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## ISSUES AND CHALLENGES OF E-LEARNING TOWARDS HIGHER EDUCATION

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### ABSTRACT

E-Learning is the delivery of educational materials, online courses, training, and lessons through laptops, smartphones, and tablets. It allows students to receive the necessary information anytime from any part of the world.

E-Learning, or electronic learning, is the delivery of learning and training through digital resources. Although eLearning is based on formalized learning, it is provided through electronic devices such as computers, tablets and even cellular phones that are connected to the internet. This makes it easy for users to learn anytime, anywhere, with few, if any, restrictions. Basically, eLearning is training, learning, or education delivered online through a computer or any other digital device. Different studies have found that participants learn five times more material in online learning courses using multimedia content than in traditional face to face courses. Because online courses give students full control over their own learning, students are able to work at their own speed. This paper explores the current rising rates of online learning in higher education. It examines issues and challenges are activated differently online and the impact of this on learning and teaching through the internet and the accessibility of two of the most popular learning management systems, Blackboard and Moodle, and the different approaches, benefits and problems associated with each system. It then explores the eLearning environment beyond the structure of a LMS to a broader digital campus that includes social networks, video hosting sites and micro blogging, where students and staff are increasingly expanding the learning and social environment in higher education..

**Keywords:** e-Learning, Higher Education, Learning Management Systems

### BACKGROUND HISTORY OF THE STUDY:

To better understand how eLearning benefits organizations today, it's helpful to look at its past. Elliott Maisie coined the term "eLearning" in 1999, marking the first time the phrase was used professionally. In the years since, eLearning's reputation has gone from strength to strength. But what factors have facilitated eLearning in becoming the most popular way to deliver training today? Some of these factors include:

- **The Internet** – Prior to the rise of the internet, many relied on printed manuals, CD-ROMS and other restrictive methods for learning and training. The rise of the internet allowed organizations to abandon one-dimensional practices and utilize the flexibility of eLearning.

- **Development of Multimedia** – As eLearning progressed, the ability to integrate elements such as images, videos, audio and graphics proved to be a more reliable way of keeping learners engaged compared to traditional learning.
- **Affordable Digital Devices** – Considering the first IBM computer cost the equivalent of almost \$5000 today, it's understandable that eLearning popularity rose as digital devices became more affordable. Mobile learning also hugely facilitated the growth of eLearning.
- **Well-Built Learning Management Systems** – LMS's have become more sophisticated, moving from locally installed to cloud-based systems, with organizations increasingly applying them to execute many forms of training. There are many things to consider when choosing an LMS; at a minimum ensure it has the functionality and support you need to meet your objectives and those of your learners.

In July 2010 the online learning management system (LMS) Blackboard from Blackboard Inc was awarded the Non-visual Accessibility Gold Certification by the National Federation of the Blind in the United States (Disabled World 2010). While it is laudable that this LMS, one of the most widely used in universities across the world, was acknowledged for its inclusive design, it also raises a number of uncomfortable questions. Blackboard was launched in 1997. Thirteen years is a long time to wait for an accessible version of the software. Blackboard continues to be the only LMS to have been accredited this level of certification. At a time when the possibilities of eLearning and online education are in the public spotlight through interest in the development of the massive open online course (MOOC), and at a time when enrolments in online courses are rising at a much higher rate than those in traditional face to face learning and teaching in higher education, it is disturbing to find this limited and belated approach to access for people with disabilities. eLearning holds many possibilities for inclusion for people with disabilities, however the online platforms utilized must provide access for all students.

