EDUCATING FOR AN EXPONENTIAL WORLD WITH E-LEARNING IN EDUCATION

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SUMMARY

This paper provides an initial review of the literature on the evolution of e-learning and its benefits as a way of keeping up with people's needs in this world of exponential structures. The objective of this work is to analyze the importance of e-learning for education, through the presentation of the results of bibliographic research, which support the construction of the theoretical framework of the study.

Keywords:e-learning, learning management environments, content production tools.

ABSTRACT

This paper presents an initial review of the literature on the evolution of e-learning and its benefits as a way to follow the needs of people in this world of exponential structures. The objective of this paper is to analyze the importance of e-learning for education through the presentation of the results of the bibliographic research, which bases the construction of the theoretical reference of the study.

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1 INTRODUCTION

The world has changed and in the 21st century, knowing is not just about obtaining information. Nor is teaching about transmitting information. Every day we are exposed to a series of new things through social media and the means of communication. (ISMAIL,*et. al*, 2018)

We live in a world of exponential structures and new data are stored as relevant information when they become part of our knowledge base, that is, when they are related and articulated with other information. Therefore, information and communication technologies (ICT) are inserted in education in different contexts, with different objectives and applications. (ISMAIL,*et. al*, 2018). Since information is made available via the Internet and can be accessed at any time and place in the world, defining e-learning also means seeing it as a great driver of the dissemination of knowledge and the democratization of knowledge. (ISMAIL,*et. al*, 2018)

Distance education then appears "as an extremely suitable and desirable form of education to meet the new educational demands arising from changes in the new world economic order" (LEMOS S. 2011). E-learning, a form of distance learning that enables self-learning, with the mediation of

systematically organized teaching resources, presented in different technological information supports transmitted through the Internet. (LEMOS, S.2011)

The concept of Distance Education is changing rapidly. From correspondence courses or courses based solely on texts, learning processes are beginning to be organized with strong support from the Internet, with more constant interaction. The major problem with distance learning courses is the emphasis on content and much less on interaction. The major challenge is to transform the virtual space into a rich learning environment, which goes beyond the relationship between text and exercises. (BACICH)*et. al*, 2018)

The face-to-face becomes virtual and the distance becomes physical. Meetings in the same physical space are combined with virtual meetings, at a distance, through the Internet. And distance education increasingly brings people closer together, through online connections, in real time, which allows teachers and students to talk to each other and form small learning communities. (BACICH*et. al*, 2018)

The Internet opens up an unimaginable horizon of options for implementing distance learning courses and making face-to-face courses more flexible. Through the development of the network, it is possible to make available, search and organize content on a WEB page, interconnected by keywords, links, sounds and images, and to use collaboration tools such as e-mail, discussion forums and other media that favor the construction of virtual learning communities. (LEMOS, S.2011)

The main objective of this article is to show the benefits of using e-learning for education. Recent advances in Information and Communication Technologies have provided new means of interaction between people, as well as new possibilities in terms of education.

2.1 EVOLUTION OF E-LEARNING AND ITS CHARACTERISTICS

There is much discussion and controversy regarding the actual beginning of what is defined as Distance Education. NUNES (1992), in one of the most comprehensive national works on general and historical aspects of Distance Education, emphasizes that its beginnings date back to the letters of Plato and the epistles of Saint Paul, however, more recently, experiences of correspondence education should be recorded, which began at the end of the 18th century and saw greater development from the middle of the 19th century. MOORE and KEARSLEY (1996, p. 20-23) mention the pioneering distance education courses by correspondence:

The first, offered in England in 1840 by Pitman, was a shorthand course in which students were required to make copies of passages from the Bible and send them in for correction. Still in Europe, in 1856, the Frenchman Toussant and the German Langenscheidt began teaching languages   by correspondence.

The first distance learning program at university level in the world, according to the same author, was started by William Harper, in 1892, at the University of Chicago, where an extension division was created to offer correspondence courses. (NUNES, 1992).

In Brazil, several distance learning initiatives have been conducted since the beginning of the last century (NISKIER, 1999; BELLONI, 2001; NUNES, 1992; BURNHAM, 2002). The first initiatives (BURNHAM, 2002) date back to 1904: they were the so-called international schools, private institutions that offered correspondence courses, similar to several North American and European institutions. In 1923, the then Department of Posts and Telegraphs, through Rádio Sociedade do Rio de Janeiro, launched the first radio programs with educational purposes, offering topics that varied from Literature to Radio Telegraphy. In the 1930s, Roquete Pinto, through the same radio station, developed the Rádio-Escola Municipal do Rio de Janeiro, combining the use of radio with correspondence as mediating technologies. In 1941, the legendary Instituto Universal Brasileiro was founded, one of the pioneering distance learning experiences in our country. Using basically printed material, it still offers several professional and supplementary courses. It is currently considered the largest distance learning school in Brazil (BRITO, 2003).

