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DIGITAL TRANSFORMATION OF 21st EDUCATION SECTOR IN INDIA

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ABSTRACT

Transformation of digital technology is regarded as 21st century education. There is a significant opportunity for digital transformation in the Indian educational system, particularly in schools, institutions, and colleges. Yet, digitalization and digital approaches are a means of increasing access to education or learning modules by making them available online as well as digitising the content of lectures. Modern students now demand the extensive use of digital resources. Potential students constantly search for advanced learning alternatives outside of the conventional classroom setting. Schools and universities must create new, cutting-edge teaching methods while keeping in mind the circumstances and requirements of today's youth.

Never underestimate the power of technology. With a population of 1.31 billion, the country has seen a significant rise in the usage of technology in recent years. India has a big possibility to develop in this area and to seize the benefits of technology in the field of education because it has approximately 140 million mobile phone users and ranks second in the world for the number of social media users. The Indian educational system is receiving fresh hope thanks to ongoing technological advancements, the rise of social media, the Internet of Things, artificial intelligence (AI), augmented reality, and virtual reality.

KEY WORDS: e-learning, Digitalization, Modern EDUCATION, Online Learning.

INTRODUCTION

The educational system in India is as diverse as the huge nation's culture, languages, heritage, etc. There are schools that believe in stressing value education by following the Gurukul system, where kids are taught under the trees while having world-class facilities, and there are schools that have fully digitalized. While some can afford international exchange programmers, some schools place more of an emphasis on books and the physical development of children through internal activities. Meanwhile, there are schools where pupils have trouble getting books. India occupies a significant position in the global education sector. The nation has more than 1.4 million schools with more than 227 million kids enrolled, as well as more than 36,000 higher education institutions, according to the National Sample Survey Office's study. One of the world's most extensive higher education systems is found in India. Equitable Access and Quality are two competing demands on resources that technology is in a position to delicately balance.

Prime Minister Modi has created programmers like Digital India with a great deal of responsibility in digital technologies. India will become a knowledge economy and society as a result of this. The idea behind Digital India is to reform India's educational system. It offers the chance to access educational resources on a worldwide scale. Students today spend a lot of time online and on their smart phones in order to access a wealth of content and advance their knowledge. The only option left for educational institutions, including schools, colleges, and universities, is to adopt these new technology. The most recent technology has given students a unique and new platform.

The use of information and communication technology (ICT) offers a great deal of potential for raising the standard of education provided and expanding access to it across the nation. To achieve this, the National Mission on Education through Information and Communication Technologies (NMEICT) Project, run by the Department of Higher Education within the Ministry of Human Resource Development (MHRD), has launched numerous projects. SWAYAM, SWAYAMPRABHA, DIKSHA, NDL, NAD, FOSSEE, e-Pathshala, e-PGPathshala, e-ShodhSindhu, e-Yantra, e-Acharya, e-kalpa, Talk to a Teacheretc. And private sector BYJU'S, UNACADEMY, VEDANTU, MERTINATION, TOPPR, DOUBTNUT, K8SCHOOL, CLAS SSAATHI and many others government and private initiatives are helping the students as well as teachers providing them quality educational resources. Additionally, these efforts will result in a vast knowledge base, useful resources, and enablers that will not only provide quality education and accessibility



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but also inspire creativity and innovation in the minds of a billion people, especially young students, and thus help them realise their full potential in contributing to the development of the country.

REVIEW OF RELATED STUDY

Agarwal, et, al. (2010). Studied on "Research Commentary: The Digital Transformation of Healthcare: Current Status and the Road Ahead". In this studies on HIT to provide an overview of the current status of HIT research. Identify three major areas that warrant further research: (1) HIT design, implementation, and meaningful use; (2) measurement and quantification of HIT payoff and impact; and (3) extending the traditional realm of HIT. We discuss specific research questions in each domain and suggest appropriate methods to approach them. We encourage information systems scholars to become active participants in the global discourse on health-care transformation through IT.

