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Approaches to Teach Cataloguing Modules During Emergencies

Madireng Monyela

Abstract

With reference to COVID-19 pandemic, the study investigated the emergent approaches to teaching and learning cataloguing modules at the institutions of higher learning. Cataloguing modules require face to face interactions between instructors and students for the explanation of concepts. The module involves the practical use of manuals and the application of standards which are skills that students should master. The closure of higher education institutions (HEIs) due to the outbreak of COVID-19 meant that the traditional approach to teach the cataloguing modules was inhibited. Although in some countries and in distance institutions cataloguing modules were already taught online even before the pandemic, their programs were planned as online education was the nature of their business and was not mandated by the pandemic experiences. The face to face institutions had to drastically make changes in their programs in order to continue with their mandates. The chapter explores measures taken by institutions of higher learning in order to continue with teaching and learning amidst COVID-19 pandemic.

Keywords: cataloguing education, COVID-19, education, emergency remote teaching, teaching and learning

1. Introduction

Cataloguing modules are part of the Library and Information Studies curriculum and has been included in the curriculum since the beginning of the discipline in the late nineteenth century [1]. There are four processes in the cataloguing workflow that completes the cataloguing modules, namely descriptive cataloguing, authority control, subject cataloguing and classification [2]. Descriptive cataloguing according to Lazarinis [3], deals with description of resources, identifying all the metadata that describes the information source in order to improve access of library sources. Authority control on the other hand, facilitates the control and standardization of bibliographic data [4]. Furthermore, subject analysis deals with the creation and representation of subject terms in the catalogue whereas classification deals with the allocation of specific notations that should serve as a shelving device [3]. Teaching all these processes requires the use of cataloguing standards that are recognised internationally and comprised of theory and hands-on.

Generally, cataloguing modules requires face to face interactions between instructors and students due to the practical components which complements theory [2]. Due to the disruptions caused by COVID-19 that among others led to the universities lockdown worldwide, teaching and learning had to be altered to continue with the university mandate and cataloguing modules were not exempted.

UNESCO [5] urged governments all around the world to take measures in order to support teaching and learning to the best possible extent [6]. Rafiu and Nwalo [7] observed that careers in librarianship are incomplete without a deep knowledge of cataloguing modules such as descriptive cataloguing, authority control, subject analysis and classification. Gourkova [8] believes the cataloguing librarians have been the cornerstone of library services for centuries in terms of knowledge organisation. The quality of their education highly influences their ability to effectively deal with the versatile challenges in the demanding field of knowledge management. However, Rafiu and Nwalo [7]; Rafiu [9], Mahlatji et al. [10] reported poor performance of cataloguing students. Elrod [11] opined that many library professionals do not understand cataloguing although it is a core module in several Library and Information Science (LIS) schools. If this is not taken care of, the profession could be in danger because cataloguing is an integral part of the value librarians add to society, without which there could be chaos in the organisation and retrieval of knowledge”

Moreover, Danskin [12], Morgan and Bowden [13] observed that there were fewer cataloguers in the USA and British libraries. In the UK and the USA, the cataloguing component in library education was diminishing and the faculty was aging as indicated by Morgan and Bowden [13]. They further observed that in 2007 it was predicted that 33% of cataloguers in the Library of Congress were to retire in 2010 and there was no evidence that the lost cataloguing posts would be filled or library schools were producing the next generation of cataloguers. Maphoha [14], Bowman [15], Warren [16], Mason [17] and Monyela [18] found few qualified cataloguers in the cataloguing agencies. Therefore, to preserve the cataloguing profession and to upturn cataloguers, cataloguing education should be supported and there should be strategies to teach and learn cataloguing modules beyond the traditional face to face classroom setup during emergencies and unforeseen circumstances to continue equipping students with necessary skills.

