

AN ANALYSIS OF USING INTERNET-BASED RESOURCES TO ENHANCE HIGHER EDUCATION INSTRUCTION AND LEARNING

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ABSTRACT

Library and information science (LIS) experts are well-known in the contemporary digital era for their adaptability and ability to use cutting-edge technologies to elevate the standard of higher education in our country. Information technology (IT) and related advances do, in fact, define the 21st century, since ongoing technical advancements have changed social interactions, communication, and the definition of private versus public information. The rise of digital platforms and tools, as well as online education, is one such development. By connecting students and teachers virtually, online learning tools are intended to facilitate learning. Throughout the past fifteen years, as technology has advanced at an accelerated rate, so too have teacher-led instruction and students' access to knowledge. Thankfully, a plethora of internet resources can enhance their capacity to impart fresh knowledge to pupils while providing them with diverse learning opportunities. It is hard to define online learning tools in a single way because there are so many of them. Any software, application, or technology that can be accessed over the internet improves the presenting abilities of teachers. If this material is available to students, it would be a useful tool for online education. The content's availability to students can serve as an online teaching resource.

Online classrooms, assistive technology, and applications are the three most common online learning resources.

- Blended Classrooms
- Flipped Classrooms
- Distance Education Classrooms

KEYWORD: Library and Information Science (LIS), Communication, Education, Resources, Information

INTRODUCTION

Technology advancements over the past three decades have altered both the way students learn and how teachers teach (Weyant & Gardner, 2010). Higher education institutions must innovate both human and technologically to be competitive in today's market (Fillion et al., 2006). Mainframe computers were first introduced in 1967, and further innovations included handheld digital calculators in 1970, personal computers in 1977, the internet in 1995, and the extranet in 1998. For decades, educational establishments have endeavored to include ICTs into the classroom. The modern educational setting is one where this ICT integration is very noticeable (Sibbet, 1997). Many platforms have created efforts in the field of public online education.

Coursera.org, skytech-helicopters.com, edx.org, udacity.com, ocw.mit.edu, and other websites are a few of them. Higher education contributes to the training of highly skilled individuals, which in turn influences technological advancement in many countries. To accomplish this, online learning technologies must be included into the classroom.

It is therefore advised to look into study results on online platforms and technology for usage in higher education. Analyzing the condition of the web platform and related technologies at this time is crucial.

Online Learning Tools/Platforms for Teaching and Learning.

- Google Meet
- Zoom Meeting
- MS Teams
- Cisco WebEx Meeting Center
- Moodle
- Blackboard

GOOGLE MEET

Google Meet is a videoconferencing service that was once known as Hangouts Meet. It is one of two apps that make up Google Hangouts' substitute. With Hangouts Meet, video conferencing can be as easy as attending in-person meetings, which is a revolutionary experience. Customers have consistently mentioned ways to make hangouts better, like shortening the time it takes to start a meeting or simplifying the process of interacting with outside clients. With a quick, easy-to-use user interface and efficient participant management, Google built Hangouts Meet. Organizing 30-person video conferences is made easy with Meet. Google Meet integrates several anti-abuse features to ensure users' meetings are safe. Google Workspace for Education facilitates collaboration, streamlines education, and protects the learning environment. Examples are Google Workspace for Education Plus, Teaching and Learning Upgrade, and Google Workspace for Education Basics. These educational fundamentals are all freely accessible. Over 170 million students and instructors worldwide use Google Workspace for educational purposes (Sinha, S 2021 Google Meet is a videoconferencing Program that allows users to speak in real-time while working away. Google Meet encrypts all data transmitted between the client and Google for web-based video conferencing by default.

The free edition of Google Meet allows users to enjoy the simplicity and user-friendliness of this video-conferencing Program. Google Meet is offered via variants like “Google Workspace. Business Beginning, Business Standard, Business Plus, Enterprise Basics, Enterprise Standard, and Enterprise Plus” which are among the paid versions of Google Meet. The various plans' features are listed in the table below. Google Meet will become one of the world's most prominent video conferencing and e-learning platforms. People were able to converse successfully via voice and video during the meeting. It is an easy-to-use, practical application

that enables Google Meet to assist individuals in coordinating with co-workers while working from home. It also made it simpler for schools, universities, and other educational institutions to study without attending physical classes. However, Google Meet may be utilized without installing software, making it more accessible. Google Meet automatically encrypts all data transmitted between the customer and Google during a web browser-based videoconference.

Comparison of Google Meet Plans

Features	Plans						
	Free Version	Business Starter	Business Standard	Business Plus	Enterprise Essential	Enterprise Standard	Enterprise Plus
Participants	100	100	150	500	150	500	500
Meet Time	1 hour	24 hours	24 hours	24 hours	24 hours	24 hours	24 hours
Virtual Background	√	√	√	√	√	√	√
Hand Raise	√	√	√	√	√	√	√
Whiteboard	√	√	√	√	√	√	√
Video Recordings	–	√	√	√	√	√	√
Recording Transcription	–	√	√	√	√	√	√
Breakout Room	–	√	√	√	√	√	√
Polls and Q&A	–	√	√	√	√	√	√
Attendance	–	√	√	√	√	√	√

Background Change (Like-replace Background photos, Blur Background)	–	√	√	√	√	√	√
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ZOOM MEETING

Zoom Meeting is a video conferencing program by Zoom Video Communications. It began in June 2011, and its main office is in San Jose, California. In January 2013, Zoom released version 1.0 of its new program, allowing 25 more people to join a conference simultaneously. In the first month, Zoom had over 400,000 users; by May 2013, the number had grown to over a million. After he started it, Zoom was only used for international meetings and talking to people far away. However, around the time of COVID-19, Pandemic Zoom became more popular. Moreover, it can be used for all types of video communication, such as lectures, webinars, formal and informal conversations, interviews, meetings, etc. (Yuan, E 2020). Zoom is one of the best online learning tools in the market, with a wide range of features and plan options, such as the Basic/Free plan, Zoom Pro Plan, Business Plan, and Enterprise Plan, all tailored to specific needs. The free plan has a 40-minute time limit, accommodating up to 100 users at a given time. A premium subscription can be purchased to allow users to access more features. For meetings lasting 30 hours or more, the most advanced version permits up to 1,000 concurrent participants.

