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Mandeep Kaur
Assistant Professor, Akal
College of Education Gursagar
Mastuana Sahib, Punjab, India

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Emerging issues and challenges in digitalisation of higher education

Mandeep Kaur

Abstract

“Technology can become the 'wings' that will allow the educational world to fly farther and faster than ever before; if we will allow it”.

-Jenny Arledge

Traditionally education is centred on sources such as schools, teachers and print media. The learners reached the information sources by enrolling with schools, teachers and libraries. Prior to the digital era, information was not accessible by the majority of people, and even those accessed were unable to obtain current information with respect to today's context. The modern society wants to know the information as it happens and when it happens, and the world is moving from an information society to a knowledge society. Thus education is given the highest priority and brainpower is becoming the most valuable asset of an organisation. Digital learning is increasingly influencing both classroom/campus-based teaching but more important is leading to new models or designs for teaching and learning. Advances in digital technology have opened up many avenues of learning. Technology has made information accessible/transmittable from anywhere and by/to all groups of people. Education has reached most parts of the world and ICT has become an integral part of human life. This paper describes the emerging trends in digitalisation and challenges faced by the digital education.

Keywords: Digitalisation, higher education

Introduction

Digitization Is the Term

“Digitization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized.”

India is a vast country with much diversity-in culture, language, heritage etc. and so is its education system. Many changes are currently occurring within education systems, brought about by the evermore intensive use of ICT in teaching, learning, and social exchange networks at all levels. The increasing digitalization of schools, universities and vocational training centres provides the basis for the development of much experimentation and innovation through both bottom-up and top-down research projects. E-learning as a great driver of change in the educational domain: both a factor in and an effect of the push for accountability and competitiveness in schooling.

Emerging Trends in Learning

- **Online courses:** Want to learn a new language or maybe to get trained in some specific course, but have no time to cover the distance? Online courses are developed by experts who have unmatched proficiency in their specific field and can give you the experience of real-time learning by designing their own online course.
- **Online exams:** Digitization gave way to the online exam, making the examination

Correspondence

Mandeep Kaur
Assistant Professor, Akal
College of Education Gursagar
Mastuana Sahib, Punjab, India

process convenient for both teachers and students.

- **Digital textbooks:** Also prevalent with other names like e-textbooks and e-texts, digital textbooks provide an interactive interface in which the students have access to multimedia content such as videos, interactive presentations.
- **Animation:** This is a captivating approach in which students learn in a better manner. By offering a visual representation of the topic, students grasp the concept in a more understandable manner. Even the toughest topics can be presented in a simplified way with the help of animation.

Challenges faced by the Digitalisation

1. Schools are overcrowded.
2. School spending is stagnant.
3. A lack of teacher innovation.
4. A lack of involvement from parents.
5. Technology has become synonymous with entertainment
6. Organizational Culture- A Hindrance to Change. Again, most of the companies have a culture that has been there since its inception.
7. Change is Expensive.
8. Lack of Strategy for A Digital Customer Drive.
9. Leader.
10. Resource Availability.
11. Hype cycle vs. mainstream use of technology.
12. Employee Pushback
13. Lack of Expertise to Lead Digitization Initiatives
14. Organizational Structure
15. Lack of Overall Digitization Strategy
16. Limited Budget
17. Professional Development
18. Resistance to change
19. MOOCs and other new models for schooling
20. Delivering informal learning
21. Failure to use technology to deliver effective formative assessments.

How we do resolve challenges faced by Digitalisation

1. The school community resists change

There are still many in education who are resistance to change. For instance, it is hard to change the way you teach when you have been using the same tools for your entire teaching career. Therefore, it is important to provide plenty of information, statistics, and examples to show the community why these tools should be implemented in the classroom.

2. Lack of IT support

As your school uses more technology, you will need to increase your IT department. More use of technology means stress on the IT department; hence, you should not expect one person to handle the added responsibility.

