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E-learning: Trends and Significance in the Present Scenario

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ABSTRACT: E-learning is a learning environment which uses information and communication technologies (ICT's) as a platform for teaching and learning activities. It has been defined as "pedagogy empowered by technology",, though 'digital technology' is more accurate. Note that, due to the difference in terms of institutional goals, higher education and the industry have very different ideas about what e-learning is and how e-learning can be/should be used.

E-learning has its root in distance learning and is part of the revolution brought by the new media: the Web. Educators and trainers soon found the potentials to advance learning at the advent of the new Web technologies. The advocates of e-learning voice for the breakdown of barriers to learning (especially for adult learners in higher education) such as the limitations in time and distance. Research on media comparison "proves" that there is no difference in the learning outcome of e-learning from traditional face-to-face instruction. Over time, more and more instructors/institutions are incorporating e-learning components in the practice of instruction in higher education as a way of facilitating learning.

KEYWORDS: e-learning, digital, media, technology, information, communication, ICT, education, web

I. INTRODUCTION

E-learning, also referred to as online learning or electronic learning, is the acquisition of knowledge which takes place through electronic technologies and media. In simple language, e-learning is defined as "learning that is enabled electronically". Typically, e-learning is conducted on the Internet, where students can access their learning materials online at any place and time. E-Learning most often takes place in the form of online courses, online degrees, or online programs.[1,2] Online learning has numerous advantages over traditional learning methods. Some of these include the possibility for students to make use of self-paced learning and to choose their own learning environments. Additionally, e-learning is both cost-effective and cost-efficient, as it removes the geographical obstacles often associated with traditional classrooms and education.

Taking these benefits and many more into consideration, it becomes evident why the current trends in e-learning show remarkable growth for the industry. Worldwide e-learning revenue is expected to grow to $325 Billion by 2025, which is remarkable considering the fact that the number was three times smaller – $107 Billion, in 2015.

With that being said, it must be noted that e-learning is not perfect. Conducting any of the various types of e-learning through the Internet means sacrifices in one way or another. Increased risk of cheating during assessments, social isolation, and lack of communicational skill development in online students are just some of the challenges of e-learning which need to be addressed. Read our separate post on the disadvantages of e-learning in order to get a better overview of the drawbacks associated with e-learning.[3,4]

II. DISCUSSION

E-Learning has a vast amount of uses across all sectors of society and the available examples of e-learning being used effectively are plentiful. For adults, online learning often manages to solve the numerous challenges adult learners face during studies. Online learning allows them to progress at their own pace, to submit assignments and take assessments at times best suited for them. This kind of flexibility is especially beneficial for adult learners because often they are forced to balance employment, family duties and online learning altogether. Companies, on the other hand, use e-learning to boost the knowledge, skills, and overall productivity of their employees while cutting down on the costs normally associated with employee training. Successful companies who have utilized e-learning in the past include Toyota, Shell, PayPal, Lyft, among others.[5,6]

On the other hand, for career seekers and unemployed people, e-learning has become an effective method of boosting their resumes and developing new skills in fields they are most interested in. Not only are there online learning courses available for virtually any career direction, but there are even "career track" type of online training programs which often come with a guaranteed job proposal for all graduates. For educational institutions, e-learning brings perhaps the most potential uses of all. Many accredited online colleges already offer online degree programs, and more of them will start to do so in the upcoming years. E-Learning degrees enable universities to accept considerably more students than they would have otherwise been able to due to space and working staff constraints. With e-learning, universities have

the chance to become more international than ever before. With increased amounts of admitted students and reduced costs, educational institutions who are properly able to adapt to the standards of Internet learning will undoubtedly see increased profitability. The future of online learning will continue to see exponential growth.[7,8] As more educational institutions, corporations, and online learners worldwide start to recognize the importance of online learning, its role in education will only continue to rise. Online learning already has numerous uses in education, and its future roles in education are going to be immense. The agendas of the most successful educational institutions in the world have already recognized that online learning can transform people, knowledge, skills, and performance, and other educational institutions will likely follow suit sooner rather than later.

