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Digital Divide and *Internet Saathi*: A Social Computing and Informatics Practice Project for Empowering Indian Women

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ABSTRACT

Internet is the global system of interconnected computer networks and it offers a multitude of services to the users. It is the network of networks used mainly to transmit text and visual messages instantly such as electronic mail (email). The internet is used through world wide web succinctly called as www has vast information in the domain of public and private consisting of, academic, business, government, research, trade and so on. Internet is offered by several means or methods which include Satellite, electronic, wireless optical network etc. It is mainly accessible through Internet Protocol (IP) enabled www platform. Initially the program had started in 1969for a private use but gradually it spreads around the world due to its numerous benefits and cost advantage. But today the world is digitally divided, it is a fact that in many developing and underdeveloped countries access to internet is limited to rich and it is highly gender biased. Access to Internet services have several disparities among men and women in India despite Indian government's flagship programme of Digital India which aims at transform India into a digitally empowered society and knowledge economy. In many cases, Internet connections are restricted or offered on very limited basis and also in some cases centered to cater only men and highly restricted to women. In order to bridge this internet gap among women the *'Internet Saathi'* program is launched jointly by the Google India, Tata Trust, Intel India—to cater Internet Services to the Indian women and remove disparities between the Indian men and women. In this backdrop, the Papermakes an attempt study its impact on the access of internet among women based on the secondary data and the background of a case study.

Keywords: Digital divide, internet, Google services, Intel, Tata trust, networks, social computing, social informatics, information management, rural development, women empowerment

Today's digital world is unimaginable without Internet as it is one of the important and most valuable name till date in electronic world and also in common name for development, digitalization etc. Internet provide

a extensive range of information services and with email, telephony services, peer to peer networking, sharing of file, content, videos and so on [1], [2]. In many countries Internet services have been started but not spread in all the areas and gender disparities is very much common. In many countries of Africa and also in India this is a common and important facet. The divide in terms of bandwidth is also an important and valuable matter in most cases developing and undeveloped countries have a limited bandwidth in rural areas too, this is a common problem in most countries. Among the developed countries in USA 50% rural American have internet access which is less than the official target but still good compare to other countries[3]. Among the world countries, African and Asian countries have high inequality in access to internet, apart from, internet access is high in-service sector and industrial sector and agricultural sector lacks access to internet services and benefits (see Fig. 1). Inequality in access to internet is common in India among regions (rural and urban, and developed and underdeveloped states) sectors (agriculture, industry, and service) among people (social group -poor and rich, gender- women and men). However, efforts have been made by the government of India and state government to bridge this gap and transform India into a digitally empowered knowledge society and economy (http://digitalindia.gov.in). Apart from Government, private corporate companies like Tata Trust, Google India and Intel have come forward together to help rural women through *Internet Saathi* programme. This internet programme aims to provide access to internet among rural women. Women already make use of the internet for searching information on health, government programmes, agriculture, net banking, finding jobs and training opportunities etc. Economic and health related information is highly empowering rural women.

Objectives

- The objectives of this short study include but not limited to the following:
- To provide the basic information on access and usability of internet and its background.
- To determine internet and its potential and emerging services.
- To give an account of digital divide (or, information divide), (information literacy or), digital literacy.
- To explore the common internet based services in India.
- To delineate about the *'Internet Saathi'* programme and its advantages and limitations.
- To identify future potentials of *'Internet Saathi'* programme.

Internet and basic Service

Internet is an important and most valuable name in today's digital world and the private based internet which was started in 1960's has now reached its most significant destination both vertically and horizontally (covering all the countries and all the sectors) for all the stakeholders (earlier restricted only to industrial use and communication in 1980's). During the last 20 years the services and periphery of internet has grown 100 times[4],[5],[10]. The number of people connected to the internet in the world has grown rapidly reaching to 3 billion people in 2014from just 910 million in 2004. Further the penetration of internet is very wide having new and different applications making the world shrinking day by day at the finger tips. Internet has powered economic growth of the world and engineered and transformed the life of the society in the 21st century. Cell phone revolution has taken place all over the world and people spend

more time with their mobile phone than interacting with the society. Today another computer media like the telephony and television become re-shaped with the services of Internet. New Communication Medias have been arrived i.e. internet telephony and internet television. Today print media and other services are also adopting the internet in wide manner. Internet has become integral part in our life and it basically serves the following:

