How African Higher Education Institutions Can Weather a Pandemic

BOOK REVIEW ESSAY
Munyao, Martin, ed. *Online Learning, Instruction, and Research in Post-Pandemic Higher Education in Africa.* **Foreword by George John Law. Lanham, Maryland: Lexington Books, 2022. Pp. xii + 242. USD \$105.00 / £81.00 (hardback), USD \$45.00 / £35.00 (ebook).**

Felix Chimera Nyika

ORCID: 0009-0004-5933-3560
Kairos Leadership Institute & Theological Seminary, Lilongwe, Malawi
fnyika@gmail.com

If one were given the option of just a single book on what African higher education institutions (HEI) can do to thrive in the midst of a pandemic like COVID 19, this would be it. This multi-author volume comprising of thirteen essays is edited by Martin Munyao, Deputy Director of Open, Distance and eLearning (ODeL) and lecturer in the Peace and International Studies Department at Daystar University, Kenya. The book has a foreword by George John Law, founder of Internet Theological Education by Extension Global (iTEE Global), and has twenty-six other authors mostly from Kenyan universities or affiliated to them who collaborate in the chapters. The book comes in the wake of the Covid-19 pandemic and its impact on higher learning institutions (HEI) in Africa in terms of their response in the areas of Open Distance and e-Learning (ODeL) and proffers that a mixture of pedagogical skills, educational technology, and institutional collaboration will result in optimum learning outcomes through ODeL than merely transferring the physical classroom experience online as did most HEIs during the pandemic. For ease of assessment, I have categorized the essays into the four broad categories of HEI strategy, the digital divide, online student experiences, and online instructor experiences which are porous as the issues bleed into each other and argue that although the book has some editorial challenges, it is very valuable tool to understanding how African HEIs coped in the pandemic and what areas need to be addressed for them to be better prepared for similar emergencies.

Felix Chimera Nyika
How African Higher Education Institutions Can Weather a Pandemic
BOOK REVIEW ESSAY: *Online Learning, Instruction, and Research in Post-Pandemic Higher Education in Africa*, **edited by Martin Munyao**

HEI Strategy

These essays address eLearning in the context of UN's Sustainable Development Goals, institutional experiences during the pandemic, policy, and technology issues at the institutional level. In the first chapter, **"Distance Education that Matters: Creating Sustainable Online Pedagogy," Alicia Plant** and **Martin Munyao** explore sustainable online pedagogy in alignment with the UN's Sustainable Development Goal (SDG) 4, which they assert as the center of all the 17 SDGs, and is aimed to "ensure inclusive and equitable quality education and promote lifelong opportunities for all." They call for faculty to have adequate online pedagogical training and innovative online pedagogy that goes beyond the exigencies of the pandemic and extends to the ideals of SDG 4.

Based on the second edition of the International Association of Universities global survey of the COVID19 impact on HEIs covering 112 countries and territories, **Trine Jensen** and **Giorgio Marinoni**'s **"The Impact of the Pandemic on Higher and its Potential Implications for the Future"** (*sic*) discusses the results with Africa in focus in chapter 12. Specifically they look at the issues of governance, teaching and learning, and research. African HEIs were shown to be more concerned about their financial sustainability, saw a revenue decrease in tuition and public funding, experienced an increase in expenditures to mitigate the effects of the pandemic on their operations, and a slight decrease in student enrolment. In terms of teaching and learning, only 14% of African HEIs were able to reach their whole student population during the pandemic as opposed to 39% of European HEIs, they fared lower on the use of digital tools and digital capacity building, they indicated higher levels of the negative impact on teaching and learning due to challenges of digital infrastructure and access to data, and, as regards curriculum changes, the more practical disciplines took on a more theoretical approach while those amenable to eLearning forayed more into case studies and problem-based learning. Research was adversely affected as well with delays due to pandemic restrictions, reduced research funding, and increased amount and quality of collaboration amongst HEIs.

In the seventh chapter, **"Switching to SIDE Mode — COVID-19 and the Adaptation of Computer-Mediated Communication Learning in Kenya," Lydia Ouma Radoli** draws on experiences from learners and teachers of Daystar and St Paul's universities during the transitioning from face-to-face instruction to eLearning or Computer-Mediated Communication which, she argues, is enhanced by the self-identity model of deindividuation effects (SIDE). She utilized textual analysis of transcribed focused interviews and text messages and concludes that these two institutions, though not representative of all Kenyan HEIs, swiftly made transitions to user-friendly CMC portals that made eLearning easier, maintained high-level examination integrity, and CMC offers

more practical and more adept at enhancing independent learning than traditional methods.

