

# Akshar-Nama

## An Analysis of the Growing Role and Impact of Online Education in India

### Abstract

This paper aims to chalk out the significant importance of Online Education and the growing internet system on the Indian Education Structure that can abysmally hit the majority of students belonging below the poverty line. While the system of age-old classroom teaching comes with a limited spread due to presence of Rivalry & Excludability, Online Education can reach to the mass with unlimited access to endless information just on a click of a finger at a minimum cost and affordable time saving all opportunity costs.

**Keywords:** Online, Education, Internet, Classroom, Teaching, India, Virtual, Market.

### Introduction

Free Internet is a medium. Education if connected is subjugated to a format of booming literacy no one could dream of. Surveys on how handful online education companies of India are changing the market is included as the motivation for the next big paradigm shift of the country. Students are juggling work, family and education altogether, so the flexibility and variety of courses that are being offered by the multiple e-learning apps are attracting them at a high pace. Online Education requires creating Mobile Applications or E-Learning Platforms and establishment of Websites. This certainly requires a magnum of Initial Capital. Also, constant up gradation of technical devices require applications or Platforms to go through regular software checking which requires flowing of working capital. However, the return to Capital is best indeed. Interestingly, it indirectly contributes to the society at large. From saving time to creating an essence of convenience, Online education can literally change the very fundamentals of Education. In this era of out reached connectivity, Internet can push Education to the mass at large. It is not that only the students who are benefitted from the system of E-Learning but the teachers can constantly review their work and update themselves even more to cope up with the race of unparalleled dynamics. People who are working or are engaged at different professions can take up a lecture anywhere anytime which can indeed promote them to a new height. It is hard to believe but by recent research conducted by KPMG and Google Insight, market of Online Education could be at \$1.96 Billion in 2021. Perhaps this is one of the finest profit-making mechanisms soon. The growth is significant. Over the last years, search for Online Education across Internet has increased twice. While we see a significant rise of Indian Online Education, examples like Byjus founded in 2011 or Unacademy which came into existence at 2015 has risen to a new height. Applications like these are helping people across the country to study and attract over 1.5 crores users each. However, this stands to a mere 5 % of Indian Students as a whole. Emitting awareness and engaging more people into this will pave way for a better future. The most significant thing is that it even attracts Foreign Direct Investment through Private Placements of Equity Shares. Byju's has engaged a \$344 Million from across the world. This pushes India to a better tomorrow.

### Aim of the Study

Will online or E-Learning method of education make reach Education to a greater number of people? The focus of the paper is to study the immediate impact that Online Education can bring in the current Literacy Level of the country. Owing to Free Internet, Online Education can reach greater number of people thereby making a significant shift of literacy



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in the greater image of the country. The future of online learning may determine the future of a developing country like India.

### **Methodology of Study**

#### **Research Question**

How far does this expanded outreach of recently introduced online education system benefit the prevailing education system in India?

#### **Type of Research**

Mixed Method: Qualitative and Quantitative

#### **Research Design**

Exploratory, Explanatory and involve Textual Reading.

#### **Methods of Data Collection**

This paper deals with secondary data, drawing information from the related articles that have been published in newspapers and reports mentioned in the literature survey section, and also from various journals. Internet surfing had a significant role too

#### **Methods of Data Analysis**

Qualitative, Quantitative, use of statistical means and Pictorial, using tables and graphical representation.

#### **Inference**

The process of imparting education has undergone a sea change. In this competitive world, while everyone is trying to leave their mark, onset of online education has come as a path breaker. With a massive rise in internet connectivity in past few years, enrolment to variety of online courses has risen proportionately. This has a huge impact on the overall literacy level of the country as this system of imparting education has reached to various categories of students, belonging to different strata of the society without any discrimination.

#### **Review of Literature**

"Education and Economic growth in India" by Pradhan.R.P (2009). It studies the casualty between education and economic growth in India during the period between 1951-2001 using Error Correction Modelling. The variable used in the study is GDP as a proxy for economic growth and Government Expenditure on education. The study confirms that there is unidirectional casualty between education and economic growth in India.

"The Role of Education in Economic Development" by Lihan.O (2001).Lihan,2001, pointed out that education in every sense is one of the fundamental factors of development. No country can achieve sustainable economic development without sustainable investment in human capital.