2. Context and issues

Due to the inequalities existing both within societies and among different countries, UNESCO concerned undertaking all the possible measures to continue with teaching and learning and not only the ones based on ICT (Information and Communication Technologies). The measures could include hi-tech, low tech and no tech solutions [19]. In agreement with their governments, the contact universities around the globe had to change their usual ways of teaching and learning. For example, the University of Patras in Patras, Greece managed to offer all the theoretical-type courses using a system of distance education, based on synchronous education supported by a teleconference software and asynchronous education of a Moodle type platform already available before the COVID crisis [19]. Jandric et al. [20] collected testimonies on teaching in the age of COVID-19. Jandric shared the Call for testimonies on Post Digital Science and Education social network sites and emailed it to the journal's mailing list. His study received 84 testimonies from 19 countries (USA, UK, China, India, Australia, New Zealand, Denmark, Sweden, Croatia, Canada, Spain, Nigeria, Finland, Ireland, Malta, Tanzania, Malaysia, Latvia and South Africa). The respondents from those different countries shared how they carried out teaching and learning during COVID-19. The testimonies around the world indicated that teaching and learning was moved to online using their Learning Management Systems, Zoom, Podcasts, Skype, Teams, video conferencing and other platforms where they could share videos and interact with students in the online space. Some instructors felt that online

classes were more focused and tighter than in the face-to-face sessions however some experienced challenges related to lack of proper planning as they had to go online within short notice. Some who believed in facial expression could switch on their cameras while teaching so that they could have the sense of contact with their students, some did not want to switch on their cameras because they did not want students to see their private space, although they believed in facial expressions. However, in Tanzania and Nigeria it was reported that they encountered challenges of internet accessibility and electricity that made it impossible to move to online teaching. In South Africa it was reported that online teaching was adopted however they experienced unstable internet connectivity [20]. Saavedra [21] also suggested that it has been claimed that developed countries are at an advantage in initiating emergency remote teaching but this is not valid for every country.

Hodges et al. [22] differentiated between online instruction and emergency remote teaching, suggesting that the online teaching is mostly deliberate and involves a lot of planning. Remote teaching, on the other hand, is a temporary and abrupt shift to instructional delivery due to crises such as weather, war, or health. Remote teaching is not the same as planned online teaching. Therefore, remote teaching might be carried out differently in different contexts. For example, instruction can be delivered online but might also be provided through podcasts, couriered exercises for students and learners with no or limited access to internet or computers. While planned online teaching is characterized by different teaching modes such as fully online; blended and modes of communication such as synchronous or asynchronous where students could listen to the voice recorder or receive instructions on the email. Remote teaching may actually rely on or avoid technology for instructional purposes [22]. The main purpose behind remote teaching according to Bozkurt and Sharma [23] is to minimize spatial distance to ensure continuity of education, whereas for distance education, it is to minimize transactional and psychological distance to facilitate the continuity of teaching and learning. Bozkurt and Sharma [23] argue that while we are given opportunity to test online pedagogy, we should try to create a climate of empathy and care, and focus on different types of presence, such as teaching, cognitive and social presence and give focus to the students as whole human beings, their backgrounds, emotions, experiences and more importantly, their learning. "Before putting approaches into practice, we have to think about many variables, including target group, age range, technological infrastructure, and social and economic context" ([23], p. 3). Bozkurt et al. [24]; Wetzler [25] observed that, during the COVID-19 epidemic, the entire educational system needed a shift from their normal routines and create educational resources that could be shared among and within educational networks such as open educational resources (OERs) and open educational practices (OEPs). Bozkurt et al. [24] further observed that OERs and OEPs have played a significant role in ensuring the continuity of education even prior COVID. Therefore, stakeholders should also take efforts to reduce social injustice, inequality and inequity in meeting educational needs by producing and encouraging OERs. In the traditional business model such as publishing industry, learning materials like any other materials are copyrighted. During emergency situations, like the COVID-19 crisis, copyrighted learning materials can be an obstacle to delivering educational content since they require permission from or a payment to the copyright holder. Thus, initiatives to raise awareness and incentives as well as policies should be developed to encourage educators and other stakeholders to produce and use OER as a way to sustain OEP [23]. The cataloguing community including cataloguing educators, facilitator and cataloguing librarians should produce peer review OER and upload them online to use during the crises and prepare for the future. According to Jung and Hong [26], OERs 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 or re-purposing by others. This includes, course materials, modules, lecture notes, exercises, podcasts, textbooks, videos, tests, assignments, software, full courses any other tools, materials, or techniques used to support access to knowledge. The concept of OER according to Atkins et al. [27] was initiated by the Education Program of the Hewlett Foundation in 2002 as a major component into its strategic plan to use Information Technology to increase access to high-quality educational content. Hewlett program officers were motivated to initiate the component after thoroughly examining learning materials and content for Kindergarten to grade 12 as well as tertiary levels and found poor quality and discrepancies in the content. They also observed that open information resources that were freely available on the internet were of widely varying quality. With rare exception, the available materials neither promoted enhanced learning nor incorporated the latest technological and pedagogical advances. Educational institutions and publishers, lack of quality assurance for the content, and information overload also impeded the educational impact. Therefore, Hewlett Foundation program wanted to catalyse universal access to and use of high-quality academic content on a global scale. The original goal of the OER was to use information technology to help equalize the distribution of high-quality knowledge and educational opportunities for individuals, faculty, and institutions within the United States and throughout the world [27]. On the other hand, Bonk et al. [28] are of the view that since the year 2000, the Massachusetts Institute of Technology (MIT) has been a leader in the use of OER with their Open Course Ware (OCW) program. They gained inspiration and confidence from the free software movement since 1983 and the development of an open content license in 1998. UNESCO [29] coined the term Open Educational Resources at the Forum of Impact of Open Courseware (OCW), and defined OER as the non-commercial study materials adopted by a learning group through the use of information and communication technologies.

