5 The University of Rwanda response to COVID-19

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Abstract

The universities in Rwanda, like in other countries, experienced uncertainty created by restrictions and lockdowns imposed to contain the spread of Coronavirus. None of the universities were prepared to face disruptions of this scale, however, learning had to continue irrespective of the COVID-19 pandemic. Based on the case of the University of Rwanda (UR), this chapter discusses the Rwandan university's response to COVID-19, presents the lessons learnt, and provides recommendations that might help universities and researchers in the future. This chapter reports on a qualitative study that analysed the university's news articles and official communications with regards to COVID-19 that were collected during a seven-month period. The findings revealed that the university was not indeed prepared to continue its teaching and learning activities remotely online, and that the decision to go online was top-down. Furthermore, it pointed out the lack of access to the required infrastructure and tools, the lack of technical support and training, and the digital divide that exists among students, as the major challenges to a successful remote online teaching and learning process.

Keywords: COVID-19, online, language teaching, digital divide, technology, Rwanda.

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1.   Introduction

UR is a public university located in Rwanda, the first African country that imposed the total lockdown as a measure to contain COVID-19. This lockdown was announced on 14th March 2020 to be effected on the next day (Ministry of Health, 2020). Rwanda is a landlocked country (26,338 km2 of total area) located in the centre of Africa, and inhabited by approximately 12.6 million people according to the National Institute of Statistics of Rwanda (NISR, 2014). Rwanda has Kinyarwanda as its sole national language, and Kinyarwanda, English, French, and Swahili as its four official languages (Republic of Rwanda, 2015, 2017). English is a compulsory taught subject and a medium of instructions at all levels of education, whereas the other three languages are optional taught subjects. Kinyarwanda is spoken and used in everyday activities by more than 99% of the total population of Rwanda, compared to English, French, and Swahili which are spoken by less than 5% of the total population each (Gafaranga, Niyomugabo, & Uwizeyimana, 2013; Niyomugabo & Uwizeyimana, 2018; Rosendal, 2009; Samuelson & Freedman, 2010; Uwizeyimana, 2018a, 2018b).

Rwanda is lagging behind at a significant level in terms of technology infrastructure, one of the requirements for remote online learning. According to NISR (2018, pp. 66-68), only 27.1% of the Rwandan total households have access to electricity, and 17.2% have access to the internet. Regarding the ownership of the electronic and technological devices, only 3.3% of the Rwandan total households own a computer, 10.4% own a television set, 66.9% own a mobile phone, and 73.8% own a radio set or listen to the radio on a mobile phone (NISR, 2018, p. 77). At an individual level, NISR (2018) specifies that only 36.7% of the Rwanda total population own a mobile phone, and only 10.5% of the total population aged between 15 and 24 years, as well as 8.9% of the total population aged 25 years and above, are computer literate.

The UR (2018) reported that 63% of students own laptop computers. Furthermore, the majority of UR students fall within the digital native

generation (Prensky, 2001; Thinyane, 2010; Uwizeyimana, 2018b), and thus are assumed to be digital literate. However, studies found that students in Rwanda and other parts of the world are more literate and comfortable with using mobile devices than computers (Grigoryan 2018; Stockwell & Liu 2015; Thinyane, 2010; Uwizeyimana 2018a, 2018b). Furthermore, Stockwell and Hubbard (2013) pointed out that this "knowledge of how to use mobile devices for specific personal or social functions is not always a good indicator of knowledge of educational functions" (p. 4). It is in these regards that training and technical support are always recommended even for digital natives, with the purpose of not only making a positive impact on the remote online teaching and learning outcomes, but also of addressing the digital divide which was found among the current generation of university students (Brown & Czerniewicz, 2010; Thinyane, 2010; Uwizeyimana, 2018a, 2018b). This chapter verifies the basis of the above argument as it reports on a qualitative study that analysed the UR response to COVID-19.

