

Bridging Digital Divide Among Weavers of Banaras, India: A Framework

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Abstract

Banarasi Sarees are world famous for their magnificent design and finishing. The paper discusses the problem of digital divide among the members of weaver community of Banaras. It evaluates the reasons of the digital divide and analyzes their information need. It draws a framework of an information system which helps weavers to get their required information. The aim of this paper is to propose a model of a community information system for weavers for bridging the digital divide.

Keywords: Community Information Centre, Banarasi Sarees, Digital Divide, Information System, Textile industry, Weavers, Web Portal

Introduction

Digital divide refers to a substantial symmetry between two or more populations in the distribution and effective use of information and communication resources. The world we live in has been changing rapidly with the emergence of the ubiquitous society bringing forward extraordinary benefits and opportunities together with new challenges. The ability to create and utilize information plays a significant role in both socio-economic structures of our lives. On the other hand, ICT has faced a serious problem of the digital divide between developed and developing countries (Cullen, R; 2003). The digital divide affects many nations of the developing world. The term encompasses inadequate funding, a lack of necessary computer and Internet skills, and a lack of English language proficiency that hinder expansion and use of digital information resources. Factors influencing digital divide vary from region to region. The digital

divide is depending and the differences in the use of communication resources between countries and regions are intensifying. The digital divide can be defined as the gap between individuals, households, businesses, and geographical areas at different socio-economic levels with regards both to their opportunities to access ICTs and use of the Internet for a wide variety of activities. As the Internet has rapid growth to underline almost all aspects of the global economy, the term “Digital divide” has often been referred to Internet access. It is a divide that affects and reinforces fundamental economic and social divides between and within countries and it is threatening to further exacerbate these inequalities (OECD; 2001).

Background of the Study

India has a rich cultural heritage of handloom and handicraft. Indians are world famous for their magnificent traditional fabrics and produced the most beautiful hand-woven textiles. The processing and manufacturing of textile is the second largest occupation of India after agriculture (Government of India; 2010). The artistic skills of the traditional handloom weavers are unique in the world. The handloom industry survives mainly on its artistic look, uniqueness, and craftsmanship. The traditional design, use of gold work, and its fine finishing give it a unique look. Despite strong competition from mill-made textiles (automated textile industry), the handmade fabric is still in demand to a great extent.

The hand-woven fabric is symbolic of human endeavour to bring beauty and grace to life. The word handloom represents a philosophy, a way of life. The philosophy is the simple faith of Indian folk artisan, the handloom weavers. Though the methods employed in making handloom

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fabric are simple, the results are extraordinary. This industry of India is caste based, tradition-oriented, labour intensive, having a legacy of unrivalled craftsmanship with a decentralized set-up that has spread throughout the length and breadth of the country.

Banaras, the temple town of Uttar Pradesh, is known for world famous brocades and Sarees. These Sarees are historically considered to be among the finest Sarees in India. These Sarees are known for their gold and silver brocade or zari, fine silk, and opulent embroidery (Krishna, R.A. and Krishna, V.; 1966). These Sarees are made up of finely woven silk with intricate design, and because of these engravings, these Sarees are relatively heavy. Their special characteristics are Mughal inspired designs, heavy gold work, compact weaving, figures with small details, metallic visual effects, pallus, jaal, and mina work. Depending upon the intricacies of designs and patterns, a Saree can take anywhere from 5 days to one month and sometimes even up to six months to complete (Wikipedia; 2016).

Meaning of Digital Divide

The phrase digital divide refers to the unequal distribution in society having access to digital infrastructure and services. This gap is a digital divide and it threatens to cut off the population from good jobs and chance to participate in affairs of the broader society. For some citizens, technology brings the promise of inclusion, opportunities, and wealth; for others, greater isolation and increased poverty. The key demographic variables, such as income, education, and ethnicity are important as they are likely to have a differential impact on the consequences of interactive electronic media for different segments in society. Hence, the digital divide is described as a divide between information haves and have-nots.

