A brief analysis of eLearning educational services in pandemic crisis

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Abstract. The paper presents an analysis of the online education, in the pandemic crisis. Technology provides innovative solutions in the human interactions and the education should benefit by these. The pandemic crisis we all are passing forced education actors to reconsider teaching and learning using online learning. ELearning has an increased importance in these moments, so, in this paper is made an analysis of the strengths and weaknesses of this type of education, as well as the opportunities and threats that may occur. Some challenges were identified that the crisis came with, in educational domain. The results highlighted that the strategy that should be adopted by the educational institutions must be based on an intensive use of the educational platforms in online environment. Some proposals has been made such as the need for quality improvement activities in online teaching or a resource planning for saving time and optimizing the organizational learning process.

1 Introduction

The aim of this paper is to realize an analysis of the online learning in the pandemic crisis that we are all passing.

The social distancing that is compulsory in these moments, forced the teachers and the students to find solutions for efficient learning, and, an opportunity was to meet online. Even if, many educational institutions were reticent in such change, as online education, there was no option, and, for a while, all educational activities took place online or in a hybrid mode.

For many universities and schools, the solution was the eLearning platform. Although the eLearning platform was previous used by the universities for the distance learning, different challenges appeared and some of them are identified and listed below.

The research methodology contains an analysis of the strengths and the weaknesses of the online learning by one side, and of the opportunities and threats by the other side. Based on the ideas resulted by the SWOT analysis, some proposals were made.

The objective of the research is to analyse the current situation of the eLearning educational services, in the pandemic crisis and to find the challenges that the ones

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involved in education are faced. Based on the obtained results, a strategy will be defined and some solutions and proposals will be identified.

2 The concept of eLearning educational services

Education aims to achieve the ideal of the human being, expressed by "being and becoming", a dynamic process, but also flexible, adapted to each person.

Online learning is defined by [1] as learning experience in synchronous or asynchronous environments using different devices (e.g. mobile phones, laptops) with Internet access. Using these environments, students can learn and interact with instructors and other students from anywhere.

ELearning or online education is a specific way of learning, based on collaboration between participants and conducted through internet technology. The connection between teacher and students can be realised by videoconferences, by uploaded lessons and exercises or by projects.

ELearning is the technology that refreshed the traditional educational system, by introducing blended learning in educational systems. The concept of blended learning refers to a combination between face-to-face learning and online learning, by means of eLearning platforms.

A system of eLearning provides facilities for knowledge transfer through the development and publication of educational content in the form of courses or virtual libraries, on one side, and verification (and testing) of the knowledge using managerial simulations, scenarios or case studies for evaluation, on the other side. Taking into account its main features, it can be defined the concept of eLearning system as a set of methods, techniques, tools and procedures by which it is ensured the provision of learning or training programs, using electronic means, as well as the evaluation of the stage of information assimilation by the students [2].

ELearning was initially referring to the development of an electronic environment for more flexible providing of education. Based on studies and experimental projects it has been proved that the use of eLearning together with information and communication technologies offers the possibility of significant improvement of the educational process.

Nowadays, eLearning has become a viable alternative to traditional education methods, especially due to the advantages offered by the possibility of continuous training or by those related to the wide applicability within the most diverse organizations.

The pandemic crisis that we all are passing, led to some transformations in educational system. Traditional face-to-face teaching has been replaced for a while by online teaching. Nowadays, the teaching is combined: online and traditional mode, depending of the case numbers of Coronavirus affected people.

The challenges of online teaching forced both teachers and students, to study and find solutions for the quality of the education.

 There are two aspects of eLearning that must be taken in consideration [3]:

-The communication and collaboration is made synchronously – all the participants connect in the same time and under the guidance of a teacher. In this case there is the possibility of working together and sharing information. Different activities, such as chat or video conferencing, depends on synchronous communication, because all course participants must be online at the same time. This requires a good time management.

-The communication and collaboration is made asynchronous. In this case common projects cannot be made, because it doesn't make sense to ask a question or to work on a joint project if the answers issued arrive late to the recipient.

In asynchronous learning the interaction between teacher and student occurs intermittently, the materials required in the training can be covered without communication in real time, being uploaded on platform.

In eLearning the courses and contents can be designed so that each student has the opportunity to go through the materials at his own pace. A pre-test evaluates the level of knowledge according to the position of which the type and style of learning are established, but also the progress that must be made by the student.

The features such as chat, forum, announcements, helps students to communicate with the teacher and to receive additional clarifications.

Specialized studies published in the last five years show a continuous increase of the use of eLearning in organisations. Although many academic units have started to use eLearning platforms and blended learning in the past, those were intensively used in the pandemic crisis.

3 Methodology and results

The research methodology consists in a specialty literature review of eLearning and its applying aspects. The search strategy included an online analysis of the articles that aim to determine the influences and results obtained by using eLearning platforms in education.

It had been identified the strengths of eLearning in opposite with the weaknesses, the opportunities available on the external environment, as well as the threats.

