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Coronavirus Pandemic Open Distance E-Learning (ODeL) as an Alternative Strategy for Higher Educational Institutions

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ABSTRACT

The lockdown down of countries has fueled the alternative option of open distance e-learning education because one of the precautions of the coronaviruses is maintaining social distance from one another. Since higher education institutions could no longer function as expected where teaching and learning, research, and other activities could take place, the suggestion of open distance e-learning where students could work from home was adopted. Many educational institutions have leverage online learning platforms in providing vital resources to promote the culture of learning as the world continues to combat the dreaded coronavirus. Open distance e-learning as a strategy for higher education institutions has rescued the academic environment from total paralysis. This paper explores this phenomenon.

KEYWORDS

Coronavirus, Distance Learning, E-Learning, Education, Social Distancing

1. INTRODUCTION AND BACKGROUND

The latest outbreak of the coronavirus, also known as Coronavirus disease (COVID-19), has brought unprecedented unrest, loss of lives, anxiety and reduction in the world economy activities, thus, making higher education institutions (HEIs) to re-think and re-strategise on best practices and alternative ways to handle their teaching, learning, research and other activities that are carried out on daily basis without hampering the educational progress. Chisita (2020a) notes that the outbreak of the

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COVID-19 has caused great anxiety among citizens across the world. Furthermore, Chisita (2020a) argues that globally, countries are facing an implosive trajectory as they grapple with intensifying efforts towards preparedness and response to contain the effects of the virus, considering the low capacity of some countries to manage risks of such dangerous proportions. The latest outbreak of the coronavirus, also known as Coronavirus disease (COVID-19), has brought unprecedented unrest, loss of lives, anxiety and a reduction in world economic activities. The above-described situation makes higher education institutions (HEIs) rethink and re-strategise best practices and alternative ways to handle their teaching, learning, research and other activities that are carried out daily without hampering educational progress. Chisita (2020a) notes that the outbreak of COVID-19 has caused great anxiety among citizens worldwide. Furthermore, Chisita (2020a) argues that globally, countries are facing an implosive trajectory as they grapple with intensifying efforts towards preparedness and response to contain the effects of the virus, considering the low capacity of some countries to manage risks of such dangerous proportions. The World Health Organization (WHO, 2020) described COVID- 19 as one of the deadliest infectious diseases belonging to the enormous family of viruses that lead to sickness ranging from the common cold to severe diseases of Respiratory Syndrome and Acute Respiratory Syndrome. WHO (2020) also described the ailment as zoonotic, indicating that the disease is transmittable between animals and humans. It was affirmed that the virus had been transmitted between civet cats and dromedary camels to humans to strengthen this viewpoint. As a result of the quick transmission of the disease, experts and world leaders in health have suggested social distancing as one of the methods to curtail the spread of this infectious disease; until this time, a more radical scientific solution is still ongoing. Social distancing is a time-tested strategy of non-medicinal control envisioned to slow down the spread of communicable diseases by reducing the possibility of natural social interaction between those who are infected and those who are not (Johnson, Sun and Freedman, 2020). The concept of social distancing has been described as an oxymoronic term because the meanings of the two terms are contradictory. After all, one cannot be distant and social simultaneously (The Herald Editorial Board, 16 May 2020). However, social distancing has become the recommended hygienic practice to prevent the spread of COVID-19 (WHO, 2020). The Centre for Disease Control and Prevention (2019) highlighted that the enforcement of the social distancing policy required governments across the globe to map out strategies, including the closure of learning institutions to limit contact, ensure the proper sanitization of the learning environment and promote contact tracing to forestall the further spread of infection. The closure of learning institutions at all levels (primary, high schools, colleges and universities) has significant adverse effects on millions of students who have been affected worldwide; if this trend continues, it will constitute a grave danger to the educational system. Those who cannot read and write may face the devastating effect of struggling to earn a living for themselves and their dependents. However an investigation conducted by United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) acknowledged that a population of children, youth and adults were instructed by the government in hundreds of educational institutions around the world to stay away from schools, colleges and universities to curtail the spread of the dreaded virus. Additionally, UNESCO (2020) provides instant support to lessen educational interruption and expedite action on learning stability, mainly for the most susceptible. The motive behind the closure of schools will be defeated if children regroup at home and socialize with their friends. The unexpected shutting down of schools has equally shed light on the possibility of promoting Open Distance e-Learning (ODeL) as a panacea against the face to face or organic learning, which necessitates the delivery of courses via online application (Lau, Yang and Dasgupta, 2020).

