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Parineeta Singal
Principal, Moga College of
Education for Girls, Ghall
Kalan, Moga, Punjab, India

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**Digitization of education: Making life easier or
complicated**

Parineeta Singal

Abstract

In India; the use of IT based learning for promoting instruction and advancement has always been a part of policy and plan documents on education. The decision makers at both central and state are favoring inclusion of new digital and internet based learning tools in education including adoption of cloud based virtual classrooms/ universities and e- Learning initiatives. The Government of India has instigated several national as well as state specific schemes that run parallel to large number of privately led digital initiatives at school and higher education levels. Accessibility of education and its quality up gradation are interdependent parameters of higher education. India being a country of the sub-continental size with a population above 1 billion, the quantitative expansion of education (i.e. accessibility dimension) is of paramount importance to mitigate disparities across regions, gender and social strata in the field of education. Along with the essential and unavoidable assessable expansion of higher education, it is equally imperative to expand the quality of higher education. The recent upsurge of digitization in education industry has totally changed the teaching-learning scenario in the whole world including India to a great extent. The boost of technology in the higher education arena has made imparting education convenient and stress-free for both students and educators. The present paper seeks to evaluate the opportunities and accessibility of digital education in India and the potential bottlenecks involved with measures to overcome them.

Keywords: Cloud learning, digitization education, e- Learning, knowledge transfer, Chalk and Talk technology, skills India, digital India, Swacch Bharat, Start up India and Smart Cities initiatives, etc

Introduction

In India the use of IT based learning for promoting instruction and advancement has always been a part of policy and plan documents on education. The decision makers at both central and state are favoring inclusion of new digital and internet based learning tools in education including adoption of cloud based virtual classrooms/ universities and e- Learning initiatives. The Government of India has instigated several national as well as state specific schemes that run parallel to large number of privately led digital initiatives at school and higher education levels. Accessibility of education and its quality up gradation are interdependent parameters of higher education. India being a country of the sub-continental size with a population above 1 billion, the quantitative expansion of education (i.e. accessibility dimension) is of paramount importance to mitigate disparities across regions, gender and social strata in the field of education. Along with the essential and unavoidable assessable expansion of higher education, it is equally imperative to expand the quality of higher education. The digital learning market is undergoing a swift expansion in India with a large number of start-ups entering this segment. India's digital knowledge market is presently estimated at US\$ 2bn in 2016, growing at a CAGR of 30% and is expected to reach US\$ 5.7bn by 2020.

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Correspondence
Parineeta Singal
Principal, Moga College of
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Kalan, Moga, Punjab, India

stress-free for both students and educators. Business Schools across the globe are gradually implementing digital teaching solutions and tools as a gateway to make the classroom atmosphere more comprehensive and participatory. As students have to correlate their classroom learning with the practical and actual business world, the true revolution in education can only be achieved via digitization of education so that students can learn at their own pace both within and outside the classroom scenario. The quality of higher education scenario in India today is highly influenced and simplified by the propagation of digital innovative tools and solutions of educational technological advancements. Cloud learning is starting to be looked at seriously by many educational institutions as a replacement or supplement to their traditional teaching practices. The use of internet, tablets, smart phones, personal computers, laptops and social media platforms and applications like Facebook and others have a far more enriching impact on proliferation and spread of digital education than one can imagine. 24

549916 [The steady onset of the Digital India vision is having a profound effect our lives. Today there are tools available to transform learning from an academic exercise to an engaging experience while digitization is ushering in a new era of transparency, efficiency and accountability. The traditional education system was based on the concept of 'knowledge transfer' - the age old guru shishya parampara - which established a clear teacher taught relationship. However, the digital media and the internet have ushered in a democracy of knowledge where education has become a collaborative, self-driven enterprise. Today there are tools available to transform learning from an academic exercise to an engaging experience in imaginative and experiential learning.

Advantages of Digital Education

- Reach and accessibility of digital education allow it to permeate to a much larger segment of the society which would have otherwise remained deprived. This alone would enable the woefully overstretched education system to keep pace with the growing needs and aspirations of an increasingly urbanizing society.
- The 24x7 access to lessons and the self-taught construct allows students flexible learning times and pursues education alongside other commitments.
- Uniform content and learning packages will ensure uniformity of knowledge dissemination and eliminate vastly varying standards between good and better institutions. With hand held internet devices available with most students, the engagement with teachers would extend well beyond conventional school timings.
- Digital education also promotes minimizing infrastructure and maximizing outcomes, significantly reducing the costs of education and making it more affordable.

Pervasive and persistent technologies have today redefined the conventional role of the teacher. No longer does a teacher enjoy a positive knowledge surplus over the taught. The knowledge gap is rapidly narrowing between the teacher and the taught. Modern teachers will need to reinvent themselves by embracing technology and constantly evolving to remain ahead of the knowledge curve. They will have to reach out to their students and play catalysts for converting information into knowledge. Application of academic concepts in real life situations,

ensuring universal assimilation and creating a healthy and conducive learning environment will be challenges that newer technologies can never overcome.

Digitization in Higher Education

The modes 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 many academic institutions.

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. For example, In India there are many institutions such 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 general, all the stakeholders of online education are gaining the convenience it has created. No wonder then the online sections have been filling up their enrollments faster than the "on campus" sections in last few years.

The online class delivery is not without some anticipated problems however:

1. If the student wants to cheat the system and take outside help, there are few warranties against less than faithful education. While computers can manage the time for which the tests are allowed to be taken, they cannot control who is the receiver of the questions and provider of the answers on the other end. Some kind of a written promise or a signed oath of integrity may help in this regard. However, there is not enough police work to completely protect from plagiarism.
2. 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 is a nightmare.

Best practices for adopting new technology

Strategic planning for comprehensive community and societal involvement is much more than adopting new technology. Also at Universities we have to urgently think about the issues, problems and community solutions as also larger global ecosystem, adopting best practices, forecasting the emergence and impact of new technologies, and quickly adapting to the rapid changes. The critical efforts necessary are:

1. Assessing and measurement on specific livelihood benchmarks across all key areas, should include research and information fluency, communication and collaboration, critical thinking and problem solving, and creativity and innovation as the way forward to a future ready education.
2. Our education needs to evolve, so as to prepare to the needs of our future workforce, and the skills needed to

drive this continue to change through integration with national priorities such as Skills India, Digital India, Swach Bharat, Start Up India and Smart Cities initiatives.

3. Professional development plan for community future. After integrating national priorities such as the Skill India initiative we have to get the leadership infrastructure in place as teaching and learning outcomes should map the end goal of student-led learning.
4. Ensure equitable access for the community to technology and information. Ensuring and providing students with equal access to information will not only shrink the digital divide but also support personalized learning and meeting community demands.
5. Evaluation and measurement of student progress in future-ready skills. Evaluation and assessing of students' progress in mastering future-ready skills is a key component of building a successful future-ready livelihood initiative.

Conclusion

In the end we could conclude that the idea of digitalization supports teaching to a high degree and most faculties feel that this improves the teaching style. There is more of a practical based approach than the traditional style of board and chalk piece. Such technology in education is for the good and the enthusiasm in students is also determined to be higher. The teachers feel that technology in education disrupts their existent style of teaching but helps them in simplifying the various administrative procedures such as attendance, assessments, class room discussions and activities. Digitalization would help a lot in research and bring in more transparent communications between guides and students during research works. It would also increase global research activities and improvise Indian system by making it more competitive.

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