Digitalisation: The Era of Transformation in India

Anvi Jain,

M.com, The Department of Commerce, Delhi School of Economics,
University of Delhi, Delhi, India
Email – jain.anvi.92@gmail.com

Abstract: *We are living in a dynamic world where Information and Communication Technology(ICT) is the key to success. This paper throws light on how India has chosen digitalization as a vehicle for transformation into a knowledge driven economy. The government with its 'Digital India' project and other initiatives by the stakeholders of the technology ecosystem are trying to digitally empower the nation. The study reveals the positive impact of digitalization on all the sectors of the economy. However, there are some challenges restraining India from becoming digitalized which needs to be addressed for this transformation to take place and for economic growth of the country.*

Key Words: *Digitalisation, ICT, digital divide, Digital India, digital empowerment, e-governance, knowledge driven economy, IT infrastructure.*

1. INTRODUCTION:

The new age of transformation in India is termed as 'Digital Era'. Indian economy had been majorly agrarian driven post-independence, but changes in the socio-economic environment and economic reforms in 1991 led to the growth of the service sector, especially information and communication technology(ICT) which left the manufacturing and agriculture sector far behind in their contribution towards the economic growth.

Today digitalisation can be seen as a tool for transformation as it transcends beyond our lifestyle to the way we interact, conduct business and transact. The digital technology has penetrated our lives in a way that our day starts from gathering daily news and weather forecast, paying bills, fetching groceries, communicating, etc. virtually, making tasks faster and more accurate than those done in the physical world. The expansion of the e-commerce in the recent times, have made it possible to complete transactions by sitting behind a desktop or through mobile applications, instead of visiting the brick and mortar shops, thereby, saving a lot of time and energy.

The initial surge in ICTs created a technology divide between the rural and the urban India as these were not available, accessible or affordable by the rural poor. But with the fast development of the rural India and initiatives taken by the government and private sector, such as, e-choupal by ITC, Gyandoot, etc. this divide seems to be diminishing with more and more digital services penetrating in rural India, providing employment opportunities as well as increasing the standard of living of the rural poor.

Though digitization and digitalisation are used interchangeably, the two are different conceptually. While the term digitization refers to the technical process of converting streams of analog information into digital bits of 1s and 0s with discrete and discontinuous values, digitalisation makes use of digital technologies to change a business model and provide new revenue and value-producing opportunities.

The best examples of digital technologies are mobile applications, cloud computing, data analytics, customer profiling, authentication and IOT (Internet of Things) Technology which has led to the growth of Information age business and knowledge driven virtual markets.

The economies around the globe are moving towards digitalisation because not only the products and services are becoming technologically sophisticated but the fact, that such a move may lead to a competitive advantage with the ability to innovate, create new products and explore/exploit new markets.

2. LITERATURE REVIEW:

Since the announcement of the 'Digital India' project by the Prime Minister- Shri Narendra Modiji, various scholars and researchers are doing research on the current scenario in India. A focused review of the literature was conducted to evaluate recent publications regarding digitalisation of Indian economy.

Monika, Kanika Budhiraja and Jatinder Kaur(2017), in their research paper titled-'Digitalisation of Indian Economy' highlight the measures taken by the Indian government to boost digitalisation in the economy. It mentions not only the benefits that will accrue to India because of the very nature of digitalisation but also the social, economic and ecological impact of such an initiative taken by the government. It also enumerates the challenges and threats posed by such a measure in a country like India, where the high illiteracy levels and cyber security, among many others, may prove to be a hindrance for the transformation of the economy.

The research paper of Geeti Mehra(2017), titled- 'Era Of Digitalisation and Indian Economy' describes the idea of Digitalisation and steps taken by the government so far. It highlights the positive impact of such an era on

India's GDP and job opportunities, the likely financial impact with increase in foreign direct investment(FDI) in the country and the path towards overall development with innovations and better administration.

