"Role Of Various Virtual Platforms In Effective Teaching- Learning System"

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Abstract

The pandemic caused by the COVID-19 epidemic has affected most sectors in the world. This includes academics, a world of millions of enrolled students and active teachers with a history of regular courses in institutions and was stuck at home due to the pandemic. An online class to continue the educational process was introduced in most countries including India. Both teaching and learning take place in this space with electronic devices relatively new to the entire teaching and learning community. It was the first time in India that online classes were conducted on this massive scale. During the start of online courses, various challenges for both teaching and learning communities there, but one thing is good that Internet is a major technological advance that shapes society, institutions as well as universities all around the world. Now, there are numerous virtual platforms are developed which are student friendly and learners centric. Here we will try to enumerate various online teaching-learning platforms and tools which play key roles for the learners (school and college students considering all regular/correspondence courses) in this era.

Keywords - virtual platforms, learners, tools, online class, pandemic etc.

1. Introduction

COVID-19 - a new coronavirus disease is spreading around the world. Many countries around the world have ordered the closure of all educational institutions. Since then, the activities of educational institutions have stopped they had to protect their students from virus exposure that probably to a very social student community. At the emergence of February In 2020, schools were only in China and a few other affected countries closed due to increasing contamination. Mid March though almost 75 countries have implemented or announced the closure of educational institutions. Just like March 10, schools and

universities are closed worldwide, one in five students has dropped out of school due to COVID-19. According to UNESCO, by the end of April 2020, 186 countries implemented nationwide shutdowns affecting approximately 73.8 percent of the total enrolled students. Because of schools and colleges are closed indefinitely, both institutions and students are experimenting with ways to complete the curriculum assigned to them according to the specified time academic calendar. These measures certainly caused some difficulties, but they also led to new examples of educational innovation through digital intervention. This is the silver lining of a dark cloud given the slow pace of reform in academic institutions that continue millennial lecture-based approaches in teaching, entrenched institutional biases and outdated classrooms. However, COVID-19 is triggering educational institutions worldwide to implement creative approaches at relatively short notice. During this time, most of the universities switched to online mode using Blackboard, Google classroom Microsoft Teams, Zoom, Google meet or other online platforms.

2. Digital or Online Classrooms

Digital classrooms are defined by the use of electronic devices or platforms such as social media, multimedia and mobile phones for teaching. Thanks to digital technology in education, today's world of education has changed for the better or improvements. Digital learning is a learning strategy that uses technology to complement the entire curriculum and enable students to learn quickly and effectively. Digital classrooms use educational applications and websites help students improve their learning. Feedback loops and technology are two important components of the digital classroom. Feedback loops are essential for students to receive real-time feedback their teacher. Teachers can use feedback to give feedback based on many factors such as student, lesson, group, etc. PPTs, video presentations, online learning methods, online training and other digital approaches are increasingly used in teaching-learning. As a result, classroom teaching becomes more participatory. Students can now learn many subjects independently using Internet resources and digital classrooms. In schools, color maps, diagrams and models represent best-in-class teaching.

3. Virtual or online platforms

An online learning platform allows students to access and absorb educational content in a strictly digital fashion, in either groups or individual settings. Online learning can take place live at set times, or it can entail pre-recorded lessons for students to complete on their own time.

Current technological developments allow us to use several ways to design web content. It is very important to consider learners' preferences and perceptions when designing online courses make learning effective and efficient. The student's preference is refers to the willingness or willingness of the learner to participate cooperative learning and factors influencing network readiness learning.

Here are some details and types of online learning platforms which are using now-a-days by the learners across the world including India also.

3.1 Google classroom

Google Classroom is a free virtual mode learning platform developed by **Google** for educational institutions 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. As of 2023, approximately more than 150 million users use Google Classroom.