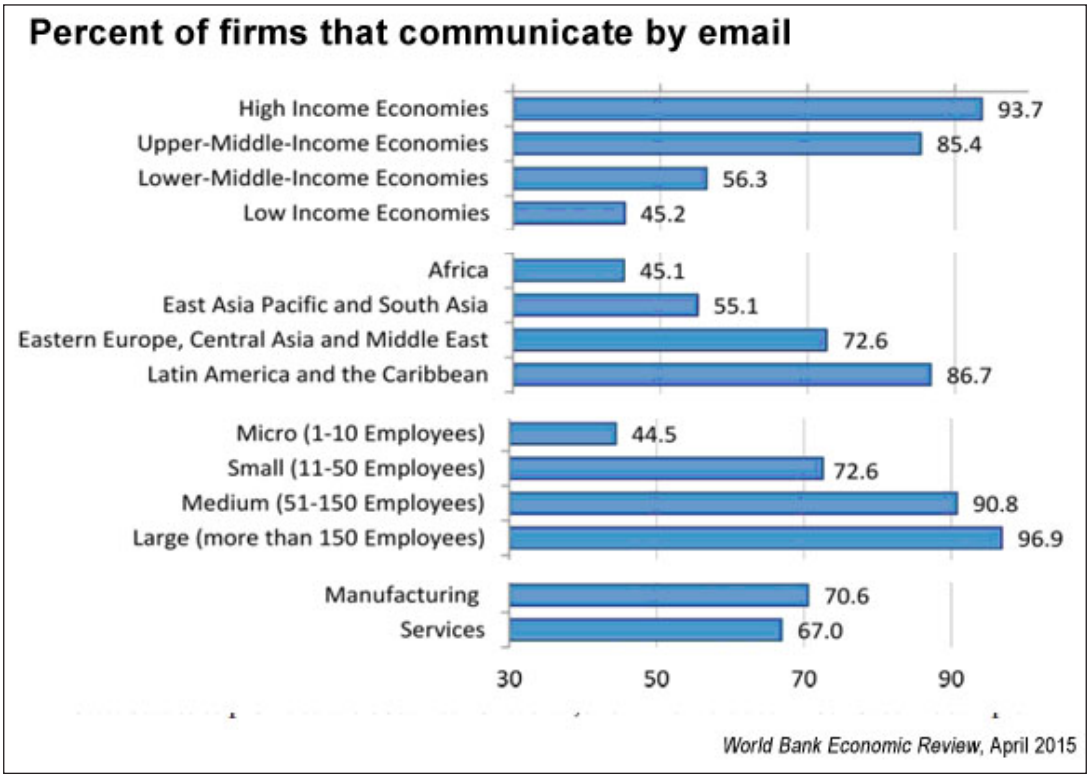

Fig. 1: Disparity in access to Internet in the World

- Providing and exchanging of instant e-mail to any locations and any time.
- Conversation in offline mode (not in real time) by the 'mailing lists' and 'News Groups'.
- Real time conversation with text, message, content and A/V delivery and sharing.
- Participation in internet relay chat services with the large group of people.
- Working with a remote computer by using the 'telnet' services.
- Downloading and uploading any information products, file in various format by the file transfer protocol services.
- Getting the hypertext services by which the real and needed destination may be reach within a moment.
- Reading, Uploading and downloading the multimedia enriched documents in various formats and sizes[6],[11].

- Use of search engine like 'Google', 'Bing', 'Yahoo', and getting information of various kind with internet based software (like chrome or Firefox).
- Online transaction and payment of bill depending upon need and requirement.
- Use of community based services like the social networking sites for communication in online platform, and for that many tools are exists such as Facebook, twitter, LinkedIn, MySpace, Tumbler, Instagram.

These are the common internet services which are most popular. However depending upon need, there are many other internet services which may also possible to access. YouTube is another example in this regard by which they can share or view or upload/download any videos (with even HD format) in the internet. Thus gathering knowledge and information by the internet becomes easy and most valuable in many contexts[7],[11]. The Encyclopedia also popularly known as Wikipedia is another important web portal in the internet communication world which provide text, voice, research papers at free of cost.

Fig. 2: The Launching ceremony of *Internet Saathi* project in West Bengal[24]

'Internet Saathi': Promoting Information and Digital Literacy

Before delineating about the *'Internet Saathi'* it is very important to understand the background of its launching by the Google India and Tata Trust.

Digital Divide—in today's society many of us using the electronic devices and programmes (hardware and software) such as the computers, laptop, television, internet, web technologies, database, cell-phones and so on. However, In India only urban population is more access to such modern technology whereas, rural population is completely lacking access to computers and their programmes, this has divided India to digital and non-digital ones. This inequality in access to modern electronic devices is mainly due to poverty, illiteracy, unemployment, poor infrastructure in rural India etc which divided Indian society

into 'have 'have not'. This income inequality also has created digital divide in India. Rural electrification and introduction of teaching of computers at the school level in rural areas helps to bring have not into mainstream digital India. Rural development brings structural changes in the economy and gradually it narrows the digital divide between urban and rural areas. In India only 20 per cent of the people have access to the internet services. This clearly shows the extent of digital divide.