"Education and Economic Wellbeing a study of inter linkages" by Bhattacharjee A. Bhattacharya confirms that human capital is the most important agent of economic development and hence improvement in the quality of labour force can have dramatic effect on the economic development. Human capital contributes to labour productivity. Education is necessary for development of both farm and non-farm practices. It is necessary for family maintenance and for proper management of time and resources for improvement in the social conditions. In another study conducted by Wamboye (2015), it has been proved that education provides essential knowledge,

techniques, skills and information for each individual to define their role toward family and society. In addition, education also provides the ability to combat such social evils as ignorance, injustice, corruption, violence, disparity and communalism, which many times serve as obstacles to the progress of a nation and economic growth.

#### **Analysis and Findings**

"History of online education goes back much further than just the dawn of the internet"-Online education is nothing new, the technology is relatively new though, under which, online education has created possibilities that previous generation couldn't even fathom.

#### **International**

The concept is 170 years old and has its origin in 18<sup>th</sup> century, with the beginning of print based correspondence study in US. In the mid-19<sup>th</sup> century correspondence courses were offered in Great Britain, where the instructor sent lessons and received students' completed assignments by mail. It got spread to Germany and France. Distance learning was born and today's online courses are modern versions of their humble predecessors. In the 1840's Isaac Pitman taught his pupils shorthand via correspondence, this form of symbolic writing was designed to improve writing speed. In 1954, BF Skinner, a Harvard Professor, invented the "teaching machine" which enabled schools to administer programmed instruction to their students. It wasn't until 1960 however that the first computer based training program was introduced, with the very first virtual classroom environments being created, scientists of University of Illinois created a classroom system based in linked computer terminals, certainly not a form of "online learning" that stands up to the web learning of today but it was the beginning.

#### **National**

At the time of Independence India inherited an education system with glaring disparities between males and females, upper and lower classes, urban and rural population and so on. However, gradually Government realised its primary responsibilities of making education available to all, but in a developing country like, India, with its inherent characteristic, "over population", "classroom teaching" was found to be unable to meet the demand. That is when; Indira Gandhi National Open University was established, in 1985, for distance learning, just after the first single mode Open University, in Andhra Pradesh, in 1982. The year 1995 witnessed enrolment of 2000,000 students in open and distance learning, accounting for 3% of total Higher Education enrolment. These were the initial steps taken in India, at the time, when the concept of internet had just begun with the launch of Educational Research Network in 1986, towards spreading education to the mass.

#### **The Competition**

Online education is quickly becoming a major phenomenon around the world, the ease and convenience that it offers is the biggest advantage attracting today's generation the most. Certain nations have embraced online education more than others, leading the way to new innovations to online learning

itself. U.S is the undisputed leader in online education in the world today, with hundreds of online colleges and thousands of online courses available to the students. Most prestigious universities in U.S offer at least some courses online, and some have fully developed online programmes, even at the master's and doctoral levels. India is also playing a major role in the growth of online learning opportunities that are popping up throughout Asia. China is the home to almost 70 different online colleges, a number which is likely to grow in the coming years in order to meet the high demand for online learning opportunities, though it began with courses that were delivered via radio and television. When it comes to advancements in e-learning in Asian nations, South Korea is leading the pack, spurred on by the nation's strong and growing high-tech industry and widespread high-speed internet access. The country currently has 17 online colleges, all of which boast state-of-the-art facilities and software. Malaysia may not be at the first place that comes to mind when you think of online education, but the small Asian nation is forging ahead at full speed when it comes to opening up new opportunities for learning online. Online education in the United Kingdom has been around for quite some time, but it was only in 2011 that it started to see a real boost in interest. Distance learning has become an increasingly popular option for Australians who want to head back to school without putting careers on hold, growth that was driven up even more by the economic downturn in 2008 and 2009. Over past five years, the online education market in Australia has grown almost by 20 percent. South Africa is one nation that has begun to capitalise on all the benefits that digital education can offer. In past few years, the online higher education sector in South Africa has seen steady growth, but the demand for highly qualified teachers, which the country sorely needs, may drive online programmes in teacher training much faster than other sector.

