An Exploratory Study On Impact Of Digital Learning On Teenagers

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ABSTRACT

Over a period of time it is found that different sectors of the economy have changed including the education sector. Unlike any other sector, the education sector has seen many evolutions and changes. Education system changed from Guru-Shishya Parampara to classroom teaching, then teaching with the help of projectors or LED and now its online teaching classes or teaching through E-Learning portals or Web Based E-Learning (WBEL). It has been seen from the past several years that the online education system or E-Learning system has emerged as a powerful contender for a new education system.

From the recent past it has been found that several online courses have been conducted to educate millions of people around the globe on various topics. In spite of differences in culture and language and diverse population, the E-Learning system has gained a lot of popularity and increased the affordability and purchasing power of Indians. The only reason for growth in the E-Learning system is drastic change in information technology and technological improvements.

This article aimed at examining the impact of E-Learning or Web Based E-Learning (WBEL) in the modern India Education System.

Key words: Digital learning, online education

INTRODUCTION

Digital learning is any type of learning that is accompanied by technology or by instructional practice that makes effective use of technology. It encompasses the application of a wide spectrum of practices, including blended and virtual learning. Digital learning is sometimes confused with online learning or e-learning; digital learning encompasses the aforementioned concept.

Education is important in building a good country (Baiyere, 2016). Online education allows faculties to modify their pedagogical approaches. It improves the teaching and learning procedures (Thamrana, 2016).

Technological development has transformed the lives of many people immensely (Nadikattu, 2020). E-learning has been found to be a significant tool for effectively continuing the teaching-learning process during lockdown (Soni, 2020).

Faculties took help from their colleagues, online resources, etc. to use online tools. They acquaint themselves with features of digital tools like scheduling meetings, recording the lectures, sharing of files, muting the participants, etc (Kanodia, 2020).

Educators shared the study materials in the form of PPT, PDF or Word document by uploading them on their respective institution web-pages or sending the same to the stakeholders through WhatsApp or e-mails. Most of the faculties are doing the best what they can (Soni, 2020).

Online learning is an exciting and interactive alternate to classroom teaching. It is a feasible solution to provide education during pandemic. The educators can provide tailored learning solutions for every student (Kasrekar, 2020). The faculties can record lectures so that the students can watch it later on. After every topic, online test can be conducted, which helps in assessing the students.

This can be done through google forms where it is automatically evaluated so it is easy for faculties (Yadav, 2020). Various initiatives were taken by MHRD, NCERT, AICTE and others regulators to help the students and faculties like MOOC, SWAYAM, National Digital Library, e-PG Pathshala. Due to digital technology, now faculties will be available from all over the world. Now onwards, education quality will be evaluated not just by the quality of faculty, but also by quality of IT infrastructure and familiarisation of the faculty with online teaching tools. May be in time to come, the recruitment of faculty will be connected to technology friendliness and zeal to adopt new technology

Post COVID-19 Trends

Various institutes are regularly conducting online FDPs, webinars, e-workshops, online conference, etc. (Soni, 2020). The users have increased to 300 million from 10 million in Zoom within 3 months (Bhatia, 2020). Government is taking ideas from teachers and various experts to conduct the exams (Bhalekar, 2020). No doubt, virtual classes cannot replace the real classroom education, but it can be used as a supplement to the real classroom. There is a need to face-lift the current teaching methods so that online learning can be effortlessly assimilate into mainstream education. There is more pressure and increased working hours for faculties. We should look forward to adapt to new digital tools (Gupta, 2020). It is very excited to think that now students can attend classes by sitting at home and spending time with the family

Benefits

* More engaging method of studying
* Personalized Learning to Children's Individual Progress
* Improved Tracking of Individual Child's Progress
* Flexibility in Learning and Development
* Wider Accessibility

Pros and cons

While there are both pros and cons to digital learning, it does seem that the pros greatly outweigh the cons.
The main reason for this being that the vast majority of the cons aren't exclusively related to just digital learning. Screen time, attention spans, changes in communication, bullying, childhood obesity, information overload, and economic disparities are not caused by the introduction of digital content.

These issues exist outside of education and were already problems before digital learning came along. It doesn't mean we shouldn't be doing all we can to address them, though.
The benefits, on the other hand, are completely unique to digital learning environments and will only continue to grow and evolve as technology does.

E-learning is not just a change of technology. It is part of a redefinition of how we as a species transmit knowledge, skills, and values to younger generations of workers and students. I will end this book by daring to make a few predictions of how e-learning and the functions it serves will continue to develop.