Origin and Use of the Term

The term “Digital Divide” came into regular usage in the middle of 1990s, though the term had appeared in many news articles and political speeches as early as 1995. Though there are controversies as to who first coined the term, it is true that there is a wider acceptance of the increasing gap between information haves and information have-nots. Probably, the term “Digital Divide” has its

origin in the United States of America. Many considered Andy Grove, one of the eminent personalities in the field of digital divide, as the person who coined the term but few others say the credit goes to Larry Irvin, a former US Head of the National Telecommunication Infrastructure Administration (NTIA). The term “Digital Divide” refers to the gap between people with effective access to digital and Information Communication Technologies and those without. It includes the imbalances in physical access to technologies as well as the imbalances in resources and skills needed to effectively use of ICT. It may be classified on the basis of Gender, Income, Race, Group and even by Locations (Kamila, K; 2011).

Defining the Term

The digital divide is widening the disparities between the developed and under developing world and within a country among haves and have-nots, literate and illiterate. It can be in the Indian social context between high-castes and low-castes, urban areas and rural areas, etc. Therefore, “Digital Divide” is an interdisciplinary field bringing together people from economics, population studies, political science, communication policy, education policy, and many other social sciences (Van Dijk, J; 2008).

The term “Digital Divide” describes the fact that the world can be divided into people who have and who do not have access to or capability to use the modern technologies, such as telephone, television, or the Internet. The digital divide exists between those in cities and those in rural areas.

The following are select definitions for digital divide:

- The economic, educational, and social inequalities between those who have computers and online access and those who do not (Merriam Webster Dictionary; 2016).
- Digital divide describes the uneven distribution of information and communication technologies (ICTs) in society. The digital divide encompasses differences in both access (first-level digital divide) and usage (second-level digital divide) of computers and the Internet between (1) industrialized and developing countries (global divide), (2) various socio-economic groups within single nation-states (social divide), and (3) different kinds of users with

regard to their political engagement on the Internet (democratic divide). In general, those differences are believed to reinforce social inequalities and cause a persisting information or knowledge gap amid those people with access to and using the new media (“haves”) and those people without (“have-nots”) (Encyclopædia Britannica; 2016).

- The term “digital divide” is used to describe unequal access to computers, the Internet, and online information, whether among individuals, communities, or countries (Warschauer, M; 2010).

Hence, “Digital Divide” is a well-documented distance between the information rich and the information poor (Davis Community Network; 2012). It is the gap that exists between those who have and those who do not have access to technology like telephones, computers, Internet access, and related services. In other words, we can divide people into who have and who do not have access to or capability to use modern technology, such as telephone, television, or the Internet; in access to information, the Internet and other information technologies; in skills, knowledge, and ability to use information and other technologies.

Need of the Study

The present economical scenario of weavers is very poor. Almost three-fourths of the weavers work on contract basis and do not have their own handlooms. They are subject to exploitation by the employers and their livelihood is threatened as they can be kicked off at any point of time. The fear and insecurity of job force them to avoid the conditions which affect their livelihood. The middle-men and employers behave rudely with the weavers and the latter are left with no alternatives but to work under stress and on minimal wages (Singh, A and Naik, S D; 2009).

Due to lack of information, they are exploited by Middlemen/Brokers (Gaddidars), Commission agents (Kothidars), Whole-sellers (Thokdars), and Retailers. These people cut the maximum shares from profit and the weavers get nothing. They are unaware of different government schemes which are implemented for them (Gahlot, M, Dubey, P and Grover, E; 2005). They are not even technologically sound and working on their old handlooms. They are using old traditional designs

and mechanisms in their products and hence unable to compete at international level. They lag in finding appropriate information about the raw materials, designs, trends, and markets (Singh, S N, Singh, S K, Pandey, V C and Giri, A K; 2011).

