wiley’s 4Rs Framework (Wiley, 2009). These are:

- Reuse – the right to use the content in its unaltered/verbatim form.
- Revise – the right to adapt, adjust, modify, or alter the content itself.
• Remix is the right to combine the original or revised content with other content to create something new.
• Redistribute is the right to make and share copies of the original content, your revisions, or your remixes with others.
The ability to do this depends on the license given as some licenses are freer than others while others are restrictive (Wiley, 2009). Students can also be used to generate OER. In use of OER in, for example, writing modules, an institution like ZOU has to determine the options it wants to take, out of the four options. It not only has to determine the importance of collaborating with other institutions so the best OER can be utilised but also to think of ways it can create content for OER.

What are the benefits of utilising OER?

OER has many advantages that learners and their tutors may appreciate. Some of the advantages as cited by Commonwealth of Learning http://col-oer.weebly.com/module-5—using-oer.html are that they give one exposure to different educational resources and a good idea of how to benchmark one’s own work. In the case of ZOU, this can be useful, especially in writing journal articles and modules. ZOU practitioners can get acquainted with new methods of teaching/learning which might improve quality and how to release their work under an open license. The potential of OER is best achieved through a collaborative partnership of people working in communities of practice and have the potential of reducing costs of accessing educational materials as these can be shared. Finally, OER can provide opportunities for learners to adapt materials and thus, become more active participants in educational processes.

Different stakeholder groups likely to benefit from OER should be identified, for example, the global community which, in most cases, is affected by cultural, language and political issues. It also includes the national community, that is, the Government which sometimes significantly invests in OER. Subject communities include employers and professional bodies; individuals who support learning and teaching such as teachers, librarians, learning technologists, and educational developers. ODL learners enrolled in specific institutions on a global level are also included.

In ZOU, stakeholders are mainly tutors and students ranging from certificate to PhD level. However, employers of ZOU graduates may also be in this group of stakeholders since they also have an interest in what their employees are capable of.

Learners can benefit from enhanced quality, flexibility of resources and enhanced learning through seeing/applying knowledge in a wider context more than what they get in their courses. They can get the international dimension; freedom of access, at work/home. Benefits of OER can also be realised through learner-centred, self-directed, peer-to-peer and social/informal learning approaches. OER can be re-used and re-contextualised in different subject areas. Learners are afforded the opportunity to test out course materials before enrolling – and compare with other similar courses. In addition, other benefits include opportunities to be involved in OER initiatives either through contributing towards OER development, testing or evaluation, marketing activities, and acting as ambassadors for OER with other learners or staff. In this global village, with the right resources at the right time, users are able to access authentic or ‘real-life’ learning experiences through OER that link to employer or professional sector activities.

ODL Educational institutions can get recognition and enhanced reputation through
the creation of OER for use by other institutions. As an ODL institution, ZOU’s use of OER can have an increased capacity to support remote learners; take advantage of wider availability of its academic content and focus on the learning experiences of students and their tutors. ZOU can introduce new partnerships/linkages with other institutions and organisations outside the education sector; and increase sharing of ideas and practice within the institution. Almost every educational institution has experienced a decline in enrolment at one point in its existence and the same applies to ZOU. Educational institutions can use OER as a buffer against the decline of specific subjects or topics which may not be sustainable at institutional level but can be sustained across several institutions through shared resources. This creates new relationships with students as they become collaborators in OER production, release and use (Higher Education Academy/JISC Open Educational Resource Programme (2012) Open Educational Resources infoKit).

Copyright issues in OER

Legal issues in OER are a very critical component as one cannot post material on free content without having to consider them. Legal aspects are considered based on information from JISC Legal (April 2010). Legal issues are concerned with Intellectual Property Rights (IPR) especially issues of copyright. Other legal issues to consider are data protection law, liability for inaccuracy or illegal content and accessibility law. The owner of the content must have the copyright of his/her material be they, one owner or the third part. There is therefore, need to license the content by companies such as Creative Commons (CC) to ensure that the content owner has copyright as well as giving permission to have the content posted as ‘open’. For the third part, the right person should be consulted (McGill, 2013).