The objective of the research was to find the challenges that the ones involved in education are faced to and to define a strategy for the next period.

3.1 SWOT analysis

ELearning educational services have multiple advantages and strengths.

The main advantage of online learning is that the audience is considerably increased. The distance education can include students who cannot participate in courses in the traditional system. It offers flexibility, accessibility to the students, which can participate even they live in different places. Access to local, regional and national networks connects students from different social, cultural, economic, and diverse backgrounds. Hence, the low costs for the students, especially for those who need transport or accommodation.

This type of learning, facilitates learning in one's own rhythm, in a personal style, the completion or listening of the courses can be done gradually and repeatedly. Computers incorporate a variety of highly flexible software packages, and the student has maximum control over the content information. There are some studies that shows the increasing percent of those who retain more material when learning online (about 25%-60%), compared to 8-10% in a face-to-face lesson. Seems that the students learn faster online than in traditional way, because of the advantages of staying home. The students can learn and read in their mood, they can go back and read again if necessarily, can understand the concepts as they choose.

Synchronous and asynchronous interactions between teacher and students can complement each other. The way of asynchronous development of online education allows reflection, search, clarification before answering, commenting or picking a problem, so that, most of the time, the quality of the dialogue is superior to a traditionally course [4].

The ELearning platforms allow a total feedback, in real time. The immediate feedback stimulates the students, increasing their involvement and motivation.

The theoretical and applicative materials uploaded on eLearning platforms can be structured on modules, for better achievements. Additionally, through the conferences (videoconferences) supported by the teacher-facilitator, the courses are enriched by

clarifications, arguments, new perspectives. Also, the evaluation method can be diversified and accessible for the students.

According to [5] motivation increases performance, and, studying without a teacher reduces the stress by 50%. So, online learning offers a positive environmental climate with benefits for the students.

Certain weaknesses are found on eLearning educational services, like the fact that the students need to have knowledge and experience in the field of computers. A consistent and sustained effort is needed by students, teachers, intermediaries providing technical support and administrative staff. A better organisation is needed to manage all the people, and to force them to respect some online rules such as: microphone must be closed while someone speaks, to avoid the technical and audio problems, the video camera must be placed in a high visibility corner, a high internet connection, etc.

Another disadvantage is that students must be highly motivated to participate. The motivation is increased by the prompt feedback of the teachers on the different tasks, by the positive environment, by the comfort of their own homes from where they are accessing the platform. However it is difficult to perform interactive group work tasks.

However, it can be observed a lack of active-participatory methods in the course for students training. In spite of this weakness, there is an activity button, on eLearning platform, named big blue button activity which has the possibility to meet online with the students in synchronous mode, to make quizzes and to have a rapid feedback and an understanding level of the transmitted information.

The last disadvantage of the online education is the increased costs of system development, including expenses with: technology (hardware and software); transmission of information in the network; equipment maintenance; production of necessary materials.

Some opportunities from the external environment available in this crisis time include the possibility of forming a group for the transmission of knowledge of a certain field or using for online teaching some educators who are currently not available for the face-to-face learning, due to the risks they are subject to. Teachers can practice technology and can design various flexible programs for students, as they will understand better the treated contents [8].

Another opportunity is the facile using of such learning tool (from the explanatory menus included in the course, to the navigation facilities it offers, to the ease of completing the test modules). There is the possibility of using a diversity of materials: images, animations, videos, schemes, as well as different other resources that can be accessed by meaning of internet. Technology dynamics conducts to fast and radical transformations of education [6]. Expansion of technology causes the latter to become a perfect environment for expression and development of e-learning educational services [4], [7].

Hence, the increasing interest for different categories of beneficiaries for e-learning educational services [7].

One important threat of the online learning is the phenomenon of school dropout, which is much more common in online education than in traditional education; the interrelationships being relatively impersonal, making the option easier for the student. Also, it may appear some lack of motivation for the students, lack of commitment and passive or episodically active participation of students at the online meetings and activities. For some students, those may appear as an effect of lack of necessary equipment.

A challenge that both teachers and students are facing is to move from offline to online education, which implies changing teaching methods and time management.

Another threat is related to the quality of education in eLearning, so there is a need of training human resources.