The research article of Atul Sood and Ashapurna Barua (2017) in Economic and Political Weekly Journal, titled – 'The New Moral Economy: Demonetisation, Digitalisation and India's Core Economic Problems' states the theoretical arguments behind demonitisation, one of which is to move towards a cashless economy and contribute towards the investment and growth of India. It argues that there is a disconnect between reality and appearance of the idea of demonitisation and digitalisation and that the government did not weight the cost and benefits associated with such a move. It also highlights that demonitisation has ironically led to generation of black money, instead of its eradication. The policy has done little to help the poorest of the poor. The article criticizes the government for promoting the concept of digital money without building an appropriate infrastructure and institutions for the same. Moreover, formalising transactions through digital money in an informal economy, like India, where cash is the most preferred mode of payment and existence of huge informal employment (majority of rural households do not use bank accounts for receiving their share of wages) is also a major challenge. The digital payments require access to the bank accounts and mobile phones with internet connection which involves huge cost for the users. The merchants also must incur costs, like finger scanner, merchant discount rate, etc. besides being aware of the management and technical issues related with technology. The loop of digital transactions, thereby involve huge amount of profits for the banks, telecom operators and internet service providers without concrete gains for ordinary citizens. The article highlights other challenges of digitalisation of Indian economy, namely, low digital literacy, use of English as a language barrier, low financial inclusion (the accounts opened under PMJDY have remained dormant, as per FII survey,2016), low access to electronic modes of payment, transparent and secured system for digital transactions. In effect, the article questions the ambiguity related to demonitisation-digitalisation policy to formalise the economic activity in India and creating deeper pockets for the poor and reach for the rich and the corporates.

Vishal Jain(2015), in his article in Business Today on 'Private Public Partnership Key to Pubic Internet Access' focusses on one of the nine pillars of the Digital India Program, i.e., Public Internet Access, which intends to provide customized content through affordable internet access in local languages across the country.It recognizes the importance of development of digital infrastructure by the government in partnership with private players to ensure last mile connectivity. Additionally, the article discusses the demand and supply side of the internet access, i.e., the private and public partnership in ensuring proper infrastructure for technology and the challenges that lay before the Indian economy with respect to digital illiteracy and inadequate cyber security laws.

Prof. Singh (2015) research paper – 'Information Technology and its Role in India's Economic Development: A Review' discusses that how India has chosen IT sector for development, in the same way as Japanese chose to develop automobile industry as their comparative advantage after World War II. It considers the development of the IT industry and the spillover effects of IT enabled services in the development of the manufacturing sector and IT-BPO industry and its impact on Rural India and country's e-governance, among many others.

The research of Laila Memdani (2013) on 'An Overview of Digitalization of Rural India and its Impact on the Rural Economy' brings to light the steps taken towards digitalisation of rural India and its impact on the economy. The telephone based helpline established by Cisco and BT, known as LifeLines India, provides guidance and advice to rural farming communities; Gyandoot project launched by Madhya Pradesh government provides intranet connection to the villages throughout the district; The Information Village Research Project(IVRP) initiated by M.S. Swaminathan Research Foundation of Chennai and International Development Research Centre [IDRC] of Canada provides information on fisheries, agriculture , buses, healthcare, jobs etc. online; ITC's 'Choupal Sagar' provides wide range of consumer durable products and grocery items, training facilities on new techniques of farming to farmers, E-kiosks, information centre for online and weather information, etc.; an organization called n lounge provided telephone and internet connectivity in village. These initiatives had a positive impact on the Rural economy of India. Rural India has witnessed increase in employment opportunities, improvement of standard of living, reduction in risk and uncertainty due to availability of market and weather information online, survival during natural calamities, like, Tsunami with broadcasting of alerts and warnings of oncoming waves, increased e-literacy and awareness about spoken English, due to digitalisation. The rural poor, especially, the Indian farmers have thus, availed the opportunities of digitalisation and benefitted from them.