However, we must not get ahead of ourselves. While the world of online education is undoubtedly an exciting world to be in, many students who are uncomfortable with online learning still prefer the traditional live, in-person teaching methods which they are used to. All students have unique learning styles and online learning will likely never be a one-size-fits-all type of solution to education.[9,10]

III. RESULTS

E-learning is a type of learning conducted digitally via electronic media, typically involving the internet.

It can be accessed via most electronic devices including a computer, laptop, tablet or smartphone, making it a versatile and easy way for students to learn wherever they are. E-learning resources come in a variety of forms – from software programmes and digital courses to interactive online platform and apps.

E-learning can be carried out via the consumption of videos, PDF documents, slideshows and word documents. Thanks to the availability of these resources, it's incredibly easy for anybody to teach themselves a new skill at their own pace.

Thanks to the internet, private tutors are no longer as expensive as they once were. Thanks to websites like MyTutor and TutorHub, it's now easy to find online tutors for any subject at an affordable rate. Lessons are completed via video communication platforms like Skype and Zoom. With so many schools across the UK currently closed, teachers and students are taking advantage of e-learning methods to continue their studies from home.

Even before this recent crisis, many schools were already strong champions of edtech in the classroom, and creating a seamless and flexible learning experience through the use of digital platforms.[11,12]

There are many ways in which teachers have been implementing e-learning to continue the teaching of their curriculum. One major way is the use of virtual 'classrooms' or lessons, using video communication platforms like Zoom. The teacher is able to plan and teach lessons as normal, with all students attending the lessons from their own home. The great thing about Zoom is that it can be accessed on a phone as well as a computer, adding greater flexibility to students.

Teachers have also been able to create and distribute learning materials via platforms like Google Classroom and Edmodo. And when it comes to finding lessons plans and learning materials, there is a whole wealth of shareable resources online.

Right now, e-learning is playing a huge role in education by ensuring students are still able to continue their studies during this time of national crisis.

Aside from that, e-learning plays an important role in the modern classroom, allowing teachers to share students' progress with parents and enabling students to continue their studies beyond the classroom through apps, online learning materials and sharing hubs.

Finally, e-learning allows classrooms and schools to become that bit closer to becoming paperless. While it can't be said that paper books and materials will completely become obsolete, e-learning tools and resources play a huge part in cutting down on paper waste and helping schools be kinder to the environment.[13,14]

Self-paced e-learning is when the learner has the freedom to choose the pace at which they consume the teaching material, and can decide when they are ready to move onto the next step.

This allows for an enjoyable, pressure-free learning experience that often leads to better retention of information and a strengthened passion for the subject.

Nearly all e-learning platforms, particularly apps and online learning courses, take on a self-paced style.

Benefits of e-learning

Affordable and time-saving

Because e-learning can accessed from pretty much anywhere – including your own home – it removes travel costs, printed materials, and the costs associated with running an office or learning institute.
This means not only can online learning save everybody time, it also makes learning much more affordable for the learners.[15]

Learners can study anywhere, anytime

E-learning can be accessed from pretty much any device these days, meaning learning doesn't have to be saved just for the classroom or even the home.
Apps and online learning platforms enable learners to continue the learning process when its convenient for them – including on the go – meaning they can make greater strides with their learning.

Easy to track progress

Most apps and Learning Management System (LMS) enable the learner to track and monitor their own progress, which enables them to stay motivated as they can look back and see how far they've come.
Teachers or tutors can also keep track of where their students are up to in a particular course or subject module, and judge when extra help is needed.

It's discreet

Not everybody feels comfortable learning in a large group, but e-learning allows everyone to tackle the subject at their own pace, with interactive tasks ensuring a thorough understanding throughout each module.[16,17]

Disadvantages of e-learning

Requires self-motivation

E-learning requires self-discipline and self-motivation in order to be successful. Because the learner is fully in charge of his or her own progress, they will literally get out of the learning what they put in.
In the case of schools, e-learning will usually be overseen by a teacher, parent or leader, who can ensure students are committing to the process and getting the best results. But even then, particularly in the case of remote learning, it still requires an element of self discipline from the students themselves.