2.   Methodology

This study was conducted at UR. UR was selected because it is the largest, top-ranked, and sole public university in Rwanda (HEC, 2016; UR, 2020a). According to its 2019-2020 annual report, UR had 25,085 students (UR, 2020a, p. 10), and 2,072 employees composed of 1,329 academics and 743 administrative and support staff (UR, 2018, p. 29). Before the COVID-19 total lockdown, the UR programmes' mode of the delivery was face-to-face (UR, 2018, p. 22), and the majority of academic staff were not trained on remote online teaching.

In data collection, the UR website was monitored during a seven-month period starting from March and ending by October 2020. During this period, news articles and official communications with regards to COVID-19 were collected and qualitatively analysed. The findings of this analysis with regards to how UR responded to COVID-19 lockdown by shifting to remote online teaching and learning are discussed in the following sections.

3. Findings and discussion

3.1. Decision-making process to go online

The UR decision to go online was top-down. This decision was communicated through the vice-chancellor's circular to students and staff as follows:

> "[i]n line with the Government of Rwanda's new measures to prevent Coronavirus transmission, the UR will stop all teaching activities from Monday 16th March 2020. Students shall be informed about the resumption of teaching in due time. In the meantime, all students are encouraged to continue their self-learning, taking advantage of online teaching materials" (UR, 2020b, p. 1).

It is clear that the UR community did not participate in this decision-making, i.e. was not given the time to prepare for its abrupt closure, probably by putting in place a remote online teaching and learning strategy rather than recommending the self-learning method. This situation created uncertainty as expressed by the vice-chancellor on 8th May 2020 as follows:

> "[i]n recent times many people have faced uncertainty about their jobs, health and schooling globally. [… w]ith the recent cabinet's guidance on progressive lifting of the lockdown and [the Ministry of Education]'s clarifications on its implication of the education sector, it is clear that we will not meet again on university campuses for some time" (UR, 2020d, p. 1).

3.2. Training and technical support

In its circular of 1st September 2020, the UR (2020e) recognised that remote online teaching and learning were new to the majority of its community members, and thus introduced three concepts used in remote online learning to students as follows:

"[w]hen it is live interaction, we call it 'synchronous' – as in 'of the time'; and when it is a recorded lecture, it is called 'asynchronous'. You should not be worried about these different forms. The good thing about recorded lectures is that you can go back and revisit them. […] For those of you who are used to attending laboratories, we will be introducing you to *virtual labs* as well as giving you access to labs on campuses in due course" (p. 2, my emphasis).

After this introduction, UR organised an online induction session for undergraduate students on the 'UR e-learning platform' (Ntirandekura, 2020). Academic staff were also trained "on developing e-learning and blended modules" (Bucyansenga, 2020, n.p.).

3.3. Assumptions underpinning design of remote programme

Assumptions supporting the use of remote teaching and learning were based on different studies such as Elias (2011), Browne and Culligan (2008), Herrington, Herrington, and Mantei (2009), Stockwell and Hubbard (2013), and Jacobson and Turner (2010). These studies found that remote learning – with its derivatives such as 'mobile learning', 'distance learning', 'open learning' and 'e-learning' – is flexible, equitable, portable, spontaneous, personalised, contextualised, adaptable to instructional climates, and favourable for the integration of multimedia. These assumptions support the adoption of remote teaching and learning, but of course through a careful and adequate design-and-implementation process. At UR, in addition to the lack of the required infrastructure and training there was no careful and adequate planning to deal with issues pertaining to remote online teaching and learning.

