

# Evolving Web Based Teaching-Learning Tools in Open and Distance Education

AJITHKUMAR.C

Assistant Professor, School of Education, IGNOU, New Delhi, India  
Email - ajithchalil@ignou.ac.in

**Abstract:** *The educational institutions across the globe are experiencing the impact of most modern technological instruments. Most of the open and distance learning institutions, utilize of print materials and are supported through live programmes telecasted via television or radio to deliver educational programmes. The open and distance learner, profoundly relies on the old, traditional printed version of texts. But, the present day learners are tech savvy and depend on internet related applications to fetch learning materials/information. Thus, method of learning using printed texts and other older electric gadgets are to be replaced with contemporary electronic devices that help individual to gather information at a faster rate and help to bring information at their door steps. It is easier to execute and implement the advantages technology and applications that run with the help of internet. In the recent days, lots of teaching aids have come in place that runs with the help of internet. To name few, moodle, e modules/content, virtual classroom, OER, online teaching, etc, which we include under an umbrella term 'web based learning'. Few specific web based learning platform includes 'animoto', 'diigo', 'edmodo', 'sliderocket', 'toondoo', etc. The paper discusses few of the relatively new web technologies that are easily accessible and useful both for teacher and open and distance learner community.*

**Key Words:** *Web Based Learning, Edmodo, Animoto, Diigo, Go!Animate, Sliderocket.*

## 1. INTRODUCTION:

Distance education system is at the midst of adopting and testing technology applications that enhance the quality of services provided to the student communities. As we know the key player of distance education, IGNOU has implemented the modern technologies like teleconference and other online modes in various phases of the transaction of delivery of courses. Why do education organisations aspire to implement the technology in the teaching learning processes? Today world has grown as a global society and the overflow of information is visible, that demand a paradigm shift in the teaching learning strategies. Any distance education institution that relies on the traditional methods to deliver information to their stakeholders, obstruct the ethics of creativity and innovation. The world is marching towards the slogan 'creativity and innovation' and supportive roles form the associated functionaries help develop necessary skills in the new generation learners.

## 2. WEB BASED LEARNING- MEANING AND CHARACTERISTICS:

The situation that obliges educational organizations to employ technology is to be viewed in the context of twenty first learning and teaching. The twenty first learners crave to utilize technical devices to acquire learning materials and subject information. On the other side, instructors wish to deliver teaching contents in a creative, innovative and collaborative manner to appeal children and to make learning meaningful. The emergence of recent web technologies has attracted teacher communities to integrate technical devices in the delivery of instructions (Wnag, 2008). This emphasize the relevance of web based teaching-learning. Web based learning is defined in many ways and the terms 'web based education', 'e-learning', 'online education', 'virtual education', 'internet based education', 'education via computer mediated communication' are the synonyms of web based learning (Paulsen, 2003).

"E-learning covers a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via Internet, intranet/extranet (LAN/WAN), audio and videotape, satellite broadcast, interactive TV, and CD-ROM." (Kaplan-Leiserson, 2000). Web based learning and e-learning are synonyms but the later is broader in sense and meaning.

The chief characteristics of web learning include the following (Keegan, 1995 and Paulsen, 2003):

- The physical separation of teacher and learner's unlike in face to face traditional teaching.
- The theories of individual and self study are emphasized and the influence of educational institution is limited on the study habits of learners.
- The utilization of web technologies and web based application is the centre point in distribution, delivery and presentation of subject matter.
- The abundant application of internet for communication among the various individuals involved in the teaching-learning activities.

(Liaw and Huang 2000; Rosenberg 2001) identified the following characteristics of web based learning environment:

- It provides facilities and to distribute and deliver instructional materials over World Wide Web.
- Web based learning environment is endowed with hypermedia resources for the participants use (Greene and Land 2000)
- Multiple communication channels and applications are available for the interaction of participants in web based learning.

