E-LEARNING: THE NEW NORMAL IN THE POST-COVID WORLD

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ABSTRACT

This study is aimed at accessing the impact of COVID-19 on the Education sector. The entire global economy suffered huge losses, and life seemed to have taken a break in every possible domain. The education industry too saw a complete shutdown. E-learning portals that had always been seen as an alternative to mainstream educational centers, suddenly came into limelight. Schools, colleges, universities, and even workplaces slowly shifted their entire learning system to a virtual model.

Since the pandemic crisis, the online learning platforms have seen more than 200% rise in the number of new users using their product. E-learning no longer is seen as an alternative method of learning. The study employed the combination of primary as well as secondary research to collect data to support the findings. Success stories like Byju's, Unacademy, Udemy, Coursera, etc. helped us chart out the new trends in the world of e-learning.

While discussing the future scope of e-learning, we also considered infrastructural challenges to adapt to the same. While studying about online learning platforms, we kept our eyes on the new developments and emerging trends in the e-learning industry in the post COVID world.

KEYWORDS: E-learning, COVID-19, Hybrid Learning, Byju's, Unacademy

I.   INTRODUCTION

The world welcomed the leap year 2020 with many hopes and aspirations. It was the start of an exciting decade in technological innovations like Artificial Intelligence, Robotics, Data Analytics, Internet of Things, Block-chain technology, etc. However, by March 2020, the world was facing an pandemic crisis: the COVID-19 outbreak. The world started witnessing the deadliest pandemic outbreak in the history of humankind. By the end of March, the entire world saw a shut down in order to protect lives from the COVID-19 virus. The impact of COVID-19 will probably be much more greater than that of any of the previous pandemic health crisis, given globalization and the relative importance of world trade and travel. A pandemic nobody had heard of till date, was taking away lives in hundreds and thousands; and was spreading across continents at the speed of light. It forced the entire mankind to pause. The entire global economy suffered huge losses, and life seemed to have taken a break in every possible domain.

The education industry too saw a complete shutdown. Schools, colleges, universities came to a halt for an indefinite period of time. But at the same time, technology ensured that learning didn't stop for all those willing to learn. E-learning portals that had always been seen as an alternative to mainstream educational centers, suddenly came into limelight. Schools, colleges, universities, and even workplaces slowly shifted their entire learning system to a virtual model. Education has been the bedrock of development of every nation; hence its sustainability is paramount to growth and development of all nations.

Online learning platforms easily became the preferred choice for primary, secondary and higher education. Online lectures slowly started becoming the new normal for educational institutes. Organizations adapted to virtual functional set-ups to keep the show running. They started conducting training programs on virtual platforms to keep their employees updated and rightly skilled. Since the pandemic crisis, the online learning platforms have seen more than 200% rise in the number of new users using their product. With this realization in mind - schools, universities and allied centers of education are scrambling to provide virtual classes to their students so that they can resume academic works without much gap, once the crisis is over. Of course, not all of them are well-equipped to do the same, but they are trying hard to learn fast with the help of already available e-learning platforms and tools in the market.

It is not just high school or universities that is going online, even the test preparation segment for various government and banking jobs have taken it to the next level by introducing free courses on their online platforms. As more and more employees are working from home, people are left with more and more

time in their hands. To take advantage of this bonus time, organizations are encouraging their employees to upskill themselves using various e-learning platforms.

Is e-learning still going to be seen as an alternative method of learning? Will the post COVID world see a shift in preferred means of learning from the traditional method to the e-learning method?

II.   LITERATURE REVIEW

As of 28th March, 2020, over 1.7 billion learners were out of the academics due to schools not in session because of the pandemic. According to UNESCO monitoring, over 100 countries have implemented nationwide lockdown, impacting nearly 90% of the world's student population (UNESCO, COVID-19 Educational Disruption and Response, 2020). Multiple countries were successful in slowing down the spread of infection through school closure during the 2009 H1N1 Flu pandemic, hence shutting educational institutes across globe was one of the first precautions against COVID-19. School closure does not only affect students, teachers, and their families, but have a far-reaching economic and social impact, (Lindzon, 2020). School closures in response to the pandemic crisis have thrown light on various social and economic issues like digital learning (Karp & McGowan, 2020) , etc.

