Adapting Students' Learning to University Distance Learning: A Real Case Study

Meryem Amane[1*], Karima Aissaoui[2] and Mohammed Berrada[1]

[1*]Artificial Intelligence, Data Science and Emergent Systems Laboratory, Sidi Mohammed Ben Abdellah University, Fez, Morocco.

[2]Artificial Smart ICT, ENSA -Mohammed Premier University, Oujda, Morocco.

*Corresponding author(s). E-mail(s): meryem.amane@gmail.com;

Abstract

E-learning or e-learning refers to the use of technologies such as the Internet and digital media to access educational materials and attend classes. It encompasses a wide range of technologies and methodologies, including online course platforms, video conferencing and mobile learn-ing applications. E-learning enables individuals to receive education at their own pace anytime, anywhere. It also provides greater flexibility and convenience for students and teachers. The use of e-learning has greatly expanded opportunities for education and skill development, especially for people in remote or under served areas. Overall, e-learning is a rapidly developing field that is changing the way we acquire and deliver education. The main purpose of this article is to promote learning by making educational situations. However, e-learning systems have never been perfect. They constantly require adjustments due to rapid techno- logical change. Therefore, these systems faces several challenges such as adapting learning resources to each learning situation, valorising learning data, and handling real-time quantities of learners' interactions with the e-learning system. Our study is situated within the context of the research activities in the e-learning in the university and its role in the integration of new information and communication technologies (ICT) in distance higher education. Our task will be focused on the study of a real case in our faculty, the Faculty of Letters and Human Sciences, Dhar El Mahraz Fez. Our interest will be concentrated on the question of how e-learning system can be combined with classical studies approaches in the university environment and how they can be adjusted to meet the evolving needs and choices of students, taking into consideration the dimensions of availability and quality of the learning service.

1 Introduction

E-learning in universities shapes the use of technology to deliver educational content and facilitate student learning in a higher education setting. This can include a variety of methods such as online course platforms, video conferencing, and mobile learning applications. E-

learning in universities allows for greater flexibility and convenience for both students and educators, as it allows students to access educational materials and participate in class discussions remotely. It also allows for a more diverse student body and a more inclusive learning environment as it removes geographical barriers. Additionally, E-learning in universities can enable educators to create and deliver new forms of interactive and engaging content, and allows for better tracking and analysis of student progress and engagement. Overall, e-learning in universities is becoming an increasingly popular method of delivering education and is expected to continue to grow in the future. It is a way for universities to adapt to the changing times and provide more opportunities for students to access education. In recent years, computer technology has seen considerable development in terms of resource and data management. This development is marked both by the evolution of the cloud computing model and the advent of the new generation of big data technologies. All of these technologies are completely changing IT practices by introducing new approaches and scalable architectures for learning resource exploitation and analysis [1]. The main motivation of our research work is to analyse how e-learning in university can be personalised depending on a particular environment in which students find anything that they need. Therefore, our thesis is devoted to knowing by survey analysis the students' feedback on the teaching techniques used during the COVID-19 period [2]. As we are highly motivated by the need to have a solid conceptual framework for our universities and e-learning organisations to adopt e-pedagogy in an effective way, we propose a number of approaches based on student feedback that enable these promising e-learning in university to find their place in the field of learning. Moreover, given the importance of an adaptive system for this type of environment, this work focuses mainly on the need to apply big data technologies to the data produced by e-learning in university in order to develop a recommendation system capable of adapting courses to the profile and preferences of each learner [3].

1.1   Problem Statement

The field of E-learning is currently evolving due to the rapid development of information and communication technologies, which have completely transformed the ways of teaching and learning. Conversely, the classical environment of human learning—based on email or asynchronous communication—adopted by several universities has become insufficient, especially with the effect of globalization, which requires higher skills according to international standards. In this regard, e-learning technologies can make the world a classroom in which all students learn in the same way and with the same pedagogical philosophy [4]. Still, some universities do not realise how they fit into this development, especially with the emergence of new approaches and computer models combined with the enormous growth of the number of learners. Furthermore, adopting an E-learning system in the university environment makes various challenges including:

· The diversity of learning materials;
· The adaptation of learning resources to the learners;
· The learning style of learners; etc. [5]

Thus, why should institutions and universities adapt CEHL to meet the needs of learners'

expectations in terms of personalization of courses, the adaptation of pedagogical activities, and the quality of the learning service in general.

The problem statement for e-learning in universities is the lack of effective and efficient implementation of technology-based education in higher education institutions. This can include issues such as:

· Limited access to technology and internet connectivity for students and educators in remote or under served areas, which can prevent them from fully participating in e-learning

· Insufficient training and support for educators in the use of e-learning technologies and methods, leading to difficulties in effectively delivering and assessing student learning

· Limited engagement and interaction among students and educators in an
online learning environment, leading to a lack of effective communication and a sense of isolation

· Difficulty in ensuring the quality of education and assessment of student
learning in an e-learning environment

· Limited availability of appropriate and relevant e-learning resources, which can limit the effectiveness of e-learning in universities.

