



**PROSPECT OF UBIQUITOUS-LEARNING IN INDIAN HIGHER EDUCATION:
TRENDS AND ISSUES**

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Abstract

As far as Indian higher education is concerned, Ubiquitous-Learning is a significant issue. Through this article, a sincere attempt has been made to concentrate on the role of Ubiquitous-Learning in Higher Education in India, as well as its ideas, aspects, trends, issues, types, difficulties, industry, and market, as well as its advantages and future.

Introduction

Ubiquitous-Learning is the process of acquiring information and skills via the use of electronic tools including computers, internet-based learning resources, and local and wide area networks. Employees may get training and development through Ubiquitous-Learning using a variety of electronic media, including the internet, audio, and video. In a society, the younger generation must understand the value of technology and know how to pass that knowledge on to the next generation of leaders. India is not an exception to the worldwide trend of rising demand for higher education, which occurs annually.

At fact, for every seat available in a higher education institution in India, there are three to five times as many applicants. A "Internet based Training (IBT)" is another way to describe it. Ubiquitous-Learning initiatives are crucial to the growth of any nation. Everyone in the modern period considers growth. Suitable planning will provide proper outcomes. Focusing on classroom instruction is the major goal of Ubiquitous-Learning, which is also seen in India as a key factor in the advancement of education. The government of India faced the problem of introducing consistency to the educational system and delivering education to significant portions of the

people shortly after gaining independence in 1947. because of the several programmes India has implemented to raise the literacy rate. With the help of these initiatives, the literacy rate rose from 65.38 percent in 2001 to 74.04 percent in 2011. When compared to conventional learning, Ubiquitous-Learning has higher learner satisfaction ratings, as well as perceived ease of use and access, navigation, interaction, and user-friendly interface design. In higher education, it was discovered that fewer professional course instructors than one would expect use Ubiquitous-Learning, although very few instructors in non-professional courses do. There are three types of Ubiquitous-Learning: online, hybrid/blended, and e-enhancement. However, in Indian higher education, only e-enhancement is now employed by the instructors of professional and nonprofessional courses.

The rise of the global knowledge economy in this information technology era has led to digital online learning in the higher education system. The design, implementation, and delivery of higher education might all be significantly impacted by Ubiquitous-Learning. Institutions of higher learning must choose the best settings and programmes for Ubiquitous-Learning delivery. Although Indians have a history of favouring

traditional classroom-based academic programmes, the Indian government has actively supported the Ubiquitous-Learning movement in an effort to overcome obstacles and improve accessibility. Modern platforms in a 4G context can now give digital education thanks to technological breakthroughs. Future classrooms are predicted to be equipped with digital tools like tablets, iPads, and cell phones. Students, businesspeople, and the general public are all growing more interested in the idea of making education accessible to anybody, anytime, anywhere. With online courses, learners may control their own education. Anyone may deepen their education by selecting from thousands of available courses, frequently for no cost. The learning process is modernised through online education to meet the requirements of the younger generation. Massive Open Online Courses (MOOCS), MOODLE, COURSERA, etc. People have instant access to chances for skill development at the precise time they need them. The best schools in the world now offer online courses where aspiring professionals may acquire certifications. You must weigh the benefits and drawbacks of online education if you want to be better equipped to handle the difficulties of working in this novel setting. These advantages and disadvantages of online

learning are nicely summarised in the list below.

Aspects and Concepts of Online Learning

At general, Ubiquitous-Learning, often known as electronic learning, refers to the use of a computer to provide all or a portion of a course, whether it be in a school, college, during training, or as a full distance learning course. Elearning is the process of learning outside of a traditional classroom by using electronic technology. It often refers to a fully delivered course, programme, or degree. To put it another way, Ubiquitous-Learning is defined as instruction that is given online, using the internet, Therefore, Ubiquitous-Learning is the delivery of courses through the internet to locations other than the classroom where the instructor is really instructing. It is interactive learning where students may interact with professors, teachers, and other classmates. It is sometimes offered live, allowing for "electronically" raised hands and in-person interaction, while other times it is a recorded lecture. A teacher or professor will typically engage with students, communicate with them, and grade their participation, assignments, and tests. Ubiquitous-Learning has been shown to be an effective way of instruction and training. Many people in

our nation are adopting it as a way of life, including those in higher education, adult education, pre-primary and primary education, and farmer education.