Scope and Objectives of the Study

Banaras is an ancient city and a major nodal centre in Uttar Pradesh. It is situated in the heart of the middle Gangetic plain on the left bank of river Ganga. It is one of the ancient living cities of the world and has maintained its ancient glory and distinction, almost uninterruptedly. The city contemporarily referred by three names — *Varanasi*, *Banaras* and *Kashi* — by the common people, but officially known as Varanasi. The district has mix population that includes urban and rural population. It has 11 wards, two towns and eight blocks (NIC; 2015).

The objectives of this paper are to know about the digital divide among weaver community and suggest some points to bridge the divide. The specific objectives related to the present study are as follows:

- To identify digital divide among weavers.
- To analyze the reasons that contribute the difficulty in obtaining required information in weaver community.
- To draw a framework for bridging digital divide among weaver community.

Methodology and Findings

Data collection and analysis were done at ward level. A stratified sampling method was used to select 50 weavers for the study. Interviews were held to collect information from people. The educated part of the population did not find to answer the questions; for the illiterates, a lot of explanations had to be made and the questions were interpreted to them. Visual observations were also made to obtain the real situation.

Background of the Respondents

Figure 1 shows the categories of the respondents. It contains 54% weavers work under Mahajan or Gaddidar, 22% work as an independent weaver, 10% work under

cooperative society, and 14% work as hired labour. The result shows that most of the weavers do not own loom and work under Mahajan or cooperative or as hired labour.

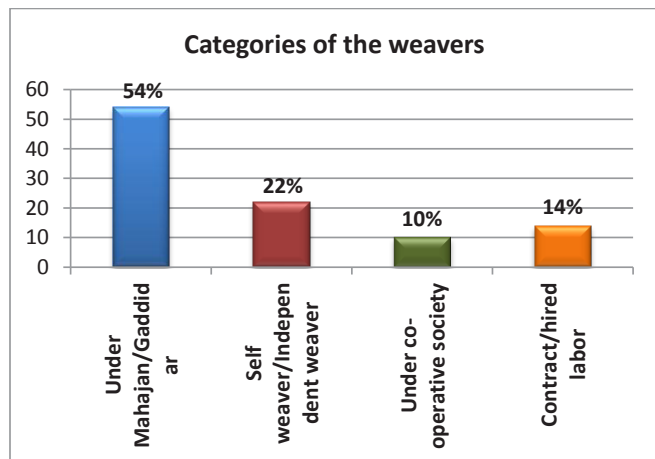


Fig. 1: Categories of the Respondent

Figure 2 shows the monthly income of the respondents. The result shows 14% of the respondents earn less than 3000 rupees per month. 24% people earn between 3001–4000 rupees, 36% people earn between 4001–5000 rupees, 12% people earn between 6001–7000 and 6% people earn more than 7001 rupees per month. The result clearly shows that most of the people have poor living standard.

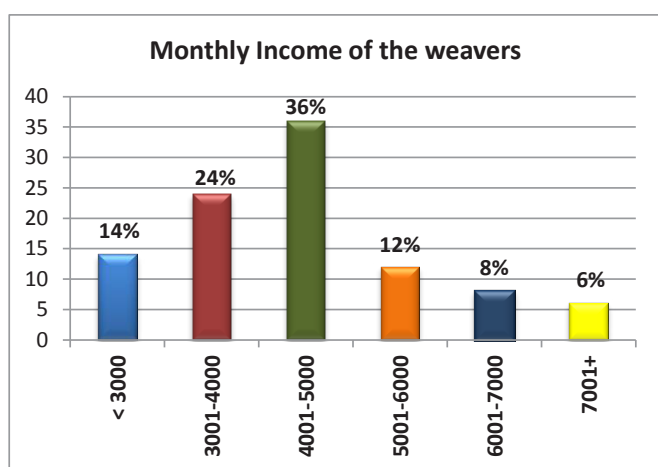


Fig. 2: Monthly Income of the Respondent

Figure 3 shows the possession of the loom among weavers. The result shows 30% of the respondents own one loom, 32% respondents own two looms, 18% respondents own three looms, 12% respondents own four looms, and 8% respondents own five or more looms.