In many cases, for students who study fully online, university staff may not meet them until their graduation ceremony. Roberts, Crittenden and Crittenden (2011) found that the majority of these students with disabilities chose not to disclose they had a disability. While this is one of the benefits afforded by studying online, they also found that these students did not request accommodations to help with access to course material that was presented in an inaccessible format. Students with disabilities can become invisible online. This means that more care and thought needs to be put into employing universal design practice in developing online learning material. As Jaeger (2012) notes "For persons with disabilities, unless technological design and implementation meaningfully focus on inclusion, the internet may become a new means of increased marginalization in society". Twenty-seven per cent of Americans live with a disability that interferes with activities of daily living (Fox 2011). This group of people is currently underrepresented in tertiary education (Sachs & Schreuer 2011; Wentz, Jaeger & Lazar 2011) although it is growing in number particularly with the increased use of eLearning serving to promote inclusion for this group of people (Fichten, Ferraro, Asuncion, Chwojka, Barile, Nguyen, Klomp & Wolforth 2009). As Jaeger (2012) points out 'disabled' is the only minority group that people may join over the course of their life. Only fifteen per cent of people with disabilities are born with them. All people should be seen as only temporarily able-bodied. The global proportion of people with disabilities in the population is rising due to both age and environmental factors (Vincente & López 2010). Inclusive design that facilitates access for people with disabilities helps everyone.

Given this, making eLearning accessible should be a priority for universities. This paper briefly explores the current rising rates of online learning in higher education. It examines how disability is activated differently online and the impact of this on learning and teaching through the internet and the accessibility of two of the most popular learning management systems, Blackboard and Moodle, and the different approaches, benefits and problems associated with each system. It then explores the eLearning environment beyond the structure of a LMS to a broader digital campus that includes social networks, video hosting sites and micro blogging, where students and staff are increasingly expanding the learning and social environment in higher education. It also questions the legal and moral responsibilities of universities to make all their online activities accessible to all students, regardless of disability.

## E-LEARNING

e-Learning is the delivery of educational materials, online courses, training, and lessons through laptops, smartphones, and tablets. It allows students to receive the necessary information anytime from any part of the world.

While eLearning and particularly the adoption of MOOCs may threaten to disrupt the traditional way that universities have operated the adoption of eLearning presents a number of advantages. The practice allows greater flexibility for both students and staff (Heijstra & Rafnsdottir 2010). It also provides a platform to more effectively and cheaply distribute learning materials, especially to a geographically dispersed cohort of students. As Craig, Wozniak, Hyde and Burn (2009) observe, it can be used as a means to bypass overcrowded campuses. It can also potentially provide better learning outcomes. Gosper, Green, McNeil, Phillips, Preston and Woo (2008) observe that students find online technologies such as web-based lecture technology, help them to learn and achieve better results. Chen and Chiou (2012) report that students in blended learning environments outperform students who are only studying in a face-to-face context, and they feel a stronger sense of community. Birch and Williams (2011) similarly find students using online material perform better. Chamberlin and Lehmann (2011) point to the advantages that networks such as Twitter can offer in a higher education context, and Allen (2012) observes the potential advantages of Facebook in an educational context.

Fichten et al (2009) note that eLearning can promote inclusion for students who are unable to attend class and also for students with print impairments who can more easily access course notes and handouts made available digitally. This inclusion of people with disabilities is significant. Many of the technologies that are used as parts of online learning platforms have their origins in systems to promote the inclusion of students with disabilities. However not all of the platforms or their individual elements are inclusive.

e-Learning empowers students and teachers worldwide to learn and teach remotely. This cost-effective learning approach enables online learners to obtain the necessary skills and knowledge in any university and field they wish, and lets educators monetize their knowledge. People can master new profitable professions through online courses, training, and special programs. Teachers can share their expertise with a wide audience interactively and engagingly. Multimedia lessons encourage sensory engagement and attention to detail. Online learning meets the needs of a wide audience. Students can access the lessons at any time and from anywhere in the world. They can stop the pre-recorded lesson and resume it. If students prepare for the tests or exams, they can access the course to review it. As a result, knowledge retention increases. If the course is real-time, students can communicate with each other and have open discussions. It leads to improved teamwork and critical thinking.

E-learning has become the new normal, revolutionizing the way we learn and paving the way for a more efficient and effective educational experience. From virtual classrooms to interactive learning materials, e-learning is bringing a whole new level of convenience and engagement to education.