### **3. INTEGRATION OF WEB BASED LEARNING IN DISTANCE EDUCATION:**

Web based learning have the potential to enhance the quality and standard of teaching learning especially in the open and distance education programmes. Web based learning provides, opportunity to interact among the instructors and peers, advocate the principle of individual learning and self study, help to build up new knowledge based on the previous experiences, offer situations to engage in learning activities in multiple ways and to improve the life skills and abilities of an individual. Learning is an active process and the access is unlimited in the context of web learning. Being that the case, educational institutions shows a negative approach to employ the positive aspects of web learning that in turn deplete the quality of open and distance education. At this juncture, following steps help to integrate web based learning possibilities:

#### **Step 1: Creating Awareness**

The information and communication era, offer numerous technical devices helpful for teaching learning in the context of open and distance education. The situation that prevails as of now reminds about the lack of awareness of teachers and students about the internet based applications and equipments. At the outset, educational institution should implement measures to build awareness among the associated stakeholders of education.

#### **Step 2: Development of Fundamental Knowledge**

The second step is viewed as the continuation of step one. In this stage, teachers are made conscious about the fundamental aspects of web based learning applications namely, the applications useful in open distance scenario, media available, working nature of various web tools, the implementation styles of different applications and so on. The pros and cons of each web tool are analyzed in a critical manner.

#### **Step 3: Organization of Training Sessions**

The major of concern of teacher and student community is the lack of pre service training. Training session need to be organised both for the teachers and students. The teachers are to be inducted with orientation about various web based applications, ways of integrating media in teaching –learning and practical sessions focusing hands on experience is to be organised. At the same time, learners may be provided with knowledge of web based tools suitable to their age and cognitive level and ways of employing for different purposes of–learning.

#### **Step 4: Implementation**

The crucial stage that adopts web tools in the real teaching learning situation. The educational organizations should organise strategies to use web technologies, rather than relying on the traditional methods of teaching. The trial and error method can be practiced. Start with simple devices and look out for the impact in teaching and learning. If it produces amazing results, shift on to newer technologies. Build up enthusiasm and positive attitude among teachers, thereby helping them to emerge as a role of twenty first century. At the same time, student should also be provided chances to learn using technology.

#### **Step 5: Follow Up Activities**

Evaluation is an unavoidable process that is carried out in educational systems with the view to improve its functioning. Any teacher who makes use of web based learning applications need to employ a feedback mechanism to arrive at judgment on the success rate of teaching and learning. Follow up activities look for the shortcomings and strategies to improve the functioning of system.

### **Evolving Web Based Technologies in Open and Distance Education**

The educational world is horde with the presence of numerous web based technologies that find applications at various stages of educational training programmes in one way or the other. Web based technologies include, diverse applications that work in an internet environment. The face to face teaching is characterized by the time schedule of interaction but web based technologies connect both the instructor and students irrespective of the time. Web based technologies are defined as “any form of online technology or practices through which users create communities to convey information, ideas, independent learning, entertainment, collaboration, and personal messages, and thus facilitates communication, and interaction between individuals and groups (Wankel, 2010). The freedom to exchange information, sharing ideas, independent learning and freedom of unlimited interaction among individuals are few of the common characteristics of web based tools.

The following are some of the web based applications that find application in open and distance education.

#### **List of Web Based Teaching Learning Applications**

- Edmodo

- Animoto
- Diigo
- Go!Animate
- Slidrocket
- TonDoo
- Voki
- Wordle
- Wordpress
- Flipbook
- Hotpotatoes
- ePals
- Zoho
- Writeboard
- iSpeech
- Wordia
- Photoshow
- Voice thread
- ThinkQuest
- Pixier
- Flashpaint
- Wallwisher
- Teachertube
- Gigapan
- Virtual Field Trips
- Wikispaces

In this paper, the discussion is limited to Edmodo, one of the most powerful web based tools, the distance education associated functionaries would find useful in the teaching-learning process.