3.4. Pedagogical and logistics considerations

UR (2020c) urged the "UR faculty and technical staff to ensure that all modules offered in all academic programmes [were] updated and uploaded on [the UR's] e-learning platform, [and that all the students were] registered for each

module in [their] academic programmes" (p. 1). Meanwhile, since the lockdown was imposed in the middle of the academic year, the students were urged to spend their time "review[ing] the learning materials of the modules [they had] completed in [the previous] trimester, and even in previous years" (UR, 2020c, p. 1). Since these activities were not enough to make the teaching and learning effective, UR promised its students that the real teaching and learning and assessment activities would take place once the university re-opens for face-to-face classes as follows:

> "[p]utting learning materials online does not mean that you have been taught and can therefore be assessed. All lecturers shall resume their teaching where they left it when the university closed. Recognising that some of you don't have access to learning materials is not enough – it is making sure that this does not create disadvantage to some and advantage to others. Therefore, only when all relevant material has been taught and learnt will it be assessed. However, we recognise that those of you who have managed to engage with online materials shall probably learn more quickly when formal face-to-face teaching resumes and we encourage you to become part of a squad of peer educators when such a time comes" (UR, 2020c, p. 2).

3.5. Access to technology hardware

By the end of the 2017-2018 academic year, UR had the total of 7,922 desktop computers for its students and staff (UR, 2018, p. 54). Compared to the number of UR students and staff, this number of computers was insignificant, and thus the shortage was addressed by the use of laptop computers which were offered as a loan to many of the government-supported students. In this regard, 13,521 laptop computers were distributed among students during the 2017-2018 academic year (UR, 2018, p. 1). However, no laptop computers or other technological devices were provided to UR teaching staff.

It is important to recall that UR students fall within the digital native generation. According to the recent comparative studies on the use of mobile

devices versus computers in teaching and learning, mobile devices were found to be the preferred technological tools for digital natives since they contribute positively to the teaching and learning of languages and other subjects, and their contribution was found to be more significant than the contribution of computers (Brown & Czerniewicz, 2010; Grigoryan, 2018; Stockwell & Liu, 2015; Thinyane, 2010; Uwizeyimana, 2018a, 2018b; Yang, 2013). Therefore at UR, mobile devices should have been taken explicitly as an alternative option to address the lack of access to a computer.

3.6.   Availability of remote online teaching and learning software

Before the COVID-19 lockdown, UR had not developed any e-learning software or environments to be used in remote online teaching and learning apart from its Moodle-based platform. During its closure, UR requested the teaching staff to upload their course content to this platform, although it was aware that just "putting learning materials online does not mean that [students are] taught and can therefore be assessed" (UR, 2020c, p. 2). Meanwhile, students were supposed to access the uploaded materials on their laptop computers. In addition to this platform, the students were urged to "be open with one another to reduce distance", to maintain their social media groups, and to try to enhance their self-learning by using generic applications such as Facebook and WhatsApp mainly because "from time to time lecturers [would] engage with [them] in [that] way" (UR, 2020e, p. 2).

3.7.   Remote online course delivery

In the context of universities such as UR, the notion of 'course delivery' in remote online learning can be interpreted as uploading the course content online on one side, and downloading this content by using the internet-connected devices on another side. It is from this perspective that the UR (2020a) specified the following achievement in matters of remote online teaching and learning:

> "UR lecturers have injected more efforts to upload and avail their modules online. The statistics, as of June 2020, indicate that 91% of

modules taught at UR are hosted on the eLearning platform. Particularly, during the COVID-19 pandemic lockdown, all lecturers have worked hard to finish uploading the modules online so that students can remain engaged in their learning process. The number of users [has] grown from 300 users daily before COVID-19 pandemic, to 9,000 users daily during lockdown" (p. 9).

3.8.   Outcomes of remote online learning

The UR (2020d) stated that it has "been able to register some successes in terms of virtual teaching in postgraduate fields, [and that] some modules have been successfully taught and assessed online and even in viva voce exams […] by videoconference" (p. 1). However, it did not publish anything with regards to the achieved learning outcomes in its undergraduate programmes. It is assumed that no measurable learning outcomes were achieved in undergraduate programmes due to the lack of access to technological devices and internet connectivity, the digital divide issues, and the lack of enough training and technical support to students and teaching staff.