Iivari, et, al. (2016). Studied on "The future digital innovators: Empowering the young generation with digital fabrication and making". This is where this study contributes and it does so by focusing on the perspective of the young generation, in whose hands the future of IS profession, indeed, lies. Digital technology has become intimately intertwined with our everyday life. New stakeholders take part in its development and innovation processes, including children. Calls for offering more in-depth technology knowledge for children have emerged within research on digital fabrication and the maker movement: children need to be educated to design, make, and build new technology. We critically examine existing studies on digital fabrication and making with children, in order to see what the potential of digital fabrication and making for empowering children to become digital innovators of the future is. Implications to IS research, practice, and education are presented.

Balyer, A., & Öz, Ö. (2018). Studied on "Academicians' views on digital transformation in education. International". In this study was designed with a phenomenological research design as the qualitative approach in order to determine academics' views on digital transformation in education in terms program and management processes. In extend of study, academicians give their view point on effective learning can also be achieved through digital tools like Artificial intelligence, learning analytics, online learning, virtual learning as well as its also required to redesign the physical environment & infrastructure equipped with Information and Communication Technology.

R. Raja., & P. C. Nagasubramani., (2018). Studied on "Impact of modern technology in Education". The purpose of this study is to importance of technology in education system with reference to schools in Chennai and found that with the onset of latest technology like ICT, and other digital tools are very helpful to impart knowledge to our students and process of teaching and learning can be more enjoyable.

Kundu, et, al. (2018). Studied on "A Contemporary Study on the Flourishing Elearning Scenarios in India". In this article wrote that the Government of India has played a major role in the development of e-learning in India and the Department of Electronics and Information Technology is developing tools and technologies for promotion of e-learning by supporting Research and Development projects at various academic and educational institutes revolving around content development, Research and Development technology initiatives, human resource development projects and faculty training initiatives to improve literacy through distance education in order to improve general literacy and education levels in the country. Rs. 17000 crore has been allocated for this purpose in the Year 2017-18 by the Government for boosting the Skill India Mission. This investment has had a beneficial effect for the domestic and foreign product and services providers in the e-learning market in the country.

Vial, G. (2019). Studied on "Understanding digital transformation: A review and a research agenda". Purpose of this study digital transformation as a process where *digital technologies* create *disruptions* triggering *strategic responses* from organizations that seek to alter their *value creation paths* while managing the *structural changes* and *organizational barriers* that affect the *positive* and *negative* outcomes of this process. Building on this framework, we elaborate a research agenda that proposes [1] examining the role of dynamic capabilities, and [2] accounting for ethical issues as important avenues for future strategic IS research on digital transformation.

Papagiannidis, et,al. (2020). Studied on "WHO led the digital transformation of your company? A reflection of IT related challenges during the pandemic". In this paper we reflect on a number of IT related challenges during the COVID19 pandemic, primarily from a CIO and IT professionals perspective. We consider three time periods, namely the period before the pandemic, the response to the pandemic and the period after it. For each period we discuss the key challenges that practitioners faced and outline important areas to consider for the future. Hopefully, the lessons learnt and the experiences gained will positively inform future academic research and practice.



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Roy (2020). Studied on "e-learning Scope and Trend in India". The purpose of this study educational content development for students of different foreign institutions, employee training programme of different corporates, banks and also for some professional institutes.

STATEMENT OF THE PROBLEM

After above mentioned reviewed work ,the present researcher finds the knowledge gap as well as seleced the problem is "DIGITAL TRANSFORMATION OF 21st EDUCATION SECTOR IN INDIA".

OBJECTIVES OF THE STUDY

A. To study the various opportunity government initiative e-learning portal.

B. To discuss private initiative e-learning opportunity.

C. To study present status of e-learning in India.

METHODOLOGY OF THE STUDY

This is descriptive study is based on the analysis of secondary data only. The data for the study has been collected through relevant research journals, thesis, articles, books, magazines and present available literature on websites. Various government reports have also been considered.

ANALYSIS AND DISCUSS THE OBJECTIVES

Objictive (A) - The Digital Initiative of MHRD 21st Century

The "Bharat Padhe Online" (India Study Online) campaign was started by the Ministry of Human Resource Development (MHRD) to collect suggestions from the public on ways to enhance India's online education system. A week of the campaign was spent inApril 2020 and received more than 3,700 suggestions via email and Twitter. The MHRD has launched several e-learning portal as social initiative and the related wellbeing of student.