Review of Literature

Using a qualitative content analysis approach, the study conducted by Sun and Chen reviewed 47 published studies and research regarding online teaching and learning since 2008. Their study primarily focuses on how theories, practices, and assessments apply to astruction including well-designed course content, motivating interaction between online learning environments

Fast research growth and technology have made distance education easy -Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, blended learning, m-learning, for ex.) have in common the ability to use a computer connected to a network, that offers the possibility to learn from anywhere, anytime, in any rhythm, with any mean.Not only the teachers but also the students are facing challenges due to a deficiency in proper learning attitudes, lack of suitable materials for learning, more involvement in classroom learning, lack of self-discipline, and the inadequate learning environment at some of their homes during self-isolation.

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Lederman (2020) had the opinion that the COVID-19 crisis compelled both teachers and students to embrace the digital academic experience of the online teaching-learning process. Bao (2020) was perhaps one among the early researchers during the pandemic who described how universities have been moving from classroom-based education to online education, owing to the exponential number of COVID-19 cases.

The teachers have been delivering course content through various online platforms, including online educational platforms, video conferencing software, and social media (Aguilera-Hermida, 2020). The online educational

platforms like Google Classroom and Blackboard allow teachers to share notes and multimedia resources to continue the regular studies of students.

Students can submit their assignments via educational platforms and teachers can track the progress of students. Videoconferencing tools such as Google Meet, Zoom, and Microsoft Teams have been playing important roles in delivering online lectures and organizing discussion sessions. In fact, these platforms typically support slideshows and have several useful features.

A number of universities and institutions of higher education through their official websites. On have been disseminating course material to the instructor and learners, well-prepared and fully supported instructors, creation of a sense of online learning community, and rapid advancement of technology Sun and Chen .

In their systematic analysis, Navarro and Shoemaker (2000)observed that the learning outcomes of students having online classes were as good as or better than traditional classroom learning, irrespective of the background characteristics of the students. The student learners were highly satisfied with online learning.

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OBJECTIVE

The implementation of digital learning, online learning, or e-learning is an issue which has been discussed extensively by education boards and committees around the world. Over the past decade, we have seen several countries adopt various technological tools to assist in their learning programs and add a dash of information technology into their education systems.

Largely, the application of digitization in the field of education has been rather steady and unrushed. However, due to the COVID-19 pandemic, this process has been fast-tracked seemingly overnight, and it has left both teachers and students feeling bittersweet about the precipitous change.

 Some are convinced and thrilled by the convenience of remote learning, and some are disappointed by the entire virtual experience of education and digital communication. Regardless, there are several benefits and drawbacks to the swift adoption of digitization in educ

METHODOLOGY

This research report deals with finding the impact of digital learning on teenage students in India. India continues to deal with the catastrophic health impacts of COVID-19, as a result over 300 million students have had their learning disrupted due to the closure of schools in India. Many organizations in India have turned to digital learning as a solution. While there are advantages for some, concerns about the limits of moving education online in India are mounting.

A study by the Indian non-profit organization, the Azim Premji Foundation showed that almost 60 per cent of school children in India cannot access online learning opportunities. As the world continues to push forward for the movement of education onto digitized methods and platforms, the Indian education system might need to take a step back and look at the bigger picture before making any rash decisions.

This report aims to decode the relationship between the digitization of education and the learning of students in India, it looks to establish the pros and cons of these methods and come up with interpretations that would give a clear picture of the above-mentioned situation.

The Covid-19 pandemic started in December 2019 in Wuhan, China and spread around the world rapidly within months. The pandemic affected all areas of life, including education. As the situation worsened, the global lockdown culminated in a lockdown of educational institutions.

 This closing of schools, colleges, and universities resulted in a stressful event for educational administration with highly limited options. Online classes were announced to continue the learning process in a safe and secure manner. This massive unplanned transition from traditional learning to an exclusively online learning setup has changed the methods by which institutions are delivering courses to their students

The role of technology in education has been an important question and It remains so today, with debates about the impact of technology on our society, the implications of quick and easy online access to information for knowledge

and learning and the effect of technology on young people's social, emotional and physical development frequently in the news.

It is therefore important to take stock of what we know about the impact of digital technology on education from what we have learned over the last fifty years.

Developed nations such as the USA, China, South Korea and the United Kingdom are leading the scoreboard in terms of online education. Students can now easily access various diplomas and graduate with degrees of a course of their choice of the reputed Ivy Leagues and other renowned institutions of these countries from the comfort of their own homes.
These facts layout the belief that E-learning is the next big thing in the education sector that is user-oriented, appropriate and timely for our generation.