Nipa and Kermanshachi [30] observed that, when students are unable to purchase print educational resources because of rising prices or due to the unwillingness to carry heavy physical books, their education is compromised. Therefore, OERs could come handy because they solve these problems by providing free study materials in electronic formats and medium such as text, voice or visual art. To assist the cataloguing education system further, vendors of standards and manuals used in cataloguing such as resource description and access (RDA) should also consider charging library schools less subscription fees of RDA toolkit. The library schools in Africa and other developing countries should also consider to form the consortium to buy cataloguing standards in groups and save on costs especially because those standards are developed in America and subscription charges are based on American Currency United States Dollar (USD). Libraries and library schools that have digitised copies of other cataloguing standards such as Dewey Decimal Classification Scheme (DDC) should also share them online. Although the Web Dewey is free for library schools and students, to access it they will need internet connection whereas digitised copies can be used without internet connections. In developing countries, the cataloguing community experience lack of stable internet connectivity. For instance, in Nigeria and Kenya, Ahonsi [31] reported that major cities, libraries, universities and schools as well as other facilities could go for days or weeks without internet connectivity, in that case the cataloguers and library schools and students could not access RDA toolkit because it is accessible through the internet. Teaching and learning will then be affected negatively. Moreover, although there is free scanned full set of DDC edition 20 online, the library schools should share the costs and digitize the latest edition DDC 23 for the students to use while they are learning from home and cannot access the campus to collect the

print DDC due to COVID-19 protocols put in place by the institutions of higher learning in order to control the spread of the deadly pandemic. The same should apply to other standards such as Library of Congress Subject Headings, Sears lists of subject headings or any other cataloguing standard used. During this time, it is more important to build support communities. Therefore, all stakeholders such as educators, psychologists, sociologists, therapists, economists, entrepreneurs and others should collaborate to offer better and timely solutions. For example, in some countries like South Africa, the government has initiated different methods such as food parcels to the poor, government temporary grant to the unemployed, and decrease on the repo rate amongst others, to aid the citizens to alleviate poverty and to survive during the pandemic. Vendors should also do the same by supporting higher education with prescribed learning materials such as cataloguing standards in the case of cataloguing education. Bozkurt and Sharma [23] opine that “we should remember, when things go back to normal, people will not remember the educational content delivered, but they will remember how they felt, how we cared for them, and how we supported them.” Therefore the education system in general should support students and understand their stress, trauma and uncertainties because, COVID-19 has also affected individuals both emotionally, psychologically, socially and economically. Some students may not have money to buy data even though they have good internet connections. Nevertheless, emergency remote education is about surviving in a time of crisis with all resources available, including offline and/or online [24]. Bali [32] is of the view that, due to the distressing impact of this global crisis, stakeholders such as educators, parents, government ministries should prioritize the issues of care, empathy, emotional and psychological support to all and should not be limited to the classroom setting or only targeted towards students, but also embodied in educational policies and decision-making that impact educators, parents and staff as well.