1. SWAYAM is an indigenous platform for providing best quality education that can be accessed by anyone, anytime, and anywhere using the IT system. It was launched by the Government of India to achieve the three Cardinal principle of education access equity and quality. It is capable of hosting 2000 courses and 80000 hours of learning, covering both school (classes 9 to 12) and higher education (under-graduate, post-graduate, engineering, law, and other professional courses). There are more than 1000 specially chosen faculty members. UGC regulation 2016 credit transfers are possible for SWAYAM courses. Website: https://swayam.gov.in

2. SWAYAM PRABHA is a group of 34 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite. Every day, there will be new content for at least (4) hours which would be repeated 5 more times in a day, allowing the students to choose the time of their convenience. The channels are uplinked from BISAG-N, Gandhinagar. The contents are provided by NPTEL, IITs, UGC, CEC, IGNOU. The INFLIBNET Centre maintains the web portal. The channels cover both school education (9 to 12 classes) higher education post-graduate and under-graduate levels covering diverse discipline, such as arts, Science, commerce, performance arts, social science and Humanities, engineering, Technology, law, medicine, agriculture, etc. Website: https://swayamprabha.gov.in

3. DIKSHA is the 'One nation: One digital platforms' for school education in India. This portal contains E-learning plateform an initiative of NCERT under the agencis of MoE GoI. launched in 2017 by honorable vice-president of India- Shri M. Venkaiah Naidu. It is a storehouse of a large number of eBooks and e-Contents created by States/UTs and National level organizations. The e-Textbooks of NCERT/ states and related e-Contents, mapped with QR Codes, are available on DIKSHA, which can be accessed at https://diksha.gov.in/ DIKSHA is being transformed into a platform for the coherence of access with TV and radio. DIKSHA is designed to inherently support states/UTs and other school boards to exercise autonomy, independence, and choice to craft and run learning programs to suit their needs and achieve their goals. E-Content is available in 36 Indian languages. It has more than 80,000 e-Books for classes 1 to 12 created by CBSE, NCERT in multiple languages. Website: https://diksha.gov.in

4. e-Pathshala is a webpage and software was created by the CIET and NCERT. Launched in November 2015, it was jointly started by the Ministry of Human Resource Development, CIET, and NCERT. It provides educational resources for researchers, educators, parents, and students, and may be accessible online and through Google Play, the App Store, and Windows. There are three languages of the text: English, Hindi, and Urdu. A wide range of print and digital educational resources are available on the platform, including NCERT textbooks for classes 1 through 12, audio-visual resources created by NCERT, journals, supplements, teacher training modules, and other items. Website: https://epathshala.nic.in

5. e-PG Pathshala a project of the MHRD's National Mission on Education via ICT (NME-ICT), which is being carried out by the UGC, is e-PG Pathshala. Since content and its quality make up the main building blocks of the educational system, subject experts working in Indian universities and other R & D facilities across the nation have created high quality, curriculum-based, interactive e-content in 70 subjects spanning all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences,

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linguistics and languages. The lead investigator, paper coordinators, content authors, content reviewers, language editors, and multimedia team were all assigned to each subject. There are 20000 e-Text, 19000 video, 30000 quiz, 723 paper available in this portal. Website: https://epgp.inflibnet.ac.in

6. NATIONAL ACADEMIC DEPOSITORY(NAD) it is an initiative of the MHRD to facilitate digital issuance, storage, access and verification of academic awards issued by academic institution. NAD is a 24×7 online store house. It is unique innovative and progressive initiative under 'Digital India' theme towards achiving digital enablement of the education record. It aspire to make the vision of Digital Academic Certificate a reality for every Indian. Website: nad.gov.in

7. NATIONAL DIGITAL LIBRARY(NDL) is a virtual library of learning resources that offers a wide range of services for the community of learners and users, including access to textbooks, articles, videos, audio books, lectures, simulations, fiction, and other types of learning media. It is an initiative of the National Mission on Education through Information and Communication Technologies of the Indian Ministry of Education (NMEICT). The goal is to gather metadata from several national and international digital libraries, as well as from other pertinent sources, and to offer a comprehensive text index. There are available 11 language. It is developed, operated and maintained from Indian Institute of Technology Kharagpur. Website: ndl.gov.in