In the wake of the global pandemic, the impact was profound on the educational activities of students as social interaction can herald danger to the health of educators and students. UNESCO (2020) reported that 61% of respondents stated that the psychological impact of the closure of learning institutions was a significant challenge for them, while 71% were concerned about the effects of social isolation on their children, while 38 expressed reservations about the lack of physical exercise precipitated by the closure of schools. To remedy this predicament occasioned by the closure of

schools and universities, many educational institutions introduced distance and online learning platforms using different media like the internet, television, radio, email, Facebook, and zoom learning, to mention a few. The social media platforms mentioned above present numerous technical and ethical challenges. The problem of zoom–bombing, whereby cybercriminals hijack online forums and the digital divide, which is an unequal distribution of access to the tools and techniques of ICT infrastructure, especially within poor communities, are critical challenges, according to the United States Department of Commerce (1995). The technical know-how on application and use of the technological devices, unfriendly nature of some of the tools, software to drive the hardware, maintenance of the technological devices for longevity and high cost of ICT tools could also pose a challenge across many households in the world (Caves, 2004). Nevertheless, with the suggestion of social distancing as a factor to curtail COVID-19, the authors investigate the coronavirus pandemic: open distance e-learning as an alternative strategy for higher education institutions. The justification was to foster continuity of teaching, learning, research and other activities in HEIs worldwide.

The study was guided with the following research objectives:

- Examine the benefits of deploying ODeL in a developing country.
- Determine Unitizing Strength of Open Distance e-Learning (ODeL).
- Explore the shift on the Weaknesses of Open Distance e-Learning (ODeL).
- Compare the threat to the development of Open Distance e-Learning (ODeL).

2. METHODOLOGY

This study is anchored on the interpretive research paradigm's systematic literature review (SLR). This approach operates under the assumption that access to reality socially constructed through language, perception and collective meaning is done to reveal the in-depth meaning of a phenomenon. A systematic literature review seeks to find as much pertinent research on a precise research question as possible through explicit methods to categorize what can be reliably summed up on the basis of reviewed sources. Giannakos, Mikalef, & Pappas (2022) described an SLR as a means of evaluating and interpreting all accessible research pertinent to a precise research question, topic area, or phenomenon of interest. Using an SLR allows the researchers to unpack the impact of the phenomenon under study across a wide range of settings, contexts, and empirical methods (Giannakos, Mikalef, & Pappas, 2022). The researchers followed systematic procedures to ensure a quality review of the literature concerning the COVID-19 pandemic on Higher Education. The search for peer-reviewed and other key articles was done using key terms such as: "COVID-19 pandemic and Higher Education," "COVID-19 pandemic and ODeL," "eLearning", and "COVID-19 and Distance Learning".

The study is underpinned by a qualitative content analysis approach focusing on deeply deducing and unfolding the subject matter and themes. For this study, documents like journals, conference papers, dependable online resources and policy documents from international and local organizations were analyzed to bring out new meanings were carefully examined concerning the spread of coronavirus and Open Distance e-Learning (ODeL). The systematic literature review was done to identify the strengths, weaknesses, opportunities, and threats concerning how the use of Open Distance e-Learning (ODeL) can help to promote social distancing, which is a strategic panacea to slow down the spread of coronavirus.

