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Digital India Initiatives with Special Reference to Digital Locker

Shaila Kamath

Research Scholar, College of Management & Commerce, Srinivas University, Mangalore, Karnataka, India

Corresponding author: shazkamath68@gmail.com

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ABSTRACT

Digital India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. It is a well-known fact that digital India is the outcome of many innovations and technological advancements. These transform the lives of people in many ways and will empower the society in a better manner. Digital technologies are being increasingly used by us who contributes to the economic development of the country. Digital India is being launched with the aim of providing improved online infrastructure and making the country digitally empowered in the field of technology. This programme tries to provide equal benefits to the user and the service provider. Digital Locker provides access to authentic virtual documents. It is a digital document wallet where one can store documents such as driving licence, PAN card, Voter ID, policy documents, etc. In this paper attempt has been made to understand Digital India with its nine pillars, various digital India initiatives, benefits and challenges. Further the study focuses on the features, components, benefits and challenges of digital locker.

Keywords: Digital India, Technological Advancements, Digital Locker, Virtual Documents, Innovations

Today, Digitization has become an essential part of the economy. Tasks have become so simple and relevant as technology plays an important role. The leading and topmost programme of the Government of India was initiated with the vision to change India into digitally empowered society and knowledge economy. Hon' Prime Minister Shri Narendra Modi launched the programme on July 1, 2015. The three vision areas of Digital India are digital Infrastructure, governance and services and digital empowerment of citizens (Also refer Fig. 1).

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Digital Locker is dedicated personal storage space, which is linked to each resident's Aadhaar number. The main use of DigiLocker is to store e-documents and Uniform Resource Identifier (URI) link of e-documents which is issued by various issuer departments. DigiLocker system provides the e-Sign facility which can be used to digitally sign e-documents[4],[6],[8].

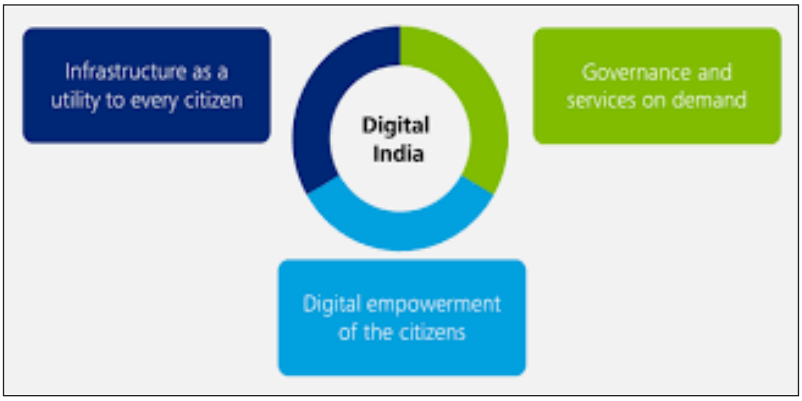

Fig. 1: Vision areas of Digital India

Digital India - Basics

Fig. 2: Digital India- Base to a Digital Future

Today, we can't think of our life without technology. It is a system which allows individuals to communicate and connect globally. Digital India programme is being started with the view of transforming India into a digitally empowered society and knowledge economy. Digital India is a programme which covers many departments. This initiative of the Government is launched with the purpose of making government services and information available anywhere, anytime on any device that are user friendly and secured with Digital India project [10],[12],[15].

Objectives of the study

- To understand the concept of Nine Pillars of Digital India.
- To highlight the Digital India Initiatives with the focus on DigiLocker.
- To analyse the Benefits and Challenges of Digital India.
- To throw light on the Features, Components, Benefits and Challenges of DigiLocker.

Methodology

This study is being done with the help of secondary source of data. In secondary sources the data already exists which is also called as second hand data. Availability of internet has made the collection of data very easier through secondary source. For this study Information is being collected through various articles, websites and journals.