E-range learning's

Ubiquitous-Learning mainly consists of two periods or sections. Ubiquitous-Learning is utilised for training at one level and for educational purposes at another. Use in education is only permitted at the secondary and upper secondary levels. It is utilised to teach staff members and improve their abilities during the second phase. In India, Ubiquitous-Learning adoption is quite low compared to that of the worldwide market, where it is widespread. The simplest and quickest way to teach people in India is to use Ubiquitous-Learning as a learning resource in rural regions. It is difficult to fit everyone in a particular university or educational setting when the population of India is taken into account.

Both formal and informal Ubiquitous-Learning

Online education and training are two types of Ubiquitous-Learning that mimic traditional classroom settings. Adults with low literacy levels can learn fundamental skills like reading and numeracy online in a gentle and secure environment. The only thing that distinguishes online training from education is the expectation that the

skills and information acquired via training would be put to use right away. We can investigate the possibility of informal learning through electronic performance support and knowledge management. Knowledge management basically refers to the archiving of corporate information, such as policies, procedures, and product information documents, reports, presentations, and proposals. Online collaboration with colleagues can also include online chats, discussions, and symposia where participants can share information that hasn't yet been formally documented. A work environment on a computer in which performers or learners receive support is known as Electronic Performance Support (EPS). In order to help learners, EPS is used to provide information, training, coaching, and monitoring.

Ubiquitous-Learning Literacy in India

As per Census Report 2011 published by Government of India:

Table 1. Percentage of Literate Population

Year	Literates (% of total population)	Illiterates (% of total population)
2001	65%	35%
2011	74%	26%

Source: Annual Report 2013-14, published by Ministry of HRD GOI.

According to Table 1 above, the proportion of the population that is literate has climbed from 65 to 74 percent in 2011 while the percentage of the population that is illiterate has declined from 35 to 26 percent over the same period of time. The truth remains that 26% of India's population is still illiterate, but Ubiquitous-Learning can assist to lower that number since improvements in communication and technology have made education and training feasible wherever and whenever. The learner may acquire knowledge anywhere, not just in a traditional classroom. In the case of adult education and training, it will be quite effective. For pre-primary and elementary education, it is a particularly effective medium since it is audio-visual and may draw in even school dropouts. In the case of adult education and training, it will be quite effective.

Women and online education

Women in Indian society have historically had a number of social and cultural disadvantages, and it is thought that unless women are given enough influence, socioeconomic growth may be challenging to attain. The first step in empowering women is getting them to analyse their own issues, come up with solutions, and then take action as a group. In order to expand women's power, regional networking, social mobilisation, and

altering women's attitudes and understanding are particularly important. The eLearning techniques may really mould people and make it a reality. Learning software would close the gap between laws and their successful application in rural and urban regions by empowering women, raising their level of legal understanding, encouraging them to take on women's cases, and assisting women litigants. Connecting social and legal groups that are interested in legal topics is possible through Ubiquitous-Learning networking.

As an instance, Ubiquitous-Learning networking would create connections between Mahila Mandals, attorneys, and courts. This implies that we may bridge the gap between social organisations and the legal system, between the lower and higher courts, between rural and urban regions, between senior and younger attorneys, and so on, by putting in focused efforts in Ubiquitous-Learning.

Ubiquitous-Learning and Government

Ubiquitous-Learning is a tool that the government may employ in many different ways. Effective policy and rule communication may aid the government. It might spread knowledge among individuals about various programmes and goals. People will have a public forum on which to converse or study. Semi-

structured and unstructured information can be managed using Ubiquitous-Learning. It can carry out government policy. A strong Ubiquitous-Learning programme may benefit the government in a number of ways. The government may offer a learning portal centred on public private partnerships' (PPP) policies, rules, and regulations. A government may increase transparency in governance by using Ubiquitous-Learning to educate the populace in a meaningful way. It is also possible to effectively raise social awareness among the populace and inform them of taxation and legal requirements. Currently, the government has taken care of it for the farmers in our nation by creating an online consulting service for the expansion of agricultural production utilising cutting-edge technology.

