REBOOTING EDUCATIONAL TECHNOLOGY AND ITS ADVANTAGES DURING COVID-19

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ABSTRACT

The whole world has introduced the Lockdown laws with the advent of Covid 19 crisis. All areas in education, employment, travel and social events have been impacted by this. Education system is somehow safeguarded by the technology and use of educational tools. Students are using smartphones, tablets, laptops to get connected to their institutes and teachers. Educators and academics are even struggling to provide quality education to students by filling the gaps of technological barriers. It's known that the economy is seriously impacted in this field. Most of the educators' face challenges because students don't want to spend money. They are easily getting multiple ways to learn, like youtube links, free notes and webinars. In such situations, the use of reliable teaching resources would only aid to provide better content and reasonable learning experience for the students. The marketing industry has targeted the education sector to reduce their barriers in teaching. They are advertising various new technologies during lockdown. Major question is - Does the education sector need to adapt with such fast-growing technology? What kind of economic benefit could they achieve by using the latest tools? The aim of this paper is to reflect the challenges in economic growth, the addition of the latest technology, upsurging markets, evolving educational practices, and an investment in the education industry.

Keywords: Covid-19, Educational tools, Educational policy, Technology, Quality education.

INTRODUCTION

During this pandemic era, India has experienced the technical advantages that no one in the last 2-3 decades has thought of. Many unanswered questions were cleared in one stroke. What is the role

of technology in education? How effective it could be? Is it boon or curse? Can technology replace traditional methods of teaching? Can students be spoilt by the excess use of technology? Can the old generation handle the pressure of technological development in education? And so many questions have been raised in the educational discussion till now. The markets were keen on bringing technology to the education sector, but the conservative educational practices were against the changes that should be implemented much earlier. The private institutes have always understood the need of hour, and hence, they are much forward in embracing the educational tools to enhance the teaching and learning experiences. The result could be seen in high performance of students in competitive exams. In addition, the consecutive business growth in the education sector could also be noticed. The Government institutes were lagging behind because of funds restrictions from central and ongoing conservative debates. For all these reasons, the students are now paying the consequences. Students aren't able to get the right study materials during a pandemic, and they are facing issues in their studies. This pandemic has aroused everyone from a deep slumber. The changes which weren't observed for such a long time could be seen in the latest educational policy 2020. The reconstruction of policy for a "5+3+3+4" design includes foundational stage (3-8 yrs), preparatory (8-11 yrs), middle (11-14 yrs) and secondary (14-18 yrs). This shift would take care of the analytical skills of a student, rather than rote learning that has been taught for a long time. The cognitive skills would be developed, and the student itself will be left with the option of choosing subject & curriculum. The important thing for today's generation is skill development, which would be focused upon students from a young age. India was intending for such change for a long time. If this would have implemented early, then many people would be making the right choices in life. The career and job loss won't have occurred to such an extreme level.

With this revolutionary policy, it would now be important to concentrate on the deliverance of educational methods. This obviously requires the help of technology for bringing such a change in large. Technology is evolving at every second. And therefore, it's must for the educational sector to evolve at least about half the speed of upgrading technology. The educational institution can't run in outdated versions. The awareness in latest technology is very beneficial for the institutes, where they could provide the top-class teaching and learning atmosphere to students. The redesigning of the learning atmosphere is very essential for survival in today's time. Today students have the power to opt for the best in education. It is because there are many options available to students now. If a student didn't like some course, then he has the power to switch to another course. The new policy gives enough freedom to students to select the subject of their choice without affecting much in their Academic credit course. Facing this reality, the educators now need to be more aware of the deliverance of knowledge & information to students. The materials should be updated, and the techniques should be easy and upgraded. This paper would make further effort to understand the evolving technologies, its meaning, effects, and drawbacks. The study would also be made of the economic benefits that the education sector could achieve after adapting to latest technological changes.

LITERATURE REVIEW

India has got the largest youth population in the world. As per India's census 2011, youth (15-24) in India constitutes one fifth (19.1%) of India's total population. The share was expected to reach 34.33% share of youth in total population by 2020.[1] At 315 million students reported in the 2011 census, demand for a new strategy and educational standards is growing continuously with the passing decades. The demands to cope with the increasing pressure of education were both with the students and the educators. Indian students were mainly searching for higher education in other foreign countries with the coming age of Globalization. This further pressurized the Government to improve the educational conditions of the country to satisfy its students and attract foreign students. "India should be a preferred destination for higher education. Ind-sat is proposed to be held in Asian and African countries. It shall be used for benchmarking foreign candidates who receive scholarships for studying in Indian higher Education centres," Sitharaman has stated in the speech of Budget 2020. For the additional foreign currency, the Government allowed the technological business to set up its manufacturing units in India.

