

## Web 2.0 Technological Tools in Teaching and Learning

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**Abstract:** Fast emerging new technologies is taking everyone in its stride and no one is untouched with its influence. Access to technology and ability to use technology easily has become one of the important factors to outperform competitors. The biggest advantage that has been appreciated by each and every one is digitization. Digitization has made one's life easy by providing services at one click of mouse. A digital wave is sweeping across India as well. Digitization has brought tremendous opportunities for education sector. It has increase connectivity of tutor and learner as they are connected virtually anytime and everywhere through technologies. Internet today has become the backbone of technology as various applications and technological benefits have been possible only with the help of internet and World Wide Web. Web 2.0 is a technology which has revolutionized and changed the whole education system. The paper gives an overview of Web 1.0 and Web 2.0 as well as the technological tools of Web 2.0 which can be helpful in the process of teaching and learning.

**Keywords:** World Wide Web, Web 1.0, Web 2.0

### Introduction

Ever since the invention of Web by Tim-Berners Lee in the year 1989, it has rapidly expanded and evolved indifferent phases, namely, Web 1.0, Web 2.0 and Web 3.0. The transition from Web 1.0 to Web 2.0 was a significant phase in terms of information because Web 1.0 is all about one-way information, while Web 2.0 is a two-way model of communication (Badiger, 2018). The arrival of various social media sites during the phase of Web 2.0 like Blogger, Twitter and Facebook has revolutionized the ways in which the information can be shared and collaborated among multiple users. The next generation Web, known as Web 3.0, is the combination of the features of both the phases and contains a few more features.

## **World Wide Web**

WWW or World Wide Web was invented by Tim Berners-Lee in the year 1989. It was created as an interface for the Internet. The main idea behind its creation was to allow users to share the information among themselves. Lee named it as Semantic as it was a phase in which the Internet could be used only as a source of information, with no place for contribution or modification of the available information. In other words, Web 1.0 was like a traditional library. It has been metaphorically described as “Read Only Internet”. Its main focus was on building the Web for making it easily accessible to users.

The World Wide Web is an online system where the documents or pages are interlinked with each other and that can be retrieved via internet. With the help of a web browser like Internet Explorer, Google Chrome, one can surf as many as web pages that may contain text, images, and videos. The user can navigate between them via hyperlinks. On March 12, 1989, Tim Berners Lee, a British computer scientist finalized a plan for what would ultimately become the World Wide Web (Choudhury, 2018). The proposal was meant for a more effective communication between the CERN employees but Lee finally realized that the concept has the potential to be implemented throughout the world (Khazode and Sarode, 2016). Berners-Lee and Robert Cailliau decided to use hypertext in which the users can access information from web and can browse at their will. In this way, the first web service was finalized and tested to be named as Word Wide Web.

## **Evolution of Web 1.0 and 2.0**

### **Web 1.0**

Web 1.0 was first initiative which was started in 1989 and this generation of web came to an end in 2005. It was defined as web of information where the user can access the information. It was having a very little scope of interaction where user was capable of exchanging the information but it was not possible to interact with the website. The role of the web in this era was very passive in nature as it was read only web. First generation web was an era of static

pages and it was used only for the purpose of content delivery. In other world, the early web allowed us to search for information and read it.

### **Where Web1.0 Went Wrong**

There was various problems related to web 1.0. Web 1.0 was very slow. Every time when any new information was inserted into it, it needs to be refreshed. Web1.0 was not capable of two-way communications. Web1.0 totally denied the effect of networks. Web1.0 consists of few writers and a large number of readers, and it causes the network slow and makes user starving for resources.

### **Web 2.0**

Web 2.0 is the second generation of web which started from 2006. It was a kind of web where two way communication was possible and hence it was regarded as a read-write web. The users in Web 2.0 were capable of interaction and to share new things to the people around them. Here the user was able to use network effects and share the content in many ways.

Web 2.0 facilitates major properties like participatory, collaborative, and distributed practices which enable formal and in formal spheres of daily activities going on web (Kujur and Chhetri, 2015).