There is a long existing argument that traditional learning is the best model of learning. Other models are always considered to be alternative, inferior or less efficient. However, there is no research or data to support this argument. Also, research proves that technology-supported models are at least on par with the traditional learning model. (Traditional learning vs. eLearning) Rather, E-Learning includes advantages which are not found in traditional learning. Example- time for intaking and digesting the information and responding to it, increased communication skills among the learners, both with regards to quality and with regards to urgency, knowledge being gained and transferred among the learners, the ability to conduct and pull-off an open discussion, where each learner gets more of an equal chance than in a face-to-face discussion (traditional learning model), time flexibility, access to information and discussion, responses may be made around the clock with no restrictions, a higher motivation and involvement in the learning process, etc. (Learning Styles and E-Learning Face-to-Face to the Traditional Learning)

The main benefits of E-Learning are its flexibility and accessibility, both in terms of time and place and in terms of its accessibility to a much wider population. A student is now able to learn wherever there is a computer and at whatever time of the day is convenient to them. E-Learners are able to access the E-Learning materials from home, work or wherever they choose, and at the time of day that they choose. They can also control the pace at which they learn. Students can create learning spaces in their own homes. Klein and Ware (2003) found that this was preferential to any official space allocated to the E-learner by the employing organization.

The most notable disadvantage of E-Learning is its lack of social interaction. Many students need social interaction in order to perform academically well and thus find distance learning difficult. A student studying a subject in isolation will require a great deal of motivation, time management and a focused approach. A traditional bricks and mortar environment provide the chance for a relationship to develop between students and tutorials facilitating the exchange of ideas (Hasebrook, et al 2003).

Bourner and Flowers (1997) suggest a solution to this is to create more of a human touch and Daniels (1996) suggests that the solution is that the academic community move the emphasis away from the campus as a common focal point. Instead he suggests, universities should develop a sense of institutional belonging amongst staff and students. It is difficult so see how this approach would work, with students never actually meeting their tutor or fellow students. Practical learnings like that of medical schools which have more practical learnings from patient-doctor interaction is being severely hampered and may affect the learning process of our future doctors to a great extent.

There are types of training that simply cannot be taught via E-Learning, these are known as soft skills. These include interpersonal skills, verbal, communication, leadership and initiative. There are fears that online education courses, while offering many advantages over traditional brick-and-mortar courses, do fall short in teaching those soft skills. These soft skills are often essential life skills that contribute towards employability; this problem raises the classic dilemma of the student who is academically excellent, but unable to assimilate his knowledge to others because of his poor communication skills.

Blended learning mode seems to be better in providing instruction and support to the learners than the E-Learning mode. E-Learning students face more hardships, challenges and problems than the students in blended learning mode. One of the reasons for that is due to complete unavailability of the instructor in E-Learning mode to provide fast response or feedback and answer any critical questions. E-Learning students also claimed that their lack of understanding with the technology and contents were a factor led to the low learning than the blended learning students. The results also suggest that blended learning mode is clearer and learner centered than E-Learning mode. It also emphasized on the clarity of instructional resources in E-Learning.

Different teaching and learning methods such as group discussion, group assignments, class assignments, class discussions are considered the most effective learning activities for learners and all these are best practice in a blended learning environment than just in E-Learning. It is clear that blended learning is more important and is here to stay.

III.   METHODOLOGY

The research heavily relied on primary survey and secondary research to answer the proposed question.