Santhanamuthu. D. & Manickam S. (2012) in their research paper, titled- 'Impact of Digitalization of Rural India stress the importance of telecommunication in the development process and not as mere connection between the people. It highlights the importance of mobile phones in reducing information asymmetry in the agriculture sector, growth of telecommunication network in India and the studies relating to its growth with that of economic growth and the role of telecommunications in the health sector of the rural economy. It concludes with the transformation of villages as knowledge centers with the introduction of internet connections in rural areas to bridge the digital divide.

3. METHODOLOGY:

This research paper uses secondary analysis to gain an in-depth understanding about the topic. Most of the information has been retrieved from online journals, published papers, magazines and articles on the same subject

matter. The paper explains the various initiatives taken by the government in the direction of digitalizing the economy. It highlights the likely benefits of such a transformational phase in India and point out to the challenges that the economy faces in becoming a knowledge driven economy. The study made it possible to make recommendations and conclusions in this research area.

4. KEY FACTORS DRIVING DIGITALISATION IN INDIA:

- The growth in computer literacy among the young generation of the country.
- Advancement in technology, especially growth in the adoption of smart devices by everyone to stay connected to the rest of the world and to share ideas and information with each other.
- Deployment of mobility and analytic solutions by cloud computing businesses to achieve reductions in cost and time to market their product or service.
- Expansion of the e-commerce businesses for satisfying the needs and wants of customers with wider range of products and services, easy and quicker payment options, doorstep delivery mechanism and return back policies.
- Awareness among businesses about the benefits of technologies across value added chains.
- To create competitive advantage by exploitation of new markets through the ability to innovate and create new products and services.

5. DIGITAL INDIA PROGRAMME:

'Digital India' is one of the most focused project of the Indian Government for efficient governance. Its vision is to digitally empower India and create a knowledge driven economy.

Digital India initiative is a major step taken by the Indian government under the leadership of Shri Narendra Modi (Prime Minister) on 2nd July 2015 and the Programme's coordination is being done by the Department of Electronics and Information Technology (DeitY). The GOI proposes to complete the programme by the year 2019.

It provides for development of a digital infrastructure, so that citizens of India can access various public services without the hassle of standing in long ques and wasting their time, energy and efforts and a step towards reducing red tapism in India. It is also a measure to bridge gap between the urban and rural consumers by providing integrated services on online and mobile platforms.

Provision of digital services for ease of doing business, digital identity authentication, making financial transactions cashless and electronic, providing high speed internet for delivery of services to the citizens, especially to the remotest areas of India, digitization of records, collaborative digital platforms for participative governance and creating digital literacy are some of the highlights of the program.

It plans to provide the necessary push to the major areas of development, which are the nine pillars of the programme, namely,

- **Broadband Highways:** covering three sub components, namely Broadband for All - Rural, Broadband for All - Urban and National Information Infrastructure (NII).
- **Universal Access to Mobile Connectivity:** providing mobile coverage to the uncovered villages in India.
- Public Internet Access Programme- covering 2 sub components, i.e., Common Service Centres(CSCs) in each Gram Panchayat for maximized delivery of e-services to the citizens and Post Offices as multi-service centres.
- **E-Governance: Reforming Government through Technology:** using IT to simplify and making government programmes more efficient.
- **E-Kranti: Electronic Delivery of Services:** includes 44 Mission Mode Programmes to transform the quality, quantity and manner of delivery of services and enhancing productivity and competitiveness.
- **Information for All:** providing information and documents on an open data platform to facilitate accessibility for all the citizens. The government proposes to actively engage on web-based platforms to ensure 2 ways communication between citizens and government for better governance.
- **Electronics Manufacturing:** intents to promote electronics manufacturing with a target of Net Zero Import by 2020.
- **IT for Jobs:** focuses on providing training and equipping youth with skills for availing opportunities in IT/ITES. It also includes setting up of BPO operations in North East region of the country.
- **Early Harvest Programmes:** includes those projects that should be implemented within a short period, like, IT platforms for messages, biometric attendances, public wi-fi hotspots, ebooks for school children, etc.

