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**“DIGITALIZATION OF HIGHER EDUCATION”**  
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**Innovative technologies in digitalization of higher education**

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**Abstract**

**Digital deemphasizes the top-down dissemination of standardized knowledge**

Traditional classroom teaching is now a matter of the past. Introduction of technology has revolutionized the way teaching is conducted. It offers the flexibility for learning to be available to students at any desired time or place. Digitalization in education refers to the use of desktop, computers, mobile devices, the internet, software applications and other types of digital technology to teach students of all ages. Digitalization of education has also blurred the borders that was previously defined by students and teachers being present in the same location at the same time. Over the last decades, distance and online is becoming increasingly popular in India. Online learning courses are on the rise and have been facilitated by the by the income in the digital technology now being available in most of the country. We examine differences and change in the usage of collaboration and communication platform between different groups of members at the university and within the university lifecycle. To gain new insights, Qualitative case study with semi-structured interviews were conducted. One of the main result show that bachelor and master student's prefer the usage of social network sites for collaboration and communication while P.H.D. students and employees do not. Even through an increasing number of modern platform for direct combination is offered, the result show that the communication between a group of student and employees still takes place in via e-mail.

**Keywords:** higher education, collaboration digitalization, desktop, computer

**Introduction**

Technology can become the 'wings' that will allow the educational world to fly further and faster than ever before; if we will allow it. "Jenny Arledge"

Digitalization of education of education is powerful trend in term of reformation and modernization of global education environment digitalization means transformation of all information type (texts, sounds, visual, video and other data from various sources) into the digital language. Discussing the phenomena of digitalization, it should be noted that various analysis and forecast expert (mostly British) including Tim Berner lee, one of the inventors of world wide web. The United Kingdom is assumed to be first in the world introduce compulsory software engineering and IT education in the program for school children aged 5-6 years in 2015.

**Why Digitization in Higher Education?**

The methods of teaching in higher education have drastically changed in last 15 years. While some old guards still stay with the old "Chalk and Talk" technology, it is very rare that in these days professors do not use some modern technology in class-room delivery. Abundant information on any subject is available on such sources as "Youtube", "Facebook", "Wikipedia" and "Google". The online education therefore has added new options of teaching, has created a wide variety of new courses, and has increased the enrollment in

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many academic institutions. This type of delivery has some substantial conveniences. It has no regional boundaries, so the internationalization of education has become a common phenomenon with satellite campuses mushrooming all over the world. New ways of teaching may include development of new information and communication technologies such as cable and satellite transmissions, audio and video conferencing, PC software and CD Roms and in particular the Internet sources. This wide variety of means increases the accessibility to the rest of the world. In India there are many institutions such as IITs and IIMs that have in recent years opened satellite campuses abroad, or have signed memorandum of understandings (MOUs) with some foreign universities to offer online education. In our university (Metropolitan State University of Denver) first online course was offered in 1996, and currently (in 2013) there are roughly 8000 students enrolled in at least one online class. Online teaching has been seen as a “win-win situation” for all parties involved. The university administration loves to have higher enrollment that brings in more tuition income as well as the growth. Moreover, the students in online class rarely visit the campus, so, traffic, parking and other physical facilities such as restrooms, cafeteria, gymnasium are rarely used.

The second way to infuse security in teaching online classes is to require some tests to be taken on the campus in a secured environment such as testing centers at the campus. This precludes students from far distance and scheduling final exam for each student in a large class in a nightmare.

#### **Learning Management systems (LMS):**

LMS is the platform that delivers several education courses in an organized way with the help of computer programs. The system is utilized by various educational bodies with diversified customer base both online and offline. And this educational ecosystem is a primary target for tech companies striving for innovation. NIIT's Cloud Campus and NIIT.tv are the finest examples of LMS, which is enabling thousands of learners across the nation to pursue online certificate course anytime, anywhere.

**Training.com** by NIIT is another exceptional move towards innovating education technology. It's a multi-modal platform by NIIT that offers various programs to executives and students through online modules and video lectures.

