



## Online Learning Resource: Web 2.0 Technology

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<p><b>Received</b> 21/06/2025</p> <p><b>Accepted</b> 27/06/2025</p> <p><b>Published</b> 04/07/2025</p>	<p><b>Abstract</b></p> <p>Online learning resources play an important role in the field of education. For the purposes of producing and delivering the online resources of learning, development of websites and applications are important. With the changing demands of the people, web development is continuously evolving (Rashedul, 2024). In this transformation of World Wide Web, Web 2.0 can be referred to as second generation of web development, which is characterized by “greater user interactivity and collaboration, more pervasive network connectivity and enhanced communication channels” as compared to Web 1.0 (Yasar, 2023). The objectives of the study are to discuss about the concept of Web 2.0 technology, to understand the advantages and disadvantages of using Web 2.0 technology in the academic area and to discuss about some suggestions for the effective use of the Web 2.0 technology in the academic area. This is a qualitative study based on the secondary data including research journals, articles, and websites.</p> <p><b>Keywords:</b> academic area, Online learning resources, technology, Web 2.0, web development</p>
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### Introduction

Online learning resources play an important role in the field of education. For the purposes of producing and delivering the online resources of learning, development of websites and applications are important. Web development can be defined as the “process of creating and maintaining websites and web applications, from designing the appearance to coding the functionality” (Ameseder, 2025). With the changing demands of the people, web development is continuously evolving (Rashedul, 2024). In this transformation of World Wide Web, Web 2.0 can be referred to as second generation of web development, which is characterized by “greater user interactivity and collaboration, more pervasive network connectivity and enhanced communication channels” as compared to Web 1.0 (Yasar, 2023). Web 1.0 is the first generation of the web development, which was created as the “hyperlinked information system”. This first generation of World Wide Web “was dominated by static websites which were used to display some information. These websites had no or little interaction capabilities (Singh, 2024). On the other hand, Web 2.0 can be attributed to “interactive and user-generated content, social networking, and collaboration” (Saini, 2025). In the current paper, the concept of Web 2.0 technology, advantages and disadvantages of using Web 2.0 technology in the academic area and some suggestions for the effective use of the Web 2.0 technology are discussed.

### Review of Related Literatures

Several studies have been conducted on the Web 2.0 technology. A study by Shubhra et al. (2024) aimed at studying the influence of using Web 2.0 among various modern web tools for enhancing the learning

experiences in the social studies at Secondary School level. The result showed “a significant positive effect of Web 2.0 tools on interest of students in Social Studies” and “no significant effect on academic achievement of students in social studies”. A study by Lenao (2023) aimed to find out the “awareness and the use of Web 2.0 tools by the students at BA ISAGO University, Botswana” and its result showed that the students are aware of the various Web 2.0 tools, but most of the students do not use them. In a study by Dash (2023) the focus is to find out the familiarity with the Web 2.0 technologies by the students and the teachers of higher education institutions of Odisha. The result showed relatively high awareness among the students than the teachers regarding the Web 2.0 technologies. Another study by Sonmez & Cakir (2021) focused on finding out the impact of using Web 2.0 applications on the academic performance. The result showed a positive and moderate effects of Web 2.0 applications on the academic performances. Another study by Shrivastava & John (2014) aimed at finding out “the applications of Web 2.0 in Libraries and information services and to suggest best applications which can be included as a support to provide these services”. This study was done on the students of the management science in Davv, Indore.

## **Objectives of the Study**

1. To discuss about the concept of Web 2.0 technology.
2. To understand the advantages of using Web 2.0 technology in the academic area.
3. To understand the disadvantages of using Web 2.0 technology in the academic area.
4. To discuss about some suggestions for the effective use of the Web 2.0 technology in the academic area.

## **Methodology of the Study**

The study has been done on the basis of the secondary data, including various research journals, articles, blogs, online websites etc.