**Why is this system needed here?**

The most important aspect of online education is "No Restrictions", in a country with the population of 133.92 crores (till 2017), with majority still now, believing in the age old practise of discrimination, the system of e-learning may be of some massive help. With widespread internet facility available in recent times, online education in India has seen a rapid progress in recent time, and has been reported to have the second highest number of online course enrolments with more than over 1,55,000 students from the country. The students in India are very much enthusiastic about the concept. This method will undoubtedly increase the rate of employment and literacy rate in the country. The overall literacy rate of the country is 74.04 per cent of the total population. But to attend a sustainable growth and development the rate of growth of literacy level should increase more than proportionately to the rate of growth of population. However, it also provides professionals with the flexibility to improve and update their skills. Owing to the population, 133.92 crores, of the country, this system of education has a promising future in the country. But the present scenario of online learning is not sufficient, as a large population in India cannot read English and the internet service provided is poor, though effort is being given recently to improve it.

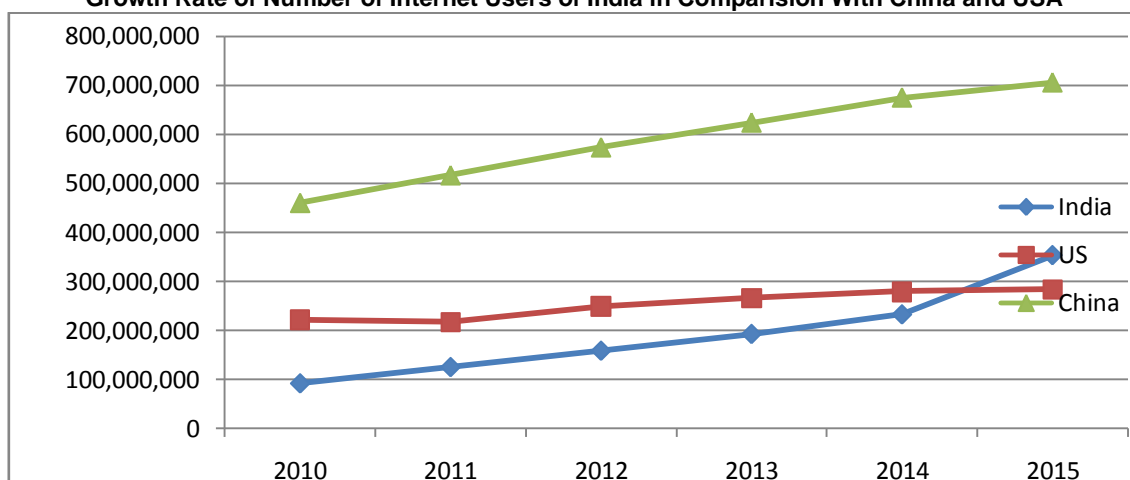
**Section 2**

**The Run- The time when all started getting connected**

The first publicly available internet service in India was launched by state-owned Videsh Sanchar Nigam Limited (VSNL) on 14 August 1995. But the rapid growth of internet connectivity in recent times has been an important catalyst for the growth of e-learning in the country. With 460 million internet users, rivalling with US and marked only behind China, India is the second largest internet market in the world.

**Figure 1**

**Growth Rate of Number of Internet Users of India in Comparision With China and USA**



Source: www.statistia.com

With a total world population of 7.4 billion, and with 41.3 per cent internet users in the developing countries and 81 per cent in the developed countries, it is quite evident that internet usage has become an

indispensable part of daily living. 52.95 per cent of the total population in India are internet users just behind USA with 76.18 per cent internet users and China with 53.20 per cent internet users. This easy and growing

