

DIGITAL DIVIDE IN INDIA

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Abstract—The term *Digital Divide* describes the disparity between people who have access and the resources to use new information and communication tools and the people who do not have resources and access to information and communication technology. Lloyd Morrisett coined the term *digital divide* to mean a discrepancy in access to technology resources between socio economic groups. Digital divide has been widely researched and gained much importance in the recent years. The present paper is mainly focused on digital divide in India. India is going to make access all services to the people through electronically which we can call “*Digital India*”. India has a vast population and geographical diversity. It is possible only to provide easy access of services to all people through e- governance. One of the major challenges of Indian government is to reach every citizen and provide them access to different government services. But, India is a country where most of the people living in rural and backward areas which are completely disconnected from the bright world of technology. The present paper is an attempt to examine the factors which contribute to digital divide and what are the initiatives taken by Indian government of bridging the digital divide in India.

The paper also reveals that obstacles such as illiteracy, lack of skills, infrastructure and investment in India must be tackled if India is to delittle the gap of digital divide. In the light of above objectives, a relevant data will be collected through primary as well as secondary sources.

Keywords: *Digital, technology, diversity, bridging.*

Introduction

Over the years Information and communication technology (ICT) has proliferate as a widespread revolution which makes it possible to access of internet in any part of the world. ICT infrastructure is the backbone of modern society. It is the biggest enabler of change and process reforms with minimum resistance. Digital divide is a global phenomenon as ‘haves’ and ‘haven nots’ exist not only in economically poor countries but also in the so called developed countries. Around 45% of the world population has an internet connection today. But the fact is that large population of the world especially third world countries lack the basic access to internet which has created the Digital Divide. Digital divide refers to the gap between people with effective access to digital and information technology and those with very limited or no access at all. According to OECD(2001), ‘ The term digital divide refers to the gap between individuals, households, businesses and

geographic areas at different socio economic levels with regard both to their opportunities to access information and communication technologies and to their use of the internet for a wide variety of activities’. India is one of the countries where digital divide is quite evident. India is a second most populous country in the world where large areas. Being a developing country, India also faces some political, economic, technology and social challenges in providing access to the people. India has a lack of infrastructure, low literacy rate, less number of people knowing English language and lack of technological skills mostly contributed to digital divide in India. Digital divide is also a major challenge for the e-governance of a country. Indian government has taken a number of initiatives not only to bridge the digital divide gap but also to proliferate the information and communication technology in India which makes Digital programs Viable.

Objectives

Δ To examine the initiatives taken by the Indian government under Digital India Program to bridge the digital divide in India.

Δ To explore the challenges in bridging the digital divide in India

Δ To examine digit divide a major challenge of e- governance in India

Research Methodology

In the light of above objectives, a systematic research design is drawn. The researcher has made an attempt to analyse the scenario of digital divide in India. Existing literatures on digital divide have been taken into consideration along with different publications of government and international organizations to debunk India’s digitalization scenario.

1. INITIATIVES OF BRIDGING THE DIGITAL DIVIDE IN INDIA

Kissan call centre

The depth of Agriculture and co-operation (DAC) ministry of agriculture government of India launched Kisan call centres of Jan 21, 2004, across the country to deliver extension services. All the queries related to agriculture and allied sectors are

being addressed through these call centres by making a single call the farmers reaches an agriculture graduate or expert who would be able to respond to his queries and problems instantly. These services would be available round the clock. This would be great efforts made by the ministry of agriculture in India to bridge the gap between the right information resource and the user by using the phone. (kisancallcentre.org.in).

1.1. Life Line India

It is a charitable organization working to promote human rights and sustainable development across the globe to explore ideas for a telephone based information service to enable farmers to record a question and after retrieve a recorded reply. Life lines India was launched in November 2006. This solution comprise a Cisco unified messaging platform incorporating integrated with a customer relationship management application and information. This coverage currently extends to 700 villages and the average of 350 calls to the service is being received each day. A database of frequently asked questions has been created. This is a vital service to deliver a prompt service to farmers, it is key to enabling service scalability and sustainability so that the overall caller satisfaction with the service is very high at 96%. "Life line education" has being developed to extend to every villages by 2010. It is designed to provide the farming communities with access to expert advice on agriculture and animal husbandry problems. Life line India has provided the value of digital inclusion educating the rural users to use technology to access advice and learning to improve the further for their families and the local community. (windia.org). (www.impact India.org). (enwikipedia.org).