To choose the sample, random sampling was employed, but utmost care was taken to ensure sample group from all age groups and all walks of life are represented.
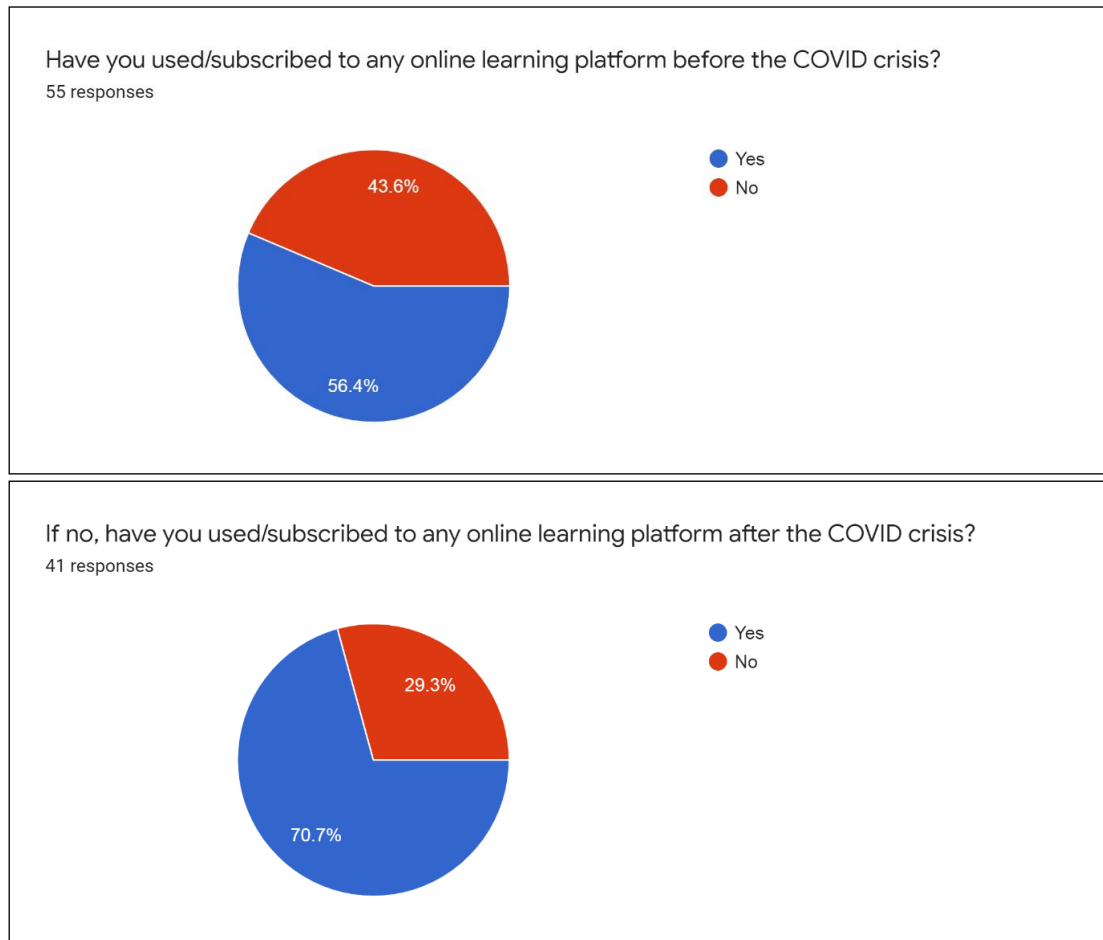
The sample consisted of 55 people – 71% belonging to the age group 21-40 (because they were our target audience), 14% belonging to the age group 41-60, 9% belonging to the age group 0-20, and the remaining 6% belonging to above 60 age group.
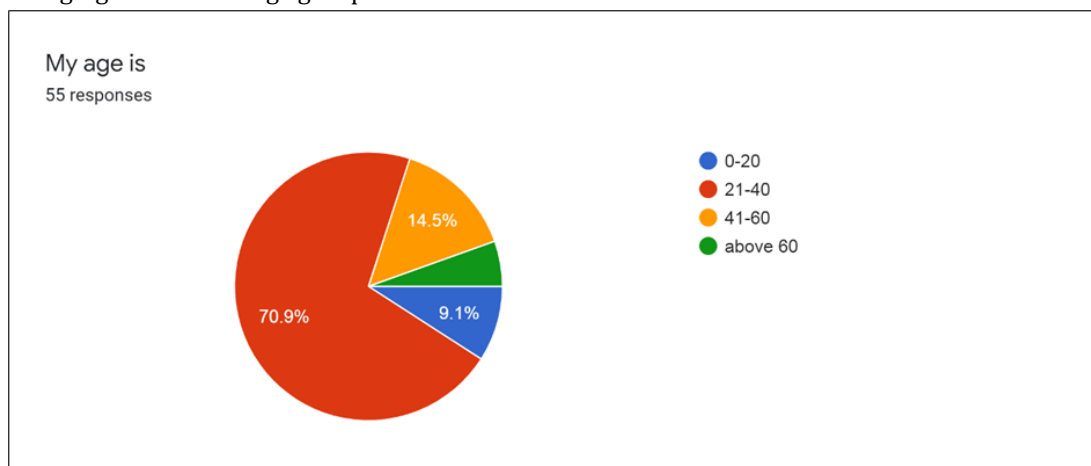
The sample population belonged to diverse backgrounds to reflect diverse view points and opinions based on their different experiences and perceptions.
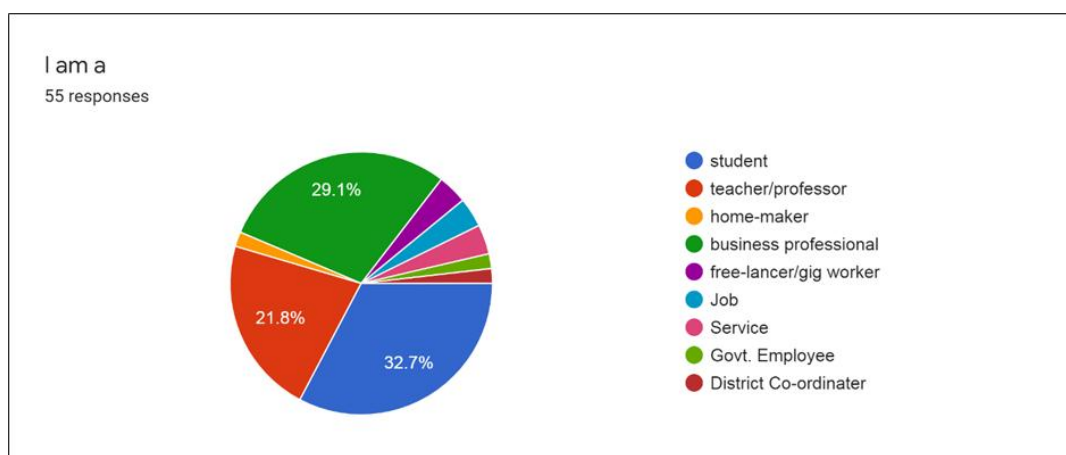
The survey was designed kept in mind the current COVID-19 situation, and tried its best to capture the 'before-after' effect of the pandemic on E-learning. We couldn't help but notice that almost 44% of the sample population had never used any E-learning platform the spread of the pandemic, while 70% of them had started using E-learning platforms after the eruption of the pandemic crisis.