3. BENEFITS OF DEPLOYING OPEN DISTANCE E-LEARNING (ODEL) IN A DEVELOPING COUNTRY

Popovich and Neel (2005) highlighted that ODel presents numerous benefits to Higher Education Institutions. The above benefits include increased enrolments and incomes, widening institutional

reach, and increased learner technical skills. Other benefits include justifying the predictable shortfall among teachers, removing congestion of classrooms, reducing infrastructural costs, allowing learners to work at their own pace and learning style, reducing faculty bias, and refining retention and graduation rates. As increasing incomes and reasonable air travel continue to hasten the movement of millions of people (and viruses) around the world faster than ever, we will most likely see many more future epidemics of disease that threaten and disrupt everyday life. Learners and education systems will be on the frontline of many such outbreaks, and it is in such circumstances that the usefulness, and prospective transformative power, of ODeL in the teaching and learning process will be put to their actual test. Suppose a public health event causes the large-scale closure of schools in developed and developing countries, with many middle-class households having broadband and much-structured coursework (not just content) now available online. The COVID-19 pandemic potentially drove the world to a tipping point whereby the large-scale use of technology-driven teaching and learning platforms now complements traditional teaching and learning activities and enables or substitutes face-to-face learning activities for the benefit of learners. Other developing countries, for example, in Europe, maybe close behind. Some hyper-connected countries (like Singapore, Korea or Estonia) may be ahead of many education systems in North America. Nevertheless, what about countries which are almost universally acknowledged to be 'behind' when it comes to technology use in education -- in many ways, far, far behind? To what extent, and how, might ICTs be relevant in such places -- to the extent that they might be relevant at all?

Governments have closed many schools in response to the growing threat of the Coronavirus pandemic worldwide. The closures are only temporary, but that could change if the spread of the virus continues and accelerates.

The voices of people proffering credible arguments that large-scale investments in the use of educational technologies represent one of the best possible uses of scarce funds available in many sub-Saharan African countries emanates from a decided minority, drowned out in most cases by many more people questioning the relevance, impact and cost-effectiveness of such investments, especially given how thin the evidence base referenced by such voices typically is. It is important to note that all such investments are a terrible idea, of course -- far from it! (The EduTech blog partly documents such activities and tries to draw lessons from them.) Lots of small-scale (often pilot) examples exist which are promising, have shown promise, and have been welcomed by the people toward whom they have been directed. However, there have been lots (and lots) of 'failed' projects. One of the significant tests of the robustness and suitability of a system of any sort is how it responds to severe shocks. In places where the Coronavirus Pandemic has caused the large-scale closing of schools and learners cannot learn through other means, can we say that there are, in fact, education systems currently in place? There are systems of educational administration and bureaucracy still in place, to be sure, but if no one is learning, is there a functioning education system of any sort? Open Distance e-Learning (ODeL) has become very popular in developed countries, where most educational institutions have already offered courses online. In recent years, ODeL has been adopted in developing countries as well. The premise is that despite possible challenges due to technical and financial matters, ODeL can be an exciting and effective way of facilitating learning in developing countries to rescue the coronavirus pandemic. There need to be more previous research studies on ODeL in developing countries since it is a reasonably new phenomenon, especially in Africa.

It is clear that ODeL is growing fast, and it is no surprise because ODeL gives anyone a chance to learn (Vainionpää 2006). Moreover, most ODeL platforms are not time-sensitive; thus, one can access the learning platform irrespective of time and space. It gives a student the opportunity to study at their own pace and a chance for instructors and educational institutions to reach a much wider audience. Open Distance e-Learning gives a chance to study even at night if that is the preferred choice of the learners. The virtual devices necessary to participate in ODeL include a computer and a reliable internet connection.

Due to ease of access to information, learners with high mobility due to the coronavirus pandemic can access learning resources so far as they have the pre-requisite electronic tools.

Open Distance e-Learning also promotes equality. For social distance, it may be easier to communicate with instructors and students in an ODeL environment than in face-to-face learning to avoid the physical distance between instructors and learners. The President of South Africa, Cyril Ramaphosa, has suspended the gathering, and with more than 100 people, ODeL could be in good use to be adopted by institutions in South Africa. At the moment, in South Africa, the University of South Africa is the only institution which provides its services through ODeL.

