International *Journal* of Applied Research

Shilpy Gupta
(Assistant Professor), Moga College of Education for Girls, Ghall Kalan, Moga, Punjab, India

(Special Issue- 4)
One Day National Seminar
"DIGITALIZATION OF HIGHER EDUCATION"
(2nd March, 2019)

The digitization of education: Today's emerging trend

Shilpy Gupta

Abstract
In the modern era it becomes very necessary to bring digitization in every field that may be either engineering, Pharmacy or any other field. We know we are running into the 21st century where technology knows no bounds. This is the phase of radical development where technology is taking over to every corner. "Digitization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized." Education is one of the most important areas where digitization is required. Education is the leading and the fast rising division, which is leading the growth of notebooks. There is a great need of having improved notebooks for the students and the educational institutions. Digital programme platforms in schools, colleges and universities are some of the new trends. Digitization is prompting higher education also as it was not so ever before. Nothing is unavoidable and we have the supremacy to form the way we use technologies. The digital revolution is edging its way into the classroom. It is now possible to have an archive in every classroom or even in the pocket in the form of mobiles, I pods, laptops etc. As Google Chief Eric Schmidt has said, "the internet is not making inevitable change faster: it has become the engine of change."

Keywords: Digitization, Education, Technology.

Introduction
It was very well said by Jenny Arledge

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

We are running into the 21st century which is the period of rapid growth in technology. During this period the education system is uplifting towards betterment of students. The students of this generation cannot satisfy only with the limited packet of transfer of knowledge or simple learning. The curiosity among the students of this generation is very vast which cannot be overcome by the education system that was designed earlier. In this world of technology if the teacher is still teaching the students by their ways which they used earlier, they make them deprived of their bright tomorrow. Our educational system is not so advanced that it can face the challenges of 21st century, so we anyhow compelled to use digitization in our educational system.

What Digitization Is?
"Digitization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized."

It is also said that the digitization is the conversion of text, pictures, or sound into a digital form that can be processed by a computer. Digitization is the term which is in the trend in this new era. This term describes the 21st century in the most precise manner as possible. Digitization, less commonly digitalization, is the process of converting information into a

Correspondence
Shilpy Gupta
(Assistant Professor), Moga College of Education for Girls, Ghall Kalan, Moga, Punjab, India

digital format, which means the information readable by computer. We know in computer the information is organized into bits. The results obtained is the representation of object, sound, any document, image by generating a series of numbers that describe a discrete set of its points or samples. The result is called the digital representation or more specifically, a digital image, for the object, and digital form, for the signal. In modern practice, the digitized data is in the form of binary numbers, which facilitate computer processing and other operations, but strictly speaking, digitization simply means the conversion of analogue source material into a numerical format; the decimal or any other number system that can be used instead.

The digitization of education
The modes of teaching in education have changed very rapidly in last 15 years. Currently, there are several initiatives and schemes in place for providing equal opportunities for all towards quality education. There are certain old educators who still make use of old "chalk and Talk" technology, but it is very rare that the modern professor does not make any use of modern technology in their classroom lectures. Excess of information on any of the topic is available on the sources like –Facebook, YouTube, Wikipedia and the most prominent called 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 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. Digitization of education is one such mechanism that acts as a catalyst towards achieving the aim of quality education. Recently, Digital Initiatives have been included as an important component in MHRD's flagship integrated scheme for school education- *Samagra Shiksha Abhiyaan*.

Advantages of digitization of education
1. Digitization opens up doors of education to those people who wouldn't be able to afford or access it otherwise,
2. Its reach and accessibility allow it to permeate to a much larger segment of the society which would have otherwise remained deprived.
3. Online learning makes it easier to combine their professional and family commitments.
4. Digitization helps the students to continue their studies at home because the teacher can help the students only in the schools.
5. Digital technology helps to act as a tutor to those students who are failing behind in the classroom.
6. Technology increases the efficiency of teachers and students both.
7. Digital technology also allows the students to advance themselves at their own pace as they have learning capacity

8. Another advantage of new technology (such as the smart board, electronic readers, handheld dictionaries, ipads, etc.) is that the information can be presented in such a large variety of ways (visually, orally, differently sized fonts, different colors, etc.) that almost any type of learner can benefit and learn through the new technologies.
9. Digitization helps the teachers and students to access the latest knowledge with more clear concepts available in the form of videos on you tube etc.
10. The internet and other forms of technology give students access to a huge wealth of knowledge that previously was not as accessible to students.
11. The teachers and students can access their material in any medium or in any language easily.
12. The 24x7 access to lessons and the self-taught construct allows students flexible learning times and pursues education alongside other commitments.
13. Through digitization there is uniformity of knowledge as uniform content and learning packages eliminate vastly varying standards between good and better institutions.
14. Digital education also promotes minimizing infrastructure and maximizing outcomes, significantly reducing the costs of education and making it more affordable.
15. Another benefit of technology, especially the internet is that, allows for equality within education. The information and the technology that students use are available for everyone, they just have to go get it. Of course, this is referring more to the use of the internet because certain educational technologies are too expensive for less fortunate people to afford access to.