Higher Education and Distance Learning

India reportedly boasts the second-highest number of online course enrollments, behind the United States, with more than 1,55,000 students from the nation, according to a recent survey in a worldwide online learning programme. 32 percent of the approximately 1.2 million students globally are from the United States, and 15 percent are from India. A virtual learning environment (VLE), where every component of a course is managed through a unified user interface throughout

the whole institution, is in great demand in higher education. While the course material is given online, several of these programmes were started in our nation and require students to attend orientation sessions at institutions. Numerous colleges do provide online resources for students, including student newspapers, e-counseling, online textbook purchases, and assistance and registration. Ubiquitous-Learning may be able to help rural India's shortage of instructors with the necessary qualifications. Some of the answers that elearning may provide to these issues include live online coaching, streaming movies, and virtual classrooms. Ubiquitous-Learning is the greatest choice even though there is no replacement for efficient and well-organized classroom instruction. Ubiquitous-Learning can be used to teach school dropouts since they find it offensive to return to school. Computerized For classes with a big enrollment, the teacher's or professor's job of evaluating student performance is made easier. Students with physical disabilities can learn at home using study materials for Ubiquitous-Learning. Even though Ubiquitous-Learning is an audiovisual form of instruction, it has its limits. Another research projects that India's \$20 billion online education sector would increase to \$40 billion by 2017. A group of individuals who disagree with the idea of

online education claim that it is only informational and does not transmit subject-specific knowledge. On the other hand, some individuals disagree with classroom instruction, claiming that self-learning through the use of computers and other e-material is always preferable to it since classroom instruction does not inspire self-learning. This is especially true for nations when opportunities are few, opportunities are expensive, and there are economic inequalities. With a network of more than 1 million schools and 18,000 higher education institutions, India boasts one of the biggest educational systems in the world. The 1.2 billion people who call the nation home make up more than half of the target market for education and related services. Even the agricultural sector must interact with higher education and online learning.

The Market for Global Ubiquitous-Learning

By 2015, it is anticipated that the worldwide eLearning market would be worth \$107 billion. With a five-year compound annual growth rate of about 9.2 percent, the worldwide self-paced eLearning industry generated \$32.1 billion in sales in 2010. This implies that the self-paced eLearning industry should generate \$49.9 billion in revenues in 2015.

Higher Education and Massive Open Online Courses (MOOCs)

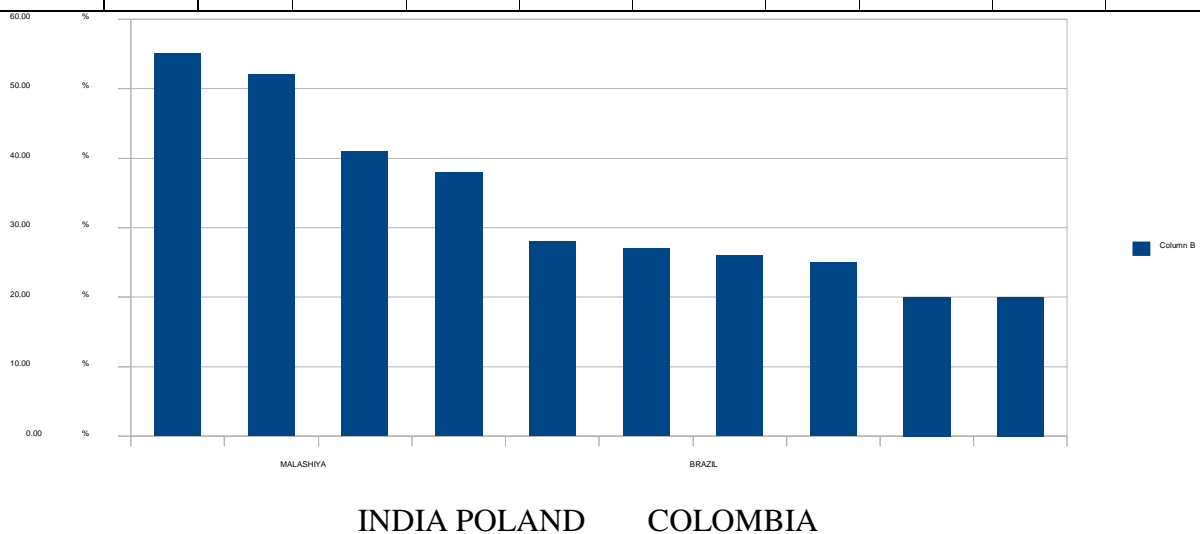
One of the most well-known developments in higher education over the past few years is the use of massive open online courses (MOOCs). It is an online platform that distributes open access, free, video-based instructional content, problem sets, and forums to a large number of users who want to enrol in classes or further their education. MOOCs bring together academics and students from all over the world because to their flexibility in time and location. By allowing students who are

interested in learning to quickly and easily complete courses for free or at a minimal cost, it aims to expand access to higher education. Higher education institutions and academics will be able to experiment with new online learning models and cutting-edge teaching and learning techniques thanks to the increased chances for innovation brought by MOOCs. The emergence of MOOCs as the newest trend in the field of distant education suggests a critical need for research studies to lessen the hazard associated with it.