Have you used/subscribed to any online learning platform before the COVID crisis?
55 responses

- Yes
- No

43.6%

56.4%

If no, have you used/subscribed to any online learning platform after the COVID crisis?
41 responses

- Yes
- No

29.3%

70.7%

The purpose of using E-learning platforms has been very prominent. Owing to the age bracket of the sample population, 60% of the sample used E-learning platforms for skill development, 44% of them used it for academic learning. 22% of our population captured the views of teachers from various fields too, to capture the perception of e-learning from the other side of the table.

However, a very interesting point that emerged from the survey was that almost 40% of the sample population used E-learning platforms to learn or develop new hobbies, while hardly 2% of them used it for business training purposes.
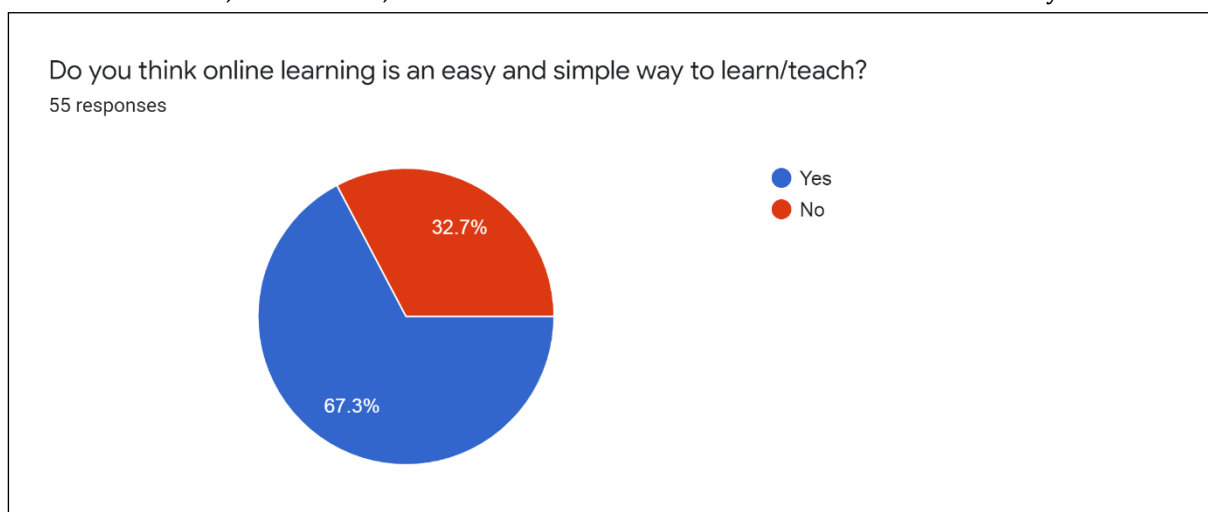
You have been using online learning platforms for -
55 responses
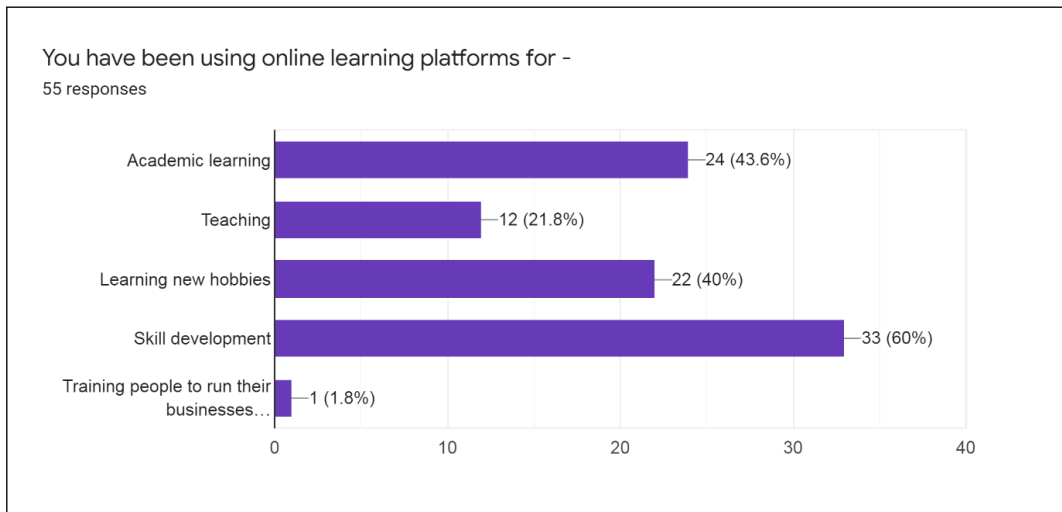
67% of our sample population said they find online learning as a simple and easy way to learn and teach.
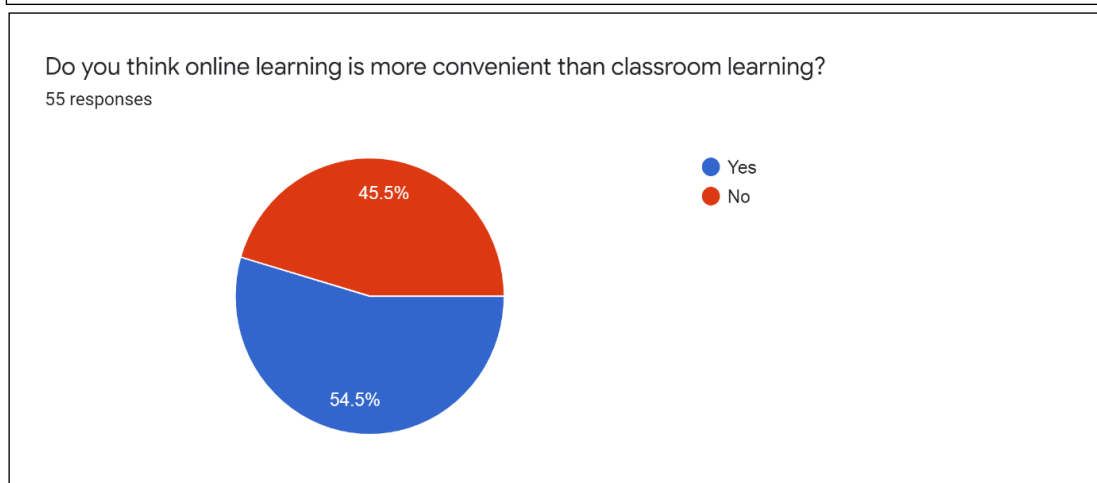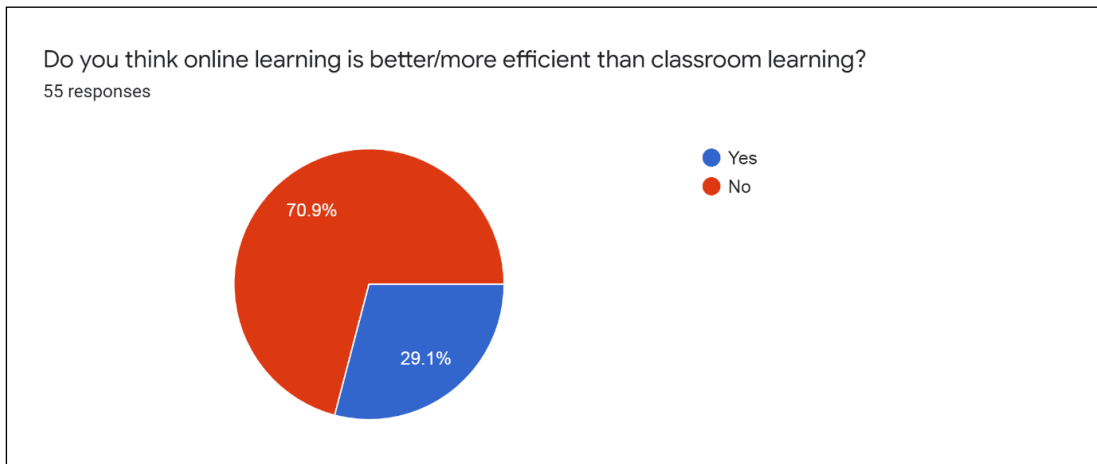
IV.   RESULTS AND DISCUSSION

The sample survey showed us that almost 67% of the population believed that online learning is easier and simpler than the traditional methods of learning. But at the same time, almost 70% of them confirmed that in spite of online learning being easier and simpler method of learning, it was not the most efficient method of learning. They believed traditional methods to be more efficient owing to various factors like the components of personal touch, being able to interact face to face, inability of being able to teach practical subjects, etc.

However, it cannot be denied that E-learning is high on convenience, and almost half the sample population rated it high on convenience, in spite of it being a lesser efficient method of learning. This is because of the development of technology, cheap access of internet and wide usage of smart phone that have penetrated the learning culture and facilitated the different opportunities even when people are on a move. Online learning has bridged the geographical gap between people and brought the whole globe together on our smart phones.

The responses are based on the experience of the respondents, and hence the possibility of it being biased cannot be ruled out, nevertheless, we reached more or less similar conclusions via secondary research.