6. KEY PROJECTS UNDER DIGITAL INDIA PROJECT:

- **DIGILOCKER:** It is a platform for issuance and verification of documents & certificates in a digital way to digitally empower the citizens and provide thrust to paperless and knowledge economy.

- **UN-RESERVED TICKETS THROUGH MOBILE APPLICATION (UTS APP):** The GOI has launched an android mobile application for booking tickets for railways to promote paperless and cashless economy.

- **VISVESVARYA SCHEME FOR ELECTRONICS AND IT:** This scheme is initiated by the government to give thrust to research and development and innovations to increase the competitiveness of the country in knowledge intensive areas. It aims is to encourage working professionals and non-PhD faculty members to pursue PhD in the ESDM & IT/ITES sectors as part-time candidates, thereby promoting Industry-Academia interaction and bringing value to the country.

- **UMANG (Unified Mobile Application for New-Age Governance):** It provides a single platform to access various government services, ranging from Central to Local Government bodies and other citizen centric services.

- **UDAAN-** It is a Special Industry Initiative(SII) to address the needs of educated unemployed in the state of Jammu and Kashmir. It aims to bridge the gap between opportunities available to the educated youth (graduates and post graduates) in corporate India and provide exposure to corporate India towards the rich pool of talent available in the state.

- **TARGETED PUBLIC DISTRIBUTION SYSTEM:** It is a scheme targeted towards identification of the poor for providing accessibility and availability of food grains in the most transparent and accountable form to them.

- **SWAYAM:** this initiative provides an opportunity to the students to get education through the digital platform which provide interactive courses, taught in classrooms from 9th class till post-graduation. It can be accessed by anyone, at any time and is also free of cost for the residents of India. It aims to bridge the digital divide between the students who could not access technology in their best interest, thereby, providing a thrust towards knowledge driven economy.

- **SWACHH BHARAT APP:** Under the digital drive, the government has launched a mobile application for 'swatchhta abhiyan', so that people can get information about the scheme and join cleanliness initiatives of the government departments, NGOs and local community centres.

- **START UP INDIA PORTAL AND MOBILE APP:** Start Up India is a flagship initiative of the government to provide an ecosystem to empower Startups to grow by innovation and design and provide large scale employment opportunities in the country.

- **SOIL HEALTH CARD:** It aims at promoting Integrated Nutrient Management (INM) through judicious use of chemical fertilizers and bio-fertilizers for improving soil health and its productivity; strengthening of soil and fertilizer testing facilities to provide soil test based recommendations to farmers for improving soil fertility; ensuring quality control requirements of fertilizers under Fertilizer Control Order, 1985; upgradation of skill and knowledge of soil testing laboratory staff, extension staff and farmers through training and demonstrations; promoting organic farming practices etc.

- **SMS BASED MID DAY MEAL MONITORING SCHEME:** Mid-Day Meal mobile application provides an effective and efficient monitoring mechanism of the scheme in the schools through transmission of daily and monthly data by MDM in charge/teacher using SMS.

- **SINGLE WINDOW INTERFACE FOR TRADE(TRADE):** As part of the "Ease of Doing Business" initiatives, the Central Board of Excise & Customs(CBEC), Government of India has taken up implementation of the Single Window Project to facilitate the Trading Across Borders in India. The **'India Customs Single Window'** would allow importers and exporters to lodge their clearance documents and obtain permissions from regulatory agencies online at a single point only. This will in turn reduce the interface with government agencies, reduce the time and cost of doing business. The objectives of SWIFT are aligned with key programs of Government namely 'Make in India' and 'Digital India'.

- **PUSA KRISHI:** The app helps the farmers to find easy solutions to problems in their farm fields and get information about weather to save crops. It also offers information related to new varieties of crops developed by Indian Council of Agriculture Research (ICAR), resource conserving cultivation practices, farm machinery and its implementation to maximize returns to farmers.

