THE INVOLVEMENT OF MOBILE LEARNING AND DIGITAL CONTENT PLATFORMS IN EDUCATIONAL DOMAIN

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Abstract

Digital media is being used by a growing number of people to learn new things and improve their education. Successful learning relies heavily on customized e-learning content formats that are tailored to each learner's need. The scenarios for digital learning include anything from interactive lessons using simulations or strategic games to computer- or Web-based training sessions. Even advanced e-learning training sessions can be facilitated by a number of tools for creating content formats. But, technological advancements don't just facilitate progress. Because of the immersive learning it offers, mobile learning is very successful with all types of learners, including students and employees. When it comes to mobile learning, the course material is delivered digitally using cutting-edge media technologies like video, Virtual Reality, Augmented Reality, Simulations, Animations, 3D infographics, and more. Organizations can purchase pay-per-use or subscription content using digital content creation platforms. While software like content marketing platforms makes it easier to generate and share original material, digital content production platforms prioritise giving businesses access to pre-written content. Photos, movies, audio files, and transcripts are all types of content that are accessible. These brand-new digital learning forms are crucial for advanced and collegiate training. For software and product training as well as security instructions, businesses rely primarily on e-learning material forms. Online education and digital platforms has seen a significant uptick as a result of the current COVID 19 epidemic. As a result, all educational institutions, including schools, higher education institutions, and vocational schools, have already implemented or are in the process of adopting a digital learning platform to facilitate learning. In many fields, including education, business etc., online assessment is becoming increasingly common and widely used. Online tests have been embraced by the corporate sector in a big way and with a good deal of enthusiasm. Both the corporate organization and the candidates themselves can clearly profit from these online examinations over the conventional techniques of assessment.

Keywords: M-learning, Digital Content, Digital content platforms, Online assessment, Chatbot

I. INTRODUCTION

The way that technology is used today is upending traditional teaching methods and exposing pupils to a variety of new learning opportunities. From entertainment and communication to the way we learn, smart devices and mobile phones have fully taken over our lives. For digital natives, mobile learning in education is changing how they learn. Over half of today's college students utilize their smart phones for daily academic work, which is nothing short of amazing. Most students today own a smart device. With over 50% of all surfing activity taking place on portable devices like smart phones and tablets, they are currently the most popular tools for gaining internet access. The distribution of instructional content via mobile devices like tablets and smart phones, or "m-learning," is quickly gaining ground in the education industry. Modern teaching approaches can be adopted in a very user-friendly way by using mobile and digital content-based learning in the classroom. It not only promotes visual learning (via voice, video, and graphics), but it also makes learning dynamic and quick-paced, which

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keeps students more engrossed in class while imparting course material much more effectively [1]. A digital learning platform enables academic institutions to quickly and affordably update course material or add new materials and resources that students can use to supplement their learning. The boundaries of the physical classroom are broken by digital learning platforms. In a more group-based, interactive, and individualized learning environment, students can learn, discuss, and debate using tools like chat, social media, and online forums.

II. M-LEARNING

M-learning is the process of learning in a variety of circumstances while interacting with others via mobile devices. Tablets, mobile phones, notebook PCs, and handheld computers are all utilised in m-learning. As it can be done almost anywhere, this method of education is practical. Instantaneous content sharing makes receiving feedback and suggestions simple and quick. Several M-learning apps have been developed as mobile learning has progressed. Moreover, m-learning enables students to select from a variety of educational resources, including videos, infographics, and audio, to assist them easily understand a particular topic, increasing engagement.[2]

III. SIGNIFICANT ADVANTAGES OF MOBILE LEARNING IN EDUCATION

- Support for numerous devices The mobile learning environment enables the use of the same course across a variety of gadgets, such as computers, smart phones, laptops, and tablets.
- Effective cooperation

For the purpose of building a strong online learning community, mobile learning in education makes it simpler for students to interact with one another and collaborate.[4]

- Mobile education

The ability to learn whenever and wherever is mobile learning's main benefit in higher education. Using audios, movies, podcasts, and other multimedia assets on mobile devices, m-Learning is flexible enough to accommodate different learning preferences.[3]

- Improving performance

Education institutions are now using m-Learning as a creative way to meet the learning needs of their students and enhance their performance due to the explosive growth of mobile internet.

- Engrossing design models to study

A variety of intriguing design formats, including interactive videos, animated videos, and others, are available in m-learning and are very well-liked by students.[4] This type of personalization in learning increases the sense of engagement and aids students in staying on course with their education.