It has opened up a world of opportunities, allowing students to learn at their own pace and in their own way. In this blog post, we'll explore the future of **e-learning in education** by covering major trends reigning supreme in future.

### 1. Micro-learning

Micro learning allows course designers to break down complex topics into small, easy-to-digest chunks, making it easier for learners to absorb the information. It also allows them to focus on the specific topics they need to learn without getting overwhelmed by the entire subject. With micro learning, students can quickly review and retain the information they need without having to spend hours studying. Research confirms that micro learning boosts long-term retention and focus by up to 80%. Moreover, it enables students to learn on their own time, making it a great option for busy professionals.

## 2. Gamification

Gamification is an engaging and interactive way to make learning fun and exciting for students. By introducing elements of gaming into the learning process, students are more engaged and motivated to complete their coursework. Gamification also encourages learners to think critically and develop problem-solving skills as they have to figure out the best way to progress through the game. It provides students with a sense of accomplishment when they reach certain milestones. Additionally, gamification can be used to personalize learning and make it more engrossing for students. No wonder 95% of learners favor a gamified work experience, according to a recent survey.

## 3. Adaptive Learning

Adaptive learning is carving the future of **e-learning in education**. It is a personalized learning approach to education that uses technology to adjust teaching strategies and content based on the individual student's needs. This type of learning helps students engage with the material in a way that is tailored to their individual strengths and weaknesses, allowing them to learn more effectively and efficiently. With the help of adaptive learning, students are able to learn at their own pace and according to their individual learning styles. Additionally, adaptive learning can provide teachers with important data about student progress and understanding, which can be used to adjust the learning materials to better meet the needs of the students.

## 4. M-Learning

M-learning, or mobile learning, is an exciting new way to learn that is becoming increasingly popular. It allows learners to access educational materials on mobile devices, such as smartphones and tablets, and offers an unprecedented level of convenience and flexibility. With m-learning, learners can access educational content at any time and from any location, making it the perfect solution for busy people who need to learn on their own schedule.

Additionally, m-learning offers a way to distribute customized content tailored to individual needs, making it even easier to find the right material and quickly understand it. With the added benefit of being able to contact other students and access help from teachers and other experts, m-learning is becoming increasingly mainstream. Therefore, it will continue to dominate the landscape of e-learning in education.

## 5. Video-Based Learning

This is a type of online education that utilizes video content to teach students. Not only is video-based learning more compelling and interactive than traditional methods of learning, but it also has several other benefits. With video-based learning, students can pause and rewind content, making it easier to absorb information and review concepts. This style of learning also allows for easier collaboration, as students can replay parts of lectures and videos to discuss topics with their peers. Through this type of e-learning in education, students can watch lectures, tutorials, and demonstrations that can also be adapted to their unique learning needs. Undoubtedly, videos will continue to transform education in the future.

## 6. VR and AR in E-learning

With the rise of virtual reality (VR) and augmented reality (AR) technology, **e-learning in education** has seen a dramatic shift in how students learn and interact with their environment.

Through the use of VR and AR, students can explore virtual worlds and engage with their e-learning material in a more immersive and multisensory way. For example, they can explore a 3D representation of a historical event or learn a new language by engaging in a virtual environment. They can explore a virtual 3D model of a human heart to gain a better understanding of its anatomy. The possibilities are endless. It should come as no surprise that the use of VR in the global education market is anticipated to surpass USD 1.3 billion by 2026. In fact, VR training can be 52% more economical compared to classrooms when there is a large number of learners involved (3000+).

## 7. Artificial Intelligence (AI)

AI-powered solutions are helping personalize the learning experience, providing students with tailored content, guidance, and feedback that can be adjusted in real-time. AI systems can also be used to automate administrative tasks, such as tracking student progress and providing customized reports and summaries.

Additionally, they can be used to identify patterns in student data that can help administrators and teachers identify trends and areas for improvement. Artificial intelligence can also be used to provide automated feedback to students based on their performance, which can help them understand areas where they need to focus more effort and resources.