Information Divide— Information Divide is mainly due to presence of Digital Divide. The concepts are more or less same. Information Divide occurs when the people are educated but unable to use new technologies due to lack of access to computers and internet services. Information divide is omnipresent in Indian rural areas and among various socio-economic groups and gender (men and women). Information helps to reduce transaction costs and also provides information about market, jobs, health, education etc., and creates awareness on day to day developments in the society. We are living in the Information era where information is the key for economic development but the digital divide created unequal society particularly among men and women. . So a group or community may be information rich and another is the poor in terms of information. A Country may be Information Rich but unless it reaches the needy is useless.

Information Literacy—Information Literacy or illiteracy occurs mainly due to the level of educational access among urban and rural areas. The information literacy plays an important role in accessing the information required for different needs of the society. Information literacy helps betterment of the society by removing digital and information divides much as possible. Building a true Information Society in many ways is possible with launching of *Internet Saathi* program in West Bengal.

The *'Internet Saathi'* program many ways helpful for healthy and modernize information systems and infrastructure building by empowering Indian women *(its inauguration photo is depicted in Fig: 2)*. The program is the joint initiative of Google, Tata Trust and Intel to offer internet services to the Indian women[8],[9],[12]. In India, several information based initiatives have already taken by several companies and Government departments.

However, in contrast to these, the *'Internet Saathi'* is quite different. This purely deals with the internet services to the Indian women, who have never used (or not usually access) internet services. However, access to internet services can improve the rural services and qualities, many ways to the rural women in accessing to the government welfare schemes and other government rural development programmes. The program started on July, 2015 with nomenclature *'Internet Saathi'*. The scheme was started by using bicycle to go the villages. These cycle basically empowered by the internet services[19],[23]. The cart of the cycle *(see Fig: 4*) carries the related resources to empower and educate Indian women. In this project a minimum of two days of training in a week will be given offered up-to 4 to 6 months. The program is offered targeting only school going girls and women because internet use among the girls is restricted and very low when compared to boys. The main aim of the program is providing internet services to the rural communities and specially to the women and girls which ultimately develop the information skills and knowledge among them which helps the society directly and indirectly, many ways. The lady trainer uses bicycle to reach the remote villages where women are still neglected or not received any kind of internet services or never handled computer gadgets or internet properly[13],[14],[20].

The trainer first gets the required training by the officials and then the acquainted trainer runs the campaign or social literary program in rural areas. NGO's and community Group are preferred to offer the training program to women trainers. After 'first internet cycle carts' the Google India released first

cohort of *'Internet Bikes'* in the 'Rajasthan in the district of Dausa during August 2015. The internet services on cycle cart plans to cover and reach more than 45000 villages and more than Indian women within the next 18 months as per official source of this project)[21]. Apart from use of internet services, the initiatives are also aimed to provide the skill to get information and knowledge of various kinds such as on weather, health, education, business, commerce, transportation, government, administration and so on by the various information sources. Moreover, *Internet Saathi*' creates information literarily to sending and receiving instant messages, accessing internet web portals, social networking, online shopping, online selling, blogging, entertainment and so on. Apart from necessary uses of internet of different needs of the society[15],[16],[22].

