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DIGITALIZATION IN INDIA: PROSPECTS AND CHALLENGES

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Abstract:

Digitalization is the process of converting information into a digital format as well as transaction of documents, money and many more through this. Digitalization is the outcome of innovation and technological advancement. So, we able to say that digitalization is the dynamic way of life in 21st Century. Digitalization transforms the human lives from lot of angles and empowers the society in a batter manner. Digitalisation of India starts from the cashless society, where a pauper man to the industrialist are going cashless and trying the digital ways for the payments. Other than that, we are using lot for the security system and the Digital Controls. India is going Digital as now our complete records can be stored digitally (Digi Locker) so that government can avoid frauds and other activities that are harmful. Digitalisation of India is nothing but making our daily life less dependent and devoid of human interaction with the help of technology. Now the entire world is in our mobile handsets. You can book a travel ticket, do shopping, chat with your loved ones across the globe and even share your views to the external world more freely and easily. This is the result of digitalisation. To make the India Digitalise to create a digital infrastructure like a high-speed internet, mobile phone, shareable private space on a public cloud, and creating a safe and secure cyber space as a utility to every Indian citizen with digital literacy. This paper will discuss the prospect and challenges of digitalization.

- **Key Words:** Digitalization, Digital India, Social Impacts.

❖ Introduction:

Digitalization is the integration of digital technologies into everyday life by the digitalization of everything that can be digitized. The literal meaning of digitalization gives an apparent idea of development and technology dependent world. Digitalization, by contrast, refers to “the adoption or increase in use of digital or computer technology by an organization, industry, country, etc.” The first contemporary use of the term “digitalization’ in conjunction with computerization appeared in a 1971 essay first published in the North American Review. In it, Robert Wachal discusses the social implications of the “digitalization of society” in the context of considering objections to, and potentials for, computer-assisted humanities research.¹ A number of scholars have analyzed the effects of digitalization on social structures. Scholars have broadly suggested that social “infrastructure is changing under the influence of communication networks”. In

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1. <http://culturedigitally.org/2014/09/digitalization-and-digitization/> Retrieved on 16.04.2017

particular many have argued that digital networks give rise to vast changes in the logics and structures of global social organization.

Moreover digitalisation can bring together all the needs to be served at a single point. It is possible to bring all the personal details, finances and legal entities to be stored, monitored and managed at a single source. This could bring in more transparency, better management and way for faster growth. Thus digitalization turns out to be the key to success in the emerging world.

In simpler terms think of banking sector back in 90's there would be long queues and accountants of companies working long hours to process the payroll. Just a single transaction would consume huge manpower and time. After the digitalization of banking sector now transactions are under a single click.

❖ **Manifesto of Digitalization in India**

In an order to create participative, transparent and responsive government, Hon'ble Prime Minister Narendra Modi launched the much ambitious 'Digital India' programme in the national capital.² With the launch of Digital India programme, the government is taking a big step forward to transform the country into a digitally empowered knowledge economy as well as society. In Digital India includes various schemes worth over Rs. 1 lakh crore like Digital Locker, e-education, e-health, e-sign, Digital Libraries and national scholarship portal. The visionary programme of Digital India includes projects that aim to ensure that government services are available to citizens electronically on demand and people get benefit of the latest information and communication technology. Through this Government take step to make citizens as Digitally Empowered.

Bharat Net in 11 states and Next Generation Network (NGN), are also apart of Digital India campaign. The Ministry of Communications and IT is the nodal agency to implement the programme like Broadband Highways, Universal Access to Phones, Public Internet Access, e-Governance, e-Kranti - Electronic delivery of services etc.

