

The Growing Digital Connectivity in India: Overview of Opportunities and Challenges

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ABSTRACT

The Internet have certainly brought about reflective changes in human civilization, offering both huge settlement and significant challenges. Digital India is an idea for providing high-speed internet networks to rural areas. The paper focuses on the extensive espousal of smart phones and the extension of internet connectivity have democratized access to information, education, and economic opportunities. The availability of smart phones and internet connectivity has made learning transcend traditional boundaries. Digital technology can allow marginalized communities and bridge the social divide by facilitating access to education, healthcare, and financial services. Digital insertion fosters economic empowerment by increasing access to online job markets, promoting digital entrepreneurship, and enhancing livelihoods.

Keywords: communications, information, connectivity, internet, networks and community

INTRODUCTION

The internet also opened doors for next-gen digital services and industries like e-governance, e-education, social media, agrotech, e-commerce, fintech, telehealth, etc. The obsolete narrative of internet just being a means to communicate is no longer valid. The internet probably the smallest term vast enough to encompass the entire world has not been allowed to unfold its true potential in India's Right since its inception the propagation of this revolutionary technology has been hampered with so many restrictions of non-desirable situations like heavy political and bureaucratic influences on technical economic and infrastructural issue have been the chief deterring factors Digital communications is the foundation of e-governance. It includes high-speed internet, data centers, and cloud services.

Worldwide, the Internet has spread wings to sectors as diverse as advertising commerce trading shopping government dealing and so on it has significantly changed the way people thing interact and do business. But, in indicative we are still grappling with trivial and inconsequential issue that is unnecessarily delaying the advancement of this major technology. Analysts fear that this delay is indicative of an attempt to centralize power, and therefore may mar or even halt further growth of the internet and consequently that of society as a whole.

Ultimately, for the first time in its endlessly long history, mankind has come out with a medium-the internet-which shows a true potential to encompass the virtually infinite sea of information produced so far. The internet can be termed as community of people joining hands together to establish a truly global village that span all continents, government, race, religions, sex and age. It is made up of hundreds of thousands of separate network, each connected to a backbone that move from one network to another Video-conferencing inexpensive phone calls, instant data access, real time interaction, and all other form of information exchange are just some of the benefits that the internet is bringing to our living room. These applications are finding use in commercial as well as education fields.

The internet provides a level playing field for all. No matter whom you are and where are you live, you have every right to visit its sites, download information for personal use, and exchange E-mails. India, a country of vast resource, and an equally vast population, badly needs a enterprises together. As of now, people in north usually do not have much idea about those in south, and people in east know only vaguely about traditions prevailing in west. A common platform is needed to spread message that transcend the barriers of language, religion, distance, etc. The Internet can be platform. It can greatly benefit the government in apprising people of its policies and are intentions, help manufacturers in finding distributors for far off places and assist academic institutions in launching Mass education programmers. The market is expected to touch a whopping 200,000 subscribers by the end of the fiscal year 1998-1999 only

Based on the recommendation of Dr Jalan committee and department of Telecommunications DoT, the government announced certain major policy decisions on the internet and related matters on October 20, 1997 to give a boost to the internet usage in India. Among other things, entry of private ISPS was permitted, and the license fee was waived off for a period of five years. The aim was to benefit the Academy community, scientist set up a nurse and students by providing them access to the Internet at reasonable rates.

Another objective was to rope in two million subscribers with a period of 2 to 3 years. The step was a major initiative taken by the government to encourage ISPs to establish themselves and prosper. "As of May 2014, the Internet is delivered to India mainly by 9 different undersea fibres, including SEA-ME-WE 3, Bay of Bengal Gateway and Europe India Gateway, arriving at 5 different landing points. In 2017 its reported that India is also a potential market of Starlink and apart from having one overland internet connection, at the city of Agartala near the border with Bangladesh, India has also established 2,300-km undersea cable to increase internet connectivity to its Andaman and Nicobar archipelago in 2017" (Bureau, The Hindu 2017)

As a promotional measure, private operators have been permitted to use any access transmission capacity available with the railways and power Grid Corporation. In addition to the facilities provided by VSNL, the revised policy also allows ISPs to charge a market – determine price from their subscribers. However, access charges to be paid by the ESI SPS to BSNL or any other gateway provider will be fixed on a promotional basis as determined by an interministerial implementation committee (IMIC) set up to overall internet – related matters. Many analysts find the policy fair enough in several respects, and say that it is a major step towards strengthening access to information at both national and global levels.