Disadvantages of digitization of education
1. The cordial relationship between teacher and taught is not there due to digitization as was earlier.
2. All the work is done by only technology then what the learners do.
3. As the information can be accessed quickly and displayed through multiple mediums then there are fears that students might not remember information because they can now look it up elsewhere.
4. Because of the use of technology students are losing their basic knowledge and reading skills.
5. Because of all the new technology there is a loss of communication skills and the ability for people to interact with each other.
6. Since a fairly large amount of the new technology is made for an independent uses there are the loss of interpersonal and cooperation skills that students usually develop within the classroom setting.
7. The students that do not have as much access to modern technology such as people in lower income situations. Unable to access even the more common technologies such as a computer on a regular basis - puts them even more at a disadvantage because computers are now integrated into every classroom in one way or another - can make doing homework difficult.

Factors enabling the growth of digital education:
1. Personalized and adaptive learning
Learning platforms, software's and digital devices are together creating countless new ways to modify education.

This way, the academic potential, strengths, weaknesses, aptitude and learning pace of every single student is catered to. Schools are now providing their students with digital devices like desktop computers, laptops and tablets. These devices are aiding them in the teaching process while also helping them understand how students learn and how to enhance their learning process.

2. Two-way conversations in E-Learning
The upcoming 'Learning Management System' will continue the two-way communication model between students and experts. More importantly, it will let students track their coursework progress, identify improvement areas and offer ways to make the most of them.

Through the help of 'Big Data', experts will be able to capture student feedback within the framework of the content provided. With this alone, they'll be able to improvise and enhance their offerings in new ways to further benefit students.

3. Mobile-based learning
Over the past few years, mobile learning has picked up by the populace who has gradually assimilated it in their lives. It has offered students the flexibility to access educational content seamlessly across multiple digital devices like desktops, laptops, tablets and smartphones.The smartphone user base in India continues to increase, in both urban and rural areas.

4. Video-based learning
Video learning has always appealed to students since it closely mirrors the traditional classroom teaching style. Video lectures allowed students to learn subject syllabi at their own pace and dedicate time spent in class towards interactions. This will continue to be a trend in the future where students will have access to rich and interactive content, that will be useful for both formal training as well as performance enhancement. The increase in video-based learning on mobile devices will eventually account for 80 per cent of all internet traffic by 2019.

5. Open educational resources
Open digital education resources have commonly been used in distance learning courses. They consist of freely accessible media for learning, teaching and research purposes. They are licensed to be revised and disseminated freely by teachers among students. Open educational resources also facilitate the creation of a flexible environment where teachers can customize educational content for individual sessions or classroom sittings. This is applicable for typical curricular subjects like mathematics, sciences and languages, as well as business and fine arts.

6. Usage of Virtual Reality (VR) and Augmented Reality (AR) for learning
Virtual Reality and Augmented Reality are already buzzwords in the technology space. Their advent in e-learning has massively impacted the efficiency with which it is offered to students and the way it assesses their performance. VR allows students using e-learning platforms on mobile devices to directly interact with study material. This keeps their engagement levels high and motivates them to learn more and better. On the other hand, AR facilitates

teachers and trainers in performing tasks; they previously haven't or cannot, in a safe environment.

Thus we can say that digitization is the conversion of text, pictures, or sound into a digital form that can be processed by a computer. Digitization is the term which is in the trend in this new era. It helps a lot in the field of higher education. It helps to make the teaching learning process effective and more advanced. Now the students of even higher education have not to keep with them lots of books and various tools. Now the big bag of books has reduced to a single instrument like laptop, mobile etc. But in order to make digitization a more effective trend it should be used properly and carefully.

References
1. Ainslee, Janetta. Exploring the digitization of education, 2018. Retrieved online from https://elearningindustry.com/
2. Carson, Caitlyn. Digitalisation of Education Study of District Dhule, National Commission for Protection of Child Rights (NCPCR), 2012. Retrieved from https://marcplamondon.nipissingu.ca/
3. Channan, Nitu. Six technology trends that pushing up digital education in India. New Delhi: India Today Web Desk, 2017. Retrieved from https://www.indiatoday.in/education-today/
4. Dussauge, Pierre. Digital Transformation: The Impact of Digitization on Higher Education. All rights reserved HEC Paris executive education 2016-2018. Retrieved from https:// exceed.hec.edu/en/news…/
5. Kishore, Kulkarni G. Digitization in higher education: Costs and Benefits. Paper presented in International Conference on "Digitalization and Beyond" at Russell square International College, Juhu, Mumbai (India), 2013.
6. Meaning of digitization. Retrieved online from https://en.wikipedia.org/wiki/Digitization
7. Ratrey, Rajshekhar. Six technology trends that pushing up digital education in India. New Delhi: India Today Web Desk, 2017. Retrieved from https://www.indiatoday.in/