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An E-Learning Environment

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Abstract: Education is vital component of the life of an individual. It means to discover new things which are not known in order to increase knowledge. There have been various and advanced enhancements in the field of technology since a very long time that is a few decades. These technological advancements have also made a large impact on the current system of education. E-learning is prevailing now. It is an integrated learning which is available at any time and any place. In this paper, analysis has been made between traditional and e-learning methods sighting out certain limitations of the e-learning environment. Despite some disadvantages of the e-learning system which will be resolved in the recent future, it is still better than the traditional systems.

Keywords: E-learning, traditional systems, differences, advantages.

I. INTRODUCTION

E-learning can be described by various definitions. However, the best and the most appropriate way of defining it is in the terms of a facilitating and supporting component of education which adheres to Information and Interaction technology. Furthermore, it can be observed being a blend of various activities which are deployed entirely online. In simple terms, it is learning by using a computer for deploying any course or lecture, be it at a school, college or home. [1] The significance of “E” in the term e-learning is used to depict the word “electronic”; although nowadays, it has been replaced with the term “Enhanced”. In this type of learning, the entire course structure is available online rather than being available on paper. This type of learning concludes a single or many events which are limited to certain conditions, through the use of which; students can attain goals and ambitions that they have in mind for themselves. However, there are particular environments, which have been created appropriately to deploy effective learning which can last beyond the actual sessions. These sessions could be of varying length. There are many online systems that provide a platform of discussion groups and social interaction for the candidates. [2]

II. HISTORY OF E-LEARNING

With the dawn of internet, computer has been revolutionized like new before. The internet began with some military computers in the pentagon called Arpanet in 1969. In the 1960s, the Computer Based training Program was introduced at the University of Illinois. With the arrival of 1970, e-learning had started to become more influential. [3] In the past, the course materials were posted to the students via the mail. With the help of internet, there was faster correspondence with the help of email etc. By the early 1990s, almost every school and home had a computer with an internet connection which made communication faster and e-learning touch certain peaks. With the onset of 21st century, numerous office employees were trained by using e-learning portals. So, any individual could access information that gave him the ability for cognitive learning. With the enhancements of technology, many advanced learning institutes included online learning in their curriculum wherein they formed various complete online courses, some of which is also included the degree certifications. [4]

III. E-LEARNING TODAY

With the rise of e-learning, people especially students were reluctant to adapt the technology of online learning because its human nature to invest in a new technology. People started realizing the benefits of this type of learning which include saving a lot of cost and valuable time. [5] For instance, in the year 2000, roughly 45k students started taking up online courses. The search was conducted again in 2009 and it was observed that more than 3 million students relied on online learning. In fact, nowadays many institutes have developed courses and program that can be entirely completed online. Therefore, this study shows that the perspective of people has been changed drastically. The observed trend suggests that almost 50 per cent of all high school college courses would be delivered online by 2019. [6] If this boom takes place in India, the literacy level of people will rise and thus in return will help in the growth of the economy. This can also make the candidates gain better skills at their tasks by applying practical methods through the system of online learning.

IV. ADVANTAGES OF E-LEARNING

E-learning has various advantages since the resources such as storage are scalable. E-learning also has various benefits and by using e-learning, people can become more knowledgeable and learned professionals. [7] E-learning has an edge over the traditional learning techniques as it is available 24x7. [8] The main advantages are listed below:

A. *It is fast, efficient and scalable*

E-learning is very fast because it can be accessed quickly over the internet. It is very efficient since it can be used easily without going into much hassles and it is scalable. When the requirement for storage is needed, it can be scaled up, or, when the storage needed is less, it can be scaled down.

B. *Consistency and capacity*

E-learning has a very unique feature. It is the ability to achieve higher level of coverage among the target audience or anyone using e-learning since the matter and the resources are the same.

C. *Higher learning retention*

Since, the timing of learning depends entirely on the person using it, the person usually concentrates more on the learning and training given online. This also helps to cut down travelling time and other expenses which the learner has to incur while attending traditional classroom.

D. *Availability*

Many traditional, face to face, courses only operate for specific hours a day. But this is not the case in e-learning which is available 24x7. It can be accessed from anywhere and at any time making it more efficient and cost saving.

E. *Flexible*

It is very flexible as the time for taking up courses depends entirely on the person. This is not only beneficial for the faculty members as they don't have to teach one thing over and over again, but also, this has a huge advantage for students who are not able to come for the classes because of some reasons.

V. FEATURES OF E-LEARNING

E-learning portals have some distinguishing features that set them apart from traditional classroom learning which in turn impact a huge population. E-learning is packed with a lot of new and exciting features which help a student to learn in an efficient way. [9]

Some of the desirable features of e-learning are:

A. *Self-Paced*

One of the most attractive feature of e-learning is that it is self-paced, that is, it is entirely up to the person when, where and at what time they want to take up a course. Whenever the person has time, he/she can always log in and take up the courses.

B. *Not bounded by geography*

Another important feature of e-learning is that it is bounded by boundaries. This means that the person does not need to be in the same area, state or even country to view the content which is available online for learning.

C. *Greater number of audience*

Since the courses are available 24x7, the attendance of the users is always much higher than the traditional classroom learning.