2.1 Different approaches for cataloguing education during emergencies

Bozkurt et al. [24] looked at a global outlook to the interruption of education due to COVID-19 pandemic in a time of uncertainty and crisis using a collective case study design from different countries across the globe. Their study was comprehensive in nature and involved many co-authors and presented a total of 31 cases from 31 countries (China, India, Japan, Philippines, Russia, Saudi Arabia, South Korea, Algeria, Egypt, Ghana, Kenya, Namibia, South Africa, Uganda, France, Greece, Ireland, Romania, Spain, Sweden, the Netherlands, Turkey, the United Kingdom, Australia, Canada, United States of America, Argentina, Brazil, Mexico, Peru and Uruguay). Bozkurt et al. [24]’s findings revealed that while some countries provided multiple entry points such as hi tech, low tech and no tech choices and different paths for learners to follow, some countries with reliable internet connectivity relied heavily on synchronous and asynchronous online technologies. Many countries focussed their efforts on providing digital content or materials, both from Kindergarten to tertiary education levels, particularly those with the existing lecture or content-centric practices. In addition to online technology-centric solutions, some countries also used technologies popular from earlier generations of distance education such as to courier printed materials, lecture notes, activities, exercises, workbook and textbooks to students and also use radio and TV channels to deliver educational contents. These mass communication systems were important in many countries to deal with digital divide and knowledge access issues, and to address concerns that no learners are left behind. Due to the geographical settings in different countries cataloguing instructors should consider sending tutorials to students using Podcast, videos and other materials to support students learning.

Bozkurt et al. [24] are of the view that no single technology is superior to other ones and different technologies, if used purposefully and adequately, can serve well to facilitate education. Bozkurt et al. [24] further found that “online emergency remote education, LMSs such as Moodle, Canvas, Blackboard, Edmodo, Google Classroom, etc., synchronous communication and conferencing tools such as Zoom, Microsoft Teams, Google Meet, Webex, etc. and live broadcasting features of social networking sites such as Facebook Live, Instagram Live, etc. were widely used. In countries, where broadband internet was partly available, or the necessary infrastructure was not available, mobile technologies were used to communicate and deliver educational content. In such cases, it was generally observed that social networking and instant communication tools such as Facebook, WhatsApp, University APP, etc. were used to create communication channels among students, parents, educators, and school administrators. Such an observation implies the importance of freely available tools and further highlights the main ingredients of social learning, that is, communication. In addition to the above technology-centric observations, the change in pedagogy is worth mentioning because, in contrast to the visible impact of the technology, the invisible impact of pedagogies is argued to be deeper and long-term”. It is not the first time in contemporary history, learners and parents in the case of primary to high school are given such a great agency and responsibility for their learning. McCracken [33] learned that during the outbreak of Spanish flu pandemic, schools in California was using the telephone, a technology that was only 40 years old at the time as an educational device. Furthermore, Te Kura [34] also learned that during polio epidemic in New Zealand in 1948, which closed all of that country’s schools, they opted for traditional correspondence education and used postal services to send lessons to every household, as well as using educational radio to broadcast lessons. Moreover, Barbour et al. [35] reported that during the H1N1 influenza pandemic of 2009, a number of schools in Bolivia experienced high levels of absenteeism, therefore they developed their own virtual classrooms and trained teachers on how to teach in that environment. Again in Hong Kong, Alpert [36] described how online learning helped to facilitate continued access to instruction in 2003 when schools had to close due to the SARS outbreak. In many countries, inflexible curriculum was rejected, willingly and by necessity, its so-called robust assessment and evaluation approaches and, instead, applied approaches based on meaning-making and progress and defined by the values and interests of learners and parents [24]. On the other hand, Barbour et al. [37] are of the view that the rapid approach necessary for emergency remote teaching may diminish the quality of education. A full-course development project can take months when done properly. However the education system did not have enough time to prepare, train facilitators and students, there was a need to “just get it online” as the hard lockdowns had already consumed time when the education sector reopened. There was not much time dedicated to developing a quality course. Online courses created in this way should not be mistaken for long term solutions but accepted as a temporary solution to an immediate problem. Lesson learned from the previous studies is that although many countries resorted to emergency remote teaching, the process has required a huge effort from all participants (teachers, students, parents and administrators), as well as very creative solutions. Apart from technological divide, lack of planning, coordination, communication and management also placed a heavy burden on students, parents and teachers. Therefore, hence cataloguing curriculum is global, the facilitators and students could plan for the future and form blogs and vlogs to share ideas globally by inviting other institutions to participate on the blogs. These platforms may be sustained and used to share ideas and benchmark with other institutions. Series of formal and informal trainings on how to effectively use any available technology should be offered to