Digitalisation is a huge undertaking and different departments are working towards making a completely digitalised system for Indian judiciary. The system of justice is an important foundation for a democratic Country. The Judgments Information system (**JUDIS**) consists of the Judgments of the Supreme Court of India and several High Courts. In the case of the Supreme Court all reported Judgments which are published in SCR Journal, since its inception i.e. 1950 till date are available. The Judgments reported in SCR till 1993 also have head-notes. The judgments reported in SCR in 1994 and later have only text of judgments without head-notes³. Long before the Digital India drive, the Courts had started channelizing their documents and procedures into the digital format. Some of the High Court's such as Delhi, Chandigarh and Mumbai have already switched to e-Courts where the cases are taken up and dealt with only in

2. <http://www.oneindia.com/feature/what-is-digital-india-programme-explained-1792279.html>. Retrieved on 16.04.2017

3. <http://judis.nic.in/>. Retrieved on 14.04.2017

e-form, which is there is no movement of actual physical files in the Courts⁴. Other Courts are following by digitizing their Court records on administrative and judicial sides for converting them into e-records for facilitating following e-services through the web-portals using smart devices such as Case Status, Cause Lists showing scheduling of pending cases, Compilation in the form of a database of old and current daily Orders and Judgements passed by the Supreme Court, High Courts and the District Courts etc.

❖ **Digitalisation: Development and Framework through Digital India.**

Today, the Digitalization is present in all areas of the human life, like communication, money transfer, record storage and preservation as well as marketing and supply chain. Administratively India is way back in digitalization. For a fast changing world we need the data management to be done in a blink of an eye. Data storage and retrieval is harder and tiresome in the conventional way. Once all the administrative data are digitized faster retrieval, better access and secured data management can be ensured thereby enhancing the opportunities to cope up with the fast changing world.

India being a populous and a fast developing country handles a mammoth data on daily basis. Think of managing just the personal details of 1300 million people in a conventional way, our head will start spinning right. There emerged the concept of AADHAR card. Now you need not feed in the personal details to get a mobile simcard just your AADHAR number is enough to feed all the necessary details.⁵

❖ **Digitalization Projects in India:**

Here are some of the projects and products that have been launched, or are ready for deployment, as part of the Digital India initiative:

- **Digi Locker** facility will help citizens to digitally store their important documents like PAN card, passport, mark sheets, degree certificates and many personal documents. Digi Locker will provide secure access to Government issued documents. It uses authenticity services provided by Aadhaar. It is aimed at eliminating the use of physical documents and enables sharing of verified electronic documents across government agencies. Digi Locker will reduce the administrative overhead of government departments and agencies created due to paper work. It will also make it easy for the residents to receive services by saving time and effort as their documents will now be available anytime, anywhere and can be shared electronically.

- **BHIM App** was one of the biggest announcements of 2016. BHIM (*Bharat Interface for Money*) App gives an easy method of payment and fund transfer. It has the following basic features of an UPI app. BHIM app is developed by National Payment Cooperation of India and is currently available on Android Platform, though App store listing should follow

4 . https://www.linkedin.com/pulse/digitization-indian-judiciary-system-introduction-apoorva-agma?trk=seokp-industry_posts_primary_cluster_res_title. Retrieved on 15.04.2017

5 . <https://www.quora.com/What-is-digitalisation-of-India>. Retrieved on 16.04.2017

soon.⁶ In less than a week time, BHIM is number one app on the Google Play Store and has already witnessed more than 3 million downloads and over 500,000 transactions since its debut. People never need to enter any details again and again into BHIM app. It automatically picks up your details corresponding to bank and phone number. No Transaction charges, transfer to anyone with or without BHIM app. Transfers are bank to bank, you don't need to add to wallet first. Transfers happen within seconds. The BHIM app don't save any information except the account name and phone number, hence it is much more secure.