Doesn't provide practical training

E-learning can provide the theory aspect of a training exercise, but cannot provide practical training, which may be needed in some subjects to ensure competency. This would be an example of blended learning, which allows you to use e-learning alongside traditional face-to-face training.[18]

Misses the face-to-face aspect of learning

For some people, having that face-to-face contact may be a huge motivator to them, which e-learning mostly lacks. Even if a student has access to a real life tutor online, the social aspect is missing, which may make e-learning not a suitable option for everybody.

Features of E-learning

Time flexibility, lower costs and customized experiences are a few reasons why e-learning gained its popularity over the years.

Some of the most important features of e-learning today are:

- Online admissions

Students are logged into a learning management system through which they can access course materials, contact their professors and participate in discussion boards.

- Data Analysis

Students' data is essential for eliminating the shortcomings as soon as they appear.

E-learning platforms are keeping track of students activities such as attendance, tests, performance appraisal and more.

- Quality Content

Teaching materials are constantly updated by the latest education standards.

- Optimized Learning Platforms

E-learning platforms are constantly improved to make the whole process as efficient as possible. Aside from web pages, many e-learning platforms now offer learning apps to their students.

- Easy Payment Methods

Online payments are faster and more convenient for everyone.

- Online Communities & Social Engagement

Online communities and forums are vital part of e-learning experience.

The Types Of E-learning

Educational experts have identified various types of e-learning based on different elements such as learning tools, metrics, synchronicity and learning content. [19,20]

It is possible to filter down ten different types of online learning that derived from their individually conducted research:

- Adaptive E-learning

Based on adapting and redesigning course material for each student.

- Collaborative Online Learning

Based on teamwork; students achieve their learning objectives together while creating a sense for unity.

- Synchronous Online Learning

This method enables groups of students worldwide to reach their learning goals together.

- Asynchronous E-learning

For students with a non-flexible schedule; allows them to study apart from the group at their own pace.

- Computer Managed Learning

Computers are the teachers, as they have the role of accessing and managing the individual's learning progress. [21,22]

- Computer Assisted Instruction

This method combines traditional teaching with a combination of multimedia such as graphics, sound and video to enhance the learning process.

- Linear E-Learning

The learning material is passing from sender to receiver without two-way communication between teachers and students.

- Fixed E-Learning

All students receive the same studying materials that are predetermined by the teachers.

- Interactive Online Learning

This method stimulates two-way communication between students and their teachers.

- Individual Online Learning

Students are learning by themselves without relying on their peers.

IV. CONCLUSIONS

1. E-learning Fully Adjusts to Your Needs

Online studying is designed to accommodate everyone's needs.

Expansion of modern technologies has led to complete transformation of how we access content: Be it newspapers, books… it all went into the digital sphere.

Same goes for studying as online classes can be taken up by housewives or people maintaining their daily job while pursuing higher education. They have the freedom to pick their productive hours, and it's usually on the weekends when they have some free time to spare.

With overflowing daily schedules and busy lifestyles of the majority of the world's population multitasking seems to be our future.[23]

2. Reduced Cost

One of the biggest benefits of e-learning is it's cost effectiveness. The price reduction is the result of educational institutions saving a lot of money on transportation and accommodation of both students and teachers.

There are no pricey textbooks that push students further down the rabbithole of student debt. Also, regular text material printing is not required so the whole method is eco friendly as a plus.

3. Remote Approach To Various Classes

Not so long ago, going to college was the only option for anyone who desired to pursue an academic career. Today, we went from traditional four-year universities to completely online colleges that are offering a variety of options students never had before.

This means that the knowledge is brought to the student, rather than the student having to obey a bunch of norms. No campuses, no fixed schedule. Whatever their field of interest is, they can find the courses or programs they need online.

A special benefit of e-learning is that you can access the studying material as many times as you need.