Do you think online learning is an easy and simple way to learn/teach?
55 responses

Do you think online learning is better/more efficient than classroom learning?

55 responses

- Yes
- No

70.9%

29.1%

Do you think online learning is more convenient than classroom learning?

55 responses

- Yes
- No

45.5%

54.5%

New Trends in E-learning:

As we enter into 2020, we are moving into another phase of eLearning. An era that is so much more dependent on e-learning tools than ever before. The dependence cannot be solely credited to development of technology and interest in e-learning, but also the rude shock called the COVID-19 pandemic crisis. The sudden spike in interest and usage of technology can be called as a forced shift to e-learning rather than a voluntary adoption. However, certain trends have been seen in the e-learning industry

• Adaptive Learning – Adaptive learning, also known as adaptive teaching, is a method which uses computer algorithms to structure and plan the interaction with the learner and deliver customized resources and learning material to address the unique needs of each learner. Organizations ensure that there are better competition rates, and learners will enjoy the learning process as they get to see only that content that is personalized to them. Using effective AI enabled assessments, learners can skip the content that they are completely confident about, and focus more on the content that they are weak at.

• Microlearning – Microlearning means a relatively small learning units and short-term learning activities. The term is used in e-learning and other related areas of study in the sense of learning processes in mediated environments. Examples of microlearning can be videos, small games, quizzes, and infographics. The biggest advantage of microlearning is that it can be implemented on any device like smart phones, tablets, laptops, PCs, etc. Organizations are increasingly focusing on microlearning as an important learning solution. It is a great method of provide learning in small chunks that are objectively driven and can be easily and quickly deployed within the organizations. Learners benefit from it too as they gather knowledge through the modules quickly and can repeat the learning as quickly as many times as possible. Retention is also much better, and they are more fun as compared to going through a boring hour-long learning module.

• Artificial Intelligence assistance – A virtual assistant, also called AI assistant or digital assistant, is an application program that understands natural language in voice commands or otherwise and completes tasks for the user. Sometimes the term "chatbot" is used for the virtual assistants generally or specifically accessed by online chat. The method of interaction can be via text, voice, or by uploading photos. Artificial Intelligence assistance has boosted the e-Learning space. Organizations are now offering innovative solutions where robots will be soon able to guide learners both on the learning path, as well as during the courses. Artificial Intelligence will be soon used to predict learner behavior, as well as to help personalize the learning experience. Voice-assisted robots will also help the learners to search for key content in the learning modules.

• Gamification – It is an learning approach to motivate students and users to learn by using video game design and game elements in the learning environment. The goal is to maximize the enjoyment and engagement through capturing the interest of learners and motivating them to continue learning. It is the application of game-design elements and game principles in non-game contexts that really boost the fun element in gamification. A lot of research on gamification shows that it has positive effects on individuals, and their behaviour patterns. Organizations are increasingly looking at investing in game-based learning to motivate, empower and engage their learners in a much better manner. It has been observed that gamification has improved retention rates and better application of the subject matter learned through gamification. Organizations will look to implementing more game-based learning solutions, as they see them as value addition for the organization. Games that are well thought out, well designed and rightly address the needs of learners to help them engage in the problem effectively. It has been proven through numerous implementations that games help in releasing happy hormones, such as dopamine and serotonin which in turn helps the learner stay motivated and focused.

• Virtual Reality or Augmented Reality – It is an interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptics, somatosensory and olfactory. AR/VR can be defined as a system that fulfills three basic features: a combination of real and virtual worlds, real-time interaction via online platforms, and accurate 3D registration of virtual and real objects. The interesting thing about Augmented Reality is that it can augment the existing content through interesting overlays of graphics and images that can pop out and thrill the learners. More than the thrill, it is the experience itself that helps learners to connect with the learning content better. Recent examples of VR/AR being used as learning enhancing tools can be seen in Byju's - The Learning app, known for its unconventional and practical methods of teaching.

• Video based learning – Videos are one of the most common modes of training right now. The popularity of video-based sites like YouTube have forced organizations to adopt more video based learning in their training sessions. Be it Instructor-Led Training that is interspersed with anecdotal or contextual videos, or eLearning where videos play an integral part in disseminating information, videos are here to stay. The focus is on decreasing the load time and the size of videos using various tools. Video based learning are trying to bridge the biggest drawback of e-learning, i.e. face to face interaction. Tools like live teaching is trying to bridge that gap, and provide the facility of real time interaction.

• Social Learning – Social learning involves collaboration between individuals at the workplace through various platforms, such as forums, informal chat sessions and learning circles. It has developed from the Social Learning Theory, which is a theory of learning process and social behavior of people which proposes that new behaviors can be acquired by observing and imitating others. It states that learning is a cognitive process that takes place in a social context and can occur through observation or direct instruction, even in the absence of motor reproduction or direct reinforcement. Social learning has grown in the last few years because of the emphasis on building a learning culture in the organization. As more collaborative tools are developed, social learning will continue to grow and leave an impact in the e-learning industry.