- **MyGov.in** as an online platform to engage citizens in governance through a "Discuss, Do and Disseminate" approach. There are multiple theme-based discussions on My Gov.in where a wide range of people can share their thoughts and ideas through online on portal. This is the dream project initiated by central government to collect constructive feedbacks from the society, this is highly appreciated by the society and till date 4164.32K members registered, 187.30K submitted tasks and 3733.68K comments in various discussions. These tasks been reviewed by other members and experts. Once approved, these tasks can be shared by those who complete the task and by other members on My Gov.in platform. Every approved task would earn credit points for completing the task⁷.
- **e-Sign framework** to allow citizens to digitally sign documents online using Aadhaar. A digital signature takes the concept of traditional paper-based signing and turns it into an electronic "fingerprint." This "fingerprint," or coded message, is unique to both the document and the signer and binds them together. Government of India (vide its Gazette Notification, REGD. NO. D. L.-33004/99 dated 28th January 2015) has announced a method that facilitates Certifying Authority to offer e-Sign service to citizens who have AADHAR ID.⁸
- **e-Hospital** system for important healthcare services such as online registration, fee payment, fixing doctors' appointments, online diagnostics and checking blood availability online.
- **Banking Sector** Digitalization is mainly concerned with what all banks are required to do in order to provide better services to the customers. There are various technologies which are to be adopted for digitalization of back office. It also ensures self-sufficiency to the customers in whichever way possible.
- **National Scholarship Portal** for beneficiaries from submission of application to verification, sanction and disbursal.
- **Digital India Platform** for large-scale digitalization of records in the country to facilitate efficient delivery of services to the citizens.

6. <http://www.financialexpress.com/money/bhim-app-bharat-interface-for-money-aadhaar-based-app-upi-unified-payment-interface-faqs-demonetisation/491336/>. Retrieved on 16.04.2017

7. <https://india.gov.in/spotlight/mygov-citizen-participation-towards-good-governance>. Retrieved on 16.04.2017

8. https://esign.cdac.in/digital_sign.html. Retrieved on 16.04.2017

- **Bharat Net** programme as a high-speed digital highway to connect all 250000 gram panchayats of country. The world's largest rural broadband project using optical fibre cable.
- **BSNL's** Next Generation Network to replace 30-year old telephone exchanges to manage all types of services like voice, data, multimedia and other types of communication services. BSNL's large scale deployment of Wi-Fi hotspots throughout the country⁹.
- **Broadband Highways** as one of the pillars of Digital India to address the connectivity issue while enabling and providing technologies to facilitate delivery of services to citizens.

Government make many Apps to make Digital India like Digital India Portal, MyGov Mobile App, Swachh Bharat Mission App and AADHAR Mobile Update, BHIM UPI App.

❖ **The Grand Challenges and Road ahead:**

"I dream of a Digital India where cyber security becomes an integral part of our national security... The world is so worried about cyber security. One click can change a lot of things," said Prime Minister Narendra Modi at the launch of Digital India Week on July 1, 2015¹⁰.

When we discussing about Digital India project there are so many challenges and issues arises. The Government of India entity Bharat Broadband Network Limited which executes the National Optical Fibre Network project will be the custodian of Digital India (DI) project. BBNL had ordered United Telecoms Limited to connect 250,000 villages through GPON to ensure FTTH based broadband. This will provide the first basic setup to achieve towards DI and is expected to be completed by 2017.¹¹ Country Digitalization through Digital India initiative is a promising initiative of the Indian Government. It is also believed that E-commerce would facilitate the Digital India project. However, it is not free from challenges and legal hurdles.

Some believe that Digitalization cannot be successful till mandatory e-governance services in India are introduced.¹² Having incomplete implementation of the National e-Governance Plan of India will only affect the success of the DI project.

People who were earlier raising concerns that people don't know how to operate credit cards, debit cards and internet banking can't use the digital means should not think that a person who knows how to dial a number and operate Whatsapp can use this app and since it is also available in Hindi language, majority of the population will be able to use it. In addition,

- **Digital Illiteracy¹³:** Digital illiteracy is prevalent in most of the towns and villages in India. Cities have adopted digitalization but limited to certain extent. This requires administration

9 . <http://www.gizmodo.in/indiamodo/Digital-India-15-key-initiatives/articleshow/47903331.cms>. Retrieved on 16.04.2017

10. <http://www.dnaindia.com/analysis/standpoint-why-cyber-security-is-critical-for-digital-india-2127604>. Retrieved on 16.04.2017

11. "Mandatory E-Governance Services In India Are Urgently Needed" (http://www.ifg.cc/index.php?option=com_content&task=view&id=47013&Itemid=99999999). IfG.CC - The Potsdam eGovernment Competence Center. Retrieved 16.04.2017.

