

# ACADEMIA | Letters

## *“Pandemia”: The Present & Future*

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“Pandemia” in the context of this paper is the infiltration of the COVID-19 pandemic in academia. Simply, it is operationalized as a “pandemic in academia”. The disruptive effect of the coronavirus (COVID-19) on the status quo of education is unprecedented. Since its discovery and official declaration of the COVID-19 as a pandemic by the World Health Organization on March 11, 2020 (WHO, 2020), academia has not been the same in terms of funding, teaching, learning, research practice among others. In the midst of a potential threat of a COVID-19 lockdown and debate over a potent vaccine to keep the coronavirus at bay, necessity has forced many higher education institutions (HEIs) to migrate emergently to full online learning (Adarkwah, 2021a), there has also been transition to digital libraries to provide educational content to students/communities (Tammaro, 2020), researchers are forced to explore alternative ways of conducting research without physical contact with participants (Braun, Blok, Loeber, & Wunderle, 2020), and there have been advocates and a surge of virtual laboratories to enable final year students complete their experiment for possible graduation (Lorusso & Shumskaya, 2020). The pandemic has therefore terrorized academia causing myriad significant changes in its diverse fields. The paper discusses some of the short-term and long-term changes (the present impact on/response to and future prospects of academia).

### **Online learning**

The great havoc wrought by the COVID-19 made online learning ubiquitous, even in low and lower-middle-income countries where online learning has been met with a resistance (Adarkwah, 2021a). The social distancing norms of the COVID-19 made online learning the only best and legal way to ensure continuity in education for nearly 1.6 billion student population

(representing 94% of the entire student population in the world, and 99% of the student population in developing countries) whose educational careers were shuttered as a result of the pandemic (Lennox, Reuge, & Benavides, 2021). Although the online learning was accompanied by contextual challenges due to its emergent nature, many students indicated it was the appropriate way to ensure progressive and lifelong education. In the advent of a potent vaccine, some students have called on the need to adopt blended learning which has both online and offline instruction (Adarkwah, 2021b). This is suggested as a way to mitigate the challenges that emerged from the sudden online learning. It is expected that there will be massification of online-related learning in this COVID-era.

## **Digital libraries**

Libraries passed through difficult times during the COVID-19 pandemic. Information provision in many HEIs has been mainly traditional, especially those in developing countries (Ifijeh & Yusuf, 2020). The traditional method entails organization and dissemination of hard copies of information/educational materials in different sections of library buildings. Because the traditional method requires physical contact between library and its users, electronic means of providing information to learners who could no longer visit libraries due to the pandemic were adopted. Over the years, the relevance of libraries to community and schools have been an area of investigation. Migrating from traditional to digital libraries can be a way for librarians and HEIs to provide wider access to information and educational resources to its users, which will subsequently strengthen their relevance. Digital libraries also lessen the demand on limited facilities/infrastructure of HEIs while at the same time providing an option to record the online interactions of students. Tamaro (2020) documents that there is a need for a digital strategy in the transformation of libraries with an innovative vision of service.

## **Research innovations**

Vindrola-Padros, et al. (2020) mentioned that researchers experience difficulty in carrying out (designing and implementing) research in the context of an outbreak. In this current COVID-19 outbreak, researchers and participants might be exposed to the risk of infection in research studies that involves fieldwork. This has opened up discussions on various ways online tools/platforms can be utilized to conduct studies that were originally designed for face-to-face (F2F) interactions (Braun, Blok, Loeber, & Wunderle, 2020). Although the use of online tools may not raise an eyebrow because it is not anything new, in the context of the pandemic, the conducting and managing of all research activities moved fully online, which

was not the case previously. Braun et al. (2020) recommend collaborative research will be helpful in this COVID-19 pandemic through co-design, co-analysis, and co-decision making. In the field of humanities, internet-based platforms can be used in facilitating data gathering. HEIs may need to introduce and increase their information and communication (ICT) infrastructure for research activities to take place. Zoom meetings and Google Hangouts can aid researchers in collaborative research. Digital tools such as document/social media analysis, online platforms, and telephones offer new opportunities for gathering data and conducting research. Studies can be conducted using free or paid tools online (e.g. phone surveys and interviews). It is noteworthy to mention that, as a result of the COVID-19 crisis, there are loads of research opportunities for academics to focus on, such as job loss, job changes, job outcomes, coping strategies, support systems, home life changes, children, life-related outcomes, social life, focal groups (e.g. underprivileged populations), and general issues such as the use of technology and experimental studies on COVID-19 (Venkatesh, 2020).

## **Virtual laboratories**

The timing of the pandemic was around vacation period where many students (especially final year students) had left their parent university to spend quality time with their families and get rejuvenated for the succeeding semester. The onset of the pandemic and the subsequent closing of borders wreaked a havoc on final year students who had to perform hands-on laboratory experiment to complete their studies. To this end, many scholars and educators called for the adoption of online laboratories as a means to aid such students graduate (Lorusso & Shumskaya, 2020). According to the authors, some HEIs designed virtual laboratories with distinct techniques such as computational biology techniques to mitigate the challenge. This is to say that, simulated laboratories now serves as an excellent channel for learning science/performing experiment from home while residing at a safe distance (Ray & Srivastava, 2020). Virtual laboratories add a new dimension to web-based online learning which cannot provide the requisite skills and knowledge needed for analysis of scientific data or laboratory experiment. Vasiliadou (2020) believes that virtual laboratories can serve as a powerful solution in HEIs for both undergraduates and postgraduates to progress in their studies without any disruptions since essential experiments can be performed online at home.

## **Conclusion/Recommendation**

Despite the herculean effort of major players globally, the world is still wrestling with the deadly COVID-19 (Di Minin, et al., 2021). The year 2021 is synonymous to the previous

year as far as the COVID-19 pandemic is concerned, and it seems there will be no sector of academia which will be left unaffected. However, as previously reviewed, it behoves academics to design an effective roadmap for academia in order to meet the Sustainable Development Goal 4 (SDG4). The appearance of the COVID-19 has revealed the abilities of HEIs to react in times of health emergency. The adoption of online learning is appropriate, however, academics should find possible solutions to the already emerged challenges with this modality of instruction. Having an instructional technology expert can help maintain online platforms for effective delivery. At the same time, blended learning is an alternative for HEIs in developing countries with limited physical space/infrastructure because of its cost-effective nature and affordance to maintaining the COVID-19 social distancing protocols. With respect to digital libraries, robust online offerings of educational materials will do good to students and other users. Making use of social media applications such as WhatsApp, Zoom, Google Meet, and email can enhance communication between librarians and users for best content delivery. Research can be advanced through free and paid online tools for data collection and analysis. There are still myriad of students in doctoral degree programs and other courses in many countries whose graduation is at risk because they are unable to do their experiment. Virtual laboratories can provide a “way of escape” from the potential threat of not finishing their communication. In the future, HEIs worldwide, with a major emphasis in those in developing countries should incorporate online learning strategies in education, provide both traditional and digital library learning to users, explore online/innovative research data collection methods, and adopt virtual laboratories for its students. Since a new pandemic is a possibility, HEIs should be prepared for any disruption in education. The “pandemia” has revealed a lot of loopholes and at the same time opportunities for innovation in education.

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