Using Spencer Johnson's fable "Who Moved My Cheese" as an analogy, **Rose Ruto-Karir** and **Nokuthula Vilakati** call for a dynamic digital transformation for African HEI's in their management and operations to leverage technology for efficiency and reliance post-COVID19. This eighth chapter is entitled **"Post-COVID-19 Digitalization: A Transformative Potential of Higher Education Institutions in Africa."** Their definition of digital transformation (DX) is derived from Brooks and McCormack who explain it as "a series of deep and coordinated cultural, workforce, and technological shifts that enable new educational and operating models to transform an institution's operations, strategic directions, and value proposition". To weather future storms, an effective digital transformation network (DTF) is required which is comprised of use of technologies, changes in value creation, structural changes, and financial aspects. They discuss the topic in the global, socio-technological, economic, social, environmental, and political contexts. They conclude the article with a five-pronged strategy for designing a DTF.

Julius Sirma and **Vincent Kogo**'s chapter nine, **"Elevating Higher Education Challenges Using Blockchain Technology,"** discusses the use of blockchain technology as a tool for safety and quality and therefore transformative for higher education. The authors examine the contribution of blockchain technology to HEIs in terms of IT infrastructure, computing solutions, and monitoring the various systems. They see it not as a disruptive technology but a foundational one that establishes markets and business models whose adoption and development can take decades. The authors discuss blockchain systems and structures. They point to its efficacy in improving record keeping, increasing efficiency in business processes, pioneering a new market for digital assets, creating a disruptive business model, easing payment systems, and improved teaching and storing space. Challenges to the use of the technology include usability due to its technical jargon and different parameters, scalability to incorporate large numbers of users, difficult interchangeability with other platforms and algorithms, lack of enthusiasm of use due to the ethical and secure use of data, unpredictability of the cost of transactions using Bitcoin, and the immutable nature of blockchain technology that make it impossible to reverse actions like the need to revoke a diploma or change a student's grade.

Addressing the Digital Divide

Two chapters address the issue of the inequity. Issues of how to mitigate the inevitable digital divide that eLearning fosters between the rich and the poor are discussed in the second chapter by **Abraham Waithima** et al, **"Covid-19 Higher**

Education-Driven eLearning: The Digital Divide's Impact on Access and Quality in the EAC Region." They call on governments to ensure that rural areas, where the majority live, have access to internet services and electricity. HEIs are requested to invest in digital infrastructure so that both students and faculty are well equipped in skills and digital tools and to facilitate a smooth interaction between face-to-face and eLearning which would render them disruption-proof in the face of pandemics and other emergencies as well as cater to the various student learning preferences. National commissions and councils are asked to be flexible to allow HEIs to be creative and to revise standards and guidelines that reflect post-Covid-19 realities. They see regional bodies like the IUCEA (Inter-University Council of East Africa) as not only coordinating regional standards and guidelines for eLearning but also promoting greater collaboration between HEIs to increase their capacities and pool resources.

In chapter six, **"The Role of Digital Technology and eLearning during COVID19 Pandemic and its Impact on the Higher Education Sector in Kenya," Laban Ayiro, Martin Munyao,** and **Anthony Wambua** investigate the equity implications of the digital divide that separates the privileged from the under-privileged in eLearning and argue that recognizing such impediments early will aid in crafting solutions against them that will enhance the learning experience. They note that the COVID-19 pandemic aggravated the social inequalities as eLearning requires digital gadgets and internet connectivity and also exposed the inadequate eLearning infrastructure of Kenyan HEIs. Unlike the previous two chapters by **John Madegu** and **Rebecca Ng'ang'a** that show the suitability of PBL to online learning, **Ayiro** et al note that the adoption of flipped methodology led to a positive learning experience as opposed to PBL which deemed ineffective in online learning. Based on empirical studies, they cite the social inequalities that magnify the digital divide as lack of access to computer devices, lack of affordable and stable internet, and lack of a conducive study space. Finally, they assert that these inequalities must be considered by governments and HEIs if learners from less-privileged communities are to benefit from eLearning.

Online Student Experiences

Two essays deal with how eLearning from the learner's perspective and address psychology and researchers' experiences during the pandemic. **Catherine N. Mwarari** and **Agnes N. Mburu** explore the effectiveness of human-centered effective learning processes and theorize on some of the impediments to online learning in chapter three, **"Psychology of Online Learning."** The psychological barriers to eLearning they cite are lack of variety in assessment leading to monotony, low levels of volitional control, a fixed mindset as regards intelligence and feeling of isolation, inadequate self-

How African Higher Education Institutions Can Weather a Pandemic
BOOK REVIEW ESSAY: *Online Learning, Instruction, and Research in Post-Pandemic Higher Education in Africa*, **edited by Martin Munyao**

motivation and orientation to self-discovery, and negative emotions such as stress. On the positive side, they assert that online learning does provide a formidable alternative to the traditional classroom. They cite that online learning: gives the student access to internet resources that would hitherto merely be summarized in classroom; enhances creativity, communication, collaboration, and critical thinking; is not limited by place, pace, and time of study; advantages those with learning disabilities; and solves the problem of lockdowns due to pandemics and other emergencies.