#### 4. EDMODO - A SOCIAL LEARNING TOOL:

Edmodo is a free safe social learning tool enabling teacher and students for secure collaboration and active participation in teaching learning process. In Edmodo, teaching and learning route through the online learning platform. Edmodo is a global education network that helps connect all learners with the people and resources needed to reach their full potential (<https://www.edmodo.com/>). “Edmodo is an educational website that takes the ideas of a social network and refines them and makes it appropriate for a classroom. Using Edmodo, students and teachers can reach out to one another and connect by sharing ideas, problems, and helpful tips. A teacher can assign and grade work on Edmodo; students can get help from the entire class on Edmodo. It is a safe environment. There is no bullying or inappropriate content, because the teacher can see everything that is posted on Edmodo. Also parents can join the class to bring a level of transparency that is difficult to achieve without technology. All in all Edmodo is a great companion to just about any class” (Cauley, retrieved from <http://www.csub.edu>, on 09/02/16).

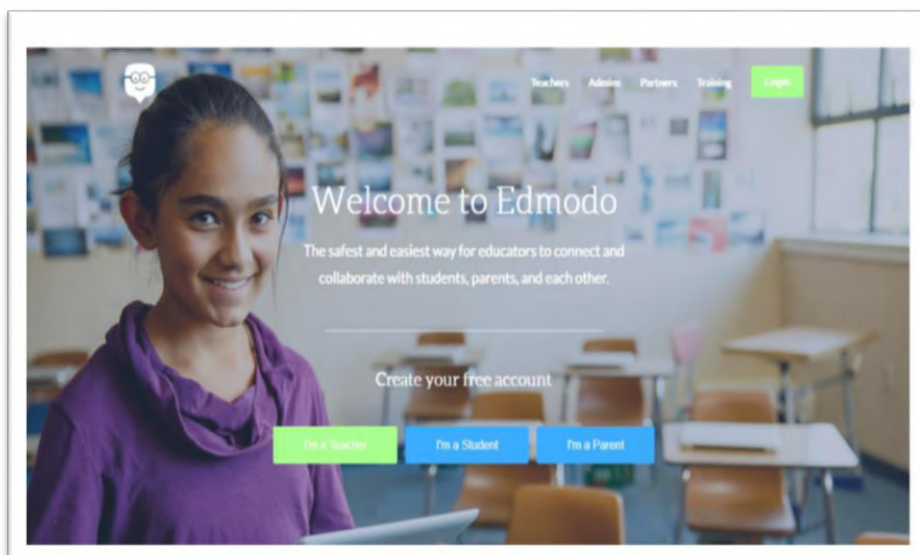


Figure 1: Edmodo Home Page (graphic from <https://www.edmodo.com/>)

Edmodo is a global education network facilitating the activities of learning programme in an organised way. It allows access to teachers, students and parents. In 2008, Nic Borg and Jeff O'Hara and Crystal Hutter established the online learning platform, which similar to Facebook but provide a safer environment for interaction and collaboration among the individuals linked in an educational programme. The major peculiarity of Edmodo is that, it is a social network for teacher, students and parents. In any educational programme, Edmodo assist teachers to post learning materials, assignment, quizzes, conduct evaluation tests and thus provide a virtual learning experience in an effective manner. Students employ Edmodo, to communicate with the instructor and access assignments, messages, polls, tests and other information's related to learning. For parents, it acts as link to understand the learning performance of his/her son/daughter and to communicate with associated functionaries involved in the learning programme.

## 5. FEATURES OF EDMODO

- **Engage**

The traditional teaching is teacher dominated and students are passive listeners. In Edmodo environment, teacher, students and parents are involved, engaged and each individual enjoy prominent role by actively participating in the process of learning. A teacher presents the learning contents, create polls, distribute assignments and adopt measure to keep children engaged in learning. On the other side, as the children have to complete various learning tasks, they are also held up in learning process till the completion of the programme. In the similar way, situation arise that tempt a parent to be aware of the learning progress of her child at the same time parents are engaged through the communication between teacher and school authorities in matters concerning messages related to the programme of study.