Pillars of Digital India

Fig. 3: Nine Pillars of Digital India

1. Broadband Highways

Under Broadband for All Rural, it covers over 250 thousand village Panchayat and the Project cost is ₹ 32,000 Cr. Under Broadband for All Urban, the main work Virtual Network Operators would be to take upservice delivery and communication infrastructure in new urban development and also construction of buildings.

2. Universal Access to Mobile Connectivity

The initiative is to focus on network penetration and to overcome the hindrances in connectivity in the country. All together 42,300 villages who are not exposed to mobile connectivity will be covered for providing universal connectivity in the country.

3. Public Internet Access programme

Public Internet Access Programme consists of two sub components such as Common Service Centres and Post Offices. Common Service Centres is increased in number from approximately 135,000 operational to 250,000 i.e. one CSC in each Gram Panchayat. CSCs would be made feasible, multi-functional for providing government and business services. Nearly 150,000 Post Offices are anticipated to be converted into multi service centres.

4. E-Governance- Reforming Government through technology

Government Business Process Re-engineering using IT to improve transactions is required for modifying across government and therefore needs to be taken up by all ministries/ departments.

Electronic Databases – It means all databases and information should be electronically done and not manual.

Workflow Automation Inside Government – Government departments and agencies should carry out work with automation in order to enable efficient government processes and also to allow visibility and transparency of these processes to the citizens.

Public Grievance Redressal – IT should be used to automate, respond and evaluate data to identify and solve insistent problems.

5. e-Kranti- Electronic delivery of services

Under the stages of e-governance project life-cycle, there are 31 Mission Mode Projects Further, 10 new MMPs have been added to e-Kranti by the Apex Committee on National e-Governance Plan.

Technology for Education – e-Education

Schools will be provided by broadband and Free WIFI facilities will be provided in schools. At national level Digital literacy programme would be taken up. MOOCs –Massive Online Open Courses shall be developed and applied for e-Education.

Technology for Health – e-Healthcare: This includes medical consultation, medical records, medicine supply and PAN-India exchange for patient information through online.

Technology for Farmers: Farmers would get access to the information on real time prices of the products, online ordering of inputs and online cash, loan and relief payment with mobile banking.

Technology for Security: A precautionary measure on time with the help of mobile based emergency services and disaster related services would be undertaken which helps to minimise the loss of lives and properties.

Technology for Financial Inclusion: Financial Inclusion shall be strengthened using Mobile Banking and Micro-ATM program.

Technology for Justice: Justice shall be strengthened by adopting e-Courts, e-Police, e-Jails and e-Prosecution.

Technology for Cyber Security: In order to enjoy safe and secure technological transactions within the country, it is vital to set up National Cyber Security Co-ordination.

Information for all

Citizens will have open and easy access to information by enabling Open Data platform and online hosting of information & documents MyGov.in has already been launched as a medium to exchange ideas/ suggestions with Government. There will be 2 way communications between the Government and citizens.

6. IT for jobs:

Students in huge number say 1 Cr students from smaller towns & villages will be trained for IT sector jobs over 5 years. North eastern state would set up BPOs to facilitate ICT enabled growth in these states. In view to deliver IT services effectively 3 lakh service delivery agents would be trained as part of skill development. Telecom Service Providers (TSPs) would train 5 lakh rural workers to cater to their own needs.

7. Early Harvest Programmes

IT Platform for Messages: A Mass Messaging Application will cover elected representatives and all Government employees. Database consists of 1.36 Cr mobiles and 22 Lakh emails.

Government Greetings to be e-Greetings: A huge range of e-Greetings templates have been made available. E-Greetings portal has been made available from 14th August 2014.

Biometric attendance: This has been started in the Department of Urban development and will be used in all Central Govt. Offices in Delhi .

Wi-Fi in All Universities: Universities which come under the National Knowledge Network (NKN) shall be covered under this scheme. Ministry of HRD is the nodal ministry for employing this scheme.

Secure Email within Government: Email would be the primary and essential mode of communication. In Phase-I it was upgraded among 10 lakh employees and in Phase II, infrastructure would be further upgraded to cover 50 lakh employees by March 2015 which would cost of Rs 98 Cr.