The challenges that seven epidemiological researchers at Mount Kenya University School of Nursing had to overcome during the pandemic are what **Justice Mutua** and **Fridah Mburu** discuss in **"Ramifications of Nursing Research in the Wake of COVID19,"** chapter 11. They discuss the pandemic restrictions on the researchers' activities such as recruitment and enrollment, alternative consenting processes, and data collection, storage, and analysis. The effect of the restrictions on the researchers' career are also highlighted in terms of intra-team and university-wide communication and their mental health. These experiences are offered as a model for nursing research practice in the context of a pandemic.

Online Instructor Experience

Four chapters address problem-based learning, collaboration, and dialogical communication in eLearning. **Rebecca Ng'ang'a**'s reflects on online learning, teaching, and research in the context of the Covid-19 shutdown in chapter four, **"Opinion and Experience in Regard to Problem-Based Learning in Online Mode."** Using Freire's idea that education, far from being a tool of socializing the younger generation into the logic of the present, should be a tool of freedom that brings transformation of society by equipping learners with critical analysis and reflection that aid in their participation of making the world a better place. She uses that and similar lens to discuss how a teacher's personal qualities impact problem-based learning and how gathering online was in continuity with student's reflections on issues as they were already discussing and reflecting on them offline. Reflection forms the core of this pedagogy and is understood as learning that fosters examining and questioning of one's assumptions, beliefs, opinions and values through observing, questioning, and coalescing facts, ideas, and experiences to draw out meaning and new knowledge. She reflects from such a position as she discusses the context of online learning, the learning context, online learning as a means not an end, the positive and negative outcomes of online learning, and challenges of online learning and how they are being addressed.

John Madegu's **"Teaching Problem-based Learning in the Post-COVID-19 Era in Africa: Challenges and Opportunities for the Online Instructor,"**

How African Higher Education Institutions Can Weather a Pandemic
BOOK REVIEW ESSAY: *Online Learning, Instruction, and Research in Post-Pandemic Higher Education in Africa*, **edited by Martin Munyao**

chapter five, looks at the challenges African online instructors face in teaching PBL after COVID-19, the opportunities that eLearning brings to African higher education, and surmises that, notwithstanding the many benefits of PBL in learning experiences, the inadequate skills of African instructors poses a stumbling block. He explores different aspects of PBL and its attunement to African higher education citing South African and Kenyan examples such as its fundamentals, its rationale in the African context, its relationship to learning theory, and its relevance for African higher education. He asserts PBL is suitable for Africa as it is competence-based, entrepreneurial, an ideal pedagogical tool, and can be used to leverage online resources. He notes challenges to online teaching as instructor competencies, inadequate online teaching skills, diminished funding for HEIs, and high cost of online infrastructure. He concludes the chapter on a positive note as he sees these challenges being mitigated by partnerships with technological companies and foreign direct investments by the many corporations that operate on the continent.

"Enhancing Collaboration in Online Learning" by **Martin Munyao** and **Sarah Wachira**, which is the tenth chapter, addresses the issue of equipping faculty with skills that will help online learners to be engaged students given the challenges of the online context as opposed to a face-to-face format. Taking their cue from Lev Vygotsky's Zonal Proximal Development (ZPD) theory, they explore different strategies, activities, and benefits of collaborative eLearning. They discuss the following strategies: jigsaw technique, Think-Pair-Share, brainwriting, discussion questions, breakout group discussions, scaffolding instruction, flipped classrooms, and problem-based learning. Collaborative writing, group projects, joint problem-solving, debates, study teams, online forum discussions and chat rooms, and breakout group discussions as eLearning activities that can optimize learner engagement. They note that collaborative learning enhances the learning capacities of students as it lessens remoteness, promotes self-learning, and so results in better performance. However, they further note that for collaborative learning to work there is need to set clear learning goals and expectations, learners must be self-motivated to form their discussion groups, and instructors must be given adequate training and support in order to give timely feedback to students. They conclude with the challenges for collaborative learning which they point out as a lack of communication skills in both instructors and learners, uncooperative and difficult members in groups, the difficulties of being both a worker and a student, and the problem of internet connectivity.

