Short Communication

A luxury at first, and then the only hope; the first 100 days of e-learning in a LIS education institute

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1. Background

The following reflection briefly describes the unpredicted drive of online LIS education during the COVID-19 lockdown at the National Institute of Library and Information Sciences (NILIS), University of Colombo, Sri Lanka. It is a unique story in an unconventional educational setting supported by a handful of institutional academic staff and a band of visiting lecturers from various institutions.

University of Colombo (UOC) is a high ranked government funded University in Sri Lanka which consists of nine faculties, seven institutes and seven centers on its academic profile. Unlike other faculties and institutions within the UOC system, NILIS does not have a uniform supply of learners through regular channels since it does not offer undergraduate courses. However, NILIS provides Advanced Certificate to Diploma/Higher Diploma (professional) and Postgraduate Diploma to MPhil/PhD (postgraduate) education in Library and Information Science, Teacher Librarianship and Information Management.

Fifteen courses are offered below undergraduate level spread over five regional centers. Four postgraduate courses are conducted at the NILIS headquarters only. Each course is coordinated by a single academic (who can be from internal or external academic staff). Each member from the six office assistants of NILIS has been assigned as Course Assistants to support the Coordinators.

A majority of courses are conducted in Sinhala language while one class is conducted in Tamil language. Sinhala and Tamil are vernacular languages in Sri Lanka. Postgraduate courses are either held in English (the link language), or bilingually.

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488 R. Gamage and C. Wijesundara / A luxury at first, and then the only hope

A total of around 600 students have registered for these courses. These students come from different educational, employment, and skill levels. Classes are held in weekends only. The duration of the courses ranges from six months to a few years. Current students had never been offered online learning before the COVID-19 pandemic.

2. Sudden cessation of physical presence and the emergence of online learning

With the sudden closure of the University on 16th of March 2020, The University was unable to physically conduct any class. However, with the strong support and motivation of the higher university authorities, we determined to fight back and not lose the momentum. Our motto was "Let's save time". Finishing a course on time is essential for a student as it affects their life in numerous ways. For example, completion of the Sri Lanka Qualification Framework (SLQF) level 3 could qualify a student to apply for certain career positions of the government institutions. Therefore, the above slogan was relevant and beneficial.

3. Networking and registering of students

The student registration data was recorded manually and they was not made available online. Since all physical activity was halted, we had to collect student data from scratch. We drew a plan with a twofold strategy; first contacting students on their phones and asking them to provide details. Secondly, they were asked to fill the Google form on the Web.

The Course Assistants who were assigned to support courses had contacts of some students who had been recognized as class monitors. They were immediately contacted and asked to form a WhatsApp (WA) group for each class in each center. WA, which is quite a popular communication application in Sri Lanka, requires only the phone number of the individual to connect them to the group. Since students had already made friends with each other, the communication was very effective and it had become a kind of snowball activity.

In the WA groups we displayed a link to a Google form and instructed the students to submit their registration number, and email address which are essential to connect them to the LMS. We displayed this as a banner in the NILIS Web site also and distributed the news among social media. This information was spread like a storm across the NILIS student community, and those who were able to access the Web completed the details.

4. Success of gathering students for online lessons

However, we could not guarantee that all students were there. For some learners connecting online with others was difficult. Specially Certificate and Diploma students

had such difficulties. Some did not have devices. Some had poor data signals or no signals at all. Even skills to access the Internet and Mobile phones were a barrier. Nevertheless, the groups were formed and NILIS continued to add students into WA groups.

Each WA group was administered by the relevant Course Assistant. Sometimes NILIS administration personally communicated in all these groups and motivated students by distributing video messages. Those who had access to the WA were informed to keep others informed on phone, when there is an important message.

5. Building the LMS

NILIS had already installed Moodle as the Learning Management System (LMS) on a University server, but it had not been utilized because of the heavy dependence on print modes. During the transition period, the collected student information was uploaded to the LMS. The institute has appointed a part time Moodle Administrator with the approval of the NILIS Board of Management to handle the system.

The Course Coordinators and Course Assistants already knew the current state of the courses and syllabuses. Therefore, together they created the online courses in the LMS. As per their advices, and sometimes with the help of students, the Moodle Administrator added lecturers and student cohorts to relevant courses.