As mentioned earlier, another opportunity that ODeL provides is that it can contribute to learners' capacity to regulate the number of social contacts and the quality of interaction. ODeL provides learners with a wide range of possibilities for mutual communication with various tools for both written and oral communication (Vuopala, 2013). Therefore, there is no doubt that ODeL can promote learners' community skills with practical and exciting communication tools. According to Myllylä, Mäkelä & Torp (2009, 128), active discussion and communication in ODeL also contribute to cognitive conflicts, which are imperative for learning and for which forum messages must be written in their own words, not by copying theories.

Learners with children need flexibility with their studies. Open distance e-Learning gives learners with families a chance to go forward with their lessons as scheduled. One of the best opportunities of ODeL is the flexibility with time. It allows the learners to study at what time of the day or week they want and when best suits them. ODeL improves the organizing skills of learners because they have more responsibility for their studies. At its best, open Distance e-Learning (ODeL) promotes education equality. Open Distance e-Learning also gives flexibility to family planning in the context of family social events, and in that way, ODeL has a robust social significance (Vainionpää, 2006).

From the learner's point of view, one advantage of ODeL in the Coronavirus Pandemic era is that in the online environment, the learners often receive more personal guidance than in class. Thus, ODeL gives a chance to offer supervision online, outside the classroom, and the ability to reuse the content and material of the course. Through ODeL, one can quickly return to the material and documents studied during the course (Vainionpää 2006). Currently there, many learners often move to developed countries such as China to study. In media, we often read and watch issues on Coronavirus Pandemic, which has affected most people in China. With increasing ODeL supply, we can meet this challenge of the Coronavirus Pandemic. Open Distance e-Learning gives a more significant opportunity for those living far away from developed countries such as China to study.

4. UNITIZING THE STRENGTH OF OPEN DISTANCE E-LEARNING (ODEL)

Palvia, Aeron, Gupta, Mahapatra, Parida, Rosner, and Sindhi (2018) cited Ghana, South Africa, and Malawi as the African countries leading the online education movement in the continent with the support of government policies promoting online education. South Africa was cited as the most developed African country with an evolved digital infrastructure and a clear e-education policy (Durodolu and Mojapelo, 2020). Kotouaa, Ilkana, and Kilicb (2015) cited Ghana as one of the countries in Africa with better access to the Internet and other resources at the disposal of its people. African countries have established vibrant National Education and Research Networks (NRENs) that provide affordable access through UbuntuNet Alliance. Vandeyar (2015) claims that there are gaps in the policy comprehension by intermediaries like district and province officials resulting in numerous problems in the actual implementation of national e-learning policy. Scholars call for greater participation of intermediaries in policy formulation as relevant stakeholders.

Abdulkareem (2011), in a study on e-learning in the Middle East, highlighted the challenges of poor internet penetration, low public esteem for online learning, and lack of online educational repositories in Arabic.

A study undertaken at Kenyatta University by Njihia, Mwaniki, Ireri, and Chege (2016) highlighted that e-learning students through the ODeL programme encountered instructional, institutional and individual (personal) challenges which have a bearing on their academic progress

and the programme's efficiency and effectiveness. These findings were collaborated by (Musingafi, Mapuranga, Chiwanza, & Zebron, 2015) and (Arinto, 2016), who cited poor administrative services evidenced by delays in the delivery of online learning materials, difficulties in registration, lack of ICT technical support and poor student support services. Blackboard Institute (2010) conducted a study among higher education that confirmed that institutions stressed the importance of effective learner support services in maintaining successful online learning experiences. The study described student services as a "diverse set of offerings that institutions develop and deliver to enhance the student experience and improve learning outcomes". These services encompass admission, enrollment, student financial accounts and technical support.