Telecom regulatory authority of India TRAI, on February 17, 1998, struck down the governments internet licensing policy announce in January, 1998 on the ground that it was not based on the regulators (TRAI's). Recommendations, one of the major ambiguities in the policy is on international gateway connectivity. The policy states, ISPs will have the freedom to use international gateways to VSNL or other gateways to be leased by VSNL as well as any other great ways as necessary, subject to approval and such conditions as may be laid down by the implementation committee. It is quite commendable that VSNL has acquired its self with the world – class networks to respond to challenges of today and demands of the future. the growth of the Internet in India depends on policies brought out by the government. It is still in the early stages of its life cycle. The first publicly available internet service in India was launched by state-owned Videsh Sanchar Nigam Limited (VSNL) on 15 August 1995. "At the time, VSNL had a monopoly over international communications in the country and private enterprise was not permitted in the sector. The internet service, known as the Gateway Internet Access Service (GIAS), provided a speed of 9.6 kbit/s speed and was priced at ₹5,200 for 250 hours for individuals, ₹16,200 for institutional dial-up SLIP/PPP accounts, and higher for leased line services" (Ghosh, Shauvik 2015)

Life is about a mix of good and evil. So is the Internet. For all the good it does us, cyberspace has its dark sides too. Unlike conventional communities though, there are no policemen patrolling the information superhighway, leaving it open to everything from Trojan horses and viruses to cyber stalking, trademark counterfeiting and cyber terrorism.

Computer has brought about revolutionary transformations of knowledge, the way it is being acquired and the means by which it is being inculcated. It all began with World Wide Web which acts as a networking system connected to the server and which helps provide ready-made and fast portal of information. Internet is its practical means for providing information and messages. "The Indian Government has embarked on projects such as BharatNet, Digital India, Brand India and Startup India to further expedite the growth of internet-based ecosystems. Reliance has started the project of underlying submarine cable connecting continents of Europe and Asia and keeping India its centre India-Europe-Xpress (IEX) and India-Asia-Xpress (IAX) - the world's largest submarine cable system - are said to be ready between 2016 and 2017" (Rao, H. Raghav. 2017) Started as an important source of information storage machinery, computer has the wider usability in defense institutions and for its various purposes, but slowly it gained access to other domains of human activities. However, the rapid growth of internet gave rise to the establishment of Cyber Cafes all over the world.

Internet is the speedy means of communication whereby information can be made available easily, messages can be exchanged and wide and varied spectrum of valuable information can be gathered in a very short span of time. In fact, Internet has become the prime source of information encompassing almost all subjects, entities, nations, establishments, field of inquiries, institutions, industries, domain, persons and places. "The definition was amended in July 2013 defining broadband as a "data connection that supports interactive services, including internet access, capable of a minimum download speed of 256 kbps to an individual subscriber. The minimum download speed was officially raised from 256 kbit/s to 512 kbit/s in August 2014" (Ramani, Srinivasan 2015)

In this hi-tech era, Internet has acquired an urgent necessity for people of all walks of life as more and more Cyber Cafes gave way to young and old reaching out for easy access for vital information. As a user friendly means, Internet gained tremendous response from the educated professionals, students and business tycoons. Now it has become possible for an individual to send message to anyone living in any part of the world in jiffy and he can get back the reply within minutes. While sitting in his bed room, a person can have all the incidents, news reports, messages. Internet is useful for all; for academicians, researchers, professionals and students---as study materials, vital statistics, and readymade information are easily accessible. Students could study, make notes, and fill up the forms which are available on-line or download them, go through the examination results which are placed on line before they published.

Academicians and researchers need not visit libraries as Internet has become a vast ocean of library on any subject, topic and filed of studies. Although some of the websites are payee most of them are accessible for making research papers done in a very short span of time.

For IT professionals, Internet has become all the more relevant as the latest technology is available on line except for new patents. Sending and receiving mails is a part of one`s life. And from scientists to the layman, information on all genres of life can be accessed through Internet. Railway information like schedule, ticket availability and departure time, to the information on agriculture, economy, including the budget details of every year are displayed on-line.

CONCLUSION

Reliable connectivity is crucial for linking citizens with government service. For writers and authors, Internet is a must particularly for patent document writers who can access all the inventions that have been established. Internet is user-friendly, less expensive and speedy in transferring messages, information and relevant data. In this fast paced world, Internet has become the very part and parcel of human activities. It would not be wrong to say that it has become the lifeline of most of the people. One of the deepest contacts of the Internet has been on education. Online courses, webinars, and educational platforms have made high-quality education accessible to millions of people around the world

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