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Impact of digital technology on education

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Abstract
Technology is moving in leaps and bounds from desktop computers to laptops and now smart phones. The use of new technologies in education implies new teacher roles, new pedagogies and new approaches to teacher education. The Successful integration of ICT into the classroom depends on the ability of teachers to structure the learning environment in new ways. Also to merge new technology with the new pedagogy, to develop socially active classrooms, encouraging co-operative interaction, collaborative learning and group work. Technology's capacity to reach learners in any place and at any time has the potential to promote revolutionary changes in the educational paradigm. The students may be motivated for an independent, self-directed learning through technology enhanced education activities at home, in the library, at work, or in another unconventional setting. (Juniu, 2006).

Keywords: Digital Technology, Education

Introduction

The role of education in an individual's personal growth, skill development and democratic behavior-rights and duties to be exercised in terms of learned human resource pool and thereby contributing immensely to the overall prosperity of a nation, is irrefutable. Access to information 'anytime anywhere' is becoming the defining mantra for educational digital learning solution providers in India. Traditional classroom teaching model has slowly metamorphosed into digital education learning platform. Pupils well-versed with digital learning, are making smart classroom environment more inclusive, participatory and transforming the education system into an IT-enabled education system. However resistance to change along with certain infrastructure challenges is hindering the growth of this sector.

Positive intervention

Education globally is one of the significant sector to witness revolutionary changes in recent times. It is in particular a blessing for developing countries which chronically suffer from ailments of access and affordability. Primarily digital education has three main components-the content, the technology platforms, and the delivery infrastructure. The Indian IT sector holds enough capacity and character to provide excellent digital content and supporting technological platforms. But innovation is one thing that has no end and therefore would always invite different stakeholders like government, content experts, technology firms, users, teaching community etc. to come together to collaborate and invent cutting edge technologies and methods to facilitate this sector's meaningful growth. Government and private players need to come together to bridge connectivity and accessibility issues.

Developed nations have started realizing the cost of benefits of going digital and are acting with an eye on the future. For example, Stanford University has introduced a digital course in masters in electrical engineering. According to a research, more professors are selling their lectures and notes to digital campuses. Society, with some challenges related to internet connectivity though, is ready to accept the change in the developed nations.

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We need to measure the success of ICT in schools and facilitate the scaling up of innovations that have a demonstrated impact on student learning. Digital India is a positive impact. Innovative technologies today are creating new forms of adaptive and peer learning, increasing access to trainers and mentors, and providing useful data in real-time. Digital India, implemented with vision and commitment, can catalyse such initiatives by creating an enabling environment across the country.

Maximising impact
For digital learning to make an impact till the last mile there has to be a larger vision of integrating technology into our complex education system. To achieve this, it is imperative that we put our stakes on digital infrastructure, ready access, quality e-content and affordability. Learning should be made interactive and fun for the learners to enhance retention and application. The government's focus is to integrate technology in digital learning for both urban and rural India. It is also looking at public-private-partnerships to enhance reach to rural and remote areas. The digital education space is at a nascent stage in India. Since, e-learning is at a buoyont stage, live interactively that empowers high engagement and social collaborative learning has rendered the conventional format of e-learning led by recorded lectures and course slightly inadequate. Digital learning as a format can work better across levels, courses and streams than conventional format. (Damain, 2016) [2].
Technology has made it possible to implement digital classrooms. Through technology, efficiencies and transparency can be brought into schools by helping stakeholders such as students, teachers, parents and administrators streamline routine tasks, improve assessments and data collection. Experts also believe that for inputs to be translated into learning. It is important that the learning is interactive besides being digital. Prime Minister's vision and efforts for digital India means a lot for Indians the way they live and work, it would also give a new meaning to the country's education sector.

Positive impact of digital technology
Today the rapid advances in technology are reshaping our society, social institutions and schools. The technology has now become an important part of life. The technology has its impact on people of all fields and ages. Modern technologies have vastly increased our capacity to know and do things and to communicate and collaborate with others. They allow us to transmit information quickly and widely, linking distant places and diverse areas of endeavor in productive new ways. Motivate Students to Learn - Many students are more stimulated and are apt to learn when they can interact with hands-on learning tools, which various forms of educational technology provide. A fifth grade teacher was quoted in a U.S. Department of Education article saying, "Technology is the ultimate carrot for students. It's something they want to master learning to use it enhances their self-esteem and makes them excited about coming to school." According to PBS Learning Media research, 74% of teachers surveyed responded that using classroom technology motivates students to learn. Technology in the classroom allows students to take greater control of their education because tools like tablets and laptops encourage interactive hands-on learning.

Supplement Teaching Tools - Not only can tablets, apps, video and interactive whiteboards be learning tools for students, but they can be additional teaching tools for educators. After many years of teaching the same or similar lesson plans, it can be challenging to keep students engaged and show enthusiasm as you are presenting lessons. Interactive presentations tools, video clips, graphics and other audio-visual elements are a simple way to keep students actively engaged in lessons, as well as a means to keep your lessons fresh.