It was comparatively easy to collect data from a few postgraduate (PG) students. PG students already had access to the Internet, and there were a handful of students only. Therefore, NILIS started the first online lessons to PG students. Then it was propagated to other courses, starting some online discussions and lessons.

6. Course delivery

NILIS had to think of the overall picture before delving into e-learning. With the endorsement of the administration we decided to offer 20–30% of course modules in online mode. We decided to continue until such time the pandemic is controlled for us to hold physical classes. However, the University advised not to conduct exams until a proper mechanism is introduced. This led us to postpone some semester-end examinations and continue with the next semester.

There was no facility to create learning materials beforehand, because all were working from home. Therefore, it was decided to create materials on the go. We called an online meeting with all visiting lecturers and course coordinators. A threefold strategy was proposed to deliver lessons.

1. To prepare a narrated video presentations of lecture slides using MS PowerPoint. Presentations had to be reduced in size (to less than 60 MB) to meet the capacity limit of Moodle uploads. The open-source video editing software Handbrake was used for this purpose. Uploaded narrated presentations were available to students before the class starts. The video duration was 1/2-1 hours.

R. Gamage and C. Wijesundara / A luxury at first, and then the only hope

 A discussion (around an hour) using the Zoom video communication application.

The Zoom discussion was recorded, and the audio recording of the activity was uploaded to the LMS for future references. Prior to the discussion the students were supposed to have listened to the narration and come prepared.

3. Activities and reading materials.

Quick activities and reading materials were uploaded to the LMS to complete before engaging with the Zoom discussion. Answers to these quick activities were reviewed but not considered for grading.

The University of Colombo and the University Grants Commission (UGC) of Sri Lanka supported on selecting and purchasing of the above applications. The UGC even negotiated with the Internet Service Providers (ISPs) and white listed the relevant servers to prevent charging for data.¹ Therefore, the learning process was free for students.

However, this was not the end of the e-learning process. Due to the lockdown, students did not have access to any library. Therefore, our first priority was to make relevant e-resources available as soon as possible. We added PDF books written by our own staff, some links to university purchased databases, and got permission from the National Library and Documentation Services Board (NLDSB) to upload selected materials from the 'National Digital Library', relevant to LIS education.

Since the students had been locked up in their homes for several months, they were eager to start learning activities. Initially, NILIS started lessons in an ad-hoc manner with no specific time schedule. During the daytime, network traffic was at peak. Therefore, many students preferred to conduct classes in late evenings. However, some rural students had reported that they had to roam around their homes to find the best location to access the Internet. Some even went to nearby open spaces or elevated places where they could find strong signals, and some relied on communication centers (who provide internet facilities) at their nearby towns. Such students could not move around at night. Therefore, a proper time to hold classes had to be discussed and agreed based on the student requirements.

7. The communication flow

The teaching and learning process would not be a success if we could not collect all students into the learning process. We advised students with Internet access to inform and pass the learning materials to the students who are offline using telephone and by other means. Course Coordinators and lecturers were advised to directly connect with

490

¹In Sri Lanka, all Universities are interconnected via the Lanka Education and Research Network (LEARN). Learn provides a common domain name for all registered academic institutions. It also operates a 'Zoom' server within the network, which directly connects with the United States server.

students to facilitate continuing studies. A line of communication was established between students; class monitors; Course Assistants; Lecturers/Course Coordinators; and finally, the Acting Director of the institution to communicate directly when they face difficulties at any level. A separate email address was introduced to send queries on login and access difficulties. The Moodle Administrator attended to login difficulties while the Course Assistants resolved Zoom application related issues.

The time schedule for the class and the link to Zoom meeting was communicated using WA groups. Although the above method guaranteed participation of the majority, we knew that there are students who could not connect with the same learning process. However, we believed that the material we created could help those who are still not connected once the physical classes reopen. That way, our overall objective of "Let's save time" could still be accomplished.

By the 22nd May 2020, on the first instance that NILIS staff could return to office, NILIS sent a letter by post to all registered students to attend online classes and asked to send their student information to the WA groups. Details of students who did not respond to our calls or emails were also added to the LMS based on their records maintained at the NILIS office.

From 23rd of May 2020, NILIS started conducting online lessons according to readjusted timetables. The main reason for this was that the majority of students had already started to work at their jobs by that time. As a result, we had to change our regular face-to-face class schedules and change the class schedules based on student requirements.