- **PRADHAN MANTRI KAUSHAL VIKAS YOJANA:** This scheme has been introduced by the Ministry of Skill Development and Entrepreneurship with the objective of providing industry specific skill training to the Indian youth for better livelihood. It's a Skill Certification Scheme with the following key components: short term training, recognition of prior learning, special projects, Kaushal Rozgar Mela, placement assistance, continuous monitoring and standardized branding and communication.

- **PRADHAN MANTRI JAN DHAN YOJANA:** It is a National Mission on Financial Inclusion of all households in the country with the objective of ensuring access to financial services like availability of basic saving bank account, access to credit, insurance and pension facility. It aims to serve the weaker sections and the low-income groups with the effective use of technology. The plan envisages to provide a RuPay debit card to the beneficiaries with inbuilt coverage of accident insurance of Rs.1 lakh. In addition, it plans to channelize all Government benefits (from Centre / State / Local Body) to the beneficiaries' accounts and pushing the Direct Benefits Transfer (DBT) scheme of the Union Government.

- **PRADHAN MANTRI GRAMIN DIGITAL SAKSHARTA YOJANA:** It is a scheme designed to empower the citizens in rural areas through digital literacy, so that he/she can operate digital devices and effectively use information technology and related applications. The scheme aims to bridge the digital divide by specifically targeting the rural population.

- **PAYGOV INDIA:** NSDL Database Management Ltd (NDML) on behalf of DeitY has created a common payment service portal that can be used by Center/States/Departments to offer various facilities for online payment using net banking, credit cards and debit cards. PayGov India provides an end to end transactional experience for a citizen by offering a range of online payment options.

- **PASSPORT SEVA PROJECT:** This project was launched by the Ministry of External Affairs(MEA) in 2010 to enable simple, efficient and transparent processes for delivery of passport and related services. It has been implemented in a Public Private Partnership Mode(PPP) with Tata Consultancy Services. MEA issues passports to Indian Citizens through a network of 37 Passport offices across the Country and 180 Indian Embassies and Consulates abroad. It has created a nationwide network of Government Staff, along with physical verification of the credentials of the applicant by the State Police and delivery of the passports through the Indian Postal System.

- **PARIVAHAN PORTAL:** This portal was launched by the Ministry of Road Transport and Highways(MoRTH) to automate Vehicle Registration (VAHAN application) and Driving License (SARATHI application) related activities in the country with the introduction of smart card technology to handle issues like interstate transport vehicle movement and to create state and national level registers of vehicles/DL information. The latest development has been to centralize both the applications through a nationwide unified database and provision of citizen and trade centric digital environment to ensure transparent, secure and reliable operations.

- **PAHAL(DBTL):** This Direct Benefit Transfer for LPG was launched in 2013 and later modified in 2015. It aims to reduce diversions and eliminate duplicate or bogus LPG connections. Under the scheme, LPG cylinder consumers can get the subsidy directly into their bank accounts, either through Aadhar linkage or bank account linkage.

- **NIRBHAYA APP/ HIMMAT APP:** The emergency app has been designed to send a distress call or emergency message to a specific contact or group in case of any emergency situation faced by women or any other individual. It empowers the citizens to be fearless, especially women by tracking the correct location through GPS functionality and other information through active data plan, SMS plan, etc.

- **GOODS AND SERVICES TAX NETWORK:** The GST System project is a unique and complex IT initiative. It is unique because it seeks to establish a uniform interface for the tax payer and a common and shared IT infrastructure between the Centre and States. It is complex because it integrates the indirect tax structure under one umbrella. The portal's vision is to become a trusted National Information Utility (NIU)

which provides reliable, efficient, transparent and robust IT Backbone for the smooth conduct of the Goods & Services Tax regimen in the economy and build the nation as One Market with minimal Indirect Tax compliance cost.

- **E SIGN:** The Certifying Authorities(Cas) issue digital signatures for electronic authentication of users. It aims at promoting e-commerce activities and e-governance using such online electronic signatures.