1.2 Bhoomi Project

It is created in Karnataka states covers 66.6 millions of records of land ownership. This project has earned the good will of many people and also international funding agencies. Bhoomi centres are located all over the state. This project can also be used as a data bank of various projects of public and private sector organizations. The project has own 2002 common wealth association of public administration and management award for creating self content governance and opening up new fofronties with the success of Bhoomi project other states of India that is tamilnadu, Maharashtra and Madhya Pradesh have started evolving models based on Bhoomi in their respective states.

(www.bhoomi.gov.in), (yellowpages.sulekha.com),

www.commonfloor.com

1.3 Gyanadoot project

Gyanadoot project is an Internet in Dhar district in January 2000 connecting rural cyber cafes to the needs of masses and is considered as the mass based Information Technology

revolution. The computers have been established in Gram Panchayats. They have been called Soochnalaya. Commencing the Soochanalaya, user-charge based services are given to the masses and at the same time the information technology related developmental requirements of government departments and Panchayats are met free of cost. This Intranet has been named Gyanadoot. These kinds of projects demonstrate the rural demonstrate the rural consumers can and will benefit from connectivity. This facilitate in bridging the digital divide.

1.4 TDIL Project

The depth of information technology initiate the TDIL with the aim of developing information processing tools and techniques to facilitate human machine interaction without resources and integrating them to develop modern user products and services. (bhashaindia.com), (www.irec.conf.org), (www.iitg.ernet.in), (tdil.dc.in), (tdil.mit.gov.in).

1.5 Friends' project

The fast, reliable instant efficient network for disbursement of services (FRIENDS) project has been launched by the state of Kerala in the southern part of the country with a view to-wards mitigating the hardship of citizens, playing taxes by eliminating middle man, delays and long queues. This project has expanded to serve 13 million people in 12 districts of Kerala. The philosophy of FRIENDS is to treat citizens as valued customers. Similarly in Tamil Nadu a private outfit "N" lounge offering low cost tele-solutions has worked wonders in Madurai district by using the local loop technology and making available fibre optic lines running across the district by helping private entrepreneurs run services including that of e-governance. (e-printsrelis.org), (www.hindu.com)

1.6 Lokamitra/ Smart project

Himachal Pradesh has initiated the lokamitra project with grants from NABARD to provide the general public, especially those living in district rural areas, for easy access to government information facilities of e-governance to their door steps. Lokamitra "Soochnalaya kendras" (information centres) have been step up in 25 panchayat areas run by unemployed youth. These kendras provide current information relating to the district and government information. (www.ijidt.com).

1.7 Toarahat project

It is a project conceived by the Delhi based development alternatives grup. The project provides a bunch of service like employment mandi market, e-mail, weather, matrimonial etc. The high pictured interface makes it easier for a long man .

1.8 Digital India Program

Digital India is the campaign launched by Government of India on 1st July 2015 by Prime Minister Narendra Modi

“Digital India is our dream for the nation. When I say Digital India it is not meant for the rich but for those who are poor”. Digital India is a dream project of the government for the citizens and Industries of India which could help in connecting the various past and present projects to bring India to a global platform and through this project government services are available for urban and rural citizens digitally or electronically. The inventiveness includes plans to connect rural areas with high-speed Internet networks. Digital India consists of three core components. These include:

- The creation of digital infrastructure
- Delivery of services digitally
- Digital literacy

A part of Digital India, The Digital Saksharta Abhiyan (DISHA) or National Digital Literacy Mission (NDLM) Scheme has been framed to impart IT training to the non-IT literate citizens to become IT literate so as to enable them to actively and effectively participate in the democratic and developmental process and also enhance their livelihood. India will soon launch Rs. 1,800 crore (\$265 million) Digital Literacy Mission for 60 million people in rural areas as another initiative to bridge the gulf between those who have access to and can use computers and the internet and those who don't, a top official told by IANS

2. Challenges and Barriers to Bridging the Digital Divide

2.1 Infrastructural barriers: India still lacks a robust telecommunication infrastructure with sufficient reliable bandwidth for Internet connection.

2.2 Literacy and skill barriers:

Education in information literacy will play an important role in keeping the society from fragmenting into a population of information haves and have-not's. The lack of skill in using computer and communication technology also prevents people from accessing digital information. Approximately 23 million children per year take up primary education but only about 15 million children per year take up secondary education. This figure gets drastically reduced at the undergraduate level to only about 2.3 million students per year (Yajnik 2005).

