

Online Tools and software in Education in India: Problems and Solutions

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Abstract: Today, technology has turned all pervasive including the field of education. Advancement through the creation of new educational tools and software has created a kind of ease to the teachers as well as learners. Therefore, E-learning has developed into an essential facet of the edifying system today. In addition, each day it is getting an impetus due to its handiness and pragmatic approach. Thus, the present technology-driven scenario provides an opportunity to make maximum use of technology in today's pandemic scenario. However, use of technology in education faces a number of challenges in India today. Hence, the present paper is an attempt to provide information about different tools and software like Edfly Learn, Moodle, Course Networking, Google Classroom, The Edmodo Network, BodhiTree etc. which can be used in online teaching effectively during Covid-19. At last, it also presents problems and provides some workable solutions in this regard.

Aims and objectives

1. To provide information about different tools and software which can be used effectively in online teaching.
2. To provide the workable solutions for making online teaching effective.

Introduction

Education has experienced a complete makeover in the era of Information and communication Technology. The growth and accumulation of information has pressed the need of its dissemination to the large chunk of society through varied E-sources. Subsequently, this resulted in knowledge outburst which remarkably changed the life of the individuals. Moreover, its effect has been felt in mode of education. In this technical epoch, it has been noticed that the present generation is much tech-savvy compared to

earlier generations. Thus, with a proper blend of modern software and online tools and tech-savvy teachers and students, we can tackle the academic loss of the students due to the on-going pandemic situation. The following segment offers a detailed overview of online tools which are effective and widely used in online teaching across the world.

For Creating Interactive eLearning Content

- **H5P:** H5P is a free and open source content collaboration which is useful for making interactive videos. Quiz can be added in videos by using H5P.
- **Renderforest:** Renderforest offers the best online branding tools to create high-quality animated with minimal time and effort.
- **Canva:** Canva is a graphic design platform that allows users to create social media graphics, presentations, posters, documents and other visual content. Users can choose from many professional designed templates, and edit the designs and upload their own photos through a drag and drop interface.

Best Learning Management Systems: A learning management system is a software application for the administration, documentation, tracking, reporting, automation and delivery of educational courses, training programs, or learning and development programs.

- **Edfly Learn:** EdFly learn is a LMS platform. It organises content in one location for the comfort of educators.
- **Moodle:** Moodle is a free and open-source learning management system written in PHP and distributed under the GNU General Public License.
- **Course Networking:** Course Networking (CN) is a global, academic social-networking platform that offers next-generation LMS and ePortfolio tools for students, teachers and institutes.
- **Google Classroom:** Google Classroom is a free web service developed by Google for schools that aims to simplify creating, distributing, and grading assignments. The primary purpose of Google Classroom is to streamline the process of sharing files between teachers and students.
- **The Edmodo Network:** Edmodo Network exactly works like Google Classroom.
- **BodhiTree:** BodhiTree is an online learning platform developed at IIT Bombay with the mission of providing accessible quality technical education for all, through personalized, flexible, and hands--on complete learning.

Best Software's for Video Recording

- **OBS Studio:** Open Broadcaster Software is a free and open-source cross-platform streaming and recording program. As of 2016, the software is now referred to as OBS Studio. There are versions of OBS Studio available for Microsoft Windows, macOS, and Linux distributions.
- **OpenShot:** OpenShot Video Editor is a free and open-source video editor for Linux, macOS, and Windows.
- **Audacity:** Audacity is a free and open-source digital audio editor and recording application software, available for Windows, macOS, Linux, and other Unix-like operating systems.

Tools for conducting Online Exam

- **Testmoz:** It Builds automatically graded tests. Distribute online, or print. Analyze and export results.
- **Quizizz:** It is a free gamified quiz for every subject to play in class and at home.
- **Kahoot:** Kahoot is a game-based learning platform, used as educational technology in schools and other educational institutions. Its learning games, "Kahoots", are user-generated multiple-choice quizzes that can be accessed via a web browser or the Kahoot app.
- **Exam.net:** Exam.net is a secure platform for digital exams.
- **SAFE:** SAFE is a platform created for e-exams, developed at IIT Bombay

Best Videoconferencing Software's

- **Microsoft Teams:** It offers chat and videoconferencing, file storage, and application integration.
- **Zoom:** Zoom Video Communications, Inc. is an American communications Technology Company headquartered in San Jose, California. It provides video telephony and online chat services through a cloud-based peer-to-peer software platform and is used for teleconferencing, telecommuting, distance education, and social relations.
- **Google Meet:** Google Meet is a video-communication service developed by Google.
- **Cisco Webex:** Cisco Webex is an American company that develops and sells web conferencing and videoconferencing applications.

Problems of online teaching in India

Today, technology offers a number of online tools and software and creates an ease of handling it. However, a lot of problems are faced while making effective use of it. Some of the problems are listed below:

- Higher level of computer illiteracy among people of India.
- Inability of buying technical devices such as computer, laptop, smart phones and the required support to run the device in the form of internet connection owing to acute poverty.
- Inability of teachers to handle new Edu. Technologies due to lack of technical training
- Lack of basic infrastructure to conduct on-line exams.
- Subjects such as Science and Performing arts cannot be dealt with effectively in virtual mode.
- Being screen-based learning arrangement, it restricts the students to perform practicals.
- Problem of internet connectivity in different geographical regions
- For the effective use of on-line teaching, higher level concentration and self-motivation is a must, but this is not seen in the students below 17.
- It does not have any scope for physical activity which is inseparable from holistic development of students.
- Over use of gadgets may cause mental or physical disorders.

Solutions

Finding research based solutions

Top Institutes in India should be financially supported by the Government to conduct research for maximizing the benefits of digital learning in India.

Need based updating in On-line Teaching Tools and Methods

The present e-learning platforms should be upgraded as per the need of teachers making them user-friendly. The new platforms must be updated with latest features.

Creation of required Digital infrastructure

Investment must be made in the creation of public digital and interoperable infrastructure that gives access to multiple platforms. This new digital support should provide updated technology-based solutions.

Teachers' training

A proper training is a prerequisite of on-line teaching. Therefore, teachers must be well trained in handling the new online platforms.

Establishing Virtual Labs

Research must be encouraged in the direction of creating new Virtual labs so that students can get hands on experience. The labs must be accessible to all and user-friendly.

Multi-lingual Courses

Course contents must be made available in regional languages so that all students irrespective of the regional background can avail the courses. In addition, mass media like TV and Radio should be exploited to telecast the course content for those who do not have access to the digital mode.

Provision for Online Assessments

For effective online assessment, some government bodies as well as private players should be involved in the work of designing a new assessment framework.

Standards of Online Learning

The standard of the course content, pedagogy and technology should be set and maintained by independent bodies.

Blended models of learning

Blended models of learning should be used to replace traditional modes of learning.

Conclusion

Thus, the present paper offers detailed information on different online tools and software which can be employed in enriching educational experience in India though the world socially, culturally and economically is confined due to COVID-19 pandemic. Besides, it not only offers varied problems faced in the execution of online teaching but also focuses on the solutions of it. If online classes are properly planned and executed, the misconception that online teaching is boring can be wiped out.

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