The global e-Learning market is fast-growing and expected to reach $398 billion come 2026. Hence, to remain competitive and up-to-date in the industry, every trend in e-learning industry needs to be followed in order to improve the training experience.

Success Stories:

India has witnessed many private players expanding in the e-Learning industry, and setting new trends in the education sector. BYJU'S The Learning App is one such start-up, which was initially started in 2011 in Bengaluru with their target audience as K-12 (students in classes 4-12) and launched its famous flagship product in August 2015. BYJU'S created a very personalized learning journeys for individual students based on their proficiency levels and capabilities, which helps them learn at their own pace and style. BYJU'S adopted an online mode because children are better visual learners and learning through visual representations is exciting and attention seeking for them. Also, as the country becomes more tech-savvy, people are getting more inclined towards educational applications and parents are opening up to technology-backed learning. According to a recent survey report of 2,000 users, about 89% were in favour of online learning. BYJU'S has been growing at a rate of 100% year-on-year for the past three years. This company is scaling not just by chance, but because they are fundamentally thinking about education differently. They have a passion for adding value to education and are able to build that into the product and successfully take it to market.

Another start-up in the education sector changes the dynamics of learning and teaching for competitive examinations in India. A country which was ruled by education mafia for decades was brought to a rude shock when a start-up called Unacademy made competitive examination tutorials widely and easily accessible to aspirants all over India. Unacademy boasts of a community of 3 million plus subscribers and 250 million plus views on its YouTube channel. With the funding raised in the last two rounds, Unacademy has been able to explore the Indonesian and Brazilian Education market after pioneering the Indian education sector.

While analyzing the success of players like Unacademy and BYJU'S, we have to analyze the uniqueness of the Indian Education System to understand them holistically –

Along with mainstream education, one of the biggest revenue eaters in the country is the parallel education system also called as the 'Coaching sector'. There is a huge number of coaching classes helping the students to learn the concepts they have learnt in schools for their exams. There are towns and areas which have developed purely due to this coaching mania, which slowly evolved into the giant coaching mafia (Kota (Rajasthan) – a case in study for IIT coaching, Rajendra Nagar/Mukherjee Nagar (New Delhi) – a case in study for UPSC/IAS coaching, etc.). Any revolution in education cannot start in mainstream education, it has to start and penetrate in the parallel education system first. This is where Unacademy and BYJU's has been able to create a mark. They do not replace the school or the college. They currently concentrate on replacing the parallel education system. The concept of learning from the comfort of home at much lesser fees makes these apps a very attractive proposition for the students.

These apps and websites have a very clear goal as of now – they are not here to replace the teacher; they are here to augment the teaching and learning process. Recent history has shown that any giant company trying to replace the traditional classroom teaching model or teacher for that matters has been teetered to its fall. Our culture still has the profound importance of a teacher and a physical learning process. It will take us a profound cultural shift and a generational change to replace this learning process by a virtual learning environment.

Virtual learning and Teaching are definitely the future but the future has not yet arrived in India. We have to prepare ourselves for what will come but we have to prepare for it in a manner that does not hamper our current survival. The success of Unacademy and BYJU'S along with a lot of test-taking and test preparation platforms that the current smartness is not in replacing the teacher but in augmenting the teaching process.

Platforms like Coursera, Udemy and LinkedIn Learnings are taking skill development and professional trainings on a different level altogether. Learning is no more limited by geography or physical classrooms or training centers. E-learning model is no longer just an alternate method of learning, many premier foreign universities like MIT, Columbia University, University College London (UCL), Seoul National University (SNU), etc. have started including relevant e-learning curricula besides mainstream courses for students, and, more importantly, for working professionals. Universities in India too are not far behind.

Premier institutes in India like Indian Institute of Management (IIMs) too have started many hybrid programs, which are the perfect mixture of online and classroom learnings.