Forget about bending over your desk in a desperate attempt to pick up on each lecturer's word as you're scrambling down your notes in a handwriting not even Enigma could decipher.

Online courses are giving you the leisure to successfully prepare for your exams without having to run to the campus by any means possible. [24]

As you are the master of your time, so you are the master of the content you are learning. Advantages of online classes include a variety of topics related to your interests, education you couldn't otherwise pursue under the weight of your studies' program curriculum.

Students can also earn every e-learning certificate online, from a career certificate to a doctorate.

4. Transfer Credits & Commuting

By pursuing online education you gain the freedom to manage your time how it suits you, without interrupting your progress.

Now, the special treat is that college students who are hindered in attending summer classes, be it their job or place of living, can take online courses and transfer the credits to their primary educational institution. This makes life a lot easier for those who need to maintain their summer jobs in order to pay for their tuition.

Not to mention how online education could come in handy during harsh weather conditions.

On these occasions colleges may cancel their classes to avoid putting commuting students at risk of dangerous travelling conditions.

Rather than missing out on lectures students in online courses can always "attend" by watching lectures or reading materials, participating in discussion boards or chat sessions and turning in their homework on time.

5. Instant Career Advancement

A prime benefit of online education is that it keeps you in sync with updated content deriving from aspiring lecturers from all around the globe.

E-learning is self paced and thus ideal for those that need to go to work or for those who are staying at home while raising a family or for any other reason there may be.

This further leads to the fact that online courses are ideal for anyone who wants to continue their academic studies where they left off at some point of their lives, or they never got a chance to pursue their higher education and now is the right time.

Studying online significantly boosts your chances of further advancing on your current job, or getting a new, better one. Obtaining an e-learning certificate will be a proof of dedication to professional improvement to prospective employees.[25]

6. Quick Delivery

Compared to traditional classroom teaching methods, e-learning provides students with a faster lesson delivery. To put it more accurately, learning time is reduced to somewhere between 30%-60% of what is usually required. The reasons for this are following:

- Online lessons have a quick start and go straight to the topic, usually wrapping it up in that same learning session. This enables elearning training's to roll out within couple of week or even days. Good ol' content binging.
- Students are advancing at their own speed, without the need to accommodate to the group.
- Students don't need to leave their homes thus saving time on transportation.
- Students can make their choices when it comes to the learning material; they can skip lectures they do not find useful or they were already taking in the past.

7. Scalability

Online learning is proven to have a positive influence on any business. You will have your employees better cut for the challenges ahead of them. The more efficient they get the faster you get to write off the business expenses.

Online courses are enhancing an individual's ability to learn and implement gained knowledge on their daily tasks. It is also beneficial for improving one's abilities to retain information for a longer period of time.

8. Consistency & Teacher Scarcity

In a traditional classroom setting lecturers stick to their methods of teaching that are widely susceptible to mistakes. These issues are eliminated through elearning by providing standardized and consistent training.

Online learning enables teachers to teach their lessons in a consistent way with a higher level of coverage ensuring all students receive the same amount of knowledge.

Many institutions worldwide have a shortage of experienced teachers. This issue is easily regulated with e-learning as a couple of highly qualified and experienced teachers can teach thousands, if not millions.

9. E-learning Offers Personalization

We are all different and there will never be a unified solution to match everyone's preferences. This is why online learning offers various learning styles to allow students to better adapt to their desired classes.

Without the obligation to pass all those unwanted courses in the curriculum students are motivated to pursue their higher education.[24]

Learning online makes it possible to cater to each student's unique preferences and goals. It allows them to navigate their pace while choosing a path for themselves.

10. E-learning Fully Utilizes Analytics

Student data is of great importance for improving training materials and boosting learning outcomes. E-learning platforms were shown to be more effective in obtaining data and running analytics than any other earlier known method.

Educational institutions now have the chance to identify potential deficiencies in their course materials by acquiring data on student dropout rate. They can further run new analysis to see if the implemented changes made an improvement or not. [25]

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