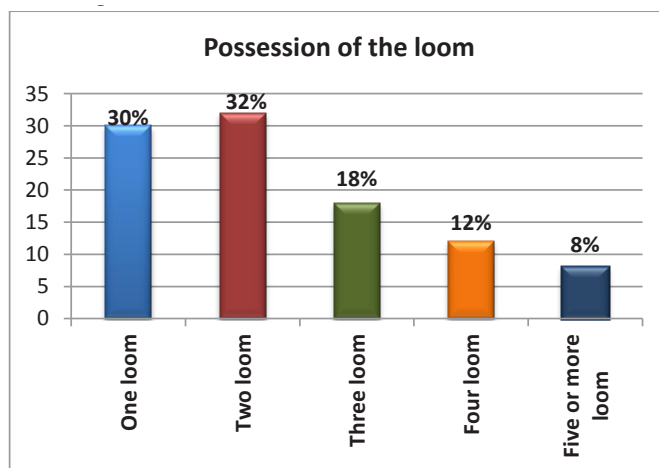


Fig. 3: Possession of the Loom

Reasons of Digital Divide among Weavers

Electricity: The electricity supply in Banaras is very poor. The 82% respondents think electricity supply restricts their access to the digital devices. The per capita supply of electricity in Varanasi is lower than demand (Nandan, T; 2014).

Low living standard: Living standard belongs to the level of income of people. Most of the weavers have low-income level which makes their living standard low. The 66% respondents believe that due to the low living standard, they are unable to use latest technologies.

Illiteracy: The use of information resources depends on the level of education. Most of the people from weaver community are illiterate and literacy makes a big difference in society. The 72% respondents think illiteracy plays the main role in poor condition of weavers.

Connectivity: Not only the telecommunications infrastructure, but also availability of good connectivity requires using latest information devices. A good computer environment plays an important role in the development of society. The 32% of the respondents think they have not enough connectivity to the telecommunication devices.

Capacity: Sufficient trained IT professionals are required to install and maintain hardware, software, and networks. The 62% of the respondents believe that professional information workers who are able to interpret, provide insight, motivate, and train weavers are very necessary.

Finance: Finance is the main hurdle in information access. For investment in infrastructure and implementation, capital is required. This includes hardware, software, training and assistance, etc. The 84% of the respondents said they didn't have enough money to purchase new technologies and devices.

Affordability: Not everybody can afford new communications technologies and the expenses incurred in upgrading the equipment, software, and training support. Most of the weavers (78%) said they were unable to afford high priced devices and connectivity devices.

Adaptability: Access to information technology and Internet content is essential. However, such access is useful only if people are able to adapt to the changing technological environment and use the new technological tools effectively. The 38% of the respondent believe they are not very frequent to adopt new technologies.

Policy: There is no national information policy for handloom sector. Most of the respondents (92%) believe a policy is required for weavers which can help them to access Information and Communication Technology (ICT).

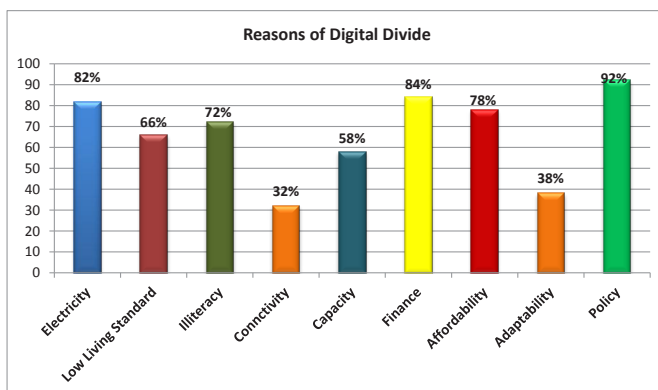


Fig. 4: Respondent's Perception About Reason of Digital Divide

Weaver Information Network System: Plan Model for Bridging Digital Divide

Community Information Centre (CIC) is a community centre around which the cultural life of a community revolves. Nowadays, the community information centres are playing a significant role in the social, economic, and cultural life of communities (Kumaresen, S C and Shitra,

A; 2003).