### **Web 2.0 tools in Teaching and Learning**

Web 2.0 tools and resources has empowered teachers to instruct students. It not only helps teachers but it makes students capable of collaborating with teachers and with other students and parents. These Web 2.0 teaching tools aren't magical, but they many a times empower teachers to save their time and motivate the students to learn. These kind of application are also small in size and takes very little space on the computers or phones. Some of the tools are online where they can be accessed without installing any extra program.

So far there are various Web 2.0 technologies which can be helpful in teaching and learning process, but here we will be discussing only those technologies or tools which are being used in India.

1. **Animoto:** Founded in 2006 mainly because of poor quality of videos on internet. With the help of Animoto, users can make slideshows of photos, video clips with customized music in

the background. Teachers can use Animoto to create presentations and lesson plans for students with a combination of photos, video clips.

2. **Charles Kelley Quiz Generator:** The interface of this quiz generator help the users to create multiple choice or bilingual tests. The quiz generated on this tool can be shared with students. After generating the quiz, teacher can send the link of the quiz to students. The teachers before generating the quiz, needs to have typed the questions in word or notepad applications. It can be helpful for teachers to create quiz for students in different languages.

4. **Cue Prompter:** This free service allows teachers to use their browser as a teleprompter. All users have to do is write or cut and paste their script online and press a button to start the prompter. Many a times the content shown in class is of small size which becomes impossible for students to read properly. Here this tool can be used. The tool will be useful to the students with special needs.

5. **Google Classroom:** Google Classroom is a free web service for teachers and students that aim to simplify creating, distributing and grading assignments in a paperless way. The primary purpose of Google Classroom is to streamline the process of sharing files between teachers and students. The teachers can create a class online and the students are directed to join the classroom by using the class code given by the Google Classroom for that particular class.

6. **Pool Everywhere:** It is an online free tool to get the feedback from students on any particular topic. During the presentation or at the end of the presentation, the teacher can login on the website and generate a question. The students attending the session will be directed to answer the question online on the web or using the text messaging service.

7. **Grammarly:** Grammarly is a free tool that correct the grammatical mistakes in a document. Teachers and students can use it to enhance their writing skill. Now a days Grammarly plugin for MS Word can be installed which helps in making error free MS Word documents. No only this the tool has Plagiarism checker as well but for that the user need to upgrade to its premium version.

8. **Slide share:** Slide share is an online tool where users can upload or download Power Point presentations. The users need to create an account on slide share or can directly login via LinkedIn. Teachers can upload their content on the website and can enable the students to

download the content for me. Few years back the presentation was in .ppt format however after upgrading the website, the user is now able to download the presentation in PDF format.

**9. Byju's learning app:** Byju's learning app is the most loved Indian learning app. It offers highly effective, adaptive and engaging learning programs for students from classes 4-12 grades and competitive exams like JEE, NEET, CAT, IAS and GMAT. The online tool contains the study material of various exams starting from CBSE to IAS.

**10. Survey Builder:** Survey Builder allows you to easily create and manage online surveys mainly based for course evaluations, and other endeavors that involve collecting feedback. You do not need to know how to build a Web page that has forms, set up a database to store entries, or do any of the other technical tasks that are normally required to produce interactivity on the Internet.

## Conclusion

Web 2.0 is a backbone for teaching and learning process. It helps in enhancing the learning not from student's side but teachers side as well. The paper discussed various tools which will be helpful for the teacher's fraternity to boost up their learning. These kind of tools if used while teaching and learning process will help in motivating the students towards a better learning environment.

Although a lot of educational institutional are using Web 2.0 technology and tools, still a large number of institutions are lacking behind. This is because we lack in proper training regarding the technology. The lack of infrastructure is also a big reason of interest in Web 2.0. There is a need to give special attention to incorporate the latest web resources in the process of teaching and learning. Also, it is essential for the teacher educators to use and integrate these technological devices in class room practices which will boost up their capabilities and professional development and thereby helpful in creating interest among students for better learning (Pt and Moshahid, 2017).

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