8. e-Shodh Sindhu has created MHRD by combining three consortia initiatives, namely UGC-INFONET, digital library consortium, NLIST, and INDEST-AICTE consortium, to give the research and academic community in the nation access to peer-reviewed journals and a number of bibliography, citation, and factual databases in various disciplines. More than 15000 international electronic journals and e-books are made available to all the higher educational institutions through the e-Shodh sindhu initiative. https://www.inflibnet.ac.in/ess

9. e-Yantra MHRD initiative under the NMEICT programme is implemented to incorporate robotics into engineering education with the objective of engineering student. This needs exciting skill of mathematics, computer science and Engineering principle. http://www.e-yantra.org

10. e- **Acharya** also called 'Integrated e-Content portal' of the NMEICT, is the official repository of NMEICT e-content, and all content produce under NMEICT is being put all this repository platform at INFILIBNET centre Gandhinagar. The basic tenets of preservation of digital content and implementing standard metadata scheme are provided. Content are mostly provided by the NCERT. http://eacharya.inflibnet.ac.in/vidya-mitra/

11. e-kalpa it is another MHRD/NMEICT initiative. It create digital learning environment for Design in India. It has successfully achieved the digital online content for learning design with e-learning program on design. http://www.dsource.in/

12. FREE AND OPEN SOURCE SOFTWARE FOR EDUCATION (FOSSEE) project sanctioned to IIT Bombay has been promoting the use of open source software in educational institution. It does this through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conference training workshops and internships. The textbook companion is a collection of code for solved examples of standard textbook. Scilab and python TBCs are also on the cloud. https://fossee.in

13. TALK TO A TEACHER developed by IIT Bombay is an initiative of the national Mission on education through ICT. It has been funded by the MHRD to provide free access to a selected few graduate and postgraduate courses, taught at IIT Bombay largely by distinguished faculty members and scholars. It uses A-View collaboration tool developed by Amrita University for providing virtual classroom to the faculty across the country. http://aview.in

Objictive (B) - The Digital Initiative of Private Sector 21st century

Many private online learning platforms are providing free access to their services in response to high demand, including those like **1. UNACADEMY** is an Indian provider of online learning platforms with its corporate headquarters in Bangalore, Karnataka. It offers information on fundamental (K–12) and skill-building courses such as programing, photography, enterpreneurship and in addition to preparing students for a variety of competitive exams such as JEE, NEET, UPSC, GATE, UPSC NDA, Boards, etc. In 2015, Gaurav Munjal, Hemesh Singh, and Roman Saini formed it. Unacademy was valued at \$3.44 billion USD as of May 2022. February 2019 Unacademy plus subscription based concept was introduced. With the Unacademy Plus Membership, students have access to 14 Indian languages, including Hindi, Punjabi, Telugu, Tamil, Malayalam, Marathi, Bengali, Gujarati, and Bhojpuri, as well as live classes . Unacademy introduced Graphy in 2020, a tool that enables designers to establish their online school in less than 60 seconds. Unacademy launched its first offline learning centre in Kota, Rajasthan, in May 2022. Website: unacademy.com

2. BYJUs a international educational technology corporation with its headquarters in Bangalore, Karnataka, India. Byju Raveendran and Divya Gokulnath launched it in 2011. Byju's is estimated to be worth US\$22 billion as of March 2022, and the firm states that there are over 115 million enrolled students. An education tutoring software Byju's has a freemium business model, with free access to information only available for 15 days following enrollment. It was introduced in August 2015 and provides educational materials for students in classes 4 to 12. In 2019, an early learning programme for classes 1 to 3 was introduced. Additionally, it prepares students for worldwide exams like the GRE and GMAT as well as Indian exams like the IIT-JEE, NEET, CAT, and IAS. Academic ideas are clarified via 12- to 20-minute digital animation videos, which let students learn at their own pace. According to Byju's, it has a total user