3. Technology continuously changing

Unfortunately, technology is always changing, so you should not expect to be using the same tools forever. Instead, you should have a plan and budget in place for upgrading technology.

4. Lack of quality content

With the amount of digital content, it is overwhelming to curate a collection of high quality digital learning materials

independently. Instead, your school administrators and teachers should work side-by-side with the school librarian to develop a solid collection of content.

5. Not a substitute for human interaction

Even as humans begin to use virtual assistants more regularly, they are still no replacement for human interaction. Teachers should not step aside and let the digital tools “take over.” Instead, teachers should use digital resources as supplemental and complementary tools for the classroom.

6. High costs

Technology and digital resources are expensive. Therefore, teachers and schools should be prepared to seek grants and community support for funding.

7. Unequal access for all students in and out of school

Even if your school has WIFI and a great collection of digital tools, it does not mean the student population has these devices (or WIFI) when they go home. To overcome this challenge, some schools are providing students with laptops or tablets.

8. Software is not optimized for mobile devices

Many students do not have internet access at home, so they use their cell phones (and data) for internet access. Therefore, it is important to make sure all your digital resources are optimized for mobile devices.

9. Security issues

More activity online also leads to more security issues. To combat security issues, your school should invest in security. Additionally, students and teachers need to be taught the basics about internet safety.

10. Lack of training for teachers

Finally, teachers are busy enough, so it can be difficult for them to add one more thing to their schedules. However, if you want your digital learning environments to be successful, you must find time to train teachers on how to use various digital tools.

Advantages of Digitalization of Higher Education

1. Emphasis on interactive learning.
2. Digitalization opens up higher education to people who wouldn't be able to afford or access it otherwise.
3. Online learning makes it easier to combine their professional and family commitments.
4. Online learning provides more tutoring and guidance as well as a rhythm (thanks to deadlines), with greater incentive to be assiduous about covering the material.
5. Information Security: Developing a risk-based security strategy that keeps pace with security threats and challenges.
6. Student Success: Managing the system implementations and integrations that support multiple student success initiatives
7. Institution-wide IT Strategy: Repositioning or reinforcing the role of IT leadership as an integral strategic partner of institutional leadership in achieving institutional missions.

8. Data-enabled Institutional Culture: Using BI and analytics to inform the broad conversation and answer big questions
 9. Student-centered Institution: Understanding and advancing technology's role in defining the student experience on campus (from applicants to alumni)
 10. Higher Education Affordability: Balancing and rightsizing IT priorities and budget to support IT-enabled institutional efficiencies and innovations in the context of institutional funding realities
 11. IT Staffing and Organizational Models: Ensuring adequate staffing capacity and staff retention in the face of retirements, new sourcing models, growing external competition, rising salaries, and the demands of technology initiatives on both IT and non-IT staff
 12. Data Management and Governance: Implementing effective institutional data governance practices
 13. Digital Integrations: Ensuring system interoperability, scalability, and extensibility, as well as data integrity, standards, and governance, across multiple applications and platforms
 14. Change Leadership: Helping institutional constituents (including the IT staff) adapt to the increasing pace of technology change
 15. Online Resources: Connecting Students with Their Educators with a high increase in the student population in recent times, pedagogy is being compromised. Because of that, online resources are being developed in a way that makes them always available to teachers to educate the masses. Which, in turn, improves the quality of education and increases the number of literate students.
 16. Internet Making Digitization Possible: After the United States and China, India has been rated as the third largest internet consumer. The core existence of online education platforms is being possible with the internet. Most schools and colleges in India make use of the internet and they basically use it for conducting online exams and quizzes.
 17. Administrative Activities: An Integral Part of the Education Industry: With digital systems being prevalent in education we are experiencing different levels of ease in online education, but the administrative part is not off the table. Keeping the records of students and maintaining their attendance and roll number is a big headache, that too when the students are outnumbering the administrative heads. So colleges and schools are adopting more hassle-free computerized methods and avoiding the old manual methods of maintaining the records.
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