## **E-LEARNING USE AND CHALLENGES IN HIGHER EDUCATION**

E-learning contributes to transforming higher education to become learner-dependent. It enables students to flexibly access their educational materials anytime and anywhere and choose the right fit for their needs. Moreover, it enhances the quality of teaching and learning (Kim & Park, 2018). Nevertheless, for the effective implementation of E-learning, four basic criteria must be met. They are the availability of the necessary technology in the educational institution, the possibility of students' access to and benefit from that technology, the willingness and acceptance of the teachers to use the new technology, and the readiness of the educational institutions to provide adequate support for that process (Demaidi et al., 2019). Universities are still faced by various obstacles (economic, political, technical, and pedagogical) that hinder the effective use of E-learning. . Moreover, the lack of a strategic plan and consortia between universities also contribute to impeding the successful implementation of E-learning (Gullu et al., 2016).

Integrating E-learning with traditional education is not an easy process. There are many challenges and obstacles facing all sides of the educational process (teachers and learners). The obstacle here means any objection or barrier delaying work progress and thus reaching the goal. For teachers, identifying obstacles and focusing on them is important because it may help them to develop the necessary skills needed in the teaching process and thus know how to overcome those obstacles that fall within their control.

### **(1) Lecturer-related**

The instructor or lecturer is an important component of the E-learning system. In the E-learning system, ease and familiarity with the use are essential features. These features depend on the instructor and the means he uses. It includes obstacles related to: the trust of the lecturer in E-learning, the desire for change, an understanding of the advantages and benefits of E-learning, They show that some of the things that hinder: insufficient training the lecturer received on how to use LMS, lack of technical support, low bandwidth, insufficient resources, overtime imposed by the use of LMS, students' refusal and resistance to LMS use and negative feedback from colleagues who use LMS.

### **(2) Student-related**

The student or learner is considered an essential element in the E-learning system, especially as the primary goal of E-learning is to meet his needs. In E-learning, the student faces many difficulties that constitute an obstacle to him and weaken his interest in learning. In addition, there are obstacles related to students' attitudes towards computers and the use of information technology. Moreover, a student must have a computer and internet at home as well as at his university, otherwise he will not be able to use E-learning. The student must also trust in the use of E-learning and have the necessary expertise to use E-learning The above applies to students whose mother tongue is not English. The reason is that most E-learning applications are designed in English.

### **(3) Educational Institution-related Obstacles (University-related Obstacles)**

The implementation of E-learning obliges the educational institution or the university to provide many of the necessary infrastructure for it. The process requires many necessary hardware and software. For example, the university must have major and backup servers. It also needs modern software to enable lecturers and students to access the E-learning system and practice its various activities. We cannot ignore the need for programs to manage and track usage. Providing the necessary infrastructure to use E-learning is linked to the educational institution's policy and its willingness to provide the necessary



technical support.

**(4) Curriculum-related**

Curriculum-related obstacles may be due to incompatibilities between the curriculum and technological applications. In addition, E-learning may contradict the university's student assessments in the educational process, there are certain criteria that must be met in the curriculum to be implemented through E-learning. They complete explaining that electronic content must be able to transmit knowledge and develop learners' social and cognitive skills. They also assert that practicing skills is inconsistent with E-learning except in special cases where intelligence can be exploited as it is in the case of learning languages and learning keyboard skills.

**(5) Technology and Infrastructure-related**

One of the obstacles facing learners in developing countries is the lack of technological infrastructure necessary for E-learning. Technological infrastructure means computers, computer networks, and Internet connection in addition to computer labs in universities. The success of E-learning is largely dependent on technology and infrastructure. Infrastructure facilitates access to the E-learning system. While technology allows the use of modern technologies from hardware and software to reach effective learning and teaching to explore the benefits and obstacles of E-learning that technological difficulties such as the lack of technical support and the lack of modernization of the devices and systems used are a major impediment to the use of E-learning. Poor technological infrastructure and old E-learning systems are major obstacles in adopting E-learning. Lack of the appropriate and the inexpensive internet bandwidth is hampering the implementation of E-learning in Kenyan public universities

## **CONCLUSION OF THE STUDY:**

The future of e-learning in education is an exciting prospect for educators and learners alike. We can expect to see more interactive learning experiences, more personalized learning, and more options for remote learning in the future.