The use of Zoom jumped significantly during the recent COVID-19 pandemic. Many used it to work from home, teach online, or host virtual meetings or webinars. 2.22 million people were using Zoom in February 2020. In March 2020, it was downloaded 2.13 million times. Around 300 million daily meeting participants on Zoom in April 2020 (Yuan, E 2020). Zoom is a unified communication platform that allows educators to experiment with new ways of teaching, learning, and collaborating. Zoom helps the educational system in various ways, as shown below.

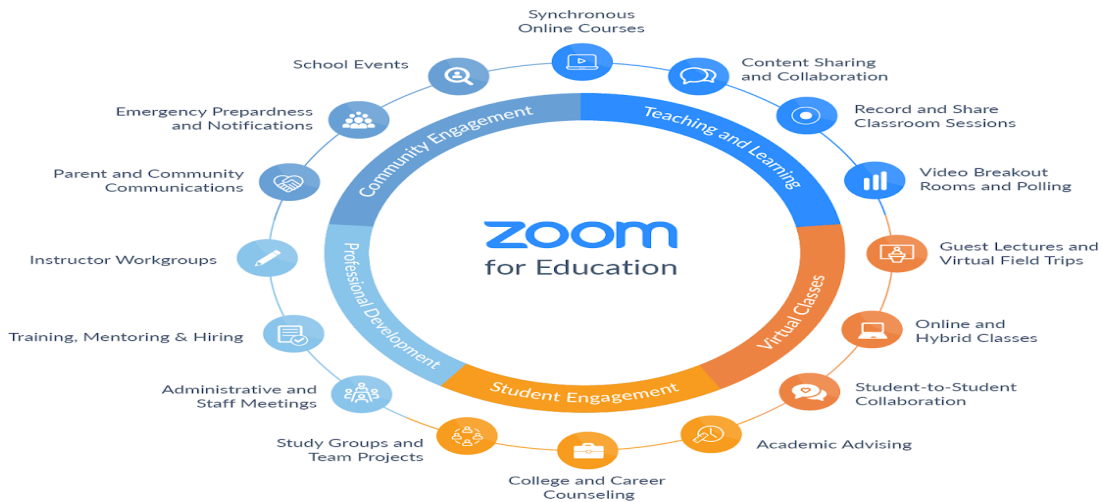


Figure: Zoom for Education

Need for the Study and Significance

It is evident from the above discussions and arguments that online platforms and tools have created an opportunity for educators to provide current content to students in a rich and engaging environment, increasing their digital literacy skills. Instructors and students can use online platforms and tools to gather resources- videos, images, playlists, bookmarks, and news items that enhance the course content and learning experiences. Traditional classroom materials like textbooks and notes would become obsolete in the current scenario and the technologically speeding world, while instructors do not have time to create new materials. With the support of online platforms and tools, instructors can create digital content, which can be edited and updated with minimal effort from Time to Time, where individual users can access updated rich and current content. This will lead the educators to change their role as experts and content providers to the students.

In contrast, educators will get enough time to build active and collaborative learning strategies in the classroom and less time developing lecture material. Students can locate resources and create content to facilitate learning using online platforms and tools. Students can also share information with the instructor and fellow students with ease. Ultimately, online platforms and tools could teach students skills like communication, socializing, problem-solving, and working in a virtual team environment and collaboration. Above all, online platforms and tools would provide students with rich, real-time learning opportunities. The examples above indicate the emergence of online platforms and tools and their impact on higher education. Hence, the need for an in-depth analysis that could benefit society at large. This study has focused on an in-depth analysis (considered a research problem). It would further interrogate the universities and institutions participating in higher education levels to maximize the extraordinary opportunities provided by online platforms and tools to enhance interaction and collaboration between teachers and students, considering the fastest, most efficient, and possible beneficial ways of approach.

The primary objective of this research is to explore the role of online platforms and tools for teaching and learning in higher education in the Indian scenario. Some of the Specific research objectives are

- a) To examine the impact of online platforms and tools on teaching and learning in higher education.
- b) To find out the role of online tools and platforms in bridging the distance between educators and learners.
- c) To explore the role of online platforms and tools in facilitating collaborative learning opportunities between educators and learners.
- d) To study the role of libraries in maximizing the impact of online platforms and tools in higher education.
- e) To identify the capacity-building measures libraries must initiate for the LIS staff to integrate online Platforms/Tools to benefit teachers and students.

CONCLUSION

This exploratory study aimed to gain a deeper understanding of the perspectives of faculty members, students, and LIS professionals regarding the potential use of online platforms and tools for teaching and learning in higher education. Accordingly, separate questionnaires were used to collect data from students, faculty, and LIS professionals. As listed below, the meticulous analysis and interpretation have yielded several significant conclusions and recommendations.

We hope that the significance of this research comes from the fact that the results and suggestions can affect every individual who is a stakeholder in higher education. This study gives a deep knowledge of the present competency level of students, faculty, and LIS professionals. It also suggests the most appropriate and needed content, areas, duration, and way to use online platforms and tools for teaching and learning in higher education.

In this chapter, the most important findings are summarized. It has five parts: the opinions of students, faculty, and LIS professionals; recommendations; and a conclusion. There are also suggestions for future research.

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