

# A study of some e-Learning Projects in India

## Abstract

The traditional teaching method is a universal system; a teacher instructs students to learn with the physical presence. There is no substance that conventional education can be replaced, but in this era, new technologies can provide value addition in teaching. Student-teacher ratio, student-infrastructure ratio, fixed time and place, status barrier are some significant factors to promote e-learning. E-learning is a dimension to facilitate people to learn anytime and anywhere. In the present paper, we review e-learning in the Indian scenario.

**Keywords:** e-Learning, Learning Management System, e-Learning Resources.

## Introduction

As per a report of Bhattacharyya, Dhiman (2019), Indian circumstances e-Learning industry is increasing at a rate of over 20% in a year. It is estimated to enhance a US\$1.96 billion trade by 2021. The traditional teaching method is a universal system; a teacher instructs students to learn through memorization techniques with the physical presence. There is no substance that traditional education can be replaced, but in this era, new technologies can supporting in the education system. Technology is helpful to interconnect vast information, knowledge, and awareness of the world.

E-Learning is a term used to describe a means of teaching through technology. The e-learning is the adoption of technology to facilitate people to learn anytime and anywhere. e-Learning is a way to provide training, educational, or learning material with the use of a computer or electronic device, e.g., desktop, laptop, tablet, mobile phone. (Derek Stockley 2003)

E-Learning is a resource of education that incorporates self-motivation, communication, efficiency, and technology. E-Learning can include training, the delivery of just-in-time information, and guidance from experts. Many synonyms of e-learning are commonly used, e.g., CBT (Computer-Based Training), IBT (Internet-Based Training), or WBT (Web-Based Training).

## Aim of the Study

The study aims to review the environment of an e-learning system with some real examples in the Indian situation, SWOT analysis, and expediency.

## Indian Scenario for E-Learning

NPTEL, swayam, e-PG Pathshala, and e-KrisiShiksha are some well-known projects of e-Learning developed and maintained by some prestigious institutes of India.

## NPTEL

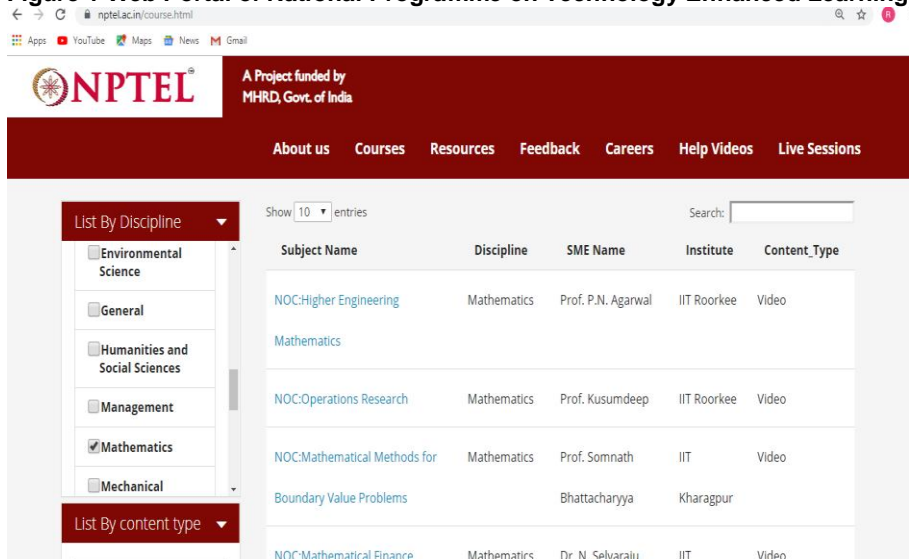
National Programme on Technology Enhanced Learning (NPTEL) program initiated by eight prestigious institutes of Indian in 2003. Indian Institutes of Technology Delhi, Kanpur, Kharagpur, Bombay, Madras, Guwahati, and Roorkee with the Indian Institute of Science core members NPTEL program. In the first phase, 235 courses were developed. In phase II, around 600 web and video courses were developed; also, several improvements incorporated, such as indexing and keyword searches. NPTELortal has approximately 117 courses available in Mathematics.