#### **Teaching Assistance**

The technology for teaching assistance is deliberately open for innovation. Lectures of teachers from across the globe are streaming on various video platform. With the advent of chatbots, real-time assistance, and extensive support system the popularity of teaching assistance methods has ramp-up in no time. With innovative approaches of edtech companies towards assistance tools, the transformation of teaching methods and teachers is certain. The traditional teacher will soon be a leader, facilitators, and innovator equipped with real world skills.

#### **Enhanced Use of Virtual Reality**

Virtual reality is completely a new way to access the education as a real-world object. The tech leaders like Google, Samsung and HTC are investing massively in developing education application for VR technology. By incorporating virtual reality in education system, the

students can get a better and detailed understanding of the content, and complex data can be resolved into simple modules.

#### **Artificial Intelligence**

Artificial intelligence is a huge vault in the education system, empowering edtech industry with automation and awesomeness. The most satisfying thing about this segment lies in automating nearly all kinds of learning resources. The innovative AI products and devices are helping both teacher and student to work efficiently with special needs of children. NIIT's 'DigiNxt' is heading on the creative path of artificial intelligence with the introduction of robotics, machine learning and design thinking under the hood.

A key aspect of innovation in edtech is the adoption rate of new tools and technologies by the learners of the millennial community. They are driving ideas in edtech companies, transforming leaders for future and exploring all possible ways to achieve best technically optimized learning. The trends discussed here showcase that education and training industry will continue to evolve, innovation will keep on taking place and the market will have lasting impacts for years to come.

#### **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 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, and hyperlinks.

#### **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.

#### **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.

#### **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.

### **E-Learning**

E-Learning trends that will become stronger as we step into 2018. Our first example is VR and AR. With Augmented Reality and Mixed Reality added to the mix, we have exciting new possibilities in the immersive learning space. With prices of wearable glasses and headsets reducing, VR and AR will become more affordable for organizations willing to experiment with them. We will see more traction as 2018 unfolds. Organizations will invest and explore more of these technologies in 2018 and beyond.

### **Hybrid Learning**

Institutions increasingly promote blended approaches to learning and, in parallel, are gathering data across all areas of the student experience. This workshop looks at the emerging relationship between data and learning design. We aim to help participants ensure that their blended learning designs are purposeful. We seek to make explicit the pedagogic intent in a learning design and explore how data can enable us to understand whether or not learner behavior is corresponding to those expectations. We will show how the insertion of digital activities with a clear pedagogic purpose into a learning design offers the means to support real-time interventions that can make a difference in learner outcomes.

### **M-Learning**

Mobile learning also known as M-learning, is an educational system more and more schools are using laptops or tablets. There are increasingly more educational apps available for teachers and trainers. That is the most common way of using mobile learning. You can offer texts, videos or audios. Participants can be given assignments after watching a video that the instructor has put online. This way of learning is relatively less interactive. It is more about individual consuming.

### **Sustainability**

The higher education sector will be more sustainable through moderating the rate of funding growth, improvements to the Higher Education Loan Program (HELP) and strengthening responsibility for recognizing and rewarding quality learning and teaching.

The Australian Government is improving the sustainability of the HELP scheme by introducing a new set of HELP repayment thresholds and rates from 1 July 2018. This will help ensure that the HELP scheme is affordable and can continue to help people to participate in tertiary education.

### **Conclusion**

Digitization has no doubt changed our education system, but we cannot say that it has diminished the value of our old time classroom learning. Neither do we want something so priceless to turn into dust. The best part about the digitization of education in the 21st century is that it is combined with the aspects of both; classroom learning and online learning methods. Walking hand in hand both act as a support system to each other, which gives a stronghold to our modern students. Digitization in education has also proved to be the right method for saving resources. Online examination platforms have restricted the frivolous usage of

paper, directly confining the cutting down of trees. This way the digitization of education industry in the 21st century proves to be a boon to our society.

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