- Outlined educational route

The continual and individualized learning paths provided by m-Learning platforms are also a contributing factor in their popularity. When integrated with the m-Learning platforms they use, course organizers and phone-based reminders are convenient for learners.

IV. DIGITAL CONTENT CREATION

There has been a change in the educational environment in India as a result of the pandemic, which has affected both teachers and students. Nevertheless, this is not the time to panic; rather, it is a chance to become more familiar with technology advancements and content creation tools. One of Covid-19's most beneficial effects on online education has been the growth of technology, e-learning, and content creation platforms.[5] Both of them must take the technical initiative, with students serving as teachers and instructors guiding them to the finish line. The new role for both of them requires the creation of content, which may be done by students using content development tools and professors utilizing content creation teaching apps. Organizations can purchase pay-per-use or subscription content using digital content creation platforms. While software like content marketing platforms makes it easier to generate and share original material, digital content production platforms

prioritise giving businesses access to pre-written content. Photos, movies, audio files, and transcripts are all types of content that are accessible.

4.1 Making the Best Digital Content Decisions in learning

- It must line up with your learning objectives.
- Content must be pertinent.
- The students' learning level should be appropriately reflected in it.
- It must provide effective learning and maintain student interest.
- Verify that the curriculum-compatible with the content you selected.
- The digital material must be comprehensive and usable.
- The lesson plan ought to inspire students to continue being creative.

4.2 How to Engage Students in Digital Media and Content generation

Although having grown up with digital gadgets in their hands, today's youth frequently lack awareness of the potential power of digital information and content. Our current digital technology has made it possible to access information and perceive the world in completely new ways. The creation of digital information and media can be extremely potent tools. Early exposure to the world of digital information can aid in pupils' development of a better understanding of their surroundings as well as their ability to explore potential interests and career paths that may have a lasting impact on their life.[6] Your kids will be engaged and learn skills that will be of great use to them no matter what subject or age group you teach, so be sure to incorporate these subject areas.

- More opportunities than ever before are available in the digital media space.

A wide range of professional prospects and career trajectories are offered by the field of digital media and content creation, from web development to video storytelling. The sector has a demand for almost every type of person and skill set, making it a strategic career path for almost any student to think about. The following are the most frequently required abilities in digital media environments: the ability to effectively communicate, a general understanding of style and visual aesthetics, technical familiarity and comfort with learning new software tools. However, a wide range of additional abilities and skills can also be beneficial. The world's job markets are currently experiencing some of the fastest growth in the digital media and content creation ecosystem. Several job categories that fall under this category are expanding substantially faster than the national average. Because of this, it offers your students a desirable possible employment landscape. This is especially important if you work with kids who are getting ready to apply to colleges or who are trying to decide what career path to take.

- Focus on the digital content that students are already interested in

Start with the kinds of content your students are probably already familiar with when planning to integrate digital media elements into your curriculum. Whether they are aware of it or not, when your students use popular social media platforms, they are already producing and consuming digital content. Many of your students will be familiar with various digital content types as well as the resources for finding it in addition to social networking sites. Sites like YouTube and streaming services are among them.

V. THE FUTURE OF EDUCATION WILL BE SHAPED BY NEW TECHNOLOGY

All new educational technologies have the same goal, which is to completely transform how students learn. These innovations promise to improve the way that both teachers and students operate. Yet with such technology dominating our contemporary environment, education is certain to change.

- **Learning Based on Competencies**

Competency-based education should play a significant part in the educational system in 2023, the general public should anticipate. This unique technology allows for the matching of pupils with learning activities appropriate to their level of

aptitude. More specifically, competency-based education gives students a way to move up in their learning experience depending on their capacity to master a skill. Because of this, kids are able to learn independently of their surroundings.

- **Educational use of 5G Technology**

The fifth wireless technology generation is known as 5G. Almost everyone using it now has access to high-speed, low-latency wireless technology because of its increased improvements.[7] Because it promises them quick downloads of student data and resources as well as stronger networks, students are more likely to profit from this novel invention.

- **Learning Analytics**

Learning is a very broad process, and effective tracking and analysis are needed to better understand outcomes. Learning analytics is a new technology that is currently being utilised by teachers to more accurately capture students' learning patterns. Monitoring student learning rates and behaviour has the additional benefit of giving teachers the opportunity to make specific course adjustments. Every student's learning experience is aided by improvement, which is a crucial element in education. Learning analytics can assist teachers in giving their students this instruction.