- **E HOSPITAL:** It is an open source health information management system(HMIS) and is designed to manage multiple hospitals through cloud infrastructure. It is a certified end to end solution software that covers complete treatment cycle of OPD/IPD as well integrates clinical and administrative services, pharmacy management, dietary services, billing/ insurance activities, etc.

- **E PATSHAALA:** It is a website and mobile application, developed by NCERT as an initiative to provide access to e-resources including textbooks, audio, video, periodicals and other print and non-print materials to the various stakeholders of education through multiple technology platforms.

- **ELECTRONIC DEVELOPMENT FUND:** It is set up to develop Electronics System Design and Manufacturing(ESDM) sector to achieve 'Net Zero Imports' by 2020 by catering to the domestic demand by 7home manufactured goods and acting as an export hub in the ESDM sector. Such a fund seeks to provide risk capital to companies developing new technologies in electronics, nano-electronics and Information Technology (IT).

- **CENTRE FOR EXCELLENCE FOR INTERNET OF THINGS(CoE-IoT):** It is an initiative to build IoT ecosystem in India to make it achieve a leadership role in the area of software and hardware. Its objectives include, creating innovative applications and domain capability across vertical for country's needs such as Smart City, Smart Health and others, building industry capable talent and start up community, embracing entrepreneurship, providing laboratory facilities for Research and development, and the like.

- **ADHAAR:** This initiative is one of the key pillars of 'Digital India' which seeks to empower the residents of the country with a unique identity and digital platform to authenticate anytime, anywhere. It is the largest biometric based system in the world to provide citizen centric governance, ensure social and financial inclusion through Adhaar enabled payment system, manage fiscal deficits, pave way for public sector delivery reforms like targeted delivery of subsidies, benefits and services to the citizens and provide efficient, transparent and good governance.

7. BENEFITS:

India, at present, is in the revolutionary phase of digitalisation which is felt the need of the hour by almost all economies around the globe. India, like other global economies, wants to establish a knowledge driven market to build a competitive advantage in technology related goods and services. Though, the expenditure to build an infrastructure to give thrust to digitalisation may be high, however, the costs of digitalisation should be weighed against its benefits, such as, reduction in red tapism in the public undertakings, positive ecological impact of reduced usage of paper and use of digital means to store and disseminate large volume of data, increase in employment opportunities for skilled labour and many more.

The success of the 'Digital India' initiative of the government will lie in its successful implementation. Some of the benefits of the era of digitalisation and this project of the government are as follows:

- The introduction of digitalisation has made India more technically advanced and has paved way for an efficient and transparent means of citizen centric governance by the government.
- It has led to the expansion of e-commerce through the creation of new markets and better matching of buyers and sellers. The physical retail markets have also reaped the benefits of digitalisation with point of sale equipment, bar codes, billing and payment databases, radio frequency identification tags(RFID), IT solutions in Customer Relationship Management(CRM), etc.
- It has led to reduction of costs while entering into transactions as these can now be completed online with less time and easy digital payments options, such as, internet banking, debit/credit cards, mobile wallets, Aadhar enabled payment system and the like.
- Digitalisation is helping India to move towards becoming a cashless society. The government's demonitisation policy is one such initiative to boost cashless transactions in India.