A representation of this analysis is shown in Figure 1.
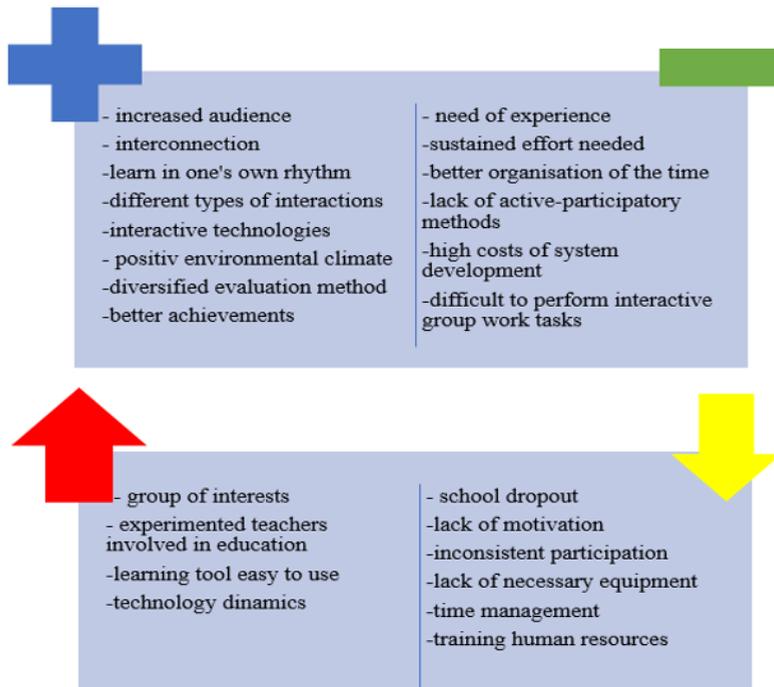
Fig. 1. SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the eLearning during pandemic crisis.

Based on the SWOT analysis, some activities that educational institutions should be focused in the next period, can be developed. Those are:
• the development of the educational platforms, in order to eliminate the dysfunctions;
• the evaluation of the online teaching and learning in order to develop their long-term sustainability;
• the development of staff–teachers' capacity for online teaching, and professional staff capacity for supporting teachers and online systems;
• the cooperation between universities, international organizations, private sector, civil society, and other stakeholders, to promote high-quality online learning throughout the society [10];
• a step-by-step guide can be prepared by academic institutions that can guide the teachers and students on how to access and use various eLearning tools and how to cover major curriculum content via these technologies thereby reducing the digital illiteracy [8].

3.2 Challenges

The social distancing that is compulsory in these moments, forced the teachers and the students to find solutions for efficient learning. For many universities and schools, the solution was the eLearning platform.

The crisis generated by COVID-19 assumed the education to some dangers, due to the transformation in digital way.

Some challenges that the crisis came with, in educational domain reefers to logistical challenges and attitudinal modifications [11].

a. Logistical challenges refers to the need of eliminate the internet/platform dysfunctions (platform accessibility, videoconference problems, limited supported participants, overloaded platform during peak hours, etc.)

b. Attitudinal modifications. Teachers must develop their strategies, teaching methods, interacting with students' activities. Students must change their attitude towards the courses, the motivation, and the involvement in the educational activities. They must research more, must be able to go through the materials themselves for an appropriate result.

The teacher goes from the traditional way of transmitting knowledge, to that of facilitating the construction of knowledge in a team with students, as a manager of the learning process, a process seen as a guided interaction [12], [4].

Time management is also influenced by the changes from traditional to online teaching, because it must be optimised. A good scheduling of the time that the students spend in front of the computer leads to the increase of their motivation and of the obtained results.

Another challenge is the hesitation of the teachers to teach online, being habitual to the traditional methods. In online environment appeared ideas and examples of good practice from that have helped teachers to improve their exclusively online teaching.

The urgent need of digitalisation has been has been partially solved by the appearance of advanced training courses in this field.

4 Conclusions

Technology provides innovative solutions in the human interactions and the education should benefit by these. The pandemic crisis we all are passing forced education actors to reconsider teaching and learning using online learning. ELearning has an increased importance in these moments, so, in this paper is made an analysis of the strengths and weaknesses of this type of education, as well as the opportunities and threats that may occur.

There are some studies that shows the increasing percent of those who retain more material when learning online (about 25%-60%), compared to 8-10% in a face-to-face lesson. Seems that the students learn faster online than in traditional way, because of the advantages of staying home. The students can learn and read in their mood, they can go back and read again if necessarily, can understand the concepts as they choose.

The experience of already functional eLearning platforms has shown that participants in education through e-learning technologies they become familiar with the virtual environment in a short time and enters the natural rhythm of transmission relatively quickly and, respectively, acquiring knowledge through this modern and effective type of education.

Following the research conducted, it were found some challenges for the teacher in COVID-19 pandemic such as: teachers were hesitating to teach online, being habitual to the traditional methods, but the crisis forced them and accepted the change; the urgent need of digitalisation; the time management; reconsideration and improvement of the used methods and materials.

Some studies highlighted that, the transition to digitalisation reached 80% in the last period. The coronavirus forced people to change, to adapt at the challenges. Seems that in the next ten years the world will change faster than in the past one hundred years. All information will be in digital and virtual environment.

As proposals, it can be mentioned the need for quality improvement activities in online teaching, in order to eliminate the discrepancies, a unitary training for teachers and students, a better monitoring of the results obtained, an evaluation of teaching methods used, a resource planning (instructors and teachers) for saving time and optimizing the organizational learning process.

Despite the unexpected migration of the education, in online mode, the analysis shows that the solution of eLearning has good strengths and the opportunities are valid and

can be valorised. It is obvious that the education will become more hybrid in the next period.

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