The e-sphere is as vast as the universe, with millions of opportunities in terms of education, however, it has several drawbacks too. This research paper intends to bring into light the current and the attainable future scenario of online education in India.

Digital learning is "learning facilitated by technology that gives students some element of control over time, place, path and pace."
Learning is no longer restricted within the walls of a classroom. The Internet and a proliferation of Internet-accessed devices have given students the ability to learn anytime. Moreover, interactive software allows students to learn in their own style, making learning personal and engaging.

Online learning is classified as synchronous or asynchronous. Synchronous technology allows for "live" interaction between the instructor and the students (e.g., audio conferencing, videoconferencing, web chats etc.) while asynchronous technology involves significant delays in time between instruction and its receipt (e.g., E-mail, earlier video recording, discussion forums etc.)

Studies linking the provision and use of technology with attainment tend to find consistent but small positive associations with educational outcomes. However, a causal link cannot be inferred from this kind of research. It seems probable that effective schools and teachers are highly likely to use digital technologies more effectively than other schools. We need to know more about where and how it is used to the greatest effect, then investigate to see if this information can be used to help improve learning in other contexts. We do not know if it is the use of technology that is making a difference.

The major stakeholders, the students, are facing immense changes with education transitioning from the traditional face-to-face method to online platforms, be it in terms of their mental and physical health, all-around development or them missing out on a wholesome learning experience which involves interacting with peers daily. Further, the traditional approaches in Indian pedagogy have clashing views and difficulties in adapting to online education.

Access to e-learning platforms is largely determined by factors like the availability of reliable electricity, access to internet devices, and high-speed internet. India's internet penetration still hovers around 55 per cent (much of it being mobile devices), with one of the lowest internet speeds, which is a significant hurdle considering that most educational content is online lectures. Again India has highly unreliable electricity with outages lasting hours in rural areas.
In 2015, an NSSO (National Sample Survey Office) report titled "Education in India" pointed out that there has been almost a 175 per cent increase in the annual private expenditure on general education between 2008-14.
The traditional education system is also unable to fulfill the rising demand. Here online platforms can look like an attractive option given it's cheaper and is accessible to many but the catch is that all of the existing platforms only act as supplementary resources and are still expensive to a vast majority.
Not to mention the scaling up of these online platforms require significant investment in physical infrastructure and human capital, which are available only to a select few public institutions and private players. Also, online platforms are cheaper but again unaffordable to many and it doesn't solve the structural issue with India's educational system.

More than 90 per cent of the content in the existing online platforms are in English. Hence, it fails to cater to the needs of a linguistically diverse audience and lower-income socio-economic group who don't have access to the internet and capital in India making it accessible only to a selected group.

Even after all the advancements in technology and pedagogy, there exist some problems faced by students and educational institutions alike.

Is E-Learning a good Social Investment?

Social investment can be defined as an investment that creates an impact on the lives of people by the means of imparting skills and offering development and growth to an individual. Education comes under one of the major categories of social investment and hence does e-learning.

Strengths	Weaknesses
1. Accessible at home, even from remote locations. 1. Cheap in comparison to classroom education. 2. Great resource pool 3. Flexible schedules lead to less stressful work.	1. Not everyone can afford access to mobiles, laptops etc. 2. Lack of computer literacy across the nation 3. The disparity in access to the internet.

Opportunities	Threats
1. Opportunity for market growth. 2. Helps us cross gender barriers, as it opens up opportunities for girls coming from orthodox households, where they are forbidden to move out of households. 3. Can help in crossing cultural gaps as students from all around the country interact with each other.	1. Can be costly, in the case of predatory companies and institutions. 2. Bullying of students and teachers which can lead to scaring for a lifetime. 3. Cyber Crimes that sometimes cost the sanity of a person

Is Online Education an alternative to Face-to-Face learning?

Analysis Criteria	Face-to-Face learning	Online learning
Accessibility	Restricted to a building; which needs to be visited every day.	Can be accessed from any corner of the world.
Social skills	Face-to-face interaction helps build confidence and in overcoming the fear of social interaction	Helps introverted students to learn in a more relaxed environment, however, doesn't prepare them for future social experiences
Response time	The response time of the teacher/trainer is very less, hence, better discussions in the classroom.	Questions do not get answered immediately, due to various factors such as internet issues.
Uniqueness	Offers children the regular mundane yet tested and successful ways of education, through the usage of practicals and blackboard teaching	Offers new ways of teaching such as gamification, surveys, quizzes, and assessments present in a modern LMS which makes education even more interactive, however, might not be profitable for all.