- **Connect**

Face to face teaching is conducted for a fixed interval of time while Edmodo online learning platform allow teachers and student to engage in learning activities irrespective of the time schedule. In a traditional programme, beyond the scheduled time interval students are supposed to wait till next day to meet the teacher. In social educational networks, teacher and students get connected through out the day and extend till the completion of the course, and time factor is insignificant. The teacher has to freedom to post assignment as per her wish, similarly a student may place his query even in the midnight. At the same, if the student wishes to interact with her instructor, the communication channel provides facilities for the smooth functioning. Edmodo is inbuilt with many communication networks that allow the teacher to connect with teachers, students and parents.

- **Personalize**

Edmodo is designed in such a way that, it offers various digital platforms that help students to engage in learning in multiple ways. This stresses the principle of individual and self learning. The learning is highly personalized and permits children to assess there own learning. The inbuilt technologies help children to submit their assignments, attempt polls, respond to quizzes, gauge subject matter at their on pace and time. Even Edmodo has inbuilt option, that allow student to pose queries to teachers and obtain reply without disclosing the identity. The personalized built in apps promote the well integrated cognitive growth of the children. Also, Edmodo is endowed with alternatives that help parents to interact with teachers with out the knowledge of their children.

- **Measure**

Various evaluation methods are worked out to analyse the learning progress of children. Evaluation provides valuable information about the learning status of children and term end tests are usually employed for it. Being that the case, Edmodo, offers multiple strategies to measure the progress of children. The inbuilt mechanism provides the teacher opportunity to measure the children's improvement in learning. The grades and badges awarded to the children are systematically organised in digital form and is made available for the view of children and parents. Parents and children can view and track the status of their learning performance. Whether the students have gauged the subject matter is easily tested by providing assignments, quizzes and other evaluative activities.

## 6. SECURITY FEATURES OF EDMODO:

Edmodo is a social learning educational platform, which allows interactions among teachers, students and parents involved in an educational programme. Even, the same functions are allowed in Facebook and other social networking sites. But the securities features of Edmodo are unique and thus it is a secure learning platform. The security features of Edmodo are the following:

- The teaching learning process carried out in each classroom group is controlled by the concerned teacher. Student needs an access code to join the class room group which is approved by the controlling teacher.
- Those students, who conduct malpractice in sharing the access code outside the class is detected by the teacher has the option to change it without informing the student.



- Personal messages are not possible in the class room. Students have the freedom to communicate with teacher and to the whole class. The message and interaction of the children is controlled and monitored by the teacher.
- The anonymous postings are not possible and teacher has the choice of deleting insignificant posts.
- The institution has the freedom to audit postings of every individuals involved in the communication processes.
- Parents have opportunity to access their children's and teachers posts but it is an optional feature. Parent can create parent account to connect with their children.
- Edmodo helps teachers and students to collaborate in safe and secure learning platform.
- Teacher can post messages, assignment and subject mater in digital form, to which student can reply in the same way.
- Edmodo has built in facility to conduct polls to analyse the lamenting performance of the students
- It provides facilities to create professional community groups and other networks for the professional development of teachers.
- It is possible to share, exchange and store documents, files and other learning materials in digital content form and is accessible 24/7
- Teachers are able to maintain a digital library and is accessible to students
- Teachers can share and exchange learning materials (either fully or unit wise) stored in file form to a particular or group of students.
- Edmodo is free open software and is user-friendly in nature, can be accessed with out any pre training.

## 7. GETTING STARTED WITH EDMODO:

To set up a virtual classroom, that allow you to interact with your student, post assignments and quizzes, evaluate student performance, award grades etc, the following procedures are followed:

- ✓ Go to the Edmodo home page (<https://www.edmodo.com/>). Then click on the link 'I'm a Teacher'. The link helps you to create free account in Edmodo. As you on click on the link, a new window shown below will appear.