Below table shows India's literacy;

Residence	Sex	Literacy %age
Urban	Male	89.67
	Female	79.92
Rural	Male	78.57
	Female	58.75

Source: census 2011

2.3 Economic barriers:

Poor access to computer a communication technology also causes a digital dived In India. The ability to purchase or rent the tool for access to digital information is less among the

masses. Approximately 23 million children per year take up primary education but only about 15 million children per year take up secondary education. This figure gets drastically reduced at the undergraduate level to only about 2.3 million students per year (Yajnik 2005).

2.4 Content barriers:

To solve the digital divide, steps should be taken by the government to ensure that citizens are able to receive diverse content relevant their lives as well as to produce their own content of their communities and for the Internet.

2.5 Language barriers:

Having a multicultural a multilingual population, today a large percentage information content on the Internet is in English, which is a barrier for the people whose primary language is not English like India.

2.6 Rural- urban divide barrier

Geographic location is one of the affecting factors for individuals to access ICTs. Hindman (2000) finds that even though ICTs provide distinct advantages to geographically isolate rural residents, rural citizens are expected to lag behind urban residents, because of limited telecommunication infrastructure, and culture.

2.7 Lack of Participation:

Unfortunately, it is observed that often the rural people are not very much attracted towards the web based E-Governance services for various reasons.

Many-a-times they are afraid of the technologies and at times they are even ignorant about the availability of technologies which can help in dealing with their problems. Moreover, technology is changing so fast that they are not able to cope up with the technological developments [7]. People are technology phobic and resist the change. They hardly bother to learn these technologies.

3 Digital divide is a challenge of E-governance

The world is changing at a very fast pace with the evolution of Internet. India has second highest number of Internet users in the world but the shocking fact is that this constitutes only 36.5% of the Indian population. A digital divide exists within the country which is a real challenge to implement E-Governance. The aim of E-Governance is to provide transparent, easy to access government services at every nook and corner of the country. This is only possible when there is a uniform distribution of infrastructure and services are easily accessible. Only about 36.5% population has Internet access. Rest of the population still depends on slow pen and paper mode of services which is prone to manual errors. In recent years there has been an explosion of E-Governance projects in India. Over the years, a large number of initiatives have been undertaken by various State Governments and Central

Ministries towards digitization of government services. The major initiative was taken in 2006 in the form of national E-Governance plan (NEGP) formulated by the Department of Electronics and Information Technology (DEITY). NEGP comprises mission mode project (MMP) which are individual projects that focus on different aspects of electronic governance, such as banking, land records, taxes etc. Various MMPs have been proved to be successful in achieving their objectives but they are still not utilized to their full potential. To fuel NEGP, next major step taken by Indian Government was in the form of Digital India Campaign in 2015. Thus E-Governance is only possible when this divide is bridged. Without bridging this gap, people cannot avail the facilities which are helpful in successful implementation of E - Governance. However, it still has some hurdles regarding e-governance, such as: digital divide between urban and rural, poverty, illiteracy, security and cost of implementation, etc. Each of these issues and challenges are posing serious concern to government. Meanwhile, previous and current government launched multiple initiatives by overcoming the above issues and challenges. Under twelve five year plan, some of the future prospects outlined and partly achieved by every government. However, government should spend more on this initiative to make it transparent, convenient, safer and citizen friendly in order to enhance people confidence in to good democratic e-governance.

Conclusion

This paper has explored the detailed study of digital divide in India. According to the analysis, Internet use has significantly increased in India over time, but, there is still a digital divide in ICT use. There is a significant gap between rural and urban residents regarding Internet use along with the users facing problem in regard to connectivity problems. A digitally connected India can help in the overall growth and development of its citizens and this digital inclusion can be realized through supporting and enhancing elements such as basic infrastructure and digital literacy. This digital divide between technology's haves and have-nots threatens to exacerbate the gaps between the rich and poor, within and among countries. Unfortunately, in India all people have access to the Internet and ICT, and an amazingly large number of people especially from the rural areas does not have abilities to use the ICTs in a proper way and, therefore cannot draw the advantages from its usage. The issues of "digital divide is posing a herculean task before the Government of India to provide the maximum benefits to the stake holders. Digital is also serious challenge of E-Governance in Indian. Many efforts can be seen in India for bridging the digital divide in India. All these efforts are reflected from the various initiatives taken from the government and private sector. The digital divide can never contained in isolation but the effort has to be multi-dimensional and multi-pronged. Thus we can say the need of the hour is that Indian government should be taken more and more strategies in order to bridge the digital divide gap.

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