availability of high speed internet at pocket friendly price has a huge impact on e-learning in developing countries like India. The government of India is a strong supporter of e-learning and the Department of Electronics and Information Technology has been actively developing tools and technologies to promote it. Because according to the census, the national literacy rate stands to be 74.04 per cent, with only 4.5 per cent graduate and 32.6 per cent is not even educated up to primary school level. Indians often turn to mobile internet, as the large majority of the digital population in India were mobile internet users, 323 million people in India accessed internet through their mobile phones. However, participation of Jio, Idea, Airtel, Vodafone and other service providers in providing internet facility to a large part of the population, cannot be denied, but "speedy internet" is the new trend, there were 7,20,384 new towers installed for the betterment and spread of "4G". Telecom operator has installed 65,000 new mobile towers and 6.34 lakh new base transceiver stations between November 2016 and 2018. As a part of Central Government's Digital India campaign that was launched in 2015, free Wi-Fi's were made available with the help of Google and RailTEI, at more than 700 stations across the country and it covers around 8 million people every month, as in the country, railway is an important mode of transportation, which is used by millions of Indians to meet their day to day work as well. The service covers 407 urban railway station and 298 rural stations. This initiative taken by Government made internet available in interior most areas. Youth, women and villagers in nearby locations, of the stations with the facility, in the extreme rural areas, would be able to access the facility for enhancing skills and productivity, thus increasing the opportunity for those women to earn their living and contribute to the GDP. The service was first provided at Mumbai Central Station in January 2016, and covered 100 stations within a year. The internet speed provided by Google in these stations is faster than several paid services available in India.

### **Section 3: Bridging Urban-Rural Gap**

It has been observed, that there is huge urban-rural gap prevailing in India, in all aspects of economy that doesn't exclude education as well. Despite so much noise around "Digital India" initiative, the urban rural divide is more acute than it actually appears to be when it comes to internet penetration across the country. The number of Internet users are growing in rural areas, yet the bridge between urban-rural is vast. An estimated 182.9 million urban users access Internet daily as compared to 98 million users in rural areas. Urban India has witnessed a growth of 9.66 per cent from December 2016 and was estimated to have around 295 million users by December 2017. On the other hand, Rural India witnessed a growth of 14.11 per cent from December 2016 and is estimated to have around 186 million Internet users by December 2017. Schools in urban areas get almost all the facilities that not only motivate students to score better but also helps in their personality development, where on the other hand,

schools of rural areas struggle with necessary facilities like toilets and lack a proper teaching staff, despite of being run by the government. Result is poor quality of education in rural schools, which acted as a constraint in extracting the potential talent that could have contributed to the progress of the country. To fight this imminent problem, non-profit organizations like "eVidyaloka", are trying to improve the quality of learning by bringing online education to rural classroom, with the objective of making "knowledgeable and empowered rural India". Government of India has also played a significant role in bringing about an educational reform through "online", Ministry of Human Resource Development has recently, in September 2018, launched "Swayam", "SwayamPrabha" and "National Academic Depository" which aim to take e-learning sector in India to next level, and available at zero cost. A country's growth is governed by many factors, Education is one of them. Former President Mr. Pranab Mukherjee once talked about how beneficial can the digital technology be, with which excellent teachers can directly teach a large number of students, who are not physically present in class. Online classroom offered by government or by any NGO has the same goal: to provide equal quality of education to all. Online education can actually bridge the Urban-Rural gap in all respect.

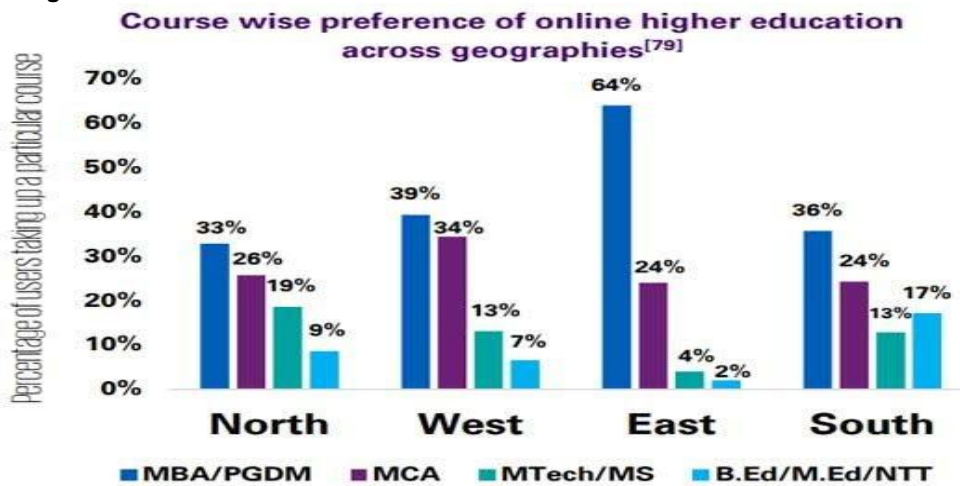
### **Section 4: Another Step towards Making Learning Easier**