Furthermore, successful ODeL programmes amidst the COVID-19 pandemic require reliable internet connectivity, and in Africa, this becomes an impediment. Higher Education Institutions in Africa rely more on commercial internet service providers (ISP) for internet connectivity, which is unsustainable in terms of costs. Chisita and Rusero (2016) cited the proliferation of National Research and Education Networks (NRENs) Chisita and Rusero (2016) described NRENs as a magic formula for the democratization of access to scholarly communication in Africa.

According to the authors, the strength of NRENs lies in their social capital in the form of radical partnerships at a regional and international level and the use of common standards and protocols to build a common gateway to support the information needs of researchers and scholars. NRENs provide the needed technology that delivers MOOCs to enhance access to scholarships.

Expanding academic programmes in ODeL institutions makes the student population more diverse, especially in proficiency in ICTs. The authors highlighted the need to develop and implement support services that guarantee the students' success, for example, adequate support services that are responsive to the academic and non-academic needs of the highly diverse and technologically oriented student population. Palvia, Aeron, Gupta, Mahapatra, Parida, Rosner, and Sindhi (2018) noted that educational institutions encounter a variety of institutional, instructor, and student-related impediments to the successful implementation, maintenance, and growth of online programs. Hoover (2017) recommended creative thinking skills for exploring educational programs to attract international students, executing online or blended courses to reduce commuting costs and student travel time, and fast-tracking graduation rates, particularly for students working full time. Institutional factors such as lack of understanding of online pedagogy and online learning styles, lack of administrative backing for online learning and for marketing the program, number of students enrolled, faculty qualifications, tuition rates, and length of the program (Kentnor, 2015) can also doom the program to failure. In addition, Popovich and Neel (2005) investigated various institutional characteristics related to online courses and programs at the accredited Association to Advance Collegiate Schools of Business (AACSB). They noted shortcomings such as potentially reduced quality of education, increased faculty training costs, faculty resistance, financial aid constraints, employer bias against online degrees, lack of appropriateness for all subjects/course content, increased cost of the technological update, program startup costs and challenges, potentially reduced student/professor interaction, the irrelevance of previous location advantage, and potential infringement on existing programs. Popovich and Neel (2005) argued that implementing a successful online program requires that the program/course being offered should harness innovative technologies to enhance student learning beyond face-to-face classroom interaction. The authors above argued that a viable curriculum should promote reduced learning, deliver an inferior product, and heighten student and faculty frustration.

5. SHIFT ON THE WEAKNESSES OF OPEN DISTANCE E-LEARNING (ODEL)

Before the ODEL platforms surfaced in higher education institutions, traditional face-to-face teaching and learning witnessed many challenges due to unforeseen circumstances. The changes or shifts cut across the non-availability of e-resources and facilities for functional operation, inadequately qualified expertise, non-collaboration and cooperation of team players in the sustainability of

the institutions, lack of deep research practices through open access among colleagues/expertise/ lecturers were lacking, affirmation of laid down policies were not judiciously followed coupled with inadequate provision of funds to expand and enhance quality assurance control (Arinto, n.d). During this time, the support offered to students needed to be commensurate with expectations of adaptation to the shift of the ODEL environment. The shift was embraced due to the transformation noticed in technological devices employed in ODEL, such that practices of teaching and learning witness reform across higher education institutions in the world. The transitional process was from physical to virtual learning environments of various applications of web technologies (Arinto, n.d). Such developments affect not only the web technologies required to drive the systems but the institution, teaching and learning practices and cultures of the ODeL were altered (Taylor, 2001; Cleveland-Innes, 2010). Arinto (n.d) notes that, while considering the ODeL environment, specific issues are very pertinent, and only the modern technologies that facilitate the arrangements of synchronous and asynchronous communiqué utilized by students but especially the geographical location of different students who are physically separated across the world (Alfonso, 2012). Although the student might be separated from one another but have the opportunity to have the same educational experience; hence it is the term ODEL. This analogy was one of the factors that necessitated the authors to consider the study on the coronavirus pandemic: open distance e-learning (ODeL) as a strategy for higher education institutions. In order to curb and possibly minimize the spread of the virus, ODEL becomes the best alternative to furthering teaching and learning in schools/higher education institutions, irrespective of geographical boundaries. Implementing ODEL in schools and higher education institutions about COVID-19 precaution of distancing would enhance and achieve the same purpose of learning provided the facilities and enabler are considered.