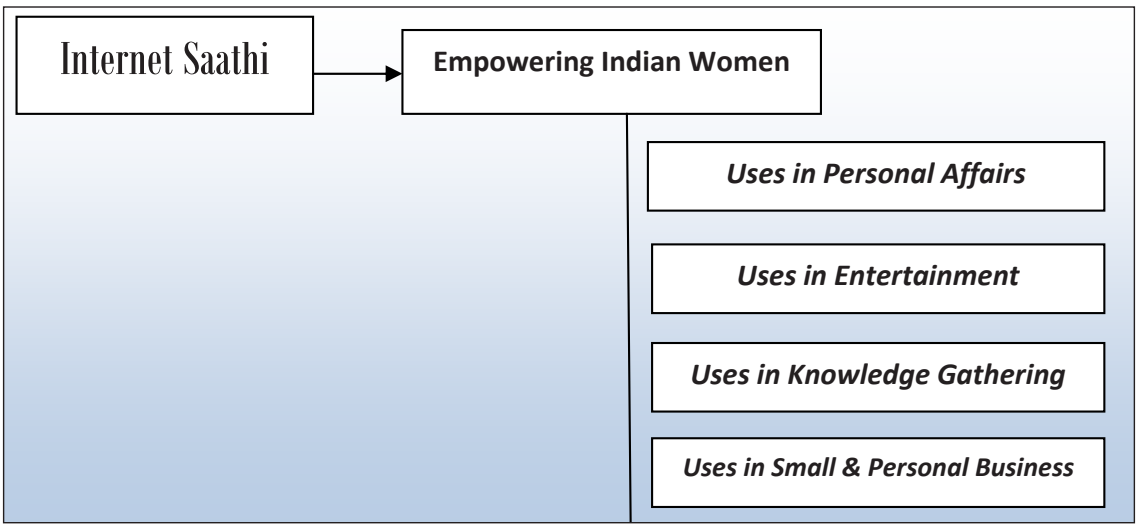

Fig. 3: The *Internet Saathi* Project and uses

'Internet Saathi': A Case Study

To see the importance of the internet and its growing importance, the Vice President (Rajan Anand), Google South Asia observed that only 12% of internet users in rural areas are women and 85% are used by the male. However, the he highlighted that, the growth of internet users is 57% for male whereas 27% is tagged for women[21]. So, this statistics reflects the reality of Digital India and great disparity among men and women internet users, especially in the rural India. There is a high demand for internet in rural areas of India despite people know better English or not however, people know about the internet use and it is understood that the internet skill is required in future very much as it demanded recently when demonetization has forced them to use internet to transfer money to different account holders. He stated that, *"Next hundred million user of internet will not be fluent in English, however, they prefer to use internet through smart phones"*[21].

The Official video of the *'Internet Saathi'* program accessed by the researchers, many learned trainees shared their experience and offered their views and testimonials on the benefits of the programme[26]. The official video highlights the gender disparity stating that India is the second largest Internet user in the

world but it is a fact that there is a greatest online gender disparity. The following are the testimonials and views on the usefulness of *'Internet Saathi' programme*[25], [27].

Fig. 4: The *Internet Saathi*: Cycles with Internet Cart[21]

Testimonial 1—"My Mom and Dad told me that the internet was not safe and that's why women should not use the internet"

Testimonial 2—"I used to feel that the internet, it's just for the husbands. It's not for us"

Testimonial 3—"Generally patents do not allow girls to continue their education after 8th Grade. The Bhilwara Dairy in collaboration with Google, trained these girls how to use the internet"

Testimonial 4—"I Attended the HWGO campaign and after that slowly my curiosity of the internet grew"

Testimonial 5—"I learnt many new designs from the internet, my customers like them and my business is prospering"

Testimonial 6—"Can you tell me about an education loan" it's possible with 'Internet Saathi'

Testimonial 7—"This has awakened a new desire amongst us women, which is made possible by computers"

Testimonial 8—"They will have so many questions of which the answer will be given by the internet"

Testimonial 9—"Women all over the country will progress so much that you could not even imagine"

An individual (trainee), Indumati Mahato informed the researchers during the inaugural programme that, "I searched the net and gave the relatives of the pregnant women the address of three nearest hospitals where she could go for the delivery. She went to the nearest one, where she gave birth to twins,"[20]. Further, she stated that, "I will not shy away anymore from going online, at the courtesy of the *'Internet Saathi'* which helps me to use the Internet on my Smartphone to ensure a safe delivery of a woman in

her village in future"[24]. These testimonials and views of new internet users among girls and women show their thirst for internet services for various uses in their villages.

Recently on 8th June, 2016 the program has also started in the State of West Bengal and it is set to roll out in 400 villages in the district of Purulia. The program is intended to offer training to 1 lakh women in the next few months. Five states have already launched the *'Internet Saathi'* programme which include West Bengal in Assam, Rajasthan, Uttar Pradesh and Tripura[17],[18],[23] benefiting millions of women and girls in the rural India expecting transform the society into computer savvy or literate.

CONCLUSION

The women in India are left behind as the world gets online. In 2013 Google India launched 'Helping Women get Online' project. Therefore after that *'Internet Saathi'* project was conceived and implemented jointly with the Intel and Tata Trust. Till 1.5 million women have been getting the official training and around 12 states (fully or partially). Moreover, once the team undergoing training completes their training they will in turn help to train the rural women about internet use for their daily needs. This initiative of rural networking of *Internet Saathi* is helping people in many ways who are inquiring about the information from the mobile van (or new initiative) for gathering several information on health, education, business, politics, entertainment, small and business and thus ultimately it helps in minimizing the gender disparities. Digital Divide or, Information Divide in India will gradually shrink and Digital India tries to bridge the gap between rural and urban India particularly gender disparity in accessing to internet which will certainly empower women in several ways including overall development of rural areas.

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