Country-wise Top 10 Growth Rates

Growth rate is an important statistic since it may disclose business prospects and demonstrates how each nation is using eLearning. The growth rate of self-paced online learning in each country is displayed in the table below.

Sr.No	1	2	3	4	5	6	7	8	9	10
Co unt ry	India	China	Malaysia	Romania	Poland	Czeh Republic	Brazil	Indonesia	Colombia	U kr ai ne
Per ce ntage	55%	52%	41%	38%	28%	27%	26%	25%	20%	20%



Advantages/Benefits of Online Learning

A multibillion dollar enterprise does not suddenly become well-known without a staggering number of side advantages, which make the millions even more desirable. Let's examine a few of them.

Benefits of e- learning

- Cost effective
- • Large target
- • Higher and time audience knowledge saving base retention Encourages Room for easy course sharing discretion tracking

Some Other Benefits of E Learning

1. Convenience: This convenience relates to the time, place, and length of the course that you are studying for. There is no need to travel to a campus. Students are free to study and learn at their own speed. Instead of speaking, one might communicate their thoughts via writing. Lessons can be delivered virtually, as opposed to in person. Additionally, the course material and instructions may be greatly tailored according to the preferences of the learner. Student-centered: Students may participate actively in just the contributions that are most pertinent to their needs. Self-direction and critical thinking may be enhanced by the interactive learning environment. high-

level dynamic interaction between the teacher and the students as well as between the students themselves is provided.

2. Access to Resources: It is simple to incorporate access to international resources and information, as well as guest experts or students from other universities. As each student participates in class discussions and comments on classmates' work, ideas and resources are shared.
3. Less Expensive: In general, these courses are less expensive than traditional classroom instruction. There are no travel expenses or accommodation fees. The person attending the lesson can keep working at his or her employment while doing so.
4. Technology: Anyone with access to a computer can work on the course almost anywhere. Learning new technology is possible with online classes.
5. Global level: The students will collaborate with peers from all across the world, maybe in addition to India.
6. No discrimination is made against students based on their race, gender, sexual orientation, religion, nationality, age, attire, physical appearance, or any

other factor. All of the students' involvement will be equal, and the talk will not be dominated by the exiting student. These courses are better suited to introverts and those who benefit from visual clues and take their time to fully comprehend the topic. Comparing e-assessment to traditional (paper-based) assessment offers various benefits. The benefits comprise.

7. Greater flexibility with regard to scheduling and location
8. Improved impartiality thanks to partial marking (machine marking does not "know" the pupils and does not favour or excuse small faults).
9. Greater storage efficiency: As opposed to the physical space needed for paper scripts, tens of thousands of response scripts may be saved on a server.

Disadvantages

1. Limited Face-to-Face Interaction: Face-to-Face interaction with teachers and fellow students is rare. It might be tough to build relationships with students, especially in self-paced courses. limited local networking possibilities may be available. The majority of communication takes place via email, chat rooms, or discussion forums; there are no in-person gatherings. There was no individualised

attention from the teacher about in-person contacts and comments. There is no campus environment to foster social interaction.

- 2.
3. Students might need to purchase the appropriate digital system, as well as master new or improved computer and troubleshooting abilities. High-speed Internet is required, and one must plan their study time around the deadline for their instructor's assignment...
- 4.
5. Instructors have a difficult time keeping up with the continuously evolving software since it is so complex. It may be difficult for traditional professors who believe in lectures and handouts to adapt the system and software. Students who want to finish their programmes on time must be self-motivated and dedicated.

Issues & Challenges in Ubiquitous-Learning 1. Technological Challenges

Ubiquitous-Learning presents formidable obstacles for the field of technical development. User needs must be taken into consideration while creating Ubiquitous-Learning resources.

E-technology learning's difficulties might be regarded as two important technological study areas.

Creation of Interactive Learning Environments and New Forms of Learning Interaction, teamwork, and community are key components of Ubiquitous-Learning environments that encourage learning. New types of interaction for the learning experience are provided by innovations in Ubiquitous-Learning environments. It also creates a new learning community by creating new interactions between the student and the machine. New types of multimodal interface to promote learning are among the important topics. New approaches to comprehending and assisting learning groups. the creation of tools to assist learning groups that are mobile. strategies for personalization that take into account user preferences and activities. methods for encouraging and supporting interaction. new learning communities are found. assistance with periodic evaluation services.