Challenges related to utilisation of OER

In utilising OER, some challenges can be encountered. A lot of money has been invested worldwide into the development of OER and yet the different benefits to a wide spectrum of stakeholder groups have not been put into perspective, that is, not many people are aware of the benefits unless they are the beneficiaries themselves. Whilst there is increasing evidence of benefits to educational institutions and to learners, there is less evidence of the benefits to the people who are expected to create and release their learning resources, such as, the educationists themselves as well as higher degrees students (Hodgkinson-Williams, 2015). However, OER is supposed to benefit different groups. Sustainability of OER release is currently a significant issue for institutions around the globe and evidence of benefits must be clarified if resources are to be made available for continued release as the current economic situation seems to be the driving force towards what one should engage in. It is also worth noting that producers of OER often have a specific primary client in mind, for example, to support a particular course or to help a particular group of educators. Involving the intended clients during the design and release processes has been proven to have an impact on overall involvement and use of that stakeholder group, but this may not necessarily benefit a wider spectrum of stakeholder groups. To note is that many OER are not pedagogically or technically accessible to a global audience for reasons best known to the originators of the OER.

Institutions should think of ways of sustaining OER as this has some hidden costs. At Massachusetts Institute of Technology (MIT) which was sponsored by the Hewlett Foundation for its Open Courseware (OCW), the production, maintenance and enhancement costs of each...
course was $25 000-00 which is quite expensive (Atkins, et al., 2007). According to Belshaw (2012, p.1), “getting academics and marketers to align their aims and create open educational resources that work well as both educational tools and publicity material can be both challenging and rewarding”. This is a challenge in the sense that it is not always easy to tap into staff expertise and capitalise on their enthusiasm to post their work on OER platforms.

Another challenge is that of ensuring quality in OER. It can be a bit difficult to determine content of OER which is of high quality. “The grand challenge is how we might close the loop on the use of education material so that we can create virtuous learning loops that constantly improve the material through use and through the numerous learning from remixes ...” (Atkins, 2007, pp. 28-29). It is difficult to get “full set of high quality materials for everyday use by educators”. Further, the OER policies are not compatible; there are no incentives to make OER attractive and no common standards. Governments are not keen to invest in OER as there are no success stories of use of OER entirely (White Paper, 2013, p.9).

Atkins et al.,(2007, p. 32) have identified another problem related to computing and communication infrastructure. Access and connectivity to ICTs in developed countries might not be that much of a challenge yet, in developing countries, this is a thorny issue. It is made worse by the fact that there are differences between rural and urban communities in connection with connectivity. In cities, broadband might be available yet “…the rural areas of these countries are still very poor, unconnected in any systematic way, and unprepared for being pushed into a cash-based global economy.” This is the digital divide (Saheb, 2014) that needs to be looked at seriously so it can be rectified.

Preservation of OER content is also a concern as more of it is created and also how it can be accessed. OER cannot be located in one place thus, making it a bit difficult for some educationists to use them (Flora Hewlett White Paper, 2013). Object granularity and format diversity have also been found to cause some challenges on OER. Learning objects can be in the form of videos, simulations and Portable Document Formats (PDF). It can be difficult to manipulate PDF documents as they cannot be remixed easily (Atkins, et al., 2007). Finally, as mentioned earlier, intellectual property issues are critical in the utilisation of OER. Traditional copyright laws protect use of materials by people not authorised to do so, hence, most have “all rights reserved” inscribed in their works. Creative Commons, as one of the OER licenses, endeavours to provide licenses that will make the materials open (Atkins, et al., 2007). However, the degree of openness differs depending on the type of license used which might make access of OER difficult (Wiley, 2009).

Methodology

The qualitative methodology employing a case study research design was found appropriate for this study. It allowed the researchers to investigate the effectiveness and the extent to which ZOU staff and students are using and contributing to OER in the delivery of its learning/teaching materials to students and other stakeholders. Data was collected from sampled participants drawn from ZOU staff and higher degrees students, using questaviews with open ended questions, structured interviews and focus group discussions. Qualitative data were used to draw up themes, categories and meanings of data from questaviews, verbal data from face-to-face interviews and focus group discussion. These themes and categories were then coded and counted to see the difference of each response item (Silverman, 2010, Ncube, 2014).
Findings and discussion

One of the responses to the questionnaires revealed that tutors feel that OER should be extensively used in ZOU because these resources are free and available standard materials for education. It also emerged that, the resources are written by expert practitioners in the field whose purpose is to provide learners with appropriate information. Therefore, ZOU is advised to establish a robust and user-friendly Information Computer Technology System with strong Internet access signals. The most affected areas are regional centres outside Harare that are experiencing not only slow but on and off Internet connectivity.