**Anjali Pant**

Head,  
Dept. of Applied Science,  
Government Polytechnic,  
Shaktifarm, Uttarakhand, India

**Figure 1 Web Portal of National Programme on Technology Enhanced Learning**

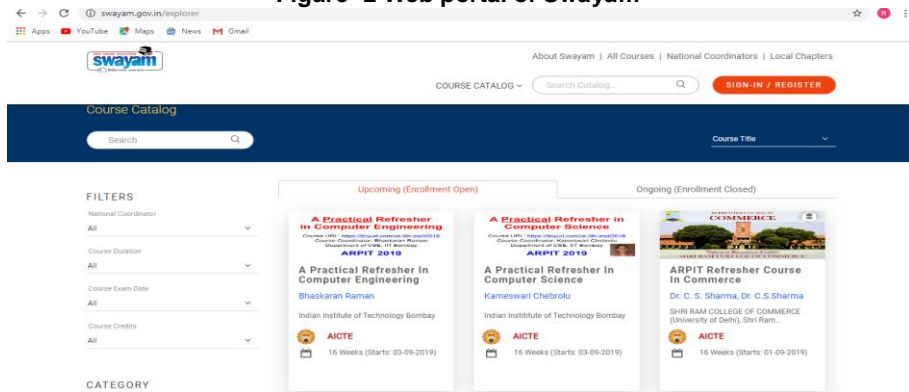


**Swayam**

Nine prestigious government organization AICTE (All India Council for Technical Education), NPTEL (National Programme on Technology Enhanced Learning), UGC (University Grants Commission), CEC (Consortium for Educational Communication), NCERT (National Council of Educational Research and Training), NIOS (National Institute of Open Schooling), IGNOU (Indira Gandhi

National Open University), IIMB (Indian Institute of Management, Bangalore) and NITTTR(National Institute of Technical Teachers Training and Research) prepared a a platform that facilitates hosting of e-learning courses Any learner from class 9 to post-graduation level to be accessed free of cost by anyone, anywhere at any time. Mathematics and Science is one of the subject group in this portal.

**Figure -2 Web portal of Swayam**

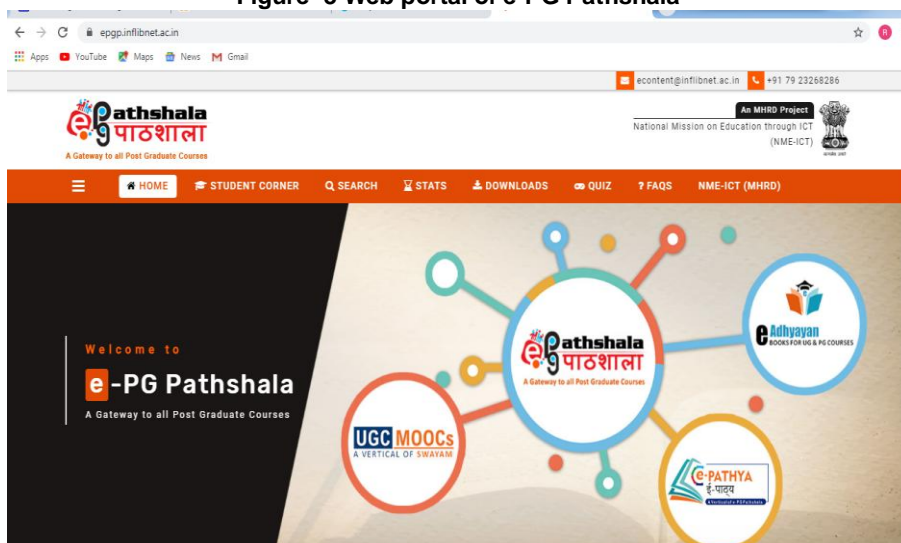


**e-PG Pathshala**

e-PG Pathshala is an initiative of the MHRD, maintained by the UGC. The high quality and

interactive e-content content all disciplines, e.g., social sciences, arts, fine arts, humanities, natural and mathematical sciences, are available in this portal.