Standardize Government Email Design: Standardised templates for Government email came into existence from October 2014.

Public Wi-Fi hotspots: With the view to promote digital cities, population of over 1 million and tourist centres would be provided with public Wi-Fi hotspots.

School Books to be e-Books: All books shall be transformed into e-Books.

SMS based weather information, disaster alerts: SMS based on weather information and disaster alerts would be updated.

National Portal framed for Lost & Found children: This would help in finding out the real time information on the lost and found children and would go a long way to check crime and improve timely response[16],[23],[24].

Digital India Initiatives

The Government of India launched the Digital India campaign to confirm that the services of the Government are made available electronically to all citizens. This objective is achieved by improving online infrastructure and internet connectivity. The main intention of Digital India initiativeis to provide rural areas with high-speed internet networks and improve digital knowledge among the citizens[26], [27].

Fig. 4: Digital India Initiatives

- **AADHAR:** This is an important initiative of 'Digital India', wherein every resident of the country is provided a unique identity number.
- **Bharat Broadband Network (BBNL):** This is the guardian of Digital India. The creation of the National Optical Fiber Network (NOFN) has been required in India.
- **CERT-IN:** The purpose of this initiative is to have a secure Indian cyberspace.
- **Common Services Centres (CSCS):** this centre aims at providing essential public utility services, healthcare, social welfare schemes, financial, education, and agriculture services.
- **Deen Dayal Upadhyaya Gram Jyoti Yojana:** This is one of the flagship programs of the Power Ministry (MoP) and it is intended to provide a continuous power supply to the entire rural India.
- **DigiLocker:** It is an initiative to provide secured documentation of the e-Certificates.
- **Digital Saksharta Abhiyaan (DISHA):** This is an initiative which aims to provide IT training to 52.5. Lakh persons.
- **Accessible India Campaign and Mobile App:** It provides universal accessibility for people with disabilities to gain access to equal opportunity.
- **Agrimarket App:** This mobile application aims to provide updated information to the farmers on prices and avoid selling at low cost.

- ***Beti Bachao Beti Padhao:*** This initiative aims to provide equal opportunity to a girl child and a chance to be born and be educated.
- **BHIM (Bharat Interface for Money):** This assists in making the payment easy and quick using UPI.
- **Crop Insurance Mobile App:** This app can be used to find out the insurance premium for the crops based on the coverage area, amount, and loan amount in the case of loanee farmers.
- **E-Granthalaya, E-Panchayat, E-Hospital, E-Pathshala, E- prison:** This provides digitalization of services in the field of libraries, hospitals, schools, and prisons[1],[2],[9].

Benefits of Digital India

Digital India is a campaign initiated by the Government of India in order to ensure that the Government's services are made available to citizens electronically by providing improved online infrastructure and increasing the Internet connectivity or by making the country digitally empowered in the field of technology. The initiative is with the plan of connecting rural areas with high-speed internet networks[20], [26].

- Elimination of black economy
- Increase in profits and gains
- Empowerment to the people
- Paves the way to e-governance
- Creation of new jobs
- Providing all Government Services electronically (E-Governance).
- A Digital Identification which will verify and check the end user.
- A Mobile for worldwide contact and contact to all services.
- A Bank account with the aim of Immediate Benefit Transfers of subsidies and payments.
- The program also aims to abolish all electronics imports from foreign countries and make India electronics manufacturing super power[1],[10],[13].

Challenges of Digital India

Digital India campaign was launched by the Indian Government with the purpose of making services available to citizens electronically by improving the online infrastructure and also by enhancing internet connectivity. Though it contributes widely for the development of economy, it faces certain drawbacks[25], [26].

- The daily internet speed and Wi-Fi hotspotsis slow when compared to other developed nations.
- Most of the small and medium scale industry has to face huge challenge in adapting to the new modern technology.