## **Discussion**

### ***Concept of Web 2.0 technology***

Web 2.0 technology has become popular in the lives of a vast number of users. “The advent of Web 2.0 has transformed the internet into a global network of interconnected learning communities” (Dash, 2023). The term Web 2.0 can be described as the “development of online services that encourage collaboration, communication and information sharing. It represents a shift from the passive experience of static read only web pages to the participatory experience of dynamic and interactive web pages” (Shrivastav & John, 2014). As the Web 2.0 technology supports “user-generated contents”, it gives the opportunities to the users to “create and share content through blogs, social media posts, videos and wikis” (Mansoor, 2024). Using this technology, webpages are designed in a way that the users can “comment, post, like and share data across platforms” which encourage collaboration (Mansoor, 2024). The term “Web 2.0” was first coined by Darcy DiNucci in 1999 in an article named “Fragmented Future”, and later this term “Web 2.0” became popularized in 2004, by Tim O’Reilly, the founder and the Chief Executive Officer of O’Reilly Media (Kenton, 2024). The most common examples of Web 2.0 platforms are Wiki based sites like Wikipedia, where the users not only simply read the information but also help them to share their inputs and update the information in the web page; Social media networks like Facebook; Twitter which is now known as X; Instagram; Youtube and other social media sites, which allow the users to create and share the customized contents with “a private collection of friends or with a broad social media user base” (Kenton, 2024). So in this way, with the use of web 2.0 based technology the users can actively participate, collaborate and become more connected to the other users, which is the central point of the web 2.0 technology.

### ***Advantages of using Web 2.0 technology in the academic area***

Some key advantages of using Web 2.0 technology in the academic area are:

- Web 2.0 technology helps the learners in creating, sharing and exchanging knowledge and ideas without a hitch (Lenao, 2023).
- It plays an important role in encouraging the learners to become more active and participative in the learning process (Tautkeviciene & Dubosas, 2014 as cited in Lenao, 2023). The use of Web 2.0 applications “fosters interest and engagement among students, contributing to a more dynamic learning environment” (Shubhra et al., 2024).
- In the teaching learning activities, Web 2.0 technology “can potentially enhance the teaching learning environment by offering online and remote interaction” (Bingimlas, 2017 as cited in Lenao, 2023).
- The “user-friendly” characteristics of Web 2.0 applications is suitable for the students and the teachers in accessing the online learning resources easily (Shubhra et al., 2024). It increases the accessibility to the learning resources at anytime from anywhere (Abeid, 2016 as cited in Lenao, 2023).
- Web 2.0 technology promotes “student-to-student support and collaboration, increases student engagement, and stimulates collaborative learning” (Abeid, 2016 as cited in Lenao, 2023).
- With the advent of Web 2.0 technology “two-way interactions among students and lecturers beyond classroom hours” have become possible (Abeid, 2016 as cited in Lenao, 2023).

### ***Disadvantages of using Web 2.0 technology in the academic area***

Some key disadvantages of using Web 2.0 technology in the academic area are:

- A large number of users use this Web 2.0 technology in various fields, including in the educational fields. Sometimes it is seen that many users including the students and teachers lack the proper skills, knowledge and training for using these tools effectively in the academic areas (Lenao, 2023). So it creates a barrier in the effective use of Web 2.0 technology in the educational sector.
- Another barrier of using Web 2.0 technology is the security and privacy concerns. In a study by Fedele (2019) it is found that “although students generally accepted using social media in the instructional arena, privacy concerns can easily emerge. Similarly, an earlier study by Moran et al., (2011) found that two most common concerns of faculty members were privacy and integrity” (Lenao, 2023).
- Another disadvantage is that often students spend much time in using Web 2.0 technology, which can impact the student’s academic performances in negative way “resulting in procrastination and other related problems such as failure to meet task submission deadlines” (Yeboah & Ewur, 2014 as cited in Lenao, 2023).
- It is also seen that often some students misuse the Web 2.0 technology for bullying other students, resulting in not favourable teaching learning experiences (Kenton, 2024).
- Sometimes technical issues may also occur in using the Web 2.0 applications, which interferes with the teaching learning activities (An & Williams, 2010 as cited in Lenao, 2023).
- Sometimes a risk of spreading misinformation exists in the use of Web 2.0 technology. It happens because “almost anyone can post anything via various blogs and social media (or other Web 2.0 outlets), there is an increased risk of confusion on what information is trustworthy and what sources may be deemed reliable” (Kenton, 2024). Any kind of misinformation about any subject matter can affect the teaching learning activities.

### ***Suggestions for the effective use of Web 2.0 technology in the academic area***

Some suggestions for the effective use of Web 2.0 technology can be:

- Proper training should be given to those students and teachers who are not comfortable in using Web 2.0 applications.

- Information from the websites should be checked from the reliable sources to avoid spreading misinformation to the teachers and to the students.
- Activities of the students should be monitored to prevent the students from misusing and overusing the Web 2.0 tools.
- Proper knowledge should be given to the students and teachers about the privacy policy of using the Web 2.0 technology.

## Conclusion

Web 2.0 technology plays an important role in teaching learning activities. By using Web 2.0 technology, teachers and students can participate in the teaching learning activities at any time from any place. Use of Web 2.0 technology has some disadvantages also, which can be reduced by taking proper actions.

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