- **Artificial Intelligence (AI) driven education technologies**

One of the most talked-about technological advancements in the world is widely acknowledged to be artificial intelligence. The world has learned to trust its technology in its development as a result of its clever approach to varied systems. AI and machine learning are not just employed in education, despite being applied in many different disciplines. More specifically, its presence has aided in the evolution of the world, and fortunately, by 2023, education will benefit from further evolution on its part.

- **Virtual simulations and augmented reality**

The realm of visuals has been changed by augmented reality and simulations. Today, it is beginning to have a significant influence on how kids learn and work with their teachers. According to augmented reality, humans' dreams and imaginations can be best captured through this technology.[8] And by 2023, it promises to assist students in capturing such ideas with the single goal of enhancing their learning experience.

VI. MAJOR TREND IN THE MARKET FOR DIGITAL EDUCATION CONTENT

The market for digital education material is seeing a lot of growth in the use of data analytics in education. In recent years, digital educational publishing has adopted more and more data analytics tools and technologies, including Big Data. To help students keep track of their learning activities, a number of companies include data analytics in their educational material offerings. Analytics provided by embedded software can be used by learners to track and evaluate their performance and development in real time. For example, Experience Cloud is a service provided by Adobe Systems to universities. With mobile participation and online communities, it allows the institutions tailor the educational experience for each student. The adoption of data analytics will therefore rise as a result of the increasing need for personalized, individualized learning in the education sector, supporting the expansion of the global market for digital educational material over the forecast period.

Online Assessment

In a number of industries, including education, government, and business, online examinations are becoming increasingly popular and widely used. Online tests have been embraced by the corporate sector in a significant and enthusiastic manner. For both the corporate body and the candidates themselves, these online assessments clearly have certain advantages over the conventional techniques of assessment. Scientific design guides the development of online assessment tools that assist recruiters in evaluating a variety of skills, including communication, cognition, and aptitude.[9] These systems provide auto-evaluation, report generating, and even grading functions that make a drawn-out hiring procedure quick.

Using online assessment over traditional assessment has several advantages

- Ensures uniformity throughout the exam session
- It may be customized for each learner.
- The cost and time of an online assessment are greatly reduced.
- It is precise and safe.
- Faster to mark and publish results.
- Flexibility to attend exams from anywhere

Methods for online student assessment

- Online quizzes
- Essay questions
- Assembling activities
- Online interviews
- Dialogue simulations
- Game-type activities
- Peer evaluation and review

Digital Content Creation tools and platforms

Digital content rules the internet, but actually creating it can quickly become overwhelming.

- **Edmodo**

One of the most well-known platforms for creating content for teachers is Edmodo since it makes it simple for them to interact with students and gives them access to a community where they can meet other teachers from around the world.[10] Facebook-like in comparison, but a touch more official. Edmodo is a tool that teachers can use to post interesting homework online. Either all of it can be converted to digital form, or only some of it can be used. This enables teachers to interact with students and make learning enjoyable for them.

- **Canva**

Canva is a tool that teachers may use to create presentations and appealing graphics, among other things. You may produce engaging and captivating content for students by choosing from among thousands of gorgeous layouts, including magazine templates, presentations, and papers. It can be used as an online teaching tool to create presentations and videos for various online lectures.

- **Socrative**

Socrative is a platform that lets teachers design exercises or educational games that students can complete using mobile devices, such as smartphones, laptops, or tablets. It was created by a group of entrepreneurs and engineers who are passionate about education. Instructors can view the outcomes of the exercises and, based on them, alter the following classes to make them more individualised.

- **TED-Ed**

With the help of instructors, students, animators, and other people who wish to advance knowledge and good ideas, TED-Ed is an educational platform that enables the creation of instructional classes. Both teachers and students can use this website to democratise access to information. In this situation, individuals can actively engage in the learning of others.

- **ClassDojo**

ClassDojo is a tool to help students behave better. Teachers provide their students immediate feedback so that positive behaviour in class is "rewarded" with points and students have a more open mindset towards the learning process.[11] The data gathered concerning student conduct can eventually be made available online to parents and authorities.

- **eduClipper**

Using this platform, educators and students can exchange and examine resources and educational content. With the help of eduClipper, you can gather data from the web and then distribute it to group members. This allows you to manage online academic content more efficiently, develop your research skills, and keep a digital record of the work your students completed for the course. Additionally, it gives teachers the chance to set up an online classroom with their students and build a portfolio to keep track of all the work completed.