In the recent years, to promote online education, and to take it on a higher level numerous Apps entered the world e-market, of India, most of which are actually accessible through mobile phones that supports internet connectivity. Meritnation: was founded in 2001, helped students in preparing for the entrance exams for engineering ( JEE Main, JEE Advance, Medical Entrance Exam), C.A., BBA, and many other. It also helps the school goers. At present it has got subscription of more than 1.5 crore students. Byju's: was launched in 2015, and has 15 million registered users, including 9000,000 paid users. Moto of the organization is "Fall in love with learning". It offers courses for school goers from class 4 to class 12 on subjects like math, science, history, and many more, it also help the students preparing for civil service exam, engineering, medical etc. Success rate of the app is in the ratio 1:7. Wikipedia: An example of "Ask me anything", contains more than 39 million article in nearly 300 languages. MyCBSEguide: Mainly help school goers, for their board exams, by Taking tests and gives free access to NCERT solutions. Duolingo: helps to learn several new languages, Spanish, French, German, Italian, Russian, Dutch, Hebrew, and many more. App claims and students believe, 34 hours of duolingo, is equivalent to a semester of university level of education. Khan Academy: founded in 2008, offers learning for free, and covers maths, science, economics, history, computer program and many more. Coursera: This app allows to learn on the go, with access to more than 1000 courses and specialization, developed by more than 140 of best colleges and universities. Individual Learning Private Limited:

Founded in the year 2012, the app develops and operates online test preparation portal. It also offers online training and feedback services for engineering entrance exams. Not only these apps have promoted the system of online education, but there are many websites as well, providing free education in India: EdX (edx.org): Founded by Harvard University and MIT in 2012. AcademicEarth (academicearth.org): Founded in 2008, by Richard Ludlow, Chris Bruner and Liam Pisano, with the mission of giving everyone on earth access to a world-class education. There are many more websites like Internet Archive (archive.org), Big Think (bigthink.com), Brightstorm (brightstorm.com), CosmoLearning

(cosmolearning.com). It has been observed that online education, only within few years helped a large number of students cracking exams, it has almost substituted the offline test preparation market. According to a report, by KPMG (Klynveld Peat Marwick Goerdeler), the number of students registering to online learning apps for test preparation is expected to increase significantly in coming years. India has one of the largest higher education systems in the world. According to KPMG report, online education in India is the early stage of development and has witnessed emergence of different private Universities offering various-learning courses for student, chart below shows that.

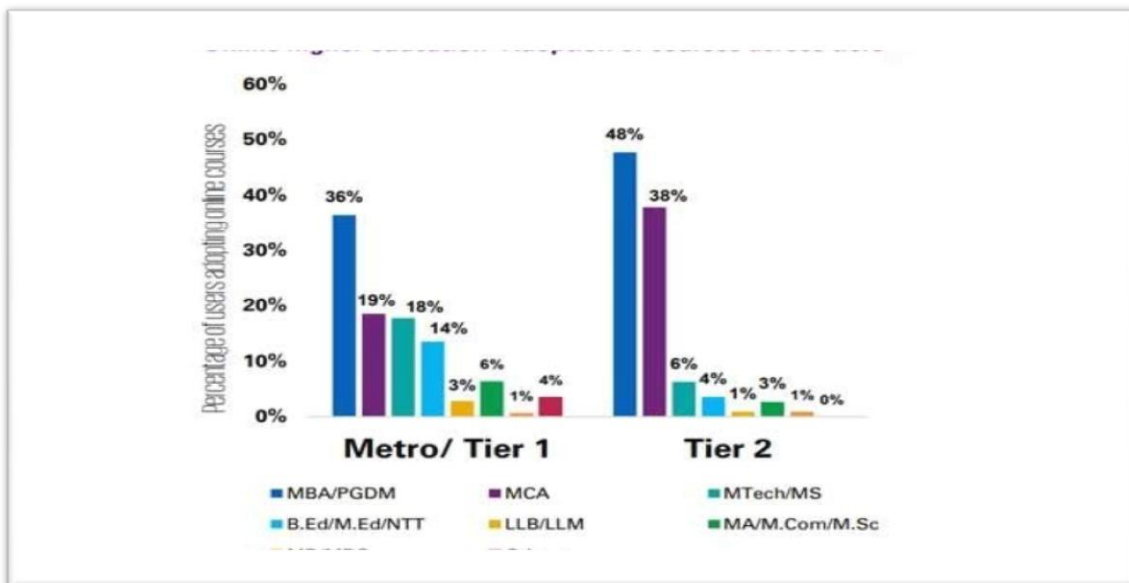
**Figure2: Course Wise Preference for Online Education.**