On August 15, 1995, Videsh Sanchar Nigam Limited (VSNL) launched public internet access in India. This was the start of the IT revolution in India. The electronic and digital revolution made us aware of educational tools like computers, broadband, and other communication instruments. UGC also contacted ERNET (Education and Research Network) for providing internet facility to every University it supported. While not going through ERNET 's challenges in India, I would quickly come right to the point that the revolution of Internet technology in India gave IT industries a wonderful opportunity to add their mark. The corporate companies like Microsoft, Tata began to utilize the potentialities of growing electronic media to set up its network. Even the stock market started online transactions. With all these changes, Internet usage has grown from government regulations to smallest school projects. Everywhere people were learning to research accurate data over the internet. Necessarily, the education tools began to take different shapes. Increasing desktop workstations at every school and every house switched to the rise of smart phones at every side. The ease and economical access to mobile learning has the potential to take it to every corner of India. McQuiggan et al.(2015) found through interviews with classroom teachers that mobile phones added a level of engagement in learning and students also enjoyed the process.[2] Corporate and foreign investors understood the needs and started targeting every sector of this era. With the changing comforts and needs, the educational tools also changed. The trends of projectors and computer labs became the symbol of world-class infrastructure and the highest technological progress. Most institutes make advertisements claiming the importance of virtual enabled classrooms, computer labs, wi-fi, digital library, and CCTV technology in education. They understand that parents are looking for global education. And so they targeted to achieve economic gains as well as to provide the best kind of education to students. The era of the 90's has witnessed the huge change in the education system- from blackboards to whiteboards, from books to the internet, and from traditional classrooms to the virtual lab. These changes benefited students, educators and business investors. Even UNESCO suggested that the addition of technology-based

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[1] Central Statistics Office Ministry of Statistics and Programme Implementation Government of India (Social Statistics Division), Anant, P. T. C. A., & Manna, D. G. C. (2017). *Youth in India.* http://mospi.nic.in/sites/default/files/publication_reports/Youth_in_India-2017.pdf

[2] McQuiggan,S.(2015).In Kosturko L.,McQuiggan J. and Sabourin J.(Eds.), Mobile learning: A handbook for developers, educators, and learners John Wiley & Sons, Inc.

education in India is effective in the education system of the country. With this pandemic time, it has been reinstated that technology has a great role in education. With the RISE (Revitalising Infrastructure and systems in Education) scheme, India's education sector experienced the increased use of latest technologies such as cloud computing to virtual reality. Importance of Technology increased by its use to reach to the remotest corners with the help of platforms like NPTEL (National Programme on Technology Enhanced learning), MOOC platforms, etc. It was expected in 2016 that online education in India will grow to USD 1.96 billion by 2021.[3] The rising needs of online education may double the expected values by coming years. Thus, the awareness of tools should be created and its respective economic advantages should be known accurately.

OBJECTIVES

1. To study the awareness for different tools used in modern days teaching, and
2. To initiate discussion for measuring the efficiency of education tools in a country's economy during Covid-19

ANALYSIS AND DISCUSSION

The present idea of education is to enhance the personality and prepare self for career prospective. Everybody requires the time and resources spent in education to be returned. Either in the form of a brilliant personality, or in potential, a decent salary. Everyone wants to increase the quality of their lives — including men and women, the needy and the rich, disabled, people of multiple talents, etc. For this, they get enrolled in the education sector because it's the best way to achieve success in life. They trust the educational institute to provide them with the best knowledge and guide them to a better future. It is found that everyone is investing in the education sector-Government, educators, parents, students. But where is the outcome? Why isn't India the best place to get educated? Why are people moving to other countries to get higher education? All this question creates doubts about the quality of education in India. To secure the quality of education, we need to look back at the system we are following for a long time. The traditional methods are no longer working to meet the expectations of people in India. For this, the modern education system based on latest technology and e-learning must be implemented in India. The new education policy in 2020 has brought some exemplary changes in the sector of education. To say briefly, it has increased the opportunity of students to enhance skill-based learning. It has given them a choice to design their own curriculum, so that they could be benefitted for their future career. It has brought them relief from facing the burdens of exams unnecessarily. It is the time now to bring changes into reality, to the advantages of all sectors of students and educators. Increasing the standard of education in India is an urgent necessity. The standard will improve the flow of international students to India. The country's global ranking would improve to a better level when the quality would increase. In the latest report, India ranked 35th on the overall index

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[3] KPMG in India and Google. (2017, May). *Online education in India:2021*. https://home.kpmg/in/en/home/insights/2017/05/internet-online-education-india.html

in 2019(including categories of policy environment, teaching environment and overall socio-economic environment).[4]

1. Importance of Online Education in Crisis:

Students are the foundation of Nations of tomorrow. If proper care and attention are given to them, then they would be successful in taking responsibility for society.