In the 1970s, several initiatives were recorded, starting with PRONTEL – National Tele-Education Program, launched in 1972 and the Minerva Project, which, using radio, offered several supplementary courses, reaching hundreds of thousands of people, in several states of the country. (NUNES, 1992).

From the end of the 1960s onwards, educational television also began to be used as another distance learning alternative. Initiatives followed, whether at the national or regional level, such as the Educational TV of Maranhão, the Educational TV of Ceará, the IRDEB – Broadcasting Institute of the State of Bahia, the Padre Anchieta Foundation in São Paulo and the Padre Landall de Moura Foundation in Rio Grande do Sul. At the end of the 1970s, the Telecurso 2º grau (2nd degree) was created (1978), a project developed jointly by the Padre Anchieta and Roberto Marinho Foundations, later generating the Telecurso 1º grau (1981) and the Telecurso 2000 (1990s). (NUNES, 1992).

The moment we live in is characterized by social, economic and technological transformations, mediated by the so-called new information and communication technologies, summarized in the expression:**knowledge era**(ROBINSON, 2012). ZUIN (2010) e-learning

is the term used for distance education (EAD) in the 90s. According to SOARES*et. al*, (2011), e-learning has been gaining ground in the world of organizations, whether educational or not. They also state that e-learning is a process that applies the potential of information and communication technologies to the development of learning and training. It is a personalized process that allows flexibility in terms of time and space, since the trainer and student do not meet physically, but are connected through the network. Distance learning meets the needs of professionals in organizations, individuals seeking greater qualification and exchange of experiences with agents from related or different areas, seeking to have knowledge of work situations or increase their repertoire of performance in their professional tasks. (SANTOS*et. al*, 2010).

2.2 BENEFITS AND LIMITS OF E-LEARNING

Professor Bacich (2018) points out that Distance Learning has, each year, attracted and won over new followers and led to the creation of new courses, some previously unimaginable in this modality.

The benefits of distance learning are: Saving time; Ease of access to material; Possibility of interaction between students (chat); Allows you to serve a larger and more diverse audience; Social inclusion tool; Low cost of tuition; Flexible schedule and location; Requires greater dedication from the student; Shares knowledge with a larger number of people around the world; Democratization of knowledge (MARQUES *et. al*, 2004)

However, the limits of distance learning consist of: Difficulty in finding out about the suitability of the institution; Difficulty in using technological resources; Lack of discipline on the part of the student; Lack of human interaction; in practice there is little interaction between teacher and student; Academic prejudice; Lack of specific materials for certain courses; High costs for support and technological infrastructure. (BACICH)*et. al*, 2018)

It is worth noting that e-Learning is a modality in distance learning, but distance learning is not necessarily e-learning, given that e-learning has a slightly more restricted structure than distance learning because it does not include correspondence courses, television, among other more conventional scenarios. (SOARES*et. al*, 2011)

2.3 DIGITAL TOOLS FOR E-LEARNING

There are different ways to implement distance learning (EAD) projects in an organization. One of them is to use *software* of learning management, such as *Learning Management System* (LMS). This tool, in addition to helping the company achieve goals through staff qualification, directly benefits those who use it to study. (LEMOS, S. 2011). However, for those who are starting out, the biggest limitation is often the annual or monthly price, which is often very high. However, there are some sites that provide the service for free. (LEMOS, S. 2011)

As mentioned: Xerte: offers a free version of its online course creation tool. The free version has some limitations, but it allows you to convert PowerPoint to SCORM packages and create quizzes...

Figure 1: Xerte platform available at: https://www.xerte.org.uk/index.php?lang=en . Accessed on: 12/10/2018

- Web class

Webaula's computerized products provide real-time communication via video and voice and can be used for synchronous tutoring, expert conferences, etc.