Google Classroom is a set of online tools that allow teachers to assign assignments, receive student work, mark and return graded work. It was created to take paper out of classes and enable digital learning. It was originally designed for use with school laptops such as Chromebooks to allow teachers and students to share information and assignments more effectively. As more and more schools have transitioned to online learning, Google Classroom has become much more widely used as teachers quickly adopt paperless teaching. Various Classrooms works with Google Docs, Sheets, Slides, Sites, Earth, Calendar and Gmail, and can be supplemented with Google Hangouts or Meet for face-to-face teaching or questioning.

3.2 Blackboard learn

Blackboard Learn (formerly Blackboard Learning Management System) is a web-based virtual learning environment and learning management system developed by Blackboard Inc. The software features course management, a customizable open architecture, and a scalable design that allows integration with student information systems and authentication protocols. . It can be installed on local servers hosted by Blackboard ASP Solutions or offered as Software as a Service on Amazon Web Services. Its main goals are said to be to add online elements to traditional face-to-face courses and to develop fully online courses with little or no face-to-face interaction. Blackboard Learn offers convenience and flexibility and is key to adding value to modern on-campus courses. Instructors or teachers manage all course materials online, where they are immediately available to students at any time. Teachers can post documents, make announcements, send emails, create online assessments and more. Students can access course documents, send files to their instructor and directly access grades. Course materials are available 24/7 in any location so students can study when and where they want.

3.3 Moodle

Moodle is a free and open source learning management system (LMS) written in PHP. Moodle is used for blended learning, distance learning, flipped classroom and other online learning projects in schools, universities, workplaces and other fields. Moodle was originally developed by **Martin Dougiamas** to help teachers create online courses and focus on communication and collaboration when creating content. The first version of Moodle was released on August 20, 2002 and is still under active development. The Moodle project is managed and coordinated from Moodle headquarters in Australia, supported financially by a network of eighty-four partner Moodle service companies around the world. The development is also aided by the open source community. Moodle is a learning platform used to extend and migrate existing learning environments online. As an online learning tool, Moodle has

developed several features that are now considered standard in learning management systems, such as the calendar and notebook.

3.4 edX & Open edX

edX and Open-edX are two sides of the same coin. EdX is a learning platform where students can find online courses from various universities, and Open-edX is an open source content management system. Both were developed by a team of researchers at Harvard University and MIT with the goal of providing university-level online education worldwide. EdX.org offers more than 3,500 online courses from 160 recognized companies and universities that offer higher education in a wide range of fields. They mainly specialize in natural sciences - engineering, computer science, data science, mathematics, humanities, business and management.

3.5 Skillshare

Skillshare is another popular course marketplace with over 5 million students and up to 35,000 lessons in various creative fields. Course lessons last 20-60 minutes and consist of short videos, class projects and a student community that encourages interaction through social forums. Skills sharing courses are taught by industry leaders, everyday creators and professionals and are divided into 4 categories:

Creative arts: from graphic design to visual art, cooking and music production.

Business: finance, accounting and project management.

Technology: including data science, web design and e-commerce.

Lifestyle: Education, Languages, Gaming and Wellness.

3.6 SWAYAM & MOOCS

The SWAYAM MOOCs platform is the world's largest free online e-learning platform portal designed to achieve the three core principles of education policy viz. access, equity and quality, covering school/vocational, masters, masters, engineering and other disciplinary courses.

The MOOC platform SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) was developed by the indigenous AICTE in 2016 to facilitate the hosting of online courses that can be freely accessed by anyone, anywhere, anytime to achieve three key principles. educational policy. i.e. access, equity and quality. As one of the world's largest Massive Open Online Courses (MOOC) integrated free online course platform, SWAYAM covers subjects from secondary to higher education, including skill-based courses, so that every student can benefit from ICT-enabled learning materials.

The courses offered at SWAYAM are in four quadrants – **(1)** Video Lectures, **(2)** Specially designed Reading Material which can be downloaded/printed **(3)** Self Assessment Tests with Tests and Quizzes and **(4)** Online Discussion Forum for Doubt - Removal An attempt has been made to enrich the learning experience with the help of audio-video and multimedia as well as the latest pedagogy/technology.

AICTE-SWAYAM team provides user support of the SWAYAM platform through email and phone to address end-user queries and requests.

