

Innovation and Knowledge Cluster in 21st century: An Economic Manifesto for e-Learning Future

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Abstract: 21st Century is an information economy age for the digital revolution. The amalgamation of wireless technologies and mobile computing is ensuing in raising the edification domain. The popularity of web-based learning i.e. e-learning or m-learning opens the doors for remote education that will become triumph of future generations. With the aid of the electronic gadgets and services like 3G, 4G have led to the miracle in education reforms. Cloud computing technology helps to manage this on demand service in an efficient technique and offer excellent prospects for economic growth in developed and developing nations. A foremost advantage of this innovative learning is to reach people globally who live in remote places where there are no schools, educationalists, or libraries. The objective of this paper is to urgent reforms in the education system by the introduction of e-learning using latest technologies for the employment and economic benefits of the realm.

Keywords: 21st learning, Web based learning, e-learning, m-learning, Digital revolution.

1. Introduction

Today, technology has a great impact on education system in which e-learning and m-learning is being accepted and used in educational frameworks. Learners and educationalists are rapidly adapting this new reshaping learning. With the enormous growth of the number of apprentices, education contents on the web, e-Learning approach is growing at an exponential rate. e-learning erudition resolutions exist in both real and virtual environment, that can't be matched by traditional learning techniques. This is the most efficient method to cut the paper cost, maximize resources and heighten high-quality wisdom to succeed in college and a career. Schools and Universities are adapting this innovative learning technology with the assistance of cloud computing. Cloud computing is a new hot spot paradigm that delivers an appropriate cluster of computing resources in a cost effective manner. This marvelous cloud technology reforms the field of e-learning or m-learning edification and opens new gateways for employment and enhancement.

2. E-learning: Digital Fabric in a Digital World

E-learning is a key idea in new era that use technology with the aid of computer networks primarily through the Internet enabled smart devices like smart phones, tablets, ipad, personal digital assistant and many more to deliver distant and on-line

learning environment around the orb [1]. Today, it has become the digital fabric to strengthen a student's learning experience and delivers extraordinary edifying gen that will become tailor made for each apprentice. Even, academies and knowledge frontrunners are able to deliver training to students in countless innovative ways that personalized open learning experiences. The use of smart digital learning transform classrooms onto screens, that enhances the studying experience and hones in digital skills.

2.1 E-Learning and Support

In 21st century, technology becomes more robust and easier to use in every field. Now, technology applications are not limited to classrooms. They are shifted to virtual and online courses that are available on the move. E-learning can deliver benefits by plummeting the time phase as it takes to train students in the following ways:

- ✓ Mobility of short case studies accessible in a variety of media through web-based learning.
- ✓ Better association and interactivity among students and educators.
- ✓ Overcome the limitations of time, cost, distances and resources.
- ✓ E-learning sessions are up-to-date.
- ✓ More scalable to create new ideas and policies.
- ✓ Enables the learners to make networks with a more diverse range of people.

- ✓ Pre-recorded voice tutorials easily accessible from smart gadgets.

2.2 Traditional Vs. E-learning Methodology

Traditional Learning	E-Learning
Limited number of students.	Unlimited number of students connected to each other on the web.
Classroom teaching	Flexibility of Learning anytime, anywhere especially in remote areas.
Text books/ Traditional overhead Projectors	On-line Multimedia/ Digital content tutorials in the form of pdf, ppt etc.
Lessons according to the Syllabus.	Up to date data extent to syllabus available in the graphical form.

3. Technology Based E-Learning: Advantages

E-learning is not replacing conventional approaches of training but it aims is to design an amplified learning milieu where technology is used. Here are some advantages to the learner that will support e-learning.

Convenience and Approachability:

- Easiest mode to circulate course materials via E-learning.
- Instant feedback when using online assignment, puzzle, and test.
- Stronger understanding and increase retention on the subject.
- Deeper understanding and increase retention on the topics.

Time:

- E-learning helps to reduce travel time.
- Round the clock, apprentice can schedule the learning activity as per availability.
- Apprentices can skip the modules as they already understand and can jump to new modules.

Money: Helps to reduce

- The production cost of course materials, guides...etc.
- Office-building expenditure and instructor's salaries.
- Travelling time of the students and instructor's.

Communication and interactivity:

- Anywhere, anytime learning where the students can access to electronic gadgets with the help of internet or mobile connection.
- Better communication and interactivity between learners and teachers in online courses.
- Variety of modules available in the multimedia form.

It Just Fits:

- Educational Institutes is adopting this new technology and helps in improving the education standard across the sphere.
- Technologies, like social media also transforming education sector continuously.
- E-learning fits well in distance education those who want to access on the move wisdom. [1]

4. Types of E-learning Approaches

1. **Enhanced Approach:** E-learning resources introduces a innovative learning paradigm with the aid of smart gadgets like smart phones, tablets, pda's etc. that enhance the learning experience of the scholar. Print media such as books is only limited to the classroom and libraries but E-learning materials, is most versatile format that include hyperlinked text and multimedia components that are available round the clock in a cost effectiveness manner. E-learning opens novel opportunities for the new generation and making the World Wide Web so popular.

2. **Mixed-mode approaches:** This approach is closely interrelated to the concept of distributed learning. This will include on and off-campus online teaching and learning. Classroom teaching is limited number of students. The blended learning environment encourages learners to participate in online classes more enthusiastically and discover new virtual environment with their classmates. This has lead to new idea by facing face-to-face latest online courses.

3. **Online Approach:** Courses and modules are enhanced with www or others electronic gadgets. Courses available online are fully updated and available with audio/video materials that meets the requirement of the today learner. Students can easily access these courses with the aid of technological advancements and creates a new personalized learning environment to the E-learner. [2]

5. State of E-learning: An Eye towards the Economic Growth

From an economic perspective, E-learning seems like a natural fit with Cloud computing. Cloud computing approach makes everything possible for the learners to share resources and buy computing amenities by paying fewer amount. This online computing is widely accepted in the 21st century and raises the level of education, literacy and economic development. This technology reduces the time, cost and paper work for the apprentices where technical education is expensive, prospects are limited and economic disparities occur. E-Learning blended with cloud computing can result in economic headway of a nation, particularly in developing countries, by providing enhanced job opportunities in the skill industry as the government is using ICT technologies in every field as well as emerging a better educated and skilled workforce.

This digitalization revolution, the changing trends in education, helps in economic change of a country as characterized by a knowledge-based economy. In nut shell, E-Learning can contribute to the benefits of an individual, a society or a nation as a whole, circumventing the traditional restrains related to speed, time and space.

6. Future of E-learning: From Chalkboards to Chatboards

E-learning is increasing rapidly and become one of the most efficient methods of delivering higher education in the future. As technology ownership develops across the sphere, E-learning becomes progressively viable and user-friendly. Internet connection speed is increasing day by day and opens the doors of multimedia training methods on the web. With the immense development of electronic gadgets such as smartphones and other portable devices, E-learning comes with cloud technology in a cost effectiveness approach that have awesome features in the 21st century. This learning method will shape the new gen with latest learning tools in the future.

7. Conclusion:

As E-learning abilities continue to grow, innovative methods of learning will continue to evolve. In the next few centuries, E-learning will go rapidly with the development of more smart gadgets. The E-learning is not aimed to replace the traditional learning method. But with the advancement of learning environment, E-learning delivers a numerous range learning techniques where latest technologies will be used. This Virtual Learning Environment is a young approach to edification that offers exciting learning prospects that will enhance the learning experience.

References

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