Figure 2 WebAula available at:http://www.webaula.com.br/index.php/pt/ . Accessed on: 12/8/2018

- Linkedin Learning

The LinkedIn Learning program already offers courses in five languages   and has more than 15,000 courses, 82 of which are completely converted to Portuguese.
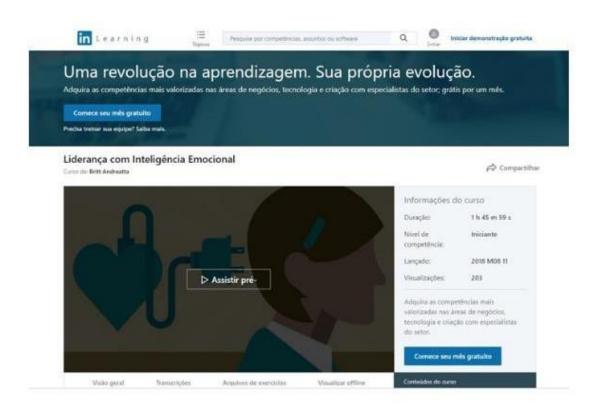

Figure 3. Linkedin Learning: available at:https://www.linkedin.com/learning/?trk=nav_neptune_learning . Accessed on: 12/11/2018.

LMS are complete tools that automate and manage training events, access control, communication tools, and assessment tools, as highlighted by (LEMOS 2011). Therefore, the choice of the best LMS has been questioned, but not

There is a clear solution between commercial options with greater operational support, but with high cost or the use of free platforms such as Xerte, Moodle, for example.

CONCLUSION

We live in a world of exponential structures and new data is stored as relevant information when it becomes part of our knowledge base, that is, when it is related and articulated with other information.

E-learning is, therefore, a type or modality of distance learning based on Internet technologies, where learning occurs remotely. Therefore, the advantages of this type of distance learning, substantially the most significant, are: interaction, communication, interactivity, and practicality and reduced costs. E-learning also provides students with personalized learning adapted to their needs and availability, giving them the possibility of learning without limitations of schedules and physical space.

REFERENCES

BACICH; MORAN, L.J. 2018.**Active methodologies for innovative education:**a theoretical-practical approach, Porto Alegre, Penso.

BELLONI, Maria Luisa.**Distance Education**. Campinas: Associated Authors Publishing House, 2001.

BURNHAM, TF Distance education policy in the LDB: seeking to understand the official discourse. In: JAMBEIRO, O; RAMOS, F. (orgs.).**Internet and distance education**. Salvador: EDUFA, 2002, p. 119-134.

BRITO, MS da SILVA. Technologies for distance learning, via the Internet. In: ALVES, L; NOVA, C. **Education and Technology:**following paths. Salvador: EDUNEB, 2003, p. 61-87

ISMAIL; S.*et. al*. 2018.**Exponential organizations:**Why They're 10x Better, Faster, and Cheaper Than Yours (and What to Do About It), Alta Books.

LEMOS, S. (2011).**Analysis of student satisfaction in an e-learning course in higher education.**Master's Dissertation, Institute of Education, University of Lisbon, Portugal.

MARQUES, Camila;**Distance learning has more advantages than disadvantages, experts say.** E-learning. Brazil, 2004. Available, in http://www.webaula.com.br/index.php/pt/ . Accessed: December, 2018.

MOORE, MG; KEARSLEY, G.**Distance Education**: a systems view. Belmont: Wadsworth, 1996.

NISKIER, A.**Distance Education**: the technology of hope. New York: Oxford University Press, 1999.

NUNES, I. B. **Notions of education the distance**. 1992. Available at: http://www.ibase.org.br/~ined/ivoniol.html. Accessed in December 2018.

ROBINSON, Ken. 2012.**Unleashing Creative Power:**Theories about imagination, creativity and innovations that awaken repressed talents, São Paulo, HSM Editora.

SANTOS, Edmea O.**Online education beyond distance learning:**a phenomenon of cyberculture. In: SILVA, Marco; PESCE, Lucila; ZUIN, Antônio (Orgs.). Online Education: scenario, training and didactic-methodological issues. Rio de Janeiro: Wak, 2010, v. 1, p. 29-48.

SOARES, Leôncio José Gomes. From the right to education to the training of educators for young people and adults. In: SOARES, Leôncio; GIOVANETTI, Maria Amélia; GOMES, Nilma Lino (Orgs.). **Dialogues in Youth and Adult Education.**4th ed. Belo Horizonte: Authentic, 2011. p. 273- 289.

ZUIN, A.; PESCE, L. Instrumental reason, emancipation and online training of educators. In: SILVA, M.; PESCE, L.; ZUIN, A. (Org.).**Online education:**scenario, training and didactic-methodological issues. Rio de Janeiro: Wak, 2010, v. 1, p. 109-135.