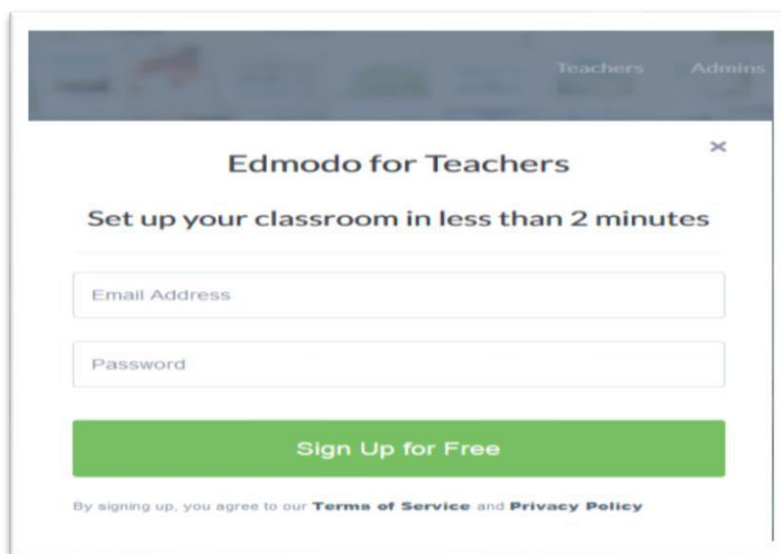


Figure 2: Sign up Page (graphic from <https://www.edmodo.com/>)

- In the Sign Up page, fill the required fields such as E-mail address and username. Once the required fields are filled, you will be directed to a new window, where a new classroom is set up.
- As you set up a new classroom, a group access code is generated. The group access code can be distributed to the students that will help them to join the classroom. For parent access, parent code is generated as their child joins the classroom.
- After creating the classroom, the teacher can post introduction statement and objective of the group, assignments, quizzes, digital learning resources both audio ad video, create polls for online vote and other information related to the courses.

## 8. CONCLUSION:

The information and communication technology (ICT) has opened windows to strengthen teaching –learning activities, by employing the modern internet based applications and devices. Even though ICT offer varied teaching – learning applications, many of the teachers and students are unaware and hesitant to use it. There is no doubt that, any

subject matter is made appealing to the children by incorporating technical devices for the course of actions in classrooms. Apart from presenting subject content, employing technology deepens learning and cognitive growth is empowered. Generally open and distance education institutions utilize textual materials to transact subject content. At this juncture, technology is to be adopted as a mediator to deliver learning resources and broadcast programme instructions. Edmodo is a creative internet based too that has numerous applications in open and distance education.

#### REFERENCES:

1. Wang, Q. Y. (2008). A generic model for guiding the integration of ICT into teaching and learning. *Innovations in Education and Teaching International*, 45(4), 411-419.
2. Liaw, S.-s. and Huang, H.-m. (2000). Enhancing interactivity in web-based instruction: A review of the literature. *Educational Technology* 40(3): 41-45.
3. Greene, B. A. and Land, S. M. (2000). A qualitative analysis of scaffolding use in a resource-based learning environment involving the world wide web. *Journal of Educational Computing Research*, 23(2).
4. Hsiao, et.al., (2010). Web-based collaborative learning in secondary education: Teachers' reflection. *International Journal of Cyber Society and Education* Pages 15-36, Vol. 3, No. 1, June 2010
5. Wankel. (2010). Cutting edge social media approach to business education. USA: Information Age Publishing.

#### WEB REFERENCES:

- <https://www.edmodo.com/>
- [http://www.csub.edu/~tfernandez\\_ulloa/Edmodo%20User%20guide.pdf](http://www.csub.edu/~tfernandez_ulloa/Edmodo%20User%20guide.pdf)
- <https://en.wikipedia.org/wiki/Edmodo>
- <https://www.the74million.org>
- <http://www.teq.com/blog/2013/07/7-steps-on-how-to-use-the-new-edmodo/#.VrsF7jHNRck>
- <https://indexventures.com>
- <http://theglobalreadaloud.com>