Additional Resources for Students - Educational apps, search engines, videos, portable technologies and interactive provide students with a nearly endless supply of information and resources. Use of the educational technologies including, but not limited to, the tools below support 24/7 learning: Online lesson plans, educational apps, Interactive games, online video and graphics, accessing books and articles via tablets and e-readers.

Students can learn at their own pace - It's simple; no child is the same. Every student learns at his or her own pace. There are many ways that integrating technology into the classroom can help students learn at a rate that is comfortable to them, and that allows them to retain information. For example, in classroom lessons or activities on laptops or tablets allow students to read directions, process information and complete work at their own pace. This also helps free up the teacher's time so they can give students who may need extra guidance or assistance the attention they require.

Changes in Performance - While learners' responses to technology-supported learning are highly positive, links to measurable performance outcomes has been more ambiguous. However, there is now a growing body of evidence linking the use of digital technologies to improved academic performance.

Prepare Students for Future - The learning students do in school prepares them for the future, and for this reason it is important to incorporate technology in the classroom. Over the years, technology has evolved tremendously and will continue to do so. Those changes should be parallel with teachers' lesson plans and learning techniques of children and classrooms. It's important to note that expensive classroom technology solutions don't always result in effective teaching and learning. Simple solutions can lead to influential learning, which can have a clear impact on learning.

Changes in Behaviour - There is a array of evidence related to behavioral changes when working with digital technologies. Here two areas of impact have been highlighted to represent this corpus of evidence. These are readiness for learning, integration of learning into the educational process.

Negative impact of digital technology
There are large costs involved and poorer students and educational establishments may end up being disadvantaged. This is often referred to as being a factor in the digital divide. Students and sometimes teachers, can get hooked on the technology aspect, rather than the subject

content. Twitter, Facebook, Instagram, Youtube and other social media networking sites can be a distraction to living and learning in the real world. Advertisers take advantage of the big data that exists in the interface of users of these networking sites and market their various goods and services to the users.

E-Safety - The level of learner knowledge and understanding of e-safety, that is using technology safely and responsibly, has been shown to be variable and generally is not of a sufficient standard, particularly where primary pupils are connected. Pupils see both teachers and parents as important sources of e-safety advice. E-Safety knowledge is shaped by individual characteristics (Smith *et al*., 2008) [5].

Academic Dishonesty - While the debate on the extent and rates of changes over time of malpractice remains active, there is an increasing consensus that the internet has changed the dynamics of dishonest academic practice. At the same time technology has brought its own solutions to plagiarism and cheating, but schools and institutions now need to evolve their practice to take advantage of the tools available. (Underwood, 2006) [7].

User e- maturity - The level of skill, confidence and knowledge learners have when using digital technologies will impact on the quality of their use of technology. While most learners express very positive attitudes towards technology for learning and are confident users, there are skills gaps. Individual differences including attitudes towards school and using technologies for learning and access to, and use of, technologies for learning at home are the keys to the development of e-maturity.

Future technologies
In seeking to integrate technology into education, it is important to identify the technological trends and the challenges in the short and medium term. The 2009 Horizon Report (Johnson *et al*., 2009) envisages the six emerging technologies and practices that are likely to enter mainstream within five years. These are-
- Early adopters are already looking to use geo-coded data and personal webs. The former are central to satellite navigation systems but are entering the classroom through applications such as Google Earth. Students are now able to location and date-stamp their own images.
- Mobile technologies are currently establishing themselves in schools while cloud computing is already a part of higher education.
- Two technologies yet to have an educational impact are semantic- aware applications and smart objects, which have yet to gain a foothold in an educational context. These technologies have the potential to change educational practice, just as they are changing the world of work, but many of these technologies represent.

Conclusion
Today the rapid advances in technology are reshaping our society, social institutions and schools. Modern technologies have vastly increased our capacity to know and do things and to communicate and collaborate with others, they allow us to transmit information quickly and widely, linking distant places and diverse areas of endeavor in productive new ways. By adapting technology for education teachers, students and parents alike will see positive improvements in many different categories. The cause of concern is to overcome negative impact and future challenges if digital technology.

References
1. Brubacher JS. Modern Philosophies of Education, 2010.
2. Damian R. Understanding Digital Marketing, 2016.
3. http://computer.expressedbpd.com/magazine/education-goes-digital/15855.
4. Juniu S. Use of technology for constructivist learning in a performance assessment class. Measurement in Physical Education and Exercise Science, 2006.
5. Smith P, Rudd P, Coghlan M. (NFER) Harnessing Technology: schools survey Report: analysis< Coventry and Becta, 2008.
6. US. Department of Education Office of planning, evaluation and policy development, Evaluation of evidence-based Practices in online Learning: a Meta-Analysis and Review of Online Learning Studies, Washington, D.C, 2009.
7. Underwood J. The impact of digital technology: a review of the evidence of the digital education on formal education, BECTA, 2009.