Learners, students, lecturers, researchers and even workers in these different geographical locations in ODEL would only bother to see each other on critical occasions, and even at that, whatever services are required can still be achieved. The reason attributes to the curbing of the spread of COVID-19. One of the authors of this paper would like to share his experience when he visited the University of South Africa's main library at Mucklenuek, Pretoria, where he wanted to borrow a book for a specific research project. However, the UNISA library still needs the actual book; they were able to borrow the book from another institution through inter-library loan practices. The book was sent to the user through courier services at the user's residence with a tiny service fee. Users of libraries and students who use the ODEL platform can advance to accomplish their educational goals in such a critical time as this, to fight against COVID-19. There are even scenarios where students or users of libraries in that institution might not visit the institution but will continue to get support through different online platforms of Facebook, email, internet, television and radio. For example, at present, several HEIs in South Africa have already implemented this practice of ODEL as a way of obeying social distancing to curtail COVID-19.

The improvement in the weakness of ODEL depends mainly on the following factors as stipulated by Tait (2010); Bates (2008); Haughey, Evans & Murphy (2008); Haughey (2010); Arkorful and Abaidoo (2014):

- Provision of a massive collection of collaborative and hypermedia learning resources.
- A different strategy for learning interfaces and environments.
- The student experience cannot be jeopardized and undermined.
- Broad support for independent and collaborative learning across the board.
- An increasingly complex pedagogical structure is necessary (Haughey et al., 2008).
- Affirmation of organizational policy and practices.
- Continuous use of different sophisticated hardware and software to drive the web technologies.
- Application of innovative practice by distance instructors to foster quality teaching and to learn to students.

- The need for lecturers/instructors to advance in reskilling in further qualifications acquisition in order to appropriate pedagogical orientation.
- Address global standards and quality assurance mechanism.
- Need to advocate for guidance and support to students struggling academically.
- Lecturers must be ready for intricate and thought-provoking practices by using specific designs for teaching and learning with different technology.
- Continuous use of a different combination of knowledge systems of e-learning is essential.

Despite the strength, ODEL brings as a strategy offered in the fight against the coronavirus pandemic, particularly organizational culture and human factors, non-policy implementation is bound to deter this drive which the authors proposed. However, it is better to try than not make any effort at all, hence the reassurance of the non-spread of COVID-19 through the ODEL environment interface, as it is a global challenge that no one knows when its eradication will end.

Despite ODEL's strength as a strategy offered in the fight against the coronavirus pandemic, specific organizational culture and human factors, non-policy implementation is bound to deter this drive which the authors proposed. However, it is better to try than not make any effort at all, hence the reassurance of the non-spread of COVID-19 through the ODEL environment interface, as it is a global challenge that no one knows when its eradication will end.

6. CONCLUSION AND RECOMMENDATION

Most countries worldwide have lockdown educational institutions to contain the spread of the COVID-19 pandemic. Since there is no medical solution or vaccine to this highly contagious medical problem, social distancing from community members remains the primary option. The closure of educational institutions in reaction to COVID-19 has shed more light on numerous socioeconomic problems, including digital learning and the internet. Government and public-spirited organizations worldwide have suggested using distance learning programmes and open educational platforms that schools and teachers can adopt to reach out to their students remotely and improve the frontiers of learning and decrease the disruption of education brought about as a result of COVID-19. In a critical circumstance like this, online learning arrangement has become a lifeblood for the survival of education in which technology can be deployed to create an avenue where teachers and students can use specialized materials in a different format to bridge the space problem and time in imparting knowledge. Regardless of this good intention, the digital divide and Inadequate access to modern technology, like reliable internet access, can be a significant impediment, especially for students from rural communities or poor and disadvantaged families. Many libraries have also been closed down because it has become an avenue where many people congregate to read. (Durodolu & Ocholla, 2017).