- Limited ability of entry-level smartphones for smooth internet access.
- Lack of skilled manpower and workforce in the field of digital technology.
- Lack of user education [11],[13],[18].

Features of DigiLocker:

DigiLockeris a digital locker for issuing and verifying the documents and certificates, eliminating the need for carrying physical documents. Along with the storage facility, it also provides easy accessibility.

Fig. 5: DigiLocker

- It provides an online account for Aadhaar holders with 1GB storage space.
- Issuer departments can drive the e-documents into the digital locker system.
- E-documents can be produced by the citizens with government or other registered organisations.
- Residents can upload the document and digitally sign by using e-sign facility.
- Sharing of e-documents is easy across agency[6],[7],[14].

Benefits of DigiLocker

Government of India came up with the initiative known as DigiLocker which is an online storage facility to store important documents. Various documents are uploaded in DigiLocker like Voter Id card, PAN card, BPL card, Driving license, education certificates etc. It can be treated as authorised documents as these documents will be linked to the Aadhaar number.

Fig. 6: Benefits of DigiLocker

1. **Reduces operating cycle time for various Financial Services:** In order to get the services like applying for driving licence, passport one had to provide all the documents for the verification purpose. DigiLocker helps to reduce the operating time in financial services as the documents are submitted instantly.
2. **Safety is a guarantee:** There won't be any chances of robbery or loss of the documents as they are stored online. Also, one need not carry the documents in physical form, thus it provides extra safety.
3. **E-signature:** Self-attestation of documents helps in speeding up of applications and transactions. Quick settlement is possible as the documents can be accessed and affixed with e-signature.
4. **Reduced Administrative Costs:** Carrying documents in hard form requires extra care. Documents need not physically handled and stored and can produce the documents instantly without any delay.
5. **Free of cost:** DigiLocker is free of cost and need not pay any sum to open a locker to store the documents. The documents can be accessed and shared freely with other agencies[25], [28].

Components of DigiLocker

DigiLocker is an initiative which provides a dedicated personal storage space, linked to each resident's Aadhaar number. DigiLocker is useful to safely store e-documents and Uniform Resource Identifier (URI) link of e-documents which are issued by various issuer departments.

- **Dashboard –** It is the opening page which can be seen when a person logins and it displays a summary of all your documents.
- **Issued Documents –** These are the URIs (links) of the documents participating in DigiLocker.
- **Uploaded Documents –** It shows all the documents which are uploaded. Person holding DigiLocker can update the document type, e-Sign and share these uploaded documents.

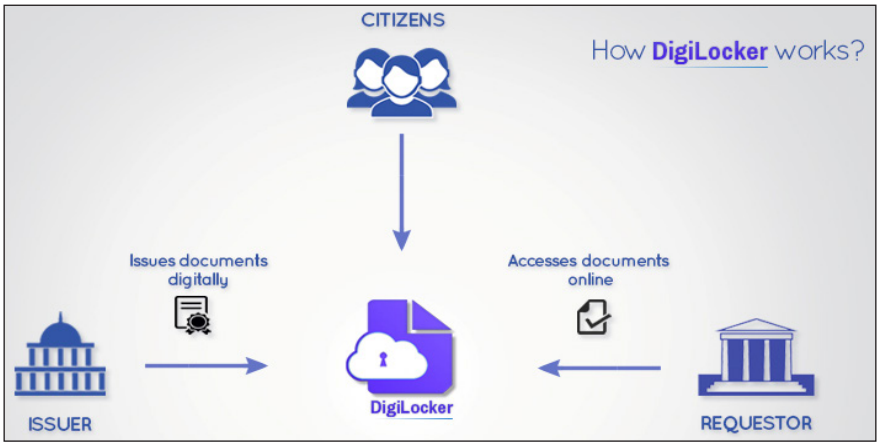

Fig. 8: Components of DigiLocker

- **Shared Documents –** It shows the list of documents which is being shared with others.
- **Activity –** It is a details of the activities performed in DigiLocker account.
- **Issuers –** It is the lists of the departments and agencies that are registered on DigiLocker. If these departments have issued any document/certificate, it will appear in the form of a URI (link) in the Issued Documents section[19],[21],[22].