1.2 Aims and Contribution

The aims of e-learning in universities are to provide equal access to education, improve the quality of student learning, and increase the efficiency and flexibility of the education delivery process. In the university e-learning systems present several challenges, including the performance of the learning service, adaptability to specific needs, and the capacity for efficient processing [8]. To give a lecture on these challenges, we present in the first part of this study an overview of a number of research studies based on the digital revolution.

 Indeed, the second part of this study aims to present conceptual analysis in terms of efficiency, methodology, and practice that should in order to [16]:

· Improving access to education for students in remote or underserved areas, who may not have been able to attend traditional on-campus classes.

· Increasing flexibility for students, who can access educational materials and
participate in class discussions at their own convenience.

· Enhancing the engagement and interaction among students and educators in an online learning environment, leading to better communication and sense
of community.

· Improving the tracking and analysis of student progress and engagement, which can help educators identify areas where students may be struggling
and provide targeted support.

· Providing opportunities for educators to create and deliver new forms of interactive and engaging content, which can help students to learn better.

· Improving the quality of education by leveraging e-learning resources and
technology to enhance the learning experience and assessment of student learning.

2   COVID-19 and Moroccan UniversityTransformation

The COVID-19 pandemic has had a significant impact on Moroccan universities, leading to a rapid transformation in the way education is delivered. In response to the pandemic, Moroccan universities were forced to quickly adapt to remote learning and online instruction. This has resulted in a significant shift towards e-learning and the use of technology in education.

One of the main challenges for Moroccan universities during the pandemic has been ensuring that students have access to the technology and internet connectivity needed for remote learning. This has led to the development of initiatives such as the distribution of laptops and mobile internet packages to students in need.

Additionally, Moroccan universities have had to adapt to new methods of assessment and evaluation, such as online exams and remote proctoring. This has required significant changes in the way educators design and deliver their courses, as well as in the way they assess student learning.

Overall, the COVID-19 pandemic has forced Moroccan universities to rapidly transform the way they deliver education, leading to a significant increase in the use of e-learning and technology in the classroom. The pandemic has also highlighted the need for universities to invest in technology infrastructure and to provide support and training for educators in the use of e-learning technologies. While attempting to meet all the students' demands online, some professors found themselves in a difficult situation. Students, on the other hand, are concerned about a different set of issues. As a result, the abrupt university closures have not only caused a psychological disruption that has been imposed on the educational system, but they have also highlighted the sad realities of how students' cognitive, social, and emotional progress should be attained through remote learning [7].

This study aims to assess the issues encountered in distance learning for students at Dhar El-Mehraz's letters and human sciences faculty during the COVID-19 crisis. Following this period, more emphasis is placed on cognitive and feedback receipt from students. Furthermore, to know how this new method of academic delivery will be a supplement to face-to-face classes, see [10]. This study will also discuss how the pedagogical engagement of teachers influences students and their learning outcomes. In addition, this work will look at how students mentally deal with this abrupt change. The conclusion will include some practical recommendations for using online learning as a supplement to in-person learning in higher education [9].

In recent years, there has been a growing emphasis on online learning in higher education, where the courses are done remotely using digital media [11]. In many regions of the world, the virus (COVID-19) has accelerated this trend away from the classroom[12]. The purpose of this study is to examine the students' ability to learn from this new style of learning, which includes cognitive and social aspects. The second goal of this study is to retain the assumption that, in addition to in-class learning, online education will eventually become an integral component of higher education. To achieve this goal, the present study addresses the following research questions:

- How do you feel overall about E-learning?
- How much time do you spend each day, on an average, on distance learning?
- How effective has remote learning been for you?

· How helpful has your Faculty been in offering you the resources to learn from home?

· How helpful are your teachers while studying online?

The current chapter is divided as follows: Section 1 includes the research method used, which consisted of administering questionnaires to 69 students. The following section will go through the portion of the analysis of the data collected from students in order to expose the primary conclusion. The final section represents perspectives as well as some ideas for a more effective online learning experience in the future. Data collection method

The present study adopts a quantitative method of data collection based mainly on online questionnaires administered to 69 students from eleven different departments at the Faculty of Letters and Human Sciences, Dhar El Mehraz, Fez. Those students have all taken online courses ever since the beginning of the pandemic crisis (31 males and 38 females).

The purpose of this study is to uncover the key challenges that faced learning throughout the pandemic crisis. For this purpose, the following research questions are addressed:

What is the degree of adaptability that student of faculty of letters and human sciences Dhar El Mehraz are showed within the COVID.19 eruption?