Figure -3 Web portal of e-PG Pathshala



**e-KrisiShiksha**

e-KrisiShiksha is an e-Learning platform for undergraduate students and farmers developed by ICAR. It is a web-based e-learning portal for

agricultural education and useful for the scholar of agricultural-related disciplines of agriculture sciences, veterinary, animal science, fisheries, dairy, horticulture, and home science.

Figure -4 Web portal of e-KrisiShiksha



**E-Learning Environment**

The e-Learning environment is divided into two categories asynchronous e-Learning and synchronous e-Learning. The synchronous e-learning environment is real-time and like a virtual classroom, which allows learners to ask, and teachers to answer queries instantly, through instant messaging. The asynchronous e-learning method uses the web, email, and message boards for coursework delivering.

**Learning Management System**

An LMS is a software application designed for e-learning. It is provided facilities for training and

learning programs. The general operations of LMS are administration, documentation, tracking, reporting, and delivery of educational courses. The eLucid, Litmos LMS, Lessonly, TalentCards, TalentLMS are some examples of some paid LMS and Moodle, ATutor, Eliademy, Forma LMS, Dokeos are some examples of open-source LMS.

**Advantages and Limitation Of E-Learning**

Qureshi I. A. et al. (2012), and Shaikh Farhat Fatma (2013) suggested some advantages and disadvantages.

Table 1 Advantages of e-Learning

Factor	Description
Cost-effective	Less time and money involved compared to traditional learning.
Flexibility	Attend classes anytime, anywhere, also an option available for selection.
Personalized learning	E-Learning allows the selection of learning materials as per the level of knowledge or interest.

Develops knowledge	E-Learning encourages students to take personal responsibility and self-confidence.
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**Table 2 Limitation of e-Learning**

Factor	Description
Access	Need to have access to a computer with an Internet connection. English competency
Software	Learning and supporting software required
High motivation	Motivation required because all work is the responsibility of the learner.
Isolation	Students may feel isolated Face-to-face interaction

Hemant Rana et al. (2014) described technological challenges, interactive learning material, a new form of learning, and developing new knowledge facilities are some challenges interdisciplinary, access and inclusion, interoperability, and interconnectivity are some research issues in the e-learning study.

**SWOT Analysis**

**Strength**

In the e-Learning system, less time and money involved as compared to the traditional learning approach. E-Learning allows the selection of learning materials as per the knowledge level and interest of learners. E-Learning encourages learners to take personal responsibility.

**Weakness**

Learners may feel isolated because many other professional and personality development activities conducted only in the traditional system. Learners in the position in isolation so that during learning, high motivation will be required, because entire work is the personal responsibility of the learner.

**Opportunity**

Learners can attend classes anytime, anywhere. Learners also have options for selecting courses and time. The e-Learning system is free from the status barrier.

**Threat**

Computer or any other computational device with an Internet connection is a mandatory requirement. Supporting software also expected. Elementary knowledge of computers is wanted.

**Conclusion**

E-learning is the web-enabled system that makes information and knowledge accessible anytime, anywhere. It has five primary components teacher, learner, study material in the form of e-content, content delivery channel, and pre-defined rule of access. LMS is an application software that performs administration, documentation, tracking, reporting, and delivery of e-contents. It has some

advantages, cost-effective, flexibility, personalized learning, and knowledge development. However, it has also some limitations, e.g., software and hardware required with an internet connection. It is essential that learners highly motivated during the courses.

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