Challenges of DigiLocker

Government of India came up with the DigiLocker as an Initiative under its Digital India theme. It provides Indian citizens the ability to store, in digital format, Central and State issued IDs, including but not limited to Driver's Licence, Aadhaar Card, State Board certificates and other such documents.

- **Registration restrictions:** There are restrictions regarding the registration under the DigiLocker Initiative under the Government of India. One can login to the application only with mobile number and email address which is linked to the respective Aadhaar card.
- **Only for users with Aadhaar card:** The second disadvantage of DigiLocker will be created for only those who have a valid Aadhaar card. Even being the citizen of India and do not hold an Aadhaar card; one will not be able to enjoy the benefits of DigiLocker.
- **The Bottom Line:** Overall the entire advantages and disadvantages of DigiLocker are aimed at making people aware of the Aadhaar card. It even gives an idea of how to download Aadhaar card by number or registration ID[5],[8],[17].

Findings

- 100 MB was the storage space provided in the beginning and later it was increased to 1 GB.
- The number of users saw a large jump of 7.53 lakh in April when the government had forced all municipal bodies to use DigiLocker to make their administration paperless.

- From 2017, the facility was extended to the students of ICSE board to store their certificates of class X and XII in DigiLocker and share them with agencies as required.
- In February 2017, Kotak Mahindra Bank started providing access to documents in DigiLocker from within its net-banking application, allowing users to e-sign them and forward as needed.
- In May 2017, large number of hospitals including the Tata Memorial Hospital launched the use of DigiLocker for storing the documents of cancer patients' and test reports.
- According to a UIDAI architect, patients were provided a number key, which was helpful for them to access their test reports by other hospitals[3],[19].

Limitations

- The study is limited as it involves only secondary data.
- As the study is based on secondary data, human interaction is not involved.
- The study lacks the practical or in depth study of the applications.

CONCLUSION

The Digital Locker, which may be termed as a step of the Govt. of India towards accomplishment of its ambitious mission of Digital India, is one the revolutionary change initiated recently by Indian Government. This facility has been provided to the citizens of India to help them to digitally store their documents, RC, DL etc. electronically. In order to keep this momentum on and mission fruitful, we would have to make sure that each and every aspect of this programme is pushed to show the results. But it is necessary to overcome all the challenges mentioned here with the help of proper IT security, IT literacy to successfully materialize the dream of a "Digital India". DigiLocker is a cloud-based platform provided to people to store their official documents. Also, it is used by the Issuer and Requestors for their own purposes. 1 GB of free cloud space is provided to the registered person. A single document must not exceed 10 MB in size and should only be uploaded in the specified format. It uses various security measures to ensure the user's data is safe.

REFERENCES

1. Begum, M.F. 2018. An Overview of Digital Financial Services in India: Concept, Initiatives and Advantages. *Asian Journal of Management*, **9**(3): 1139-1144.

2. Bhatia, A. and Kiran, C. 2016. Rural development through E-Governance initiatives in India. *IOSR Journal of Business and Management (IOSR-JBM), Special Issue-AETM*, **16**: 61-69.

3. Dhal, S. 2020. Situating Digital India Mission in Pursuit of Good Governance: A Study of Electronic Governance Initiatives in the Indian Province of Odisha. *Indian Journal of Public Administration*, **66**(1): 110-126.

4. Dhanalakshmi, C. 2018. A conceptual study on cashless economy: Digital India. *International Journal of Commerce and Management Research*, **4**(6): 135-136.

5. Galande, M.A. and Borkar, D.S. 2021. Digital Payment: The Canvas of Indian Banking Financial System. *European Journal of Molecular & Clinical Medicine*, **7**(8): 5868-5871.