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base of 40 million, 3 million paying members annually, and an annual retention rate of over 85%. It app in regional Indian languages in 2019. The establishment of "Byju's Future School," which will be run by WhiteHat Jr. Founder Karan Bajaj, was also announced by the business in April 2021. The Future School uses an interactive learning platform along with coding and other topics like math, science, english, music, and fine arts through storytelling to bridge the gap between passive and active learning. Website: byjus.com

3. VEDANTU is another well-liked website for individualised online education. Indian online tutoring platform Vedantu was established in Bengaluru, India, in 2014. Regular tuition is available for the ICSE and CBSE boards. Also, students have the option of selecting micro-courses with recorded or live delivery. Students take live, one-on-one sessions online from Vedantu, which covers all the important boards (CBSE, ICSE, IGSCE, IB, and state board). Vedantu is listed as the third-best e-learning site in India for 2023. Live lectures and interesting internet material, Live quizzes, student engagement, and unrestricted study resources (NCERT solutions, popular book solutions, solved questions, etc.) Super Kids of Vedantu (Reading classes, English program, and coding classes). Preschool, grades 1 through 12, and JEE and NEET classes begin. Website: Vedantu.com

4. MERITNATION is another website that provides a top-notch online learning environment. It was started in the year 2009, Founders Pavan Chauhan, Ritesh Hemrajani. The top teachers' interactive classes can be found on this platform for students. Also, users can buy courses with premium plus features. It includes state boards from Karnataka, Maharashtra, Gujarat, Kerala, and Tamil Nadu as well as boards like the CBSE and ICSE. a specific messaging platform for communicating with teachers. scientifically conceived educational materials, tests and intelligent reports. 24-hour feature for resolving doubts (through chat). classes begin for grades 1 through 12. Website: https://www.meritnation.com

5. TOPPR it was founded Zishaan Hayath and Hemanth Goteti the online test preparation platform in 2013. Indian students can download a learning app from Toppr. The "Best Tech in Education" awards were given to this platform in 2019. With the aid of top teachers, students can learn online. And through flexible and self-paced learning possibilities, it places a strong emphasis on developing conceptual knowledge. One of the top online learning platforms for JEE aspirants is Toppr. This online learning environment offers video classes, adaptive learning with pacing options, chat help for step-by-step guidance, a live tutoring option available around-the-clock, and a comprehensive syllabus. classes begin from ages 5 to 12. Website: https://www.toppr.com

6. DOUBTNUT an educational software was created in India by Tanushree Nagori and Aditya Shankar. In 2016, Doubtnut's official website and Android app are both accessible through Google Play. As the name implies, Doubtnut essentially serves as a platform for students to get their questions answered. When you have a question, you can either search the Doubtnut app or website or upload an image of the issue to obtain the solution. To aid with understanding, the solution is presented as a video. NCERT courses for grades 6 through 12 and IIT-JEE preparation are also available on Doubtnut. For youthful JEE hopefuls, Doubtnut also offers study materials, crash classes, and a scholarship scheme where the top 1,000 ranked applicants receive cost reductions. Doubtnut is free for all users, unlike some of the other education and learning apps on the list. Since there is currently no iOS version, the app is exclusively accessible to Android users. Website: doubtnut.com

7. K8 SCHOOL India's first online learning school in India. It provides students with reasonably priced options for online education. And through its connection with Discovery Education, it obtains the best instructional resources available worldwide. Pupils are able to study on flexible times while being safe at home. Through a variety of hands-on activities, they can benefit from an immersive learning experience and deepen their comprehension. This school's learning platform provides access to top-notch online resources. And in India, it is a well-known brand for skill-based online education. Class start nursery to grade 8. In this platform available affordable 100% online educational opportunities, opportunity for personalised learning, online courses taught by qualified instructors, a user-friendly learning platform (LMS), a variety of online resources for learners of various types, Exceptional STEM connections to develop the 4Cs of the 21st century. Website: https://k8school.com

8. CLASS SAATHI is yet another well-liked educational tool for both students and educators. The programme can be used for selfstudy or review, inspiring the direction of educational technology in the future. age group of six to ten. Each grade that a student successfully completes earns them a certificate. Also, the platform adapts examinations for students based on their prior performances (using artificial intelligence). Tailored quizzing, personalised mock tests, AI-powered self-assessment solutions, and constant feedback are all available on this platform. Webapp: https://class-saathi.web.app