V.   CONCLUSION

India is one among the nations that's developing at an exponential rate in terms of technology. With the population of more than 1.3 billion, the availability of high-speed internet and smartphones, India has the second highest population in the world who have access to internet. As of July 2020, 54.29% of India's population has access to internet. For the first time in Indian history, India has more internet users in rural India than urban India, according to the latest report by the Internet and Mobile Association of India (IAMAI) . In addition, there are around 71 million students, aged 5-11 years, who are learning through e-learning portals using devices of family members. With these latest figures, India has surpassed another milestone of having more than 504 million active internet users who are students belonging to the age group of 5 years and above. The data being from November 2019, the trend is expected to accelerate considering the COVID-19 crisis, and the fact that we are spending more and more time with gadgets and on the internet now. Here is a forecast about the expected number of internet users in India in the coming decade.
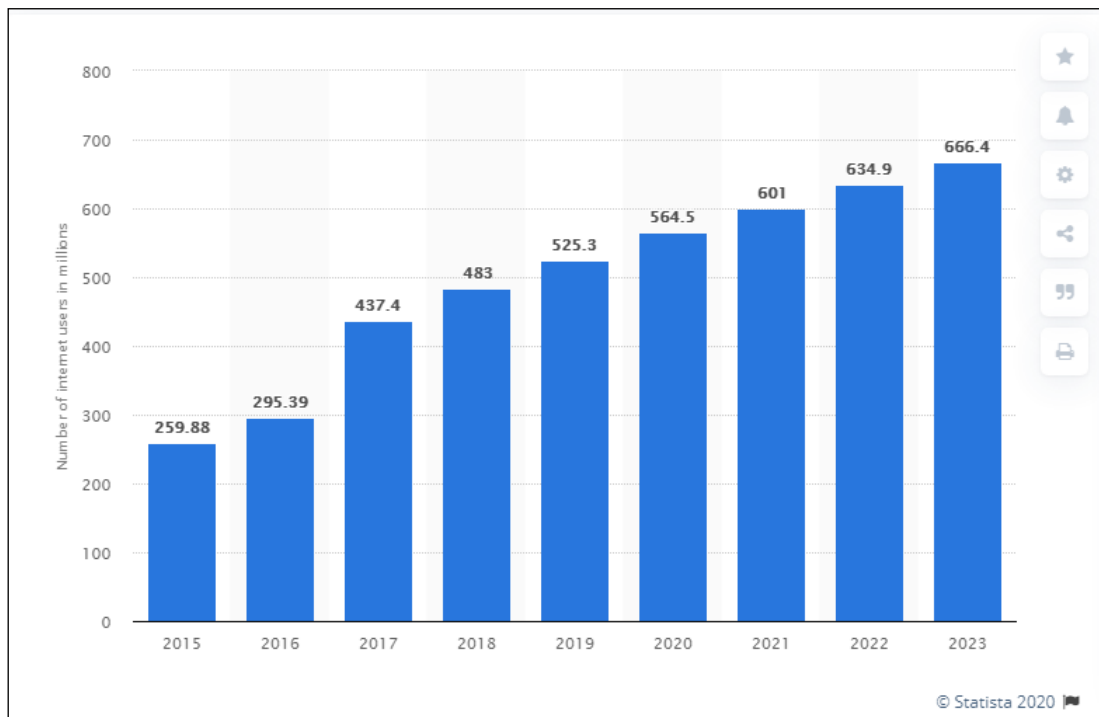

Image Source: https://www.statista.com/statistics/255146/number-of-internet-users-in-india/

According to a study by Velocity MR , a leading market Research and Analysis company, 72% Indians prefer online or e-learning as compared to traditional classroom training. Indian demography is ideal for E-learning because many of the learners come from rural or semi-rural areas where educational facilities – be it school, college, universities or entrance examination level, is below par. Also, professionals find it easier to upskill themselves through e-learning courses that can be taken at their own convenience while managing their jobs. It is understandable that only limited number of distance education platforms were using online mode of education before the COVID-19, but the pandemic has changed the dynamics of E-learning a lot, and its advantages are being given more importance than its short-comings.

Around 1.26 billion children from all over the world (estimated by the United Nations Educational, Scientific and Cultural Organization (UNESCO)) are affected by school closures in this pandemic crisis. This is around 72% of the world's student population. India comprises of around 320 million students. It is still very uncertain as to when they will be able to return to their schools and colleges. There is a building pressure on the teachers too because of no training and unfamiliarity with technology. Students and teachers also have to quickly adjust to new routines. Students from urban schools and those from

urban areas can access high-quality digital learning. But the government isn't able to help those coming from the economically weaker parts in rural areas. There is no plan for them. The Government needs to subsidize the internet data and smart phones for students in rural areas. There needs to be an aggressive push to implement this as quickly as possible to cut down the negative effect of COVID-19 on the education sector.

Governments, NGOs and other public-private organizations are trying to alleviate this serious deficiency as far as possible. The education department of the Maharashtra State Government started e-learning content for students of both Government and aided schools for first grade to ninth grade students. It is hosted on the DIKSHA app - an e-learning platform by the Ministry of Human Resource Development. The education department has also planned to air the educational content on radio and television for students who don't have access to a smartphone, especially for the rural population.

The pandemic crisis is here to stay till we finally find a vaccine to stop the spread of the virus. Till then we have to live with the present norms like social distancing and masks in our everyday life. With the constant support of private and public sectors, the negative impact of this crisis on education sector can be reduced, reducing the long-term impact on our future generations. At present, online learning is the best solution to this crisis, whether it will replace traditional learning or not - is a question only time can tell, but it can definitely add value to the learning system as a whole. Hence, e-learning in the form of blended learning system is the future of our education industry across globe.

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