Creating New Knowledge Resources for Online Learning

The right semantic services must be implemented in the Ubiquitous-Learning environment to accommodate the data's fast growth in quantity and diversity. A surrounding semantic context is created by the semantic services to promote learning. Development of learning and reasoning theories for uncertain and imperfect

knowledge is an area of research that has to be done.

Encouragement for the construction of large-scale educational institutions. in favour of a dynamic educational process.

support for information sharing across various educational institutions.

creation of portable knowledge capture techniques to support lifelong learning.

Issues with Ubiquitous-Learning research

In a broader context of socio-cultural issues, current Ubiquitous-Learning

research integrates educational, technological, and organisational

problems. These variables affect the Ubiquitous-Learning system research

agenda. For the Ubiquitous-Learning research community, comprehending these

more general social and cultural challenges is crucial since it will significantly

influence future practises.

Future of Ubiquitous-Learning in India

India is a significant player in the global Ubiquitous-Learning services market. It

already ranks among the top nations for IT service providers, and it now wants to

retain that position for IT-enabled services.

It is one of the top suppliers of Ubiquitous-Learning services in the globe because to

the presence of top-notch educational infrastructure and training specialists. Both

the public and private sectors have launched several Ubiquitous-Learning

projects at home. Although there has been a great deal of enthusiasm and user acceptability for these efforts, their business potential is still being thought about. To improve the Ubiquitous-Learning environment in India, the government has been acting pro-actively on both a financial and regulatory level. Funds have been allocated to the construction of Internet kiosks for communication in rural regions, which may also be utilised for Ubiquitous-Learning initiatives and aid in the delivery of informal and vocational training in addition to formal education. The Indian Ubiquitous-Learning services market's key advantages are: English-speaking, highly skilled, and technologically adept personnel Official acknowledgment of digital signatures and e-transactions in a secure electronic environment cheaper human capital expenses compared to developed nations Strong and thriving domestic education sector that supports skill upgrades and the development of new goods.

Future Trends of Ubiquitous-Learning in India

- Future Ubiquitous-Learning Trends Initiatives from business to employees will cover Ubiquitous-Learning: To do business with employees and provide them self-service access to perks, forms, and information, businesses can create

B2E intranets or corporate portals. B2E skills will be more and more crucial tools for managing employee interactions, retention, and recruiting. Additionally, it will save the business time and money.

- Customers will have access to Ubiquitous-Learning: Customer education may be a component of CRM activities. Ubiquitous-Learning may be used by businesses to launch new goods, teach clients self-service strategies, and compare their offerings to those of rivals.
- Interactivity, gaming, and simulation will improve online learning: According to research, when students learn via experience, their comprehension and retention increase. Students will be able to practise the skill while being taught thanks to technologies like collaboration, interaction, modelling, simulations, virtual reality interfaces, and gaming.
- The correct abilities are in constant demand: A few months after they are introduced, certain talents become obsolete along with technology and business practises. Additionally, the ordinary employee now needs a wider range and greater number of abilities.

Conclusion

Governments, corporations, and professional associations may begin concentrating on applications and the effective and efficient deployment of Ubiquitous-Learning in advance of this increase. The biggest advantages that Ubiquitous-Learning has to offer both now and in the future may be realised by realising that it is, in fact, a technique. In the end, it is nevertheless a truth that bad procurement procedures constitute a hindrance to the growth and acceptance of Ubiquitous-Learning. Therefore, it is essential to do a complete assessment when selecting Ubiquitous-Learning software for education in order to enhance learners' knowledge, learning outcomes, performance outcomes, the influence on business and policy, and the value of the money invested. Ubiquitous-Learning improves education, literacy, and economic growth in developing and poor nations. If Elearning is used to target the agriculture sector, growth will undoubtedly accelerate. By conducting thorough research and developing a strategy, Ubiquitous-Learning and e-commerce may be built. It is established that the rising tide of adaptive learning will benefit government, women, and higher education. The proportion of literate people in India's population is rising thanks to Ubiquitous-Learning. As a key

component of the education sector's growth cycle, Ubiquitous-Learning is essential to the advancement of education. If India and emerging nations go forward as a joint enterprise and collaborate on the subject of Ubiquitous-Learning, it is anticipated that this would be advantageous for the growth of the educational sector. Many chances may be taken advantage of and rapid development is made possible through Ubiquitous-Learning. India is anticipated to investigate this matter for development. Future social and educational sectors will benefit from it.

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