D. *Better Contact*

Because of instant messaging in the e-learning portal, there is way better interaction between the students and the faculty members. The students can clear all their doubts by communicating with the faculty members.

E. *Enhancement of internet and computer skills*

There is a scope of learning more about the computer and internet skills. The person using an e-learning portal uses more of computer and has a running internet. If the person is using this on some other network, they know how to connect the internet. They also come to know about various other computer features. This makes people computer literate.

F. *User friendly*

One of the most important features of e-learning portal is that they should be user-friendly, that is, the user should easily be able to navigate through the portal. The User-Interface should be very easy to understand. [10]

VI. TRADITIONAL LEARNING

Since the dawn of humans and the advent of learning and education, human mankind has always been teaching in the most traditional ways known to man. That means, education has been taking place where there are a

number of students in a class and one or two teachers teach that particular subject. [11] In classrooms, students sit with like-minded people and acquire the same level of learning from the teachers. In traditional classrooms the education and learning is done face to face, so it's important for the students and the teacher to be present at all the times whenever there is a class. [12] This means that no teacher or student can take a holiday whenever they wish to since the course has to be completed in a specified period of time. The responsibility and power is held with just one person, and that person is the teacher. They have to make lectures and notes and present them to the class. The students are the acquirer of the knowledge. Learning is usually associated within the walls of the classroom and is often very competitive. [13]

VII. DIFFERENCES

Both online learning and traditional learning differ from each other in terms of multiple points. Some of them are cited below.

A. *Discussions:*

While referring to the amount of discussions taking place in the classroom, a greater level of participation of teachers is observed in traditional learning system whereas the participation level of students is more dominant in the online learning system.

B. *Level of Learning:*

In the traditional system, it has been observed that students are taught as a whole rather than being taught at a group or individual level unlike in online learning environment.

C. *Age Factor:*

Traditional courses are taken up by the student of same age group unlike the online learning systems where students belong to different age group and there is no restriction on the age factor.

D. *The Content of Study:*

The teacher, in traditional learning systems adheres to the specific syllabus of the subject whereas in course of online learning environment, students have an opportunity to refer to the internet and other mediums of knowledge.

E. *Process:*

The students gain more of the theoretical knowledge by being a part of the traditional learning environment but when it comes to online learning, more of practical knowledge is gained rather than the theoretical knowledge.

F. *Motivation Factor:*

Low motivation factor has been observed in traditional systems than in online learning systems. One possible reason for this could be less involvement in technology in the traditional environment.

G. *Faculty's Responsibility:*

The authority role is played by the faculty member in the traditional system unlike the directional role in e-learning platform.

H. *Place:*

The place of gaining knowledge is confined to a single classroom in the traditional system differing from online systems wherein the material could be accessed from any place provided the availability of a continuous internet access.

I. *Time:*

In traditional environments, classes take place at fixed or varying intervals whereas the study material is available at any point of time to the students in the later type of learning environment. [14]

VIII. LIMITATIONS OF E-LEARNING

E-learning surely has some limitations. These are:

A. *Constant access of internet:*

The greatest limitation of online learning is to have a constant internet connection. Without the internet access and a proper medium to access the same, material shall not be downloaded timely.

B. *Management of Software and Files:*

In traditional environment, the knowledge is departed through books which is collected and compiled by using paper and pen. But e-learning is more complex than the traditional system. It requires computer skill set

although basic, to manage the appropriate software for the course to be able to access and extract the online material. It is also important to know how to use computer files such as word processing. [15]

C. High Motivation:

Since students have to entirely deal with themselves throughout the course unlike in traditional environment where constant help can be taken by fellow colleagues, they are required to be highly energetic and motivated for the online course and notes.

D. Poor performance:

Students, especially the weak ones, who are required to be kept under a regular check, might get confused resulting in poor performance or at worst, failing the course completely. This factor plays a great disadvantage for students who are not able to cope up the subject easily.

E. Isolation:

Since there is very less interaction of students with faculty members, students might feel isolated especially the ones who need constant assistance.

F. Disadvantage for Disables:

Special students with visual or physical impairments might not be the appropriate audience for online learning systems. Still, a lot of research is going on to provide the disables with special online learning capabilities.

G. Reliability:

The content departed in the traditional classroom is much more reliable than the content available online. A higher population will be skeptical in shifting from tradition to online learning system because of less reliability of the later. [16]

IX. CONCLUSION AND RECOMMENDATION

Online learning has been a part of many colleges and universities nowadays. Furthermore, with the tremendous growth of internet, this type of education is projected to increase. This is becoming an irreversible process which is likely to expand in all its dimensions. It provides high level of flexibility and greater convenience level to students in both narrow and broad ways in terms of availability, higher learning retention, competence and availability. Yet, it has certain disadvantages like technical, management and reliability issues which might lead to isolation of the students and poor performance rates. Also, significant limitations are present in the traditional learning environment. Therefore, it is recommended to devise a system which is a combination of both the learning platforms that is the traditional learning environment as well as the e-learning environment wherein, the benefits of both the systems are combined and likewise, the limitations are eliminated as far as possible. This system could be made into a Hybrid System of Learning which shall provide the best of both worlds.

Thus, any improvement in the effectiveness in the system of departing education may require new models that demonstrate cost, collaborative design strategies, state and federal laws to be passed by the government and most importantly a new system of education in schools and universities.

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