Students opt for the courses that will help them to get better jobs in shorter time, so the courses adopted are very calculative. In the chart below we can see, tier 1 cities have higher adaptation of

different types of PG courses, whereas, in tier 2 cities there is high demand only for those courses that can offer lucrative job.

**Figure3: Adoption of Courses across Tiers**



**Findings**

In the era of digitization where technological advancements have an impact on almost every aspects of our daily living, field of education is no exception. As of 2015, India is already the second

largest market for e-learning after United States. The sector has been expected to reach about \$1.29 billion by the year 2018, and current user base is expected to grow at 44 per cent CAGR to 9.6 million users by 2021. But the sector is yet to grow, it is just the

beginning as experts opine, as the global online education market is projected to witness a compound annual growth rate of 10.26 per cent during the forecast period to reach a total market size of U.S \$286.62 billion by 2023. It is expected that education sector of India is going to experience dramatic change with the growth of online education sector, especially in smaller towns and cities. The key factors leading to the growth of the digital market in India are rising demand from various segments, growing number of smartphone users (India is also the world's third largest smartphone market with a number of users expected to reach over 800 million by 2022), improving penetration of internet, and increasing participation at the government level. The number of internet users of the country is expected to reach 730 million by 2020, which obviously implies an increase in the number of enrolment with online courses. However, it cannot be ignored that online education providers can reach out to the masses without setting up a physical infrastructure or incurring administrative costs. The existing traditional educational infrastructure is not equipped to meet the additional capacity, which can be supplemented by the method of e-learning and bridge the gap to a considerable extent. The Government is also taking friendly steps in recent days, towards digital learning. The government has launched several programmes under the initiatives such as "Digital India" and "Skill India" to spread digital literacy. Despite of all the efforts being made by the Government, NGO's, and other non-profit maximizing organisations, to promote online education in the country, the journey is fraught with several challenges. The same old mind set of the students and parents that classroom teaching is more effective and highly engaging is undoubtedly one of the most important constraints in the way of the growth of online education. However, insufficient digital infrastructure, despite Government's immense effort to improve it, is another disadvantage. However, the involved companies took extreme effort to promote their models of conducting online education through various social media platforms, to create a sense of importance of the system among the aspirants of various fields who find it difficult regularly to block a huge chunk of time to make their way to the classroom. Sponsored advertisements of some of the virtual institutes in Facebook and Ads popping in YouTube are some of the examples of the marketing of the institutes involved in the entire scenario of the online education system, across the globe.

### Conclusion

Availability of internet and technology to support the widespread use of internet has got a lot of positive benefits, as well. Technology is just an enabler, requiring a human to operate it and make use of it. The outcome of any technological intervention is dependent on the manner and purpose with which they are put to use. There must be a responsible use of the technology. In many interior towns and villages, where government school staffs do their job inefficiently without bothering much about how that negligence may hamper the future of the students, and thus contribute to that huge cost borne

by the society. Though online education cannot completely eradicate the problem, but with the proper use of technology and from the benefits of widespread availability of internet, the system can serve to a large extent, the prevailing excess demand for education in the country. Not only the students are benefitted from the system but there are scopes for the teachers as well to upgrade themselves. Professionals can also get their further degrees by studying online while doing their jobs. However, modern technology enables instructors to develop new ways to teach students online which is regarded by many as more effective than face-to-face teaching. The development in the field of data science and artificial intelligence are evolving at a great pace, and to keep up with the technological developments, professionals often resort to up skilling, where online courses are playing a major role.

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