- It will not only give boost to large scale businesses in future but the integration of technology in the ecosystem of small and medium enterprises will lead to accessibility of expert knowledge and best practices by them , financial independence and risk mitigation, operational efficiency, targeted marketing and sales and will provide them with real time insights for decision making.
- The 'Digital India' program aims to bridge the digital divide among urban and rural India through internet connectivity in the remotest areas and digital literacy.
- Its positive impact can be witnessed in the education sector with increased interactivity through IT based learning and knowledge sharing.
- The various initiatives of the government and the private players in the agriculture sector, such as e-choupal, Soil Health Card, Pusa Krishi, eNam, etc, is helping the farmers to access information about fertilizers, marketability of their produce and weather forecasting to name a few.
- The healthcare and medicine sector is also now catching up with the digitalisation drive. It is helping the doctors and patients to connect with each other and doctors to treat similar disorders, making personal medical devices available, improving quality of medical treatment and paving way for research and development in medicine. Additionally, digitalisation of medical records is a key component for changing the healthcare landscape.
- The Prime Minister Modiji's policy of 'Ease of Doing Business' integrated with the 'Digital India' project is likely to boost the manufacturing sector in the coming years.
- Digital transformation has positively impacted all the segments of media and entertainment by increasing personal interaction through mobile and social media sites, access to real time global news, online services like gaming, online music and video, and many more segments, including publishing.
- The process of digitalisation has given a boost to the banking services and can be viewed as a vital tool for achieving financial inclusion.
- The growth of the ICT has led to the growth of the service sector and continues to accelerate the momentum of services being provided in the country.
- Digitalisation has led to the enhancement of skills and ushered in an era of entrepreneurship and star-ups.

8. CHALLENGES:
- The cost of installing and maintaining the IT structure which is the backbone of digitalisation is very high.
- India still lags in providing internet connectivity to the remotest areas of the nation. It is necessary to have proper broadband connections in rural areas for accessing the internet. The private players alone cannot provide the required infrastructure in the nation's interiors because of financial infeasibility.
- In India, more than 70% of the population lives in rural areas and illiteracy in villages and towns is widespread. The use of technology and digital devices need the consumers to be digitally literate and know English language to access information, knowledge and be a part of the digital era. Digital illiteracy and language barrier pose a major challenge for a culturally diverse country like India.
- While moving towards a digital society, the citizens are more vulnerable to security breach and privacy risks. Thus, cyber security is one of the key concerns as the impact of loosing data is higher in a digitized economy. Cyber crimes are increasing day by day and cyber laws of our country are not as deterrent as they should be. Most of the cyber crimes are bailable.
- Formalising transactions through digital money in an informal economy, like India, where cash is the most preferred mode of payment and existence of huge informal employment(majority of rural households do not use bank accounts for receiving their share of wages) is also a major challenge.(Atul Sood and Ashapurna Barua(2017))
- Though it is argued that the world is becoming more and more connected with the digital onset, the massive use of the digital technology, especially for communication has led to digital social isolation. Social networking websites effect our social interaction by changing the way we interact face-to face and the dynamics of personal and social groups.

9. RECOMMENDATIONS:
- The cost of IT infrastructure should be weighed with the benefits it offers, which may be accrued over a period of years.
- The government should in partnership with private sector (Public Private Partnership) try to resolve the last mile connectivity and reduce the digital divide between Urban and Rural India.
- With the digital infrastructure in place, it will provide a level playing field to the service providers to innovate and compete with each other, thus lowering the cost of digital services for the citizens of India.

- The problem of digital illiteracy could be addressed to some extent by setting training centers and camps in rural India and through the education system in urban India.
  The Government of India and the industry have collaborated to introduce National Digital Literacy Mission(NDLM) to empower at least one person from each household with digital literacy skills by 2020.
  Apart from such initiatives, availability of content in regional languages will make it easier for citizens to adopt the digital technologies and access content in their mother tongue rather than in English.
- There needs to be stringent regulations in the field of cyber law, data and privacy protection. The laws must be updated and made stringent to safeguard the misuse of citizen's/government data while accessing public internet and service providers should be held responsible for such breach, if any. The government needs to be cautious in preventing scams and scandals operating in the country with respect to electronic transactions and other breach of data and privacy, the latest one being that of details of Adhaar, data leak on social networking sites for manipulating elections in countries, ebanking hancking of personal accounts, etc. to name a few.
- People need to understand that negative effects of excessive online social interaction and engage in community building initiatives to maintain human relations and not loose the essence of human touch in our lives.

10. CONCLUSION:

All the stakeholders of the digital ecosystem should work together to digitalize the Indian economy. A knowledge driven economy is the need of the hour to achieve economic prosperity, build competitive advantage in international business and move towards a cashless society.

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