C. PRESENT STATUS

The most fundamental level of online education—schools and colleges—has been impacted by the global epidemic. As education is reaching them rather than the other way around, students who commute a long distance find it to be a more flexible and convenient option. The internet has made a name for itself as an essential resource for self-study. In order to find the most recent information, using search engines like Google, Bing, and Yahoo might be helpful. Students can conduct research on any subject to increase their knowledge and obtain necessary study resources, both of which are important for their academic success. In India, there are more than 370 million internet users, which contributes to the rapid growth of online learning. At this time, the Indian e-learning market is worth more than \$3 billion. With the use of secondary data sources, the author has here depicted the current state of the online educational platform.

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Byju's reports to have 150 million users overall, 7 million annual paid subscribers, 71 minutes average time spent by a student daily and used by student sacross 1701+ cities world wide and Rs. 10,000 crore in gross revenues in FY 22 and its K-12 education business is showing accelerated growth. Between April–July 2022, the company logged a revenue of Rs. 4530 crore. This app valuation 21 billion, number of educators 21k and total employees 4k. Unacademy now has 99 million register edusers and 1 million paying subscribers, September 2022. This app valuation 3.4 billion, number of educators 91k and total employees 8k. Vedantu expects to have more than 1 million paying subscribers, around more than 35 million users, 1 billon valuation, numbers of educators more than 500 and total employees more than 5.5k.

BYJU'S, the company with the greatest market capitalization in the edtech industry, had promised to become profitable by FY18 but, other from a meagre profit of over INR 10 Cr in FY19, failed to do so even in future years. It posted a loss of INR 4,600 Cr in FY21. The fact that BYJU's business promotion costs increased by 1.5X from FY20 to INR 2,250.9 Cr in FY21 is telling (the pre-pandemic year). The unicorn spent approximately four times as much on advertising and marketing in FY21 as Unacademy and Vedantu combined. These costs included paying prominent celebrities like Shah Rukh Khan, who serves as the official brand ambassador, becoming the title sponsor of India's men's cricket team, and running advertising and marketing campaigns with numerous A-list celebrities throughout India. Moreover, business promotions accounted for 20% of Unacademy and Vedantu's total expenses while accounting for 32% of BYJU'S total expenses. The financial papers show that Unacademy generated INR 380.75 Cr in course fee income in FY21 while BYJU only made INR 320.61 Cr in subscription revenue. The hardware sales that made up the majority of BYJU's revenue are also included in the company's overall revenue. Because BYJU's is primarily a corporation focused on selling courses rather than devices, tablets, SD cards, and laptops, this has caused concern for some analysts once again. Moreover, BYJU's spent approximately 27% of its expenses on personnel in FY21 compared to Vedantu's 55% and Unacademy's 36% (at INR 748.5 Cr) (at INR 407.45 Cr).



India has the world's largest population of about 500 million in the age bracket of 5-24 years and this provides a great opportunity for the education sector. The education industry in India is estimated to reach US\$ 144 billion by 2020 from US\$ 97.8 billion in 2016. Education sector in India remains to be a strategic priority of the government. Skill India Mission 2015 aims at skilling around 400 million youths in the country by 2022. Internet users are growing continuously at a steady pace every year, the same trend is expected to continue in future years also in India. Number of internet users in India from 2015 to 2020 with a forecast until 2025 (in millions).



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Figure -2 Number of Internet Users in India.(in millions)

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

It is clearly shown in the Figure 1 that the internet users have more than doubled in year 2020 as compared with year 2016. The survey report of 2019 by the Internet & Mobile Association of India and Nielsen also added that India is having the second largest internet users after China. Rural India has more internet users than urban area. In 2019, 433 million people aged 12 and above, along with 71 million aged 5–11, accessed the internet. In 2022, 759 million individuals used the internet monthly. By 2025, it's anticipated that this number will increase to 900 million.