6. George, M.A., Viswambharam, A.M. and Scholar, M. Digi-Locker–An Overview, **6**: 2348-2350.

7. Ghodke, A.V. and Dagade, R.V. 2018. Electronic Secure Vehicle Verification System Using Advanced Digi-Locker System. In *2018 3rd International Conference for Convergence in Technology (I2CT)* (pp. 1-4). IEEE.

8. Goswami, H. 2016. Opportunities and challenges of digital India programme. *International Education and Research Journal*, **2**(11): 78-79.

9. Harish, N. and Kadrolkar, V.M. Digital India-Major Initiatives and their Impact: A Critical Analysis. *Digital Empowerment for Inclusive Growth and Sustainable Development*, **47**.

10. Jain, A. 2019. Digital India-Targeting Overall Growth: A Critical Analysis. *Advance and Innovative Research*, **343**.

11. Jindal, N., Thakur, K. and Sharma, T. 2019. Digital India: Challenges, Solutions and its Impact on Society. *International Journal of Environment, Ecology, Family and Urban Studies (IJEEFUS)*, **9**(2): 83-90.

12. Kedar, M.S. 2015. Digital India new way of innovating India digitally. *International Research Journal of Multidisciplinary Studies*, **1**(4): 34-49.

13. Khurana, B. 2017. Dream of cashless India: Benefits & challenges. *International Journal of Research-Granthaalayah*, **5**(5): 377-381.

14. Kumar, V., Chaturvedi, A. and Dave, M. 2018. A solution to secure personal data when Aadhaar is linked with DigiLocker. *International Journal of Computer Network and Information Security*, **11**(5): 37.

15. Mahajan, N. 2019. Digital India: Empowering to Rural Economy. *Journal of Social Sciences & Multidisciplinary Management Studies*, **2**(3): 37-43.

16. Malhotra, C. 2018. Enhancing Citizens' Participation in the Processes of Governance: Digital India and MyGOV. *Revue Internationale des Gouvernements Ouverts*, **7**: 193-198.

17. Midha, R. 2016. Digital India: barriers & remedies. In *International Conference on Recent Innovations in Sciences, Management, Education and Technology* (pp. 256-261).

18. Modi, N. Digital India: Challenges & Opportunities. *India's Yes to Mega Reforms: Issues, Challenges and Implications*, **87**.

19. Nedungadi, P.P., Menon, R., Gutjahr, G., Erickson, L. and Raman, R. 2018. Towards an inclusive digital literacy framework for digital India. *Education+ Training*.

20. Pathak, V. Business Innovation, Advanced Technology with Special Reference to Digital India.

21. Petare, P., Mohite, P. and Joshi, M. 2015. DigiLocker (Digital Locker-Ambitious Aspect of Digital India Programme.). *GE-International Journal of Management Research*, **3**: 2321-1709.

22. Rathore, S. and Panwar, A. 2020. Digital-locker services in India: an assessment of user adoption and challenges. In *Leveraging Digital Innovation for Governance, Public Administration, and Citizen Services: Emerging Research and Opportunities* (pp. 101-131). IGI Global.

23. Rituraj, V. 2018. Making of e-India through the "Digital India" e-Governance Plan: Impact and Challenges. In *The Stances of e-Government Policies* (pp. 1-10). Chapman and Hall/CRC.

24. Sai, P.J. and Pankajam, A. 2019. Digital India-A Transformative Technology in Everyday Life. *Management and Social Sciences (IJMSS)*, **141**.

25. Sharma, J. 2016. Digital India and its Impact on the Society. *International Journal of Research in Humanities & Soc. Sciences*, **4**(4).

26. Thomas, P.N. 2012. *Digital India: understanding information, communication and social change*. SAGE Publications India.

27. Vij, D. 2018. Digital India: A vision to empower rural India. *Asian Journal of Multidimensional Research (AJMR)*, **7**(9): 402-413.

28. Vijayan, A. 2019. Digital India–a roadmap to sustainability. *Int. J. Innov. Technol. Explor. Eng.*, **8**: 571-6.