3.7 Coursera

Coursera is an online education platform with over 82 million users dedicated to providing quality online training worldwide. By partnering with leading universities and companies, it offers students the opportunity to earn certificates from recognized institutions by enrolling in its fee-based courses. Coursera offers individual courses, majors, certificates, and degree programs (undergraduate and graduate) supported by on-demand video lectures, homework, peer-reviewed assignments, and community discussion forums. With Coursera Plus, students get unlimited access to 90% of the courses in the Coursera catalog with an annual or monthly subscription.

3.8 Google Meet

Google Meet, formerly known as Google Hangouts Meet, is Google's premium video conferencing software that is part of Google Workspace (formerly G Suite). There is also a free version of Meet. Meet is similar to the consumer video chat service Hangouts, but supports many more participants. You can find Meet at meet.google.com. google meet allows both teachers and students to share or present their screen about the lessons or chapter being taught or discussed. Teachers and students are able to post a question and answer via comments. It provides live captioning during the active presentation. We can also record our live sessions in meet for future applications and references. Due to its user friendly nature, it can be used in any Android or iOS devices.

3.9 Zoom

Zoom is one of the leading video conferencing software. It allows you to communicate with colleagues and students virtually when face-to-face meetings are not possible, and has also been very successful at social events. Zoom is a communication platform that allows users to connect via video, audio, phone and chat. Zoom is an essential tool for small, medium, and large groups or institutions that want to stay connected and continue their daily workflow and become a crowd favorite. Zoom requires an internet connection and a supported device. Most new users like to start by creating an account and downloading the Zoom Client for Meetings app.

3.10 Byju's App

BYJU'S is India's largest ed-tech company and creator of India's favorite school learning app. Launched in 2015, BYJU'S offers highly customized and effective learning programs for grades 1-12. for classes (K-12) and aspirants for competitive exams like JEE, IAS etc. With over 50 million registered students and 3.5 million paid subscriptions, BYJU'S is one of the most popular educational platforms worldwide. BYJU's way of learning provides students with a learning platform where they can learn participate and be excited to chart their own path to explore the world. BYJU'S - Learning App brings together the best teachers, technology, content and media to create a seamless, world-class learning experience for every

student. Based on the student's progress, personal learning profiles are created that help analyze strengths and areas for improvement. Each concept is marked with a different level of difficulty to create a smooth learning curve that keeps students motivated with new learning challenges. Whenever mistakes are made, motivational correction methods are developed to reinforce and enhance the student's learning experience.

3.11 MS-Teams

Microsoft Teams is a cloud-based team collaboration software that is part of the Microsoft 365 and Office 365 series of applications. Core features of Microsoft Teams include business communication, calls, video meetings and file sharing. A team for Education, as it's commonly called, uses the same basic free platform that anyone can use, just adapted for schools. The platform offers collaborative classrooms and facilitates learning through assignments and feedback, as well as a virtual meeting platform. Microsoft Teams for Education is a digital hub that brings all your favorite collaboration tools in one place. Because Teams is built on Office 365, schools benefit from integration with familiar Office applications. It offers enterprise-grade security and compatibility that can be customized to meet the needs of teams across the organization.

Conclusion

Online learning is the latest and most popular form of education today. Inside the past, during the decade, it had a major impact on education system and this trend is increasing over time of corona virus pandemic. This technology has many benefits for students, teachers, teacher, educational institutions, business coaches, motivational speaker. It also helps nationalities stay home and be safe. Digital technology in the classroom refers to a variety of software and devices designed to assist students with special access needs. The most effective way to reduce the number of repetitive and time-consuming cases, It is the teacher's job to use technology in the classroom. Educational technology applications can save a lot of time and energy, automate or partially automate daily operations such as attendance tracking and performance monitoring. Students are taught how to use technology responsibly and strategically that can help them make decisions and develop self-discipline. Technology in Education can help students prepare for lifelong learning. These techniques to offer students a virtual world and the freedom to use digital information according to their learning style.

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