12 . "India Needs A New And Better Cyber Law And The Old One Must Be Repealed" (<http://perry4law.org/cyberlawsinindia/?p=11>). Cyber Laws In India And Technology Laws And Regulations In India. 22 January 2014. Retrieved 18 October 2014.

13. <http://www.icytales.com/7-challenges-implementing-digital-india/>. Retrieved on 16/04/2017.

changes, Taxation changes and change in public mentality. So it's a team work which includes citizen's responsibility and support to the new system.

- **Usage and Connectivity:** It is a mammoth task to have connectivity with each and every village, town and city. Also it is challenging for the central authorities to make a database where such huge information can be stored. Internet usage in India is rising on the back of the mobile phone revolution. There are 105 crore wireless connections (TRAI; September 30, 2016) for a population of 133 crore (World Bank; October 6, 2016). But, the number of internet subscriptions is only a third of the total number of mobile phone users¹⁴.
- **Cyber Threat:** There is cyber threat all over the globe and digital India will not be any exception. Hence we need a strong anti cyber crime team which maintains the database and protects it round the clock.
- **Co-ordination between various Departments:** Within the government there are various departments which should be integrated. Integration has technical as well as corporate issue. Corporate in the sense self ego of the officers and staff of our government services are hurdle in the change. Also the middle man policy will be eliminated completely because of digital India; hence there will be imminent resistance from the working staff.
- **Net Neutrality:** When the internet started to take off in 1980s and 1990s, there were no specific rules that asked that internet service providers (ISPs) should follow the same principle. But, mostly because telecom operators were also ISPs, they adhered to the same principle. This principle is known as net neutrality. The issue is still on the table and we are blindly following the digital India. Net neutrality is must and we should make sure that digital India without net neutrality would be a great blow to entrepreneurs and citizens of India.
- **Changing the Mindset:** This point will come into picture when you have allocated the required resources and material but when it comes to implementing them, most of them will be hesitant to change. People are accustomed with years of same of practice that they are not ready to change.
- **Exchange of Information:** The information stored should also be used by other government offices. For example police, surveillance and other security issues can be easily resolved with digital India but its co ordination is a mammoth task. It is not only a technological question but also deals with the question of privacy and security.

People support Digital India but we should be aware of the dangers and setbacks, so that we can prepare ourselves for the upcoming challenge. We should be mentally prepared for the changes and challenges in implementing the policy, only then it would be possible to change it to reality¹⁵.

14. <http://www.news18.com/news/india/how-digital-is-india-population-133-crore-internet-subscribers-37-crore-1329411.html>. Retrieved on 15.04.2017.

15. <http://www.dnaindia.com/analysis/standpoint-why-cyber-security-is-critical-for-digital-india-2127604>. Retrieved on 15.04.2017.

❖ **Conclusion and Suggestions:**

India is one of such country, which is taking concrete steps towards digitalization of its records for achieving automation in the Courts, Many other Government departments for the benefit of efficiency in working and response to the public demand for the services.

The implementation of a secure Digital India will need to adopt an end to end approach like never before. As a nation, we shouldn't let security concerns undermine the growth potential of India.

Digitalization is the order of the day world over. The initiative taken by the Government of India keeping in tandem with the developed countries is laudable. The initiative taken by the Government of India which has been discussed in the paper is self explanatory. Particularly after the demonetization it is imperative for the country to digitalize the governance in Toto. Through there are some security discrepancies as far as security aspect is concerned, but the Government of India is moving in right direction.

This Digitalization process will ensure transparency in the Government and at the same time will curb the menace of corruption, which is the road block in the progress of the country. The Government should make extra efforts to literate the citizens and make aware of the benefits and uses of DIGITALIZATION.

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