In response to the research question about the role of ICT in the utilisation of OER, the findings were that at the Zimbabwe Open University in the ICT Department, as far as Internet provision is concerned, an effort is being made to increase the bandwidth to 10. As for now, the technicians feel the Internet provided by ZOU is adequate. Problems being encountered in Internet connectivity are related to traffic congestion where a number of users access Internet at the same time. For example, a ZOU staff member downloading videos may take bandwidth which is equivalent to that of four people who are accessing Internet from the same service provider. There are peak hours and non-peak hours and this affects the way Internet moves. Another problem being encountered on use of Internet has to do with the service provider. When the service provider receives limited bandwidth, it follows that users will also get limited bandwidth (Interview with Participant X, 9 June 2015).

Lecturers were asked about the benefits of OER. During the inception of ZOU, some faculties used readers in their teaching/learning. In an interview with a senior lecturer in the Faculty of Arts and Education, on 15 May 2013, he stated that the faculty used readers to teach their students. ZOU prepared readers out of articles sourced from libraries. Tutors were required to look for relevant materials that matched the needs of their learners. Permission was sought from libraries including UNISA to make use of these materials. Readers are being phased out and the lecturer’s recommendations are that they should be placed in the archives. Readers are being replaced with modules which include relevant and current information which reflects a perspective of research. There is evidence that authors are using OER to come up with these high quality modules. Another lecturer in the Faculty of Commerce and Law; also said the faculty has been making use of readers since 2004. Readers gave students guidance on the materials to use in preparation for examinations. Quality of content was more of a textbook than a module. Materials were too difficult for students to understand. Readers were too voluminous and tended to include too much detail and to make it worse still, they were not user friendly. The pass rate of students using readers was comparatively lower than those using modules. Most students were not comfortable with readers hence; measures have been taken to replace these with modules. Modules contain refined material developed from OER and other sources to suit the needs of the ZOU learners.

Another question was related to effectiveness. It is evident from responses made by some ZOU tutors that OER are very effective as is reflected in assignments written by some students, therefore, ZOU staff are encouraged to deposit their papers on OER platforms to benefit students internationally and themselves as academics. Two lecturers one from the Faculty of Commerce and Law and another from the Faculty of Arts and Education indicated that students had used readers that were not good enough as a stopgap measure. Readers are now being replaced by modules which include relevant and current information which reflects a perspective of research. Another
respondent intimated that ZOU should not rely on OER per se as some of the content might not be authentic and might also stifle development of home grown materials by Zimbabwean academics. Some ZOU students indicated that they have access to OER as most are in employment and therefore, can access the Internet from their work places and others have Wi-Fi connections in their homes. All ZOU staff members have access to e-brary through recommended sites such as EBOSCO, Emerald Group Publishing Ltd., JSTOR, World Bank E-library. Further, tutors, module writers and staff depend heavily on OER when they carry out their researches. ZOU stakeholders appreciate the fact that some OER content is peer reviewed hence, they find it effective. However, it should be noted that getting academics and marketers to align their aims and create open educational resources that work well as both educational tools and publicity material can be both challenging and rewarding. The few who mentioned that they were not accessing OER effectively in ZOU expressed the fact that either their Internet was down most of the time or they did not have Internet facilities such as Internet Cafés in their communities.

ZOU staff members were asked why most of them were not posting material on OER repositories. From the findings, reasons given by some staff members for not posting material on OER are as follows:

- Some academics are not willing to give information for free and fear criticism from those who access the material.
- Others lack the expertise on how to go about it in addition to lack of both financial and material support as incentives.
- While for some, they are aware that the issue of licensing is still a prohibiting factor.

According to Belshaw (2012), another issue is the ability to track the use of one’s open educational resources from the outset. Tracking helps one to measure their impact in the longer-term. As one’s resources can be passed on and repurposed, monitoring usage is not a straightforward task. Methods of tracking range from analysing web statistics to monitoring comments made about the resources and in most cases these comments are constructive. It is even possible to embed information within the material in order to track, use and reuse.

Another interview conducted in the ICT Department was with – ZOU, Participant V in connection with the e-learning platform at ZOU. To date, ZOU has posted educational videos on YouTube which are open to every user. An example is a lecture by a (ZOU, Faculty of Commerce and Law) lecturer on “Simple Things about Leadership”. The content has nine videos and it was uploaded on 3 June 2015. The content is meant to promote ZOU lecturers so that they can be recognised internationally. Such a resource can be regarded as a first step by ZOU towards providing OER content.

Another interview with Participant Y, ZOU, on 14 June 2013, revealed that the majority of ZOU tutors and students lack training in how to access OER and that becomes a challenge when we talk of full use of OER. However, in 2009, ZOU introduced a degree programme on Information Literacy Skills (ILS) to the ZOU Library and Information Science, and Records and Archives Management students. It is hoped that once these skills have been imparted to all ZOU stakeholders, particularly staff and students, this limitation will be a thing of the past in ZOU as an institution of higher learning.