The Information Support System for weaver community is a prerequisite for the integrated development of the community. A proper information infrastructure has to be developed for the support the development of the community. In order to develop such information model, there is an urgent need of establishing a Network of Weaver Information Centres dealing with weaver development research and its allied subject as a first priority. There is also a general need for coordination between different government departments, institutions, NGOs, and agencies dedicated to the weavers.

The present scenario of the weavers is very poor due to lack of proper information service centres. Weavers are not getting the right information at the right time, and this will lead to the slow development of the community. Keeping this condition in mind, it is suggested that one model is very necessary to meet all the information requirements of weavers and uplift the socio-economic, political, cultural, and all-round development of the community. It will help to the construction of an information-oriented or knowledge-based society of weavers.

The purpose of the model will facilitate to set up an integrated information network to build a healthy and progressive weaver community. It also helps weavers to make use of information resources, acquire, store, assemble, retrieve, and disseminate the right information and they can access all type of information at their doorstep through the weaver information centres.

On the basis of the needs and requirement of the weaver community, a model viz. "Weaver Information Network System (WINS)" is proposed with the help of different agencies can support and participate in the sustainability of the network. In the proposed model of "WINS", a central hub will be established at the district level. A Weaver Information Centre will be opened at each ward/village level to provide the required information. The proposed model will have a phase-wise manner for establishing, implementing, maintaining, and evaluating the usefulness, functions, and services and feedback from the weaver community.

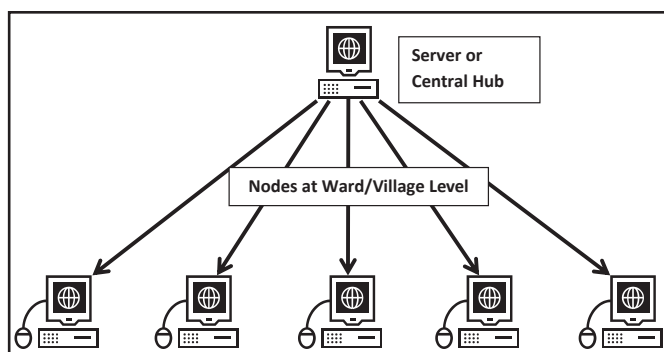


Fig. 5: Proposed Model for Weaver Information Network System

Benefits of Weaver Information Network System

Over the past years, the CICs are providing services to the communities with computers, Internet access, and e-mail facilities. CIC provides a greater access to news and information on a range of topics relevant to their daily lives and developments (Paul, J; 2001).

The WINS will help to get the right information to the people of weaver community. The WINS staff will provide assistance and training to utilize e-mail, Internet search engines, and various software packages to communicate with colleagues in their fields. It will also help their participation in e-governance. The main objective of the WINS is to improve their familiarity with computers and awareness of ICT (Vijayakumar, M; 2005).

Key Points of WINS

Community Building: WINS will make community people more closely virtually as they all stay different places due to distance. Thus, weavers can form an online community and share their ideas, experiences, and knowledge online without any geographical restriction.

Market access and e-commerce: An exchange of market information is very necessary for trade to flourish. A successful weaver must be fully informed about domestic as well as global trends. The WINS will enable weavers to learn about new trends in the market, know the anticipated demand for products, and understand the pricing strategies. They can also get the required information about raw material and their price.

Weaver Information System Website: Most of the weavers are not very much friendly to the Internet. They do not have an idea to browse their required information with search engines or visit other websites. To keeping this in mind, a Weaver Information system website will be developed with both English and Hindi interface and provide them with all the necessary links and useful information portals, so that new users will not need to browse any other website; all they potentially need can be found on the WIS website itself.