The thirteenth and final chapter, **"Dialogical Communication for eLearning Success,"** by **Evonne Mwangale Kiptinness** and **Winnie Mbatha**, addresses the problem of meaningful interaction in Computer Moderated Communication (CMC) by arguing for the use of dialogic communication in

eLearning using Social Influence Process Theory (SIPT) with Daystar University as a case study and proffers further areas of research. After contrasting face-to-face learning and eLearning, the authors note the challenges of eLearning in the Global South and particularly in Africa. They explore the difficulties of dialogical learning in the eLearning environment but posit five dimensions that mitigate these: constant engagement of participants, interactive attitude that engages the audience through feedback, interactive resources that produce dialogic communication with the audience, responsiveness when the audience reacts to the received communication, and communication which is the conversation between the communicator and audience. Using SIPT, they argue that over time CMC can bring about interpersonal relationships that lead to meaningful interactions minus non-verbal cues which can be addressed, to some extent, by emoji. This theory is tested in their case study of Daystar University and proven true. Finally, they assert that further research is needed in the areas of eLearning tools, enhancement of eLearning, and the challenges of eLearning such as access to data, stable electrical power, and access to the internet.

Analysis

The book suffers from some editing shortfalls, it nevertheless addresses very pertinent issues for the future of African HEIs if they are to contribute to AU2063, The Africa We Want. The book has some typographical errors, requires the chapters to be grouped in parts, could benefit from multiple level subheadings, and could use footnotes/endnotes. There are several typological errors like capitalizing a second word in a sentence, unnecessary repetitions of words and phrases like "in this chapter", Chapter 13 has a missing word in the title, and another chapter's sub-heading is part of a paragraph. The book could be more coherent and less confusing if the chapters were grouped into parts dealing with a similar theme. For example, the second chapter by **Waithima** et al, **"Covid-19 Higher Education-Driven eLearning: The Digital Divide's Impact on Access and Quality in the EAC Region"** and chapter six, **"The Role of Digital Technology and eLearning during COVID19 Pandemic and its Impact on the Higher Education Sector in Kenya"** by **Ayiro, Munyao**, and **Wambua**, both of which deal with the issue of the digital divide, could be grouped together. Further, such partitions to the book would have assisted the editors to foster dialogue between authors arguing for different positions; e.g., as when **Ayiro** et al argue that PBL was not as effective during the lockdown "due to the nature of online learning" as compared to flipped methodology yet both the preceding two chapters of **Madegu** and **Ng'ang'a** argue for the opposite. Some chapters require multiple levels of sub-headings so one can distinguish between the various sections and better follow the argument. This

has resulted in some essays having a single-paragraph section that could have been part of several same-level headings. Some chapters could have used footnotes as an explanatory tool so that the main text is not inundated with matters not directly related to the argumentation.

That aside, this book is a very valuable tool for those wanting to understand how African HEIs coped in the pandemic due to its variety of topics, relevance and focus on Africa, grounding in lived experiences, and its dealing with the pertinent issues of digital infrastructure, access to education, and reflecting on the digital divide. Its variety of topics spanning institutional strategies for digitalization, lessons from the lived experiences of tutors, learners, and researchers, variety of teaching approaches and methods, and addressing equity issues leaves no stone unturned in the African HEI eLearning universe. Though most of the studies are conducted in Kenya, the results are relevant to other African countries as the contexts are very similar and so lessons learned in Kenya are, by and large, transferable to many other African countries. Most importantly, many of these were empirical studies grounded in the lived experiences of researchers, learners, and tutors during the pandemic which means their findings are based on the reality on the ground and therefore very likely to offer real solutions to the problems they were examining. The very pertinent issues of digital infrastructure development, access to digital tools and the internet, government policies that are supportive of better eLearning, and how African HEIs can operate in the context of resource-scarcity are discussed at length. With SDG4 ("ensure inclusive and equitable quality education and promote lifelong opportunities for all") in view and its noble pursuit of educating all people, ODeL seems to be the one sure way of realizing that goal and that of AU2063, The Africa We Want.[1] Optimistic as this sounds, the authors caution though that the inequity of the digital divide needs addressing so that eLearning does not continue to exacerbate the rich-poor gap in Africa.

Conclusion

The breadth of the topics covered and the analyses of the authors have satisfied the book's argument that a mixture of pedagogical skills, educational technology, and institutional collaboration will result in optimum learning outcomes through ODeL than merely transferring the physical classroom experience online as did most HEIs during the pandemic. This indeed is a required addition to every HEI library and the lessons learned in it need to be heeded by all who are involved in ODeL.

---

[1] See *Agenda 2063: The Africa We Want* (Addis Ababa: African Union, 2015), https://au.int/en/Agenda2063/popular_version