students. In cases where the physical libraries (academic, public, special) could not open, the government could install the information cubicles that uses renewable energy sources such as solar, wind, hydroelectric and other fossil energy to overcome the challenges of electricity interruption, especially in developing countries where people experience electricity load shedding, unstable network connection and could not afford internet connectivity. These could help to lessen the problems of social divide and inequality in education. Furthermore, Barbour et al. [37] suggests that schools and institutions should conduct research and collect data about the students' needs and experiences during remote learning. The findings will help the education systems to prepare in case the other pandemic could be experienced, rather than to wait and take drastic measures when the pandemic of any nature hits again. The institutions should also set up training plans for students, facilitators and administrators as well as to plan for the allocation of resources such as laptops, electronic devices that are needed to support remote education, they should also plan for digitization projects, to digitize cataloguing standards in the case of cataloguing education, those digitized standards may also be used during normal face to face instruction to avoid carrying "scaring" big books and sharing the books. Anecdotal research revealed that some cataloguing students are intimidated by the big books (LCSH and DDC) in particular, looking at the size of the books they think they may not understand the content in those books and go to class already discouraged and convinced that the modules are difficult. In that case students will have their own electronic copies that they can keep for referral even after they graduated as they do not have to return them at the end of the course for other students to use like with print books. Exchange teaching programs among the institutions could also help when coming to planning for the future. Institutions could learn from each other, some effective strategies such as webinars, blogs, vlogs, etcetera may be sustained and continue to be used even post COVID, that will save costs for transport, booking of venues and food when people need to meet and share ideas. Encourage student's mentors and supplementary instructions among students. Some students are able to cope while some are not. Those who are coping may be encouraged to assist others with activities and assignments. Furthermore, Barbour et al. [37] opined that legislation should be developed to require educational institutions to develop a digital learning framework and policies. Effective evaluation strategies in practical modules such as cataloguing may be applied.

2.2 Challenges of cataloguing education during emergencies

Omodan et al. [38] found limited educational resources to be the major challenges of rural institutions in South Africa. Furthermore, the author of this chapter observed that the majority of students enrolled with rural universities in South Africa are from the rural villages that are affected by poverty, do not have much development with regard to infrastructures and ICT. Some areas do not have communication towers due to their remote locations. Omodan [39] also found that "the students that are mostly found in rural institutions are students who are from poor and underprivileged backgrounds. Because of such, they don't have computers or laptops at home, let alone space and a healthy environment." Moreover, Wahab and Tyasari [40] found lack of managerial and professional efficacy toward emergency management in the university system, that could also contravene the postulation of United Nations Office for Disaster Risk Reduction (UNISDR) that advocate for all-inclusive alternative to development to be put in place to mitigate every unforeseen disaster to ensure holistic and sustainable development in rural organisations including university systems. Furthermore, Omodan found that rural universities in South Africa experienced limited educational resources, lack of funds and lack