REFERENCES

Abdulkareem, A. (2011). Management of educational facilities in Nigerian secondary schools: The role administrators and inspectors. *International Journal of Academic Research and Reflection.*, *3*(1), 32–45.

Alfonso, G. J. (2012, August). *UP Open University: Thoughts about openness in a digitized world* [Powerpoint slides]. Presentation at the UPOU Roundtable Discussion, UPOU Oblation Hall, Los Banos, Laguna.

Arinto, P. (2016). Issues and challenges in open and distance e-Learning: Perspectives from the Philippines. *International Review of Research in Open and Distributed Learning*, *17*(2), 162–180.

Arinto, P. (n.d.). *Issues and Challenges in Open and Distance e-Learning: Perspectives from the Philippines*. https://www.irrodl.org/index.php/irrodl/article/view/1913/3651

Arkorful, V., & Abaidoo, N. (2014). The role of e-learning, the advantages and disadvantages of its adoption in Higher Education. *International Journal of Education and Research*, *2*(12).

Bates, T. (2008). Transforming distance education through new technologies. In T. Evans, M. Haughey, & D. Murphy (Eds.), *International handbook of distance education* (pp. 217–236). Emerald Group Publishing Ltd.

Caves, R. W. (2004). *Encyclopedia of the City*. Routledge. doi:10.4324/9780203484234

Centre for Disease Control and Prevention. (2019). *Considerations for School Closure*. Retrieved 11/03/2020, from https://www.cdc.gov/coronavirus/2019-ncov/downloads/considerations-for-school-closure.pdf

Chisita, C. T. (2020). Libraries in the midst of the Coronavirus (COVID- 19): researchers experiences in dealing with the vexatious infodemic. Library Hi Tech News. doi:10.1108/LHTN-03-2020-0022

Chisita, C. T., & Rusero, A. M. (2016). *Towards parabiotic partnerships for access and discovery: Leveraging access to e-content within the framework of library consortia in Zimbabwe*. https://repository.ubuntunet.net/bitstream/handle/10.20374/227/chisitac.pdf?sequence=1&isAllowed=y

Cleveland-Innes, M. F. (2010). Teaching and learning in distance education: Enter a new era. In M. F. Cleveland-Innes & D. R. Garrison (Eds.), *An introduction to distance education: Understanding teaching and learning in a new era* (pp. 1–10). Routledge. doi:10.4324/9780203860915

Commonwealth of Learning. (2004). *Planning and Implementing Open and Distance*. Author.

Durodolu, O. O., & Mojapelo, S. M. (2020). Contextualisation of the Information Literacy Environment in the South African Education Sector. *The Electronic Journal of e-Learning, 18*(1), 57-68. www.ejel.org

Durodolu, O. O., & Ocholla, D. O. (2017). Search Strategy, Self-Concept and Metacognitive Skills of Secondary School Teachers in Selected Cities in Nigeria and South Africa. *LIBRI: International Journal of Library and Information Science, 67*(2). 10.1515/libri-2016-0104

Floyd, D. L., & Casey-Powell, D. (2004). New roles for student support services in distance learning. *New Directions for Community Colleges*, *2004*(128), 55–64. doi:10.1002/cc.175

Giannakos, M. N., Mikalef, P., & Pappas, I. O. (2022). Systematic literature review of e-learning capabilities to enhance organizational learning. *Information Systems Frontiers*, *24*(2), 619–635. doi:10.1007/s10796-020-10097-2 PMID:33551669

Haughey, M. (2010). Teaching and learning in distance education before the digital age. In M. F. Cleveland-Innes & D. R. Garrison (Eds.), *An Introduction to Distance Education. Understanding Teaching and Learning in a New Era*. Routledge.

Haughey, M., Evans, T., & Murphy, D. (2008). Introduction: From correspondence to virtual learning environments. In T. Evans, M. Haughey, & D. Murphy (Eds.), *International handbook of distance education* (pp. 1–24). Emerald Group Publishing Ltd.