Today we have felt the urgent need to change the patterns of education in India. Having faced the war with a pandemic crisis, both India and the rest of the world have to be shut down for an undetermined period of time.This has brought a big tension to education institutes and students regarding exams, learning and information sharing. Most countries are comfortable with the patterns of learning from home. It is because they were using advanced technology from a very early time. The concept of online teaching, learning, and information sharing were not new for them. In India, the concept is totally different. The technology like Zoom, Google Hangouts, Youtube streaming has recently been initiated for the online teaching methodology. Before lockdown, it has been rarely used by Government and private institutes. But now the situation is different. As per the earnings, in February and April quarter, zoom reported revenue generation of $328 million. It is double what the company earned, over the last year, i.e., $122 million.[5] With this, we could realise the economic benefits by the applications of online teaching.

2. Technological Advantages in Education:

We are well aware of the fact that the technology is continually evolving in the education sector. We used to have a chalk & board program in the past, but now we use touch and senses boards to educate students and improve learning. The system of chalk & talk is replaced by display & interact. With changing days, this present system would also change and would impel the educators to again update their patterns of teaching. This change-and-add program will forever continue. And therefore, there is no reason to be fearful of the investments one brings into the educational devices. We are aware that when the old software becomes outdated, we update our software. Similarly, when old machines used in education are not making an impact, then we could change or replace it with something advanced. This is the reason many manufacturing companies are creating the latest technology by understanding the demands of current needs. Their products are definitely making a mark in the field of education. But it is also the responsibility of educators to understand the demands of changing times. When educators and teachers understand the role of technology in education, they will put their every effort to bring technological tools in the teaching practices. Many private institutes have implemented these methods in their practice. It is the only explanation why students look forward to private coaching, as they undergo a radically different method of learning. Training at these institutes of coaching is improved by the use of large

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[4] Sheth, H. (2020, February 18). *India jumps five ranks to 35th in worldwide education for the future Index 2019 Hemani sheth feb 18, 2020.*the Hindu BusinessLine https://www.thehindubusinessline.com/news/education/india-jumps-5-ranks-to-35th-in-worldwide-education-for-the-future-index-2019/article30851541.ece

[5] Tech, H. T. (2020, June 3). *Zoom witnessed massive growth in Q1 2020 due to pandemic lockdown.* Hindustan Times Tech. https://tech.hindustantimes.com/tech/news/zoom-earnings-call-video-conferencing-app-saw-massive-growth-in-revenue-and-customers-due-to-pandemic-lockdown-71591153840545.html

projectors, video sharing, realistic scenarios, simulated implications, etc. Their teaching methods turn interesting by the use of the latest software. The students not only learn the subjects, but could also retain that for a longer period of time. This is also a good reason for investors to invest their financial capabilities in the education sectors. When they will be investing in the education sectors, they are more likely to get greater benefits out of investments. The educators are much in need of such investors who could provide help to increase the learning facilities given to students. The Government should also initiate such funds for the growth and economic progress of such institutes.

3. Investment in Technology for Better Economy:

Earlier the Govt. came with numerous programs to make e-learning accessible to students. Many of the measures are targeted at reducing the disparity between the education system and existing employer demands. For this, the Govt started an initiative for students who can't complete education due to financial reasons or time constraints. Digital platforms like Swayam Prabha (an initiative in which 32 DTH channels are used to telecast the high-quality education programme), NDL (National Digital library), E -yantra, E -Acharya, etc. have helped students to continue learning. The virtual laboratories were also created using the latest software technology to enable the students to practice the important laboratory experiments, either to prepare for examinations or to gain practical experience in a real laboratory.

 With latest software, there is also an addition of the latest hardware technology for enhancing the learning and teaching experiences. Students generally expect behavioural and cognitive based learning. This both levels could be triggered by the use of technological tools in education. The tools like epistemic games in engineering and medical would make students actually experience the real-life situations. The graphics, images and video used in technology helps to get a deeper understanding of a subject. Therefore, it makes sense to use the latest technology to increase the connectivity to students. Apart from virtual learning, students could have more efficient assessment, exposure to millions of e-books on a click, students database tracking (recent credit-based system), interactive textbook and the practice of case studies. The flexibility is also increased in online learning. Students could get the required material from any sources available in records. With all these advantages of education through technology, it becomes necessary to further explore the types of educational tools used in teaching. The tools which have turned popular during the recent pandemic are live streaming apps, webcam, printer, podcasts, virtual tool software, social groups apps, smart senses boards, camera, e-kindle books, laptop, tablets and other sources of interactive and digitised platform. In pandemic, we have also noticed the sudden shift of educators from traditional methods towards modern technology. Several colleges are running weeks of FDP (Faculty Development Programme) where students and teachers are provided training for using the educational tools. They were taught to make the teaching simpler and interactive, through the use of various tools. The knowledge seekers have shifted to using the technological tools for getting the benefits of various education resources shared by institutes. With this stance, the selling of laptops, smartphones increased, which is further increasing the country's economy. Now, we could see the educational devices at every house. Communication devices like Television, smartphones have been converted to educational devices. The year 2020 is really remarkable for

the improvement of the education sector. Today the technology has revived the trend of lifelong learning. People who had to discontinue their education for some other priorities, have got a wonderful chance to start learning again. People are utilizing their lockdown days to learn new courses, get diplomas, certificates and add a value to their life.