of social and economic viability to sustain technological improvement, shortages of computers, Lack of access to ICT facilities by students from their homes, lack of emergency response strategies, lack of ICT skills from both facilitators and students, network problems. Similarly Ferri et al. [41]; Trust and Whalen [42] found unreliability of internet connections, lack of necessary electronic devices, lack of digital skills, and lack of work physical spaces at home, lack of support from parents and administrators. At the University of Wisconsin–Milwaukee, Miller et al. [43] reported cataloguing student's lack of ICT skills when offering their online courses even though they were running a planned program. Moreover, another anecdotal research at University A in South Africa that offers distance education revealed lack of students ICT skills, unstable internet connection, lack of data, lack of gadgets among other challenges. Once more, another anecdotal research in different face to face universities in South Africa revealed lack of students and staff ICT skills, lack of data, lack of gadgets such as laptops, electricity load shedding, unstable internet connections, and lack of enough cataloguing standards. During face to face instructions students were sharing those standards in class and their residences, it was now difficult for all the students to access the standards as they were geographically spread and learning from their respective homes. The other challenges were no access to RDA and no access to libraries and information centres when moving to remote learning.

3. Methodology

This chapter applied the qualitative research approach based on document content analysis extracted from different information sources such as books, journals, databases, conference proceedings, internet and world catalogue. Taylor [44] affirm that the qualitative research approach is significant in addressing contextual studies of this nature. It means literature could be interpreted based on the search of the researcher on key concepts of the chosen topic. The researcher searched the literature using the key concepts of the study such as different approaches to education during emergencies, challenges experienced by the education sector especially the institution of higher learning during emergencies. This was done to have a better understanding of the approaches towards cataloguing education during emergencies. The literature was then interpreted and conclusions were drawn from the results.

4. Concluding remarks

Lesson learned from this study is that, although all sectors and institutions of higher learning were affected by the pandemic, there is no one size fits all solution to respond to emergencies and to continue with quality teaching and learning. Some institutions are more vulnerable than the other, therefore schools and institutions of higher learning should learn from each other and create their tailor made programmes to suit their needs. Some may use high tech, low tech or no tech. The Library and Information Science schools should work collectively and share the costs of subscription and digitization of cataloguing standards to afford the students the opportunity to learn from home as previously suggested in this chapter. Concerning the challenges of ICT skills, LIS curriculum should include computer and ICT courses to afford students with skills. Instructors should also go through formal ICT trainings and exchange programmes with other institutions. Furthermore due to other challenges reported in this chapter, the cataloguing

instructors may create the podcast and video tutorials that should be accessed by students. Rural universities may also develop learning packages such as printed materials, videos, etcetera and send to students. Supplementary instruction (SI) model should also be imposed in cataloguing education. (SI) “is an academic support model developed by Deanna Martin at the University of Missouri–Kansas City (UMKC) in 1973 that uses peer-assisted study sessions to improve student retention and success within targeted historically difficult courses” ([45], p. 23). On the issue of assessment, different strategies such as portfolios should be imposed. Gaytan and McEwen [46] are of the view that effective assessment techniques associated with online instructions could include projects, portfolios, self-assessments, peer evaluations, and weekly assignments with immediate feedback. Instructors should design activities that promote student interactions and build a sense of community among students and faculty. Boyle et al. [47] opined that online assessment should include development of realistic scenarios for learning, alignment of learning objectives with realistic scenarios, use of software as soon as possible, availability of online mentors as well as SI and tutors. Although the above mentioned studies were carried out long ago, and were imposed in the planned online programs, emergency remote teaching may learn from them. Lau et al. [48] implemented concept mapping assessment in chemistry modules, indicating that concept mapping has a long history of application in science education and professional development. Cataloguing education may also use concept mapping assessment in the computer laboratory using “split lab” as suggested by [48] in order to curb the spread of the virus among the students, where students could practically generate online catalogues on the computer using Senayan Library Management System (SLiMS) a free and open source Library Management System or any other library system. With strong internet connections students can take the assessment remotely.

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