- **Padlet**

Instructors can create an online post-it board they can share with their students using Padlet. Students can post ideas to Padlet either anonymously or with their names. It's easy to use and quite helpful. Anyone who has the Padlet board open

can see what is written on it and what is on it. The only thing that students need to do is purchase a smartphone and start posting little sticky notes online. Students can access all of the concepts that have been gathered on the instructor board instantly. This is a useful tool for creating content for activities in the classroom.

- **Audacity**

Audacity is used to edit and record audio on multiple tracks. With the use of a microphone or mixer, students can record live audio using this cross-platform audio editor. They can also use it to digitise recordings made on cassette tapes, records, or minidiscs.

- **Adobe Spark**

Students may quickly create animated videos using the straightforward content development tool Adobe Spark. They may easily add and remove video clips and incorporate music to make their movies stand out in the classroom. Students may choose an image from the Spark library or submit one of their own photos to emphasise what they have to say. They don't need to be skilled at video editing because Spark gives the video motion and music. Additionally, students can use Adobe Spark Post to create a polished image or Adobe Spark Page to create their own webpage.

- **Google Classroom**

Creating personalised assignments for a single student or a small group of students is simple with Google Classroom. Specific students or groups in a class may receive modified or alternative assignments from teachers. You can also speak individually with a student to see if they have any questions or require additional assistance. Google Calendars for both students and teachers are integrated with Google Classroom. Each Google Classroom-created class establishes a unique folder in the associated Google service where students can submit work to be evaluated by a teacher. Teachers can interact with their students in each of their classes by sending messages to them via Gmail. Instructors have the option of adding students directly from the Google Apps directory or by giving students a code to enter to gain access to the class.

- **YouTube**

Modern learning environments benefit from the accessibility of free, excellent, and educational films on websites like YouTube. Online videos are beneficial as a teaching and learning tool, according to educators, students, and parents. The best thing about YouTube videos is how simply they can be incorporated into many different educational systems, particularly online schooling. A recent development in the education sector is video-assisted learning, which offers pupils a fun approach to study and comprehend difficult ideas and concepts. Students all across the world were required to attend classes from home during the recent global lockdown caused by the coronavirus epidemic, which resulted in a massive increase in the number of YouTube subscribers for educational and eLearning related channels.

VII. CHATBOTS IN EDUCATIONAL DOMAIN

- Proactive support

In the education sector, chatbots can be expertly taught to provide answers to kids before they ask.[12] Help with payments, the addition of a new module to the syllabus, or a deadline are all examples of proactive measures that might be beneficial for a better learning environment.

- Virtual individual tutoring

Chatbots can pay close attention to each student and their study habits. They are able to closely monitor the pattern of learning and information intake, and based on that, they can support students in achieving success in their chosen fields.

- Student participation

Chatbots can instantly answer questions from students and engage in ongoing conversation. While in class and afterward, students can seek their assistance to ensure that they do not compromise on learning through a virtual platform. Students now communicate with one another by occasionally exchanging messages on social media platforms. Chatbots have the power to permanently change the situation and raise student involvement.

- Teacher's Assistant

Chatbots can be used as teachers' assistants to complete

repetitive tasks with ease. Chatbots with artificial intelligence can help teachers defend their work without overtaxing them.[12] For instance, if a school automates the tracking of students' attendance, they must make sure that the chatbots there deliver the students the notes and recordings of the lectures that were made while they were gone.

- Collection of feedback

Following each discussion or process completion, chatbots in the education sector can assist in gathering feedback from all parties involved. This may aid educational institutions in gathering important data and addressing issues that produce subpar outcomes.

- Sentiment analysis of students

Chatbots are intelligent and can assist teachers alter and enhance their methods of instruction to enhance student learning and immediately allay any questions they may have.

VIII. CONCLUSION

Digital learning is the instruction made possible by technology that gives students some degree of control over their environment, pace, and direction. More and more frequently every day, digital learning is replacing traditional educational practises. Teachers have the opportunity to create interesting learning opportunities in their courses by analysing how digital technologies are used; these chances can be integrated with or replace traditional classroom instruction entirely online. The mobile, interactive, and engaging nature of digital learning has inspired students to get interested in and stick with it. The involvement of mobile learning and digital tools and platforms in the field of education will bring innovations and creativity among the student and teachers. It's always a good practice to integrate the modern technological trends especially the ICT resources in educations to improve the performance of students.

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