Figure -3 Active Internet Uses in India

https://www.grabon.in/indulge/tech/internet-users-statistics/



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https://images.app.goo.gl/jea5TFiP6cEV7Skq9



Figure – 5 Rise of e-learning Market in India

https://www.hellobuyer.in/2023/05/online-education-market-in-india-2023.html

CONCLUSION

Significant digital changeseen as education for the twenty-first century. We were compelled by the pandemic to undergo a remarkable digital transformation in all aspects of our lives and routines, including education. Education quickly changed from being a regular classroom activity to a distant, digitalized one. Suddenly, in order to engage in school, a whole generation had to learn how to use and master digital tools. This necessitated major adaptations from the administration, families, instructors, and children as well as from the broader society. Even if the topic of digitalization in education has been popular for a long time in many While digital tools and disciplines are widely used in educational institutions now, educators—including instructors, students, and administrators—have not received enough training to take on leadership roles and act as change agents in the digital revolution of education. In India, digital learning will play a major role in the future of the subcontinent's educational system. The extent to which smart technologies are transforming the nation's whole educational system is startling. The rural market's adoption of digital education is changing quickly. Direct-to-device technology and reasonably priced high-speed internet are enabling remote learners to advance their education and learn

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online. In the near future, the education sector will see an increase in the number of small, medium, and big EdTech start-ups providing academic institutions with a range of cutting-edge digital products. In an effort to develop rules that would stimulate the nation's digital education industry, the government is also making significant initiative. State Education is under the direction of the Centre. To ensure that curricula and instructional strategies are appropriately planned, the Centre has instructed State Education Departments to map the internet access that each of its pupils has access to. Like many other professions, digital education will undergo significant changes in the near future.

REFERENCE

- 1. Agarwal, R., Gao, G. (Gordon), DesRoches, C., & Jha, A. K. (2010). Research Commentary: The Digital Transformation of Healthcare: Current Status and the Road Ahead. Information Systems Research, 21(4), 796–809. http://www.jstor.org/stable/23015646
- 2. Iivari, N., Molin-Juustila, T., and Kinnula, M. (2016). The future digital innovators: Empowering the young generation with digital fabrication and making. Conference: International Conference on Information Systems (ICIS) At: Dublin, Ireland
- 3. Balyer, A., & Öz, Ö. (2018). Academicians' views on digital transformation in education. International. Online Journal of Education and Teaching (IOJET), 5(4), 809-830. http://iojet.org/index.php/IOJET/article/view/441/295
- 4. R. Raja., & P. C. Nagasubramani., (2018). Impact of modern technology in Education, Journal of Applied and Advanced research, Journal of Applied and Advanced Research, Issue:3, Pp.33-39.
- Kundu, A., & Dey, N, K. (2018). A Contemporary Study on the Flourishing Elearning Scenarios in India, IJCRT | Volume 6, Issue 2 April 2018 | ISSN: 2320-2882. DOI:10.13140/RG.2.2.14695.98725 Vial, G. (2019). Understanding digital transformation: A review and a research agenda. Volume 28, Issue 2, June 2019, Pages 118-144. https://doi.org/10.1016/j.jsis.2019.01.003
- 6. Papagiannidis, S., Harris, J., and Morton, D. (2020). WHO led the digital transformation of your company? A reflection of IT related challenges during the pandemic. International Journal of Information Management Article 102166. doi: 10.1016/j.ijinfomgt.2020.102166
- 7. Roy, S (2020). e-learning Scope and Trend in India. DOI:10.13140/RG.2.2.23177.19042 https://www.researchgate.net/publication/338913710_elearning_Scope_and_Trend_in_India
- 8. https://en.unesco.org/covid19/educationresponse
- 9. https://www.indiatodayin.cdn.ampproject.org/v/s/www.indiatoday.in/amp/educationtoday/featurephilia/story/covid-19-impact-digitaleducation-conventional-education.
- 10. Wikipedia. Covid-19 Pandemic in India. Retrieved on https://en.wikipedia.org/wiki/Education_in_India
- 11. Wikipedia, Education in India Retrieved on August 24, 2020 from https://en.unesco.org/covid19/Educationresponse
- 12. MHRD notice (20 March, 2020). COVID-19 Stay Safe: Digital Initiatives. Retrieved on May 25, 2020 from https://www.mohfw.gov.in/pdf/Covid19.pdf