3.9.   Student and teacher feedback
on remote online teaching and learning

From March to October 2020, no news article, circular, or any other type of communication on its undergraduate student feedback was published by the UR. This might have been caused by the fact that the majority of the UR undergraduate students are from poor households in rural areas, with no training and access to the necessary infrastructure for participating in remote online learning, and thus were not able to provide their feedback.

Regarding the postgraduate students however, Niyitegeka (2020) mentioned in a news article that "[m]asters' students admit to cope with the lockdown by leveraging online technology" (n.p.). Niyitegeka (2020) specified that masters' students' supervisors were supportive, and that they were using telephone calls and e-mails as tools for teaching and learning. In another article, Nshimiye (2020)

mentioned that remote online learning "has become useful to [postgraduate] students who [were abroad since they could] continue their studies despite the lockdown" (n.p.).

No negative feedback was published possibly because of the digital divide issues that exist among students. In this regard, the students who were privileged to take part in remote online learning benefited from it, and thus provided their positive feedback; whereas those who did not manage to participate, could not manage to give their negative feedback either.

UR did not publish any staff feedback on remote online teaching and learning activities in undergraduate programmes. Regarding the postgraduate programmes however, Nshimiye (2020) mentioned that COVID-19 "lockdown has brought UR to double [its] efforts in teaching online" (n.p.), and thus some postgraduate programmes which UR offers in partnership with other universities were being successfully taught online.

3.10. Lessons learnt and future plans

From its COVID-19 experience, UR initiated more inter-university partnerships and collaboration agreements, and increased its investment in remote online teaching and learning (Nshimiye, 2020). UR identified the lack of technical support and training as one of the challenges to effective remote online teaching and learning, and thus embarked on organising training sessions for its students and teaching staff.

In addition to these, the UR (2020a) plans that through "the Partnership for Enhances and Blended Learning (PEBL), a crosscutting module of the '*Introduction to Information Technology*' [will start] to be offered [to all the first-year undergraduate students] by [all the] PEBL participant universities through blended learning" (p. 14). Five universities, namely Makerere University (Uganda), State University of Zanzibar (Tanzania), UR (Rwanda), Kenyatta University, and Strathmore University (Kenya), are part of this programme (UR, 2020a, p. 14).

The future of teaching and learning was summarised by the UR (2020d) on 8th May 2020 as follows:

> "[t]here is no going back. When we meet again […], we will never return to full face-to-face teaching [and learning], and we will always have a form of blended learning, i.e. a combination of face-to-face and online teaching and learning. To achieve this, we are working towards a tremendous increase in internet access and bandwidth on all our campuses and eventually transform all of them into internet hotspots" (p. 3).

Lastly, the UR (2020a, p. 14) plans that some of its programmes will be hosted on third-party universities' online learning platforms through the initiated partnership agreements.

4. Conclusion

The world universities made an effort to shift to remote online teaching and learning following the lockdown and restrictions that were imposed to contain the spread of COVID-19. This chapter described how the UR joined this effort.

UR shifted to remote online teaching and learning due to COVID-19 total lockdown which was imposed in Rwanda in March 2020. The teaching staff had to upload the course content online, whereas students had to download the online course. These were not effective especially in undergraduate programmes as discussed in this chapter. UR was lagging behind due to various challenges such as the lack of training and technical support for students and staff, and the lack of access to the required infrastructure, technological devices, and software. Furthermore, UR was not involved in the decision-making process to go online, and thus had not planned accordingly. These are the main reasons why except in the postgraduate programmes, no learning outcomes were achieved in remote online learning at UR.

This study revealed that if both students and teaching staff are not trained on remote online teaching and learning, nor have access to the required tools and infrastructure, no positive teaching and learning outcomes will be achieved. The traditional assumption that the current university students who fall within the digital native generation are able to learn remotely online once they are provided with computers and/or mobile technological devices, is intensifying the digital divide among students rather than contributing towards the expected learning outcomes. Future studies should revisit the extent at which this assumption is relevant in the world universities' context.

5.   Acknowledgements

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