Johnson, C. Y., Sun, L., & Freedman, A. (2020). Social distancing could buy U.S. valuable time against coronavirus. *Washington Post*. Retrieved 2020-03-11, from https://www.washingtonpost.com/health/2020/03/10/social-distancing-coronavirus/

Kentnor, H. E. (2015). Distance education and the evolution of online learning in the United States; curriculum and teaching dialogue. Information Age Publishing.

Lau, J., Yang, B., & Dasgupta, R. (2020). *Will the coronavirus make online education go viral?* Retrieved 17/03/2020, from https://www.timeshighereducation.com/features/will-coronavirus-make-online-education-go-viral

Musingafi, M., Mapuranga, B., Chiwanza, K., & Zebron, S. (2015). Challenges for open and distance learning (ODL) students: Experiences from students of the Zimbabwe Open University. *Journal of Education and Practice*, *6*(18), 1–5. Retrieved September 05, 2020, from www.iiste.org

Myllylä, M., Mäkelä, R., & Torp, H. (2009). Digitaaliset narratiivit ohjauksen haasteena opettajakoulutuksen verkkokeskusteluissa [Digital Narratives as a Challenge for Online Mentoring in Online Discussions of Teacher Students]. In P. Ihanainen, P. Kalli, & K. Kiviniemi (Eds.), Verkon varassa – opetuksen pedagoginen. Academic Press.

Njihia, M.S., Mwaniki, E.W., Ireri, A.M., & Chege, F.N. (2016). *Uptake of open distance and e-learning (ODEL) programmes: A case of Kenyatta University, Kenya*. Retrieved on 08/05/2020, from file:///C:/Users/chisict/Downloads/MALAYSIAPAPERfinalcopy_March2017.pdf

Palvia, S., Aeron, P., Gupta, P., Mahapatra, D., Parida, R., Rosner, R., & Sindhi, S. (2018). Online Education: Worldwide Status, Challenges, Trends, and Implications. *Journal of Global Information Technology Management*, *21*(4), 233–241. doi:10.1080/1097198X.2018.1542262

Popovich, C., & Neel, R. (2005). Characteristics of distance education programs at accredited business schools. *American Journal of Distance Education*, *19*(4), 229–240. doi:10.1207/s15389286ajde1904_4

Tait, A. (2010). Foreword. In M. F. Cleveland-Innes & D. R. Garrison (Eds.), *An introduction to distance education: Understanding teaching and learning in a new era* (pp. ix–xi). Routledge.

Taylor, J. C. (2001). Fifth generation distance education. *e-Journal of Instructional Science and Technology (e-JIST), 4*(1), 1-14.

The Herald Editorial Board. (2020). *Editorial: Helping others in a time of 'social distancing'*. https://www.heraldnet.com/opinion/editorial-helping-others-in-a-time-of-social-distancing/

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2020). *COVID-19 Educational Disruption and Response.* Retrieved 11/03/2020, from https://en.unesco.org/themes/education-emergencies/coronavirus-school-closures

United States Department of Commerce. (1995). *National Telecommunications and Information Administration (NTIA). Falling through the net: A survey of the have nots in rural and urban America*. Retrieved on 08/05/2020, from https://www.ntia.doc.gov/ntiahome/fallingthru.html

Vainionpää, J. (2006). Erilaiset oppijat ja oppimateriaalit verkko-opiskelussa [Different Kinds of Learners and Learning Materials in Web-based Studying]. *Acta Universitatis Tamperensis, 1133*.

Vandeyar, T. (2015). Policy intermediaries and the reform of e-Education in South Africa. *British Journal of Educational Technology*, *46*(2), 344–359. doi:10.1111/bjet.12130

Vuopala, E. (2013). Lecture: Social interaction and group dynamics in collaborative learning. of Oulu. doi:University

World Health Organisation. (2020). *Coronavirus*. Retrieved 17/03/2020, from https://www.who.int/health-topics/coronavirus

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