What came out of lecturers in a group discussion held on 4 June 2015; was that they use material from the Internet very often as they have found this material to be very useful in their teaching and researches. They pointed out that the advantages of OER are that most OER material is accessible, and there is no time limit as long as one is logged on the
Internet. However, the disadvantage could be that at times some material is removed from the Internet after a while such that it becomes difficult to revisit the website unless the information has been copied elsewhere or printed. The lecturers expressed that OER are applicable across disciplines particularly at tertiary level as most of these are mature students and their tutors know what to search for. When asked whether ODL institutions should do away with print medium and rely on only electronic medium of instruction, the lecturers expressed that this move would not be viable considering the challenges of accessibility of the Internet when needed especially in a developing country like Zimbabwe. They pointed out that the major drawback for ZOU clientele is that those who are yet to be networked cannot access the current and valuable information. It was also stated that the use of OER for e-learning was said to be a real blessing in this day of economic hardships where print material is beyond the reach of the majority of learners. It was observed that the majority of tutors have not yet posted articles on OER platforms.

ZOU students, in response to the question on challenges encountered through utilisation of OER, indicated that ZOU should extensively avail OER because cost of print media is prohibitive particularly in these economic restrictions the country is experiencing. Yet on the other hand, print media is able to reach all stakeholders in any part of the world with or without electricity and Internet connectivity. In addition, print media is permanent and students as well as their tutors are able to refer back to the information easily and it remains a permanent record for reference unlike information on the internet which is sometimes removed after a while. To date, ZOU students can now log in onto MyVista platform if they want to access their results, invoices, electronic modules and other statements. The uploading of electronic modules is a bit slow because the institution does not have full capacity to convert modules on PDF and PageMaker back to word version so these can be converted to html. Moreover, these modules can only be accessed by ZOU students who have paid tuition fees. The modules are of commercial value to ZOU hence, they have been uploaded in such a way that they cannot be downloaded by anyone who is not a paid up student. Students can only view them one section at a time. As far as OER are concerned, there is need to redefine them, so they meet certain criteria and issues of licensing have to be considered. To date, while there is not much content for ZOU students online, there is resistance to change. Other respondents indicated that they do not have time to prepare work for posting on OER platform as there is no direct benefit for them. Further, as ZOU at times works with part-time staff, the budget for them is not well defined. There is therefore, need for capacity building in the area of ICT hence, OER are regarded as a long-term goal (Interview with another Participant Z, 7 June 2013).

Conclusion

From the research findings, we can conclude that ZOU tutors and module writers make use of OER and are being encouraged to use more of it to update outdated information. So far, only a few ZOU staff members have made an attempt to post their content on YouTube, but students were not yet in a position to post their content on OER. Further, only paid up students are able to access uploaded modules. Readers are being replaced with modules which include relevant and current information which reflects a perspective of research. There is evidence that authors are using OER to come up with these high quality modules. ZOU should not rely on OER per se, as some of the content might not be authentic and also might stifle
development of home grown learning materials by Zimbabwean academics. Overall, OER are more of a blessing to ZOU than a liability.

**Recommendations**

In light of these research findings, the following recommendations are made to improve accessibility of OER by ZOU stakeholders. ZOU:

- OER users are discouraged from copying from the Internet word-for-word. Where there is need to do so, they should acknowledge the sources of information.
- ought to be affiliated to organisations such as OER Commons in order to share ideas on how to post articles on the Internet.
- should pursue further the issue of licensing so that the institution can become a contributor to OER and that information can be shared without limitations.
- should adequately install networked computers in the regions and districts for the students and staff to conveniently access OER on the Internet.
- should provide training opportunities in the utilisation of OER through workshops to all academics, module writers and students.
- should upgrade Internet connectivity and increase bandwidth to improve accessibility by staff and students (though this has been done, there are still some challenges of the network being slow or being down at times).
- should continue to develop learning materials that would suit local needs adopt/adapt materials that are in conflict with Zimbabwe’s cultural beliefs and practices.
- should put in place a policy on utilisation of OER in the institution.
- should start thinking about the possibility of working in collaboration with Internet service providers so that they may offer affordable rates, similar to WhatsApp bundles offered by Econet and Telecel networks, to the institution for the benefit of learners and tutors.
- should embark on further research on continuous usage of OER in line with current trends in teaching/learning materials development.
- should source for funding for OER development and post OER on its website which can be accessed freely by both staff members and learners.

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