WA groups continued to be used because that proved to be an appropriate mode of communication to keep the momentum. Since some students preferred WA over LMS, Zoom meeting links were uploaded to WA. Some students started sharing course material and Zoom meeting recordings through WA. As some students had access issues, they completely ignored logging into the LMS and relied on the WA groups which was unpreventable.

8. LMS by the end of the period of closure

NILIS Learning Management System (LMS) was initiated on 24th of March 2020 for the specific purpose of continuing the teaching-learning process for COVID-19 confinement. It completed 100 days of operation by 1st of July 2020. From 23rd of May 2020 to 28th of June 2020, slowly but steadily, NILIS added 600 Students into 105 modules ('Courses' as specified by Moodle). Student access details of the LMS during the first 100 days is shown in Fig. 1.

By late May, Sri Lanka announced plans to end the nation-wide lockdown. Health authorities issued guidelines which included wearing masks, keeping one-meter distance, and frequent sanitization of hands and workspaces. NILIS had to effectively utilize the physical building on the NILIS premises while providing seating with one-meter distance. Thus, the staff planned for a gradual starting of on-site classes

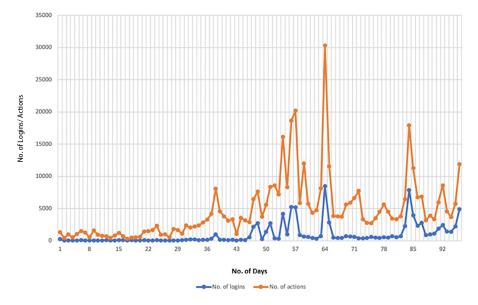


Fig. 1. Total user logins and actions during the first 100 days of creation of the LMS.

phase by phase. Our first task was to conduct one revision class for all the subjects taught online, and then move into end of semester examinations. This plan had to be delayed by several weeks due to the reemerging of several COVID-19 cases from a rehabilitation center in the country, and later on due to the parliamentary elections.

9. Limitations of the exercise

According to the World Bank, Sri Lanka is a lower-middle-income country with a GDP per capita of USD 3,852 (2019) and a total population of 21.8 million.² The Country did not have much experience in terms of online education, except in few cases. Therefore, the general infrastructure and readiness to provide online learning to citizens all over the country was not realistic.

However, the COVID-19 pandemic turned the whole perception of online e-learning upside down, and there was no other alternative close enough to serve the demand of the teaching-learning process. Yet the community did not have 100% accessibility to e-learning facilities provided. Not only students, but also visiting lecturers also faced these difficulties. Several lecturers even declined conducting online sessions because they thought some students will be marginalized by the initiative. Some visiting lecturers were not responsive to requests for uploading narrated presentations

²https://www.worldbank.org/en/country/srilanka/overview.

and materials, since they were not skilled in creating them without guidance. Even after NILIS uploaded several videos and guidelines on creating narrated presentations and videos, there was a poor response from them.

Some lecturers and students complained about ISPs charging for data. The University ICT administrators later confirmed the basis for such claims – ISPs charge when the Zoom links are automatically redirected to U.S. servers when the demand to the LEARN server is high. These concerns highly influenced the users during the lockdown period, as they could recharge their data accounts only though online payments – which is again a luxury for many.

Some students' learning environments were not ideal. Home environments were crowded, noisy, and unsuitable for learning. Even with such drawbacks, some students were really motivated. Some purchased laptops and smart phones to facilitate online learning.

10. Concluding remarks

LIS education has the potential to revive itself to cater to future demands. NILIS is now planning to revise programs and introduce a few online courses. Other courses will continue to have around 20% of online content and interactions throughout.

Even though the forthcoming period could be economically challenging, immediate measures have to be taken to prevent another disaster affecting student learning. Realizing the need for increased training on digital/computer literacy, NILIS has taken steps to purchase 11 laptops for supporting the training and designing of instructional materials.

We are also looking for opportunities to build a studio to create videos and learning materials with the available preliminary infrastructure. The LIS modules we create can be opened to the general public as well. NILIS has already established a YouTube channel with this objective in mind.

Follow-up discussions and surveys have confirmed the success of the efforts made by NILIS to support learning during the COVID-19 lockdown. The real indicator of our performance would be whether we are able to finish our courses on time. Time is going to verify the success in the coming months.

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