Problems faced by students:

(i) Adolescents who spend more time on electronic devices are associated with difficulties in attention, anxiety issues and sleep disorders which not only affect their academic performance but is also detrimental to their early stages of personality development (Ehmuke, 2016)

(ii) Spending an extended amount of time on an interactive device like a computer on a seated posture can have health impacts like muscle and joint pains, eye strain And poor posture.

(iii) Studies show that online learning can make participants feel isolated and impedes their learning speed as well as their confidence. Hence efforts need to be made to ensure online peer-to-peer study groups or communities. (Hara, 2000)

Digital learning is where a person learns something without the need for in-person lessons. This can be in the form of video tutorials, online lectures, PDF resources, or any other medium that lets the student learn from the comfort of their own home or anywhere they have an internet connection.

In fact, a recent survey found that 96% of teachers feel educational technology dramatically boosts student engagement

Problems

1) Shortening Attention Spans: average students will now deal with many different sources of information at once on their own computer screen.

They will normally spend a day working with multiple open windows and tabs while also using interactive resources like educational video games and digital whiteboards.

There is a concern that this will lead to shorter attention spans when these students reach adulthood.

2)Spending time on screen

the main fear some have around this is that the increase in usage of digital devices will impair social and cognitive development in children.

Basically, there's concern that kids will grow up not really knowing how to interact with the real world around them.

It's believed that kids might feel heightened social anxiety if they have excessive screen time, although one study seemed to show that it's actually the other way around. It's the anxiety that leads to the screen.

3)Cyberbully

Cyberbully is a serious problem that has grown out of the innovation of technology and the digital connection of kids to each other.

There are many school systems that take a no-tolerance stance to this, and the vigilance of parents is definitely key to enforcing this.

It's important to maintain an open dialogue with your children so they feel they can come to you the second anything like this happens.

4)Change in leisure Activity

It's normal to be concerned that our children are spending more time playing games on their devices than they are running around outside.

However, it is worth mentioning that a recent study showed that, like in adults, diet seems to have more impact on childhood weight gain than the amount of time they spend exercisingng

Advantages

Digital learning and educational technology are enabling students access to information and opportunities that they previously would never have had before.

This goes beyond the effects of using a few apps in the classroom; digital learning is bringing education to people all over the world who are sometimes the first in their families to receive it

Individual progress

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Within the framework of digital learning, there is, of course, a set curriculum, but this can be adjusted to meet the needs of the student, so they are never left behind.

Sometimes one student will pick up something very quickly but struggle with a different concept that their peers have no problem with.

Personalized learning

Personalized learning tailors tuition according to the needs of each individual. This can be in terms of pace, content and delivery. It recognizes that one size rarely fits all when it comes to education. After all, students will learn in different ways and at different speeds. They will have varying needs and will respond in individual ways to visual, written and spoken information.

Self-directed learning

As students progress through their education, they will need to become competent in self-directed learning. This refers to students' capabilities to manage their own time, do their own research and take ownership of their learning. This will help them develop strategies for maximizing study time to ensure they get the most out of it.

Students can learn at their own pace

As well as being able to access learning anytime, from anywhere, digital education also enables students to learn at their own pace. They can re-read materials to gain a deeper grounding in a topic or even revisit earlier modules.

The learning platform gives students 24/7 access to a range of materials, including recorded lectures which they may wish to view again. Content is preserved, not lost, when a lecture ends.

Dependent Factor: student performance

Independent Factor: quality of education being imparted to student

Other factor: lack of technical knowledge

Findings

Screen time, attention spans, changes in communication, bullying, childhood obesity, information overload, and economic disparities are not caused by the introduction of digital content.
These issues exist outside of education and were already problems before digital learning came along. It doesn't mean we shouldn't be doing all we can to address them, though.
The benefits, on the other hand, are completely unique to digital learning environments and will only continue to grow and evolve as technology does.

CONCLUSION

From the present study, the conclusion needs to be considered as recommendations. Long hours use of digital devices creates many physical and social issues among digital natives such as – poor eyesight, obesity, etc.
 We cannot exclude digital learning from our life, but we can control its use to make it more effective learning with experience.
Digital learning has its own pros and cons like the digital devices might impair social and cognitive development in children but it also gives access to information which might be useful.

Digital learning is already having an incredible impact on the way kids are learning.
Not only is it giving them unprecedented advantages, but it's also preparing them for a world that not only embraces technology, it relies on it.

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