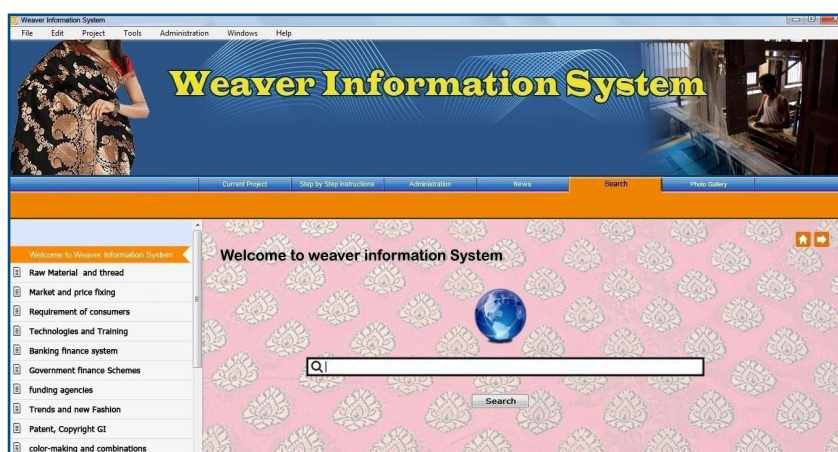


Fig. 6: Interface of Proposed Information System

The homepage will act as a base in establishing links to those sites from where one can easily retrieve a wealth of information on any of the categories defined above. This

site is an attempt to introduce the weavers to the world of the vast wealth of information. Though this website, they can access their required information under the broader category.

Information and Assistance Services: Since the advent of the Internet, its popularity of being an unlimited source of information has grown exponentially. Nowadays, anyone can search the Internet for any kind of required information. Finding any kind of information using a search engine is both popular and very easy. If a person is not friendly to search his required information, the staff at WINS Centre will help him to find information or can find information behalf of the person. The staff can also help him in important tasks such as money transfer, raw material order, government form filling, applying for jobs, or even everyday tasks like shopping (Ali, A; 1996).

Social Communication: Web 2.0 mad a vital change in communication. Social media sites are nowadays playing an important role in people's life. The WINS Centre will provide assistance to weavers for communicating people around the world via social networking sites. It will help them to connect with people of the same profession. They can also promote their products on these sites

Access to Government Information: People need lots of information from the public domain for various purposes. The WINS centre can also provide the information of government schemes. WINS centre will also offer them different services such as birth and death registration, voter lists, passport, and other government's form.

Common Platform for Knowledge Sharing: WINS will provide a forum for people of weaver community who belong to different areas to come together and exchange knowledge and information that can be of greater utility to the people the community. This will provide a healthy discussion over different topics like design, trends, colour combinations, products, etc. It will help a greater benefit of the community at large.

Bridging the Digital Divide: People generally travel over various government offices, NGOs, banks to get information on education, health, jobs, finance, raw materials, government services, etc. It will save their time and money by providing all their required information at one place. It will also help to make them friendly with ICT. Overall, WINS will create a great impact on the society as a whole.

Conclusion

The explosive development of ICT, its applications, and the emergence of a global information society are changing the way people live, learn, work, and interact. Enhanced access to knowledge is rapidly becoming an important tool for empowering the people and communities in their quest for new opportunities, dignity, and a better life. The divide between technology's haves and have-nots is increasing day by day which is also increasing the gap between the rich and poor within countries (Sedoyeka, E; 2012).

From the above discussion, it appears that weavers have lack of information and are not able to use ICT. To overcome this situation, a WINS is required. The WINS will open a new vista for the weavers. Effective utilization of ICT has the potential to make the weaver community prosperous. Further, no single agency can deliver all these critical inputs. Besides the private sector, the need for a proactive participation by the government sector, NGOs, government agencies, and other civil society organization is also important. The project WINS aims to make maximum usage of ICT and the latest technology available in the most developed countries to reap the results into the weaver community.