How can teachers' engagement affect the students' ability to accept distance learning outcomes during the lockdown brought on by COVID-19?

Two hypotheses are formulated:

· Does the teacher have a more important role in distance learning than in face-to-face courses?

· How can distance learning be an advantage for some students and a disadvantage for others, depending on their preferences?

3   Survey Analysis and Interpretation of Collected Data

In order to answer and verify the hypothesis, this section shows the data collected through a questionnaire made by Google Forms. This questionnaire contains all the previous questions presented in Section 2. Our objective with this survey is to spotlight how students can adapt to the new method of learning during the COVID-19 crisis. What are their perspectives and their challenges? To analyse these data, we have opted for SPSS, which is a soft-ware package used for interactive and statistical analysis. It is a widely used   programme for statistical analysis in the social sciences [14].

For the first question, how do you feel overall about e-learning?

Based on the result obtained from the data collected, see Fig. 1. We can conclude that most of the students feel comfortable with the distance learning tools, 35.7 per cent feeling moderately comfortable and only 10 per cent having difficulties.
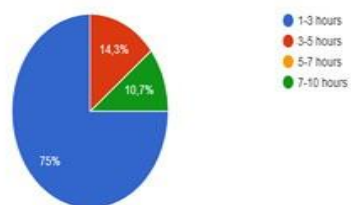
Fig. 1 Obtained Data about Question: How do you Feel about E-learning

This can be normal because most of our students have smartphones, and by the way, using the new technology, it seems normal to them.

Let us now move to the second question, in which our interest will be focused on how much time each student spends each day on average on distance learning.

The data collected for this question mentioned that around 75 percent of students spend only between 1 and 3 hours on average per day see Fig. 2.
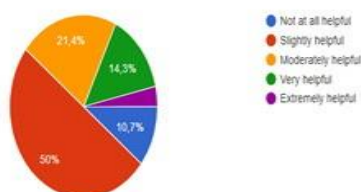

Fig. 2 Obtained Data about Question: How much time spend each day on average on distance learning

Compared to face-to-face classes, in which we have 4 hours per day at least, most students in distance learning spend only between 1 and 3 hours as a maximum.

Now, to be more specific about our issue, we will move on to the third question, which was a direct question about the effectiveness of remote learning for students.

In our case, at the Faculty of Letters and Human Sciences at Dhar El Mehraz, Fez, remote learning helps only 50 percent of students, which means that students need a hybrid method between face-to-face presence and distance learning see Fig. 3.

Fig. 3 Obtained Data about Question: How effective remote learning for students

3.1 The discussion of the findings

The findings suggest that both the students' abilities and the teachers' engage- ment may be having an impact on the online learning. Students appear to make wide efforts to engage in online learning if they feel that their teachers help them extremely. In this respect, Jacob Filgona, John Sakiyo, D M Gwany, and Augustine Ugwumba Okoronka (2020) argue that the success of learning depends on whether or not the learners are motivated [13] [15]. It requires the need, desire, and willingness of learners to create social communities online.

The SPSS results also suggest that students do not appear to be in any stage of anxiety or show any signs of distribution. However, when asked if their teachers have an impact on the quality of online courses, the majority of respondents said yes, confirming the second hypothesis that teachers can help students accept and integrate these new trends in learning.

4 Discussion

The present study is likely to expose deep comprehension and new perspectives on the major problems that face students at the Faculty of Letters and Human Sciences. The work applied the statistical method, which accomplishes its objectives by identifying the sample population's observations toward their online learning. One key aspect of adapting e-learning in universities is ensuring that students have access to the technology and internet connectivity needed for remote learning. This can include providing laptops and mobile internet packages to students in need, as well as ensuring that university facilities are equipped with reliable internet connectivity.

There would be a huge number of studies published evaluating and measuring the impact of this circumstance on Moroccan higher education, taking into account a larger number of undergraduate and graduate students. Online learning will continue to be a popular topic in higher education, and more research is needed to determine how it will progress in the coming years.

5 conclusion

To effectively adapt e-learning in universities, it is important to address the challenges and issues associated with its implementation. This can include ensuring that students have access to the technology and internet connectivity needed for remote learning, providing training and support for educators in the use of e-learning technologies, and developing new methods of assessment and evaluation. Additionally, universities should invest in technology infrastructure, such as online course platforms and video conferencing tools, to support e-learning. They should also develop strategies to promote student engagement and interaction in an online learning environment, to ensure that students feel a sense of community and support. Universities should also ensure that the quality of education and assessment of student learning is maintained in an e-learning environment, by leveraging e-learning resources and technology to enhance the learning experience. Adapting e-learning in universities requires a comprehensive approach that addresses the needs of students, educators and the institution as a whole. It requires a clear vision and a dedicated effort to provide equal access to

education, improve the quality of student learning,and increase the efficiency and flexibility of the education delivery process, byleveraging technology and digital resources.

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