The next important thing to understand is the difference between the 'marketing and education' and 'marketing in education'. Mostly we have observed that the private institutes were collecting a huge amount of money from students for teaching through the technological medium. And so there is always a long debate between parents and teachers, when such technology is implemented in schools & colleges. For this reason, it's important to understand the difference between marketing and education. We should never mix these two subjects, it's not only dangerous for students, but also for the growth of society. Marketing, if partnered with entrepreneurs, academics, and foreign investors could help to come out with this problem. Academics and businessmen may hit the optimum number of students and produce the revenue they invested in technology. Most of the foreign countries like Germany, Norway, Finland, etc. provide free education to their students. In India it may also be possible as investors would come forward and make a huge profit while contributing to the education sector.

SUGGESTIONS

During this lockdown, educational institutes have faced a lot of job shortages. With students dropping from institutes, educators have no other options than to shut down their work. People are losing their jobs in all sectors. Overall, the crisis is taking various other forms to harm people. In this scenario, what could be done to avoid further loss? It is observed that the demands for skilful educators are decreasing because people can access free resources available on the internet. The education sectors and institutes were used to provide information on a paid basis. But now the scenario is different. Today the internet is full of resources. It's not so difficult to get the information one is desiring. Today the gap between knowledge and knowledge giver is decreased. It's not so difficult to complete a course of one's choice. Now-a-days, quality plays an important part. Students are going through reviews and experiences before joining the courses on the internet. They are verifying the full information about educators and institutes before getting enrolled. The new institutes are facing a lot of problems as compared to the institutes which are surviving for a long time. The institutes which have built up a good rapport with students are thriving and the rest are facing problems. This issue of job loss could be prevented when institutes collaborate and try to provide the quality education to students in terms of skills, knowledge and technology. The educational sector should be using the latest technology, upgraded material, and good presentation techniques. The video and images used in the teaching methods should be interactive, result oriented and attract students' attention. For this reason, we need to have the important technological tools in teaching practices. Some of the latest technology available to us are- webcam, interactive panel (based on touch senses), virtual tour devices, etc. The software tools for checking the duplicate texts, and plagiarism in preparation of resources would enhance the teaching practices.

CONCLUSION

So far, we have discussed the role of technology in education, its economic benefits, and fulfilment of students' needs. It is now clear that advancement of technology in education is directly proportional to the country's economy. The technology will always support us in the race of human development. It has some drawbacks too, which is beyond topic discussion. Right now, India spends 4.6% of its total GDP on education. If the investment on education is increased, then there is a greater chance of increasing overall turnover of a country. Further clarification is offered as to, 'why educators would be drawing investors in this sector to raise revenue?' With the increase in e-learning and online education, the business in this sector is falling low. To maintain business and increase total revenue, one must also focus on quality of education. This quality could be improved, if investment is made on the use of technology in education. Further scope of research is in mode of engaging with the investors and finding overall profit in investments.

REFERENCES

1. Boity, B. (2015, December 18). *Mobile Learning in India SCOPE, IMPACT AND IMPLICATIONS*. https://www.academia.edu/29350695/Mobile_Learning_in_India_SCOPE_IMPACT_AND_IMPLICATIONS
2. Central Statistics Office Ministry of Statistics and Programme Implementation Government of India (Social Statistics Division), Anant, P. T. C. A., & Manna, D. G. C. (2017). *Youth in India*. http://mospi.nic.in/sites/default/files/publication_reports/Youth_in_India-2017.pdf
3. Gounden, A. M. N. (1967). Investment in Education in India. The Journal of Human Resources, 2(3), 347. https://doi.org/10.2307/144839
4. KPMG in India and Google. (2017, May). *Online education in India:2021*. https://home.kpmg/in/en/home/insights/2017/05/internet-online-education-india.html
5. McQuiggan,S.(2015).In Kosturko L.,McQuiggan J. and Sabourin J.(Eds.), Mobile learning: A handbook for developers, educators, and learners John Wiley & Sons, Inc.
6. Nishith Desai. (2018, January). *Investment in Education sector*. Nishith Desai Associates. https://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/Investment_in_the_Education_Sector.pdf