References

- Cullen, R. (2003) The digital divide: a global and national call to action. *The Electronic Library*, 21(3), 247-257. doi: 10.1108/02640470310480506.
- OECD (Organisation for Economic Co-operation and Development) (2001). Understanding the digital divide. Retrieved from <http://www.oecd.org/dataoecd/38/57/1888451.pdf> (accessed on 9 October, 2016).
- Government of India. (2010). Census of Handloom in Uttar Pradesh, 2009-10, New Delhi: Govt. press.
- Krishna, R. A., & Krishna, V. (1966). Banaras Brocades. *Craft Museum*, New Delhi.
- Wikipedia. (2016). *Banarasi Sari*. Retrieved from https://en.wikipedia.org/wiki/Banarasi_sari. (Visited on: August 24, 2016)
- Singh, A., & Naik, S. D. (2009). Status of Banaras weavers: A profile. *Karnataka Journal of Agriculture*

- Science*, 408-411. Retrieved from http://www.i3s.net.in/uploads/pdf/Resources/Status_of_Banaras_Weavers_A_Profile.pdf (Visited on: Nov 8, 2016)
- Gahlot, M., Dubey, P., & Grover, E. (2005). Existing status of silk dyeing and printing units of Varanasi: A study. *Manmade Tex. in India*, 48(1), 23-26.
- Singh, S. N., Singh, S. K., Pandey, V. C., & Giri, A.K. (2011). Fading Colours of a Glorious Past: A Discourse on the Socio-economic dimensions of marginalized Banarasi sari weaving community. *Socio - economic voices*, 1-13. Retrieved from <http://www.indiastat.com/article/38/singh/fulltext.pdf> (Visited on: Oct 20, 2016).
- National Informatics Centre (NIC) (2015). *District Information*. Retrieved from http://varanasi.nic.in/distinfo/dist_info.html (Visited on: Oct 21, 2016).
- Kamila, K. (2011). Digital Divide: Causes and Initiatives to Bridge, *International Journal of Information Dissemination and Technology*, 1-8. Retrieved from <http://www.ijidt.com/index.php/ijidt/article/view/30/27> (Visited on: Nov 8, 2016)
- Van Dijk, J. (2008). The digital divide in Europe. The handbook of Internet politics. Routledge, London and New York. Retrieved from <http://www.utwente.nl/bms/mco/bestanden/digitaldivide.pdf> (accessed on 4 August, 2016).
- Merriam Webster Dictionary. (2016). *Digital Divide*. Retrieved from <http://www.merriam-webster.com/dictionary/digital%20divide> (visited on: Nov 19, 2016)
- Encyclopædia Britannica. (2016). *Digital Divide*. Retrieved from <http://www.britannica.com/EBchecked/topic/1015190/digital-divide> (Visited on: Nov 19, 2016).
- Warschauer, M. (2010). Digital divide. *Encyclopedia of Library and Information Sciences*, 31551-1556.
- Davis Community Network (2012). Digital Divide. Retrieved from <http://www.dcn.davis.ca.us/go/steve/terms.html> (Visited on: March 11, 2016)
- Nandan, T. (2014) *India's energy shortage likely to be 5.1%*. Retrieved from <http://www.dnaindia.com/india/report-india-s-energy-shortage-likely-to-be-51-1994763> (Visited on: July 2, 2016).
- Kumaresen, S. C., & Shitra, A. (2003). A study on the need for rural information centres in the villages of Tamil Nadu. *Annals of Library and Information Studies*, 50(4), 137-145.
- Paul, J. (2002). Narrowing the digital divide: Initiatives undertaken by the association of South-East Asian Nations (ASEAN). *Program: Electronic Library and Information Systems*. 36(1), 13-32. doi: <http://dx.doi.org/10.1108/00330330210426085>
- Vijayakumar, M. (2005) Community Information Service through Rural Library: A Case Study. *Proceeding of the XXI National Seminar of IASILIC*. Jadavpur University, Kolkata. Dec 31, 2004-Jan 3, 2005: 143-148.
- Sedoyeka, E. (2012). Obstacles in bridging the digital divide in Tanzania. *International Journal of Computing and ICT Research*, 6(1), 60-72.
- Ali, A. (1996) *Community Information Services in Malaysia: a study of information seeking behavior of community based organizations in the Klang Valley World Libraries*. 1996. Dominican University; Illinois: 1-14.