As technology continues to advance, e-learning will become even more accessible and user-friendly. We can also anticipate more collaboration between educators and learners, facilitating collaboration, communication, and feedback.

E-learning will continue to become part of the mainstream education system, offering more opportunities for customization and allowing learners to learn in their own way. E-Learning is a growing area of the higher education landscape. This teaching practice holds great potential to be an avenue of inclusion for people with disabilities in that context. However, this potential is endangered by the relative inaccessibility of the online environment that is currently used both in terms of formal learning management systems and also the other social and web 2.0 tools that are used in conjunction with these systems.

Access to higher education and equality of access for people with disabilities is an important moral obligation for universities. Beyond this, in many countries, including the United States, it is also a legal requirement. Although as Seale and Cooper (2010) note while many teachers in higher education understand that eLearning should be accessible, not all are aware how to make it accessible.

**REFERENCES OF THE STUDY:**

- Annable, G., Goggin, G. & Stienstra D. (2007). Accessibility, Disability, and Inclusion in Information Technologies. *Introduction, The Information Society: An International Journal*, 23(3), 145-147. <http://dx.doi.org/10.1080/01972240701323523>
- Birch, E. & Williams, A. (2011). The Impact of Supplementary on-line resources on university academic performance: A study of first-year economics students. Paper presented at 14<sup>th</sup> Pacific Rim FYHE conference, Fremantle, Western Australia, 28 June — 1 July. [http://www.fyhe.com.au/past\\_papers/papers11/FYHE-2011/content/pdf/5F.pdf](http://www.fyhe.com.au/past_papers/papers11/FYHE-2011/content/pdf/5F.pdf)
- Chamberlin, L. & Lehmann, K. (2011). Twitter in Higher Education. In C. Wankel (ed.) *Educating Educators with Social Media: Cutting-edge Technologies in Higher Education, Volume 1*, Emerald Publishing Limited, 375-391.
- Dabbagh, N. & Kitsantas, A. (2012). Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *Internet and Higher Education*, 15, 3-8.
- Edutechnica (2014, February 10). LMSs of Smaller Colleges. *Edutechnica*. <http://edutechnica.com/2014/02/>
- Elias, T. (2010). Universal Instructional Design principles for Moodle. *International Review of Research in Open and Distance Learning*, 11(2).
- Finkelstein, V. (1980). *Attitudes and Disabled People: Issues for Discussion*. New York, International Exchange of Information in Rehabilitation.
- Guglielman, E. (2010). E-Learning and Disability: Accessibility as a contributor to inclusion. Fifth Doctoral Consortium at the European Conference on Technology Enhanced Learning, Barcelona, Spain, 29 September, 31-36.
- Leaver, T. (2014). Facebook Student Engagement and the "Uni Coffee Shop" Group. In M. Kent and T Leaver (eds) *An Education in Facebook? Higher Education and the World's Largest Social Network*. Routledge: New York and London, 121-131.
- Seale, J. (2013). When digital capital is not enough: reconsidering the lives of disabled university students. *Learning Media and Technology*, 38(3), 256-269.
- Vincente, M. R. & López, A. J. (2010). A Multidimensional Analysis of the Disability Digital Divide: Some Evidence for Internet Use. *The Information Society: An International Journal*, 26(1), 48-64. <http://www.tandfonline.com/doi/pdf/10.1080/01615440903423245>
- Walsh, D. A. (2013). Being a Professor Will No Longer Be a Viable Career. *History News Network*, 13 June. <http://hnn.us/articles/being-professor-will-no-longer-be-viable-career>
- Williams, J. & Fardon, M. (2005). On-Demand Internet-Transmitted Lecture Recordings: Attempting to Enhance and Support the Lecture Experience. *ALT-C 2005: exploring the frontiers of e-learning - borders, outposts and migration*. 6-8 September, University of Manchester.

