TRANSFORMING GOVERNANCE IN THE DIGITAL AGE: THE ROLE AND IMPACT OF E-GOVERNANCE ON PUBLIC ADMINISTRATION IN INDIA

Rakesh Kumar Singh[*]
Apoorva Bhardwaj[**]

I. INTRODUCTION

The transformation of the State from a laissez-faire to a welfare State has witnessed numerous changes. The government has widened its responsibilities ranging from maintaining law and order to policymaking, defence, education, and welfare services. These extended responsibilities drive the government to evolve and update itself in order to keep pace with the changing and rapidly evolving world. This is the era of science and technology, where innovations are growing at an extraordinary rate. Information and Communication Technology (ICT) is now profoundly impacting everyone's life and thus the art of governance must adopt itself to the new realities of the digital age.

E-Governance can be defined as a solution based on Information and Communication Technology (ICT) to facilitate government services, sharing of information and unification of existing services and information portals. It represents progress towards SMART Governance emphasizing simple, moral, accountable, responsive and transparent governance. Countries are implementing various initiatives to promote e-governance and India too, has adopted these advancements over time. Today, we live in a rapidly advancing technological age where governance has transformed into e-governance.

The emergence of World Wide Web and ICT have compelled the government to take strong decisions to imbibe new technology.[1] The introduction of e-governance has impacted public administration positively by increasing interaction between government and people, and improving transparency and convenience. This change is an outcome of immense efforts put in by the Indian Government by introducing e-governance at different levels. These efforts are marked by introducing laws, policies, and programs, upgrading the work culture of courts, and empowering citizens with digital knowledge.

This article explores the emergence of e-governance and legal framework supporting it, examines government-led initiatives and their impact on public administration, and also critically analyses the challenges that hinder the effective implementation of digital governance.

II. BACKGROUND OF E-GOVERNANCE: HOW THE CHANGE TOOK PLACE

In India, the digitalization of governance started in year 1970, when the government shifted its focus towards developing in-house applications for defence, data management, and economic monitoring. This transition was fueled by the establishment of the Department of Electronics in the same year. Subsequently, in 1976, the National Informatics Centre (NIC) was established as a key technology partner of the Government of India, under the Electronics

[*] Professor, Faculty of Law, Lucknow University, Lucknow, India.
[**] Research Scholar, Faculty of Law, Lucknow University, Lucknow, India.
[1] Himanshu Sangrola and Rahul Palaria, "E-Governance in India" 8 *International Journal on Emerging Technologies* 318 (2017).

Commission, which later became part of the Ministry of Electronics and Information Technology. Narasimaiah Seshagiri played a pivotal role in the introduction of NIC, with the aim of providing the government with technology-driven solutions. NIC also provides ICT infrastructure to the government. Further advancing this digital initiative in India, the central government launched the National Information and Communication Network (NICNET) in 1987, a satellite-based wide area network.[2] The e-governance movement, in its real sense, gained attention in the country only after the introduction of NICNET. It connects all the ministries and departments of the central and state governments as well as the administration of union territories. This development led to improved government services, transparency, and responsiveness towards the citizens.

Further, the District Information System (DISNIC) program was started in 1989 under the Planning Commission as a tool for micro-level planning and development. This decentralized planning system, supported by an integrated approach for database development, was adopted by the Government under NIC. A database containing village-level information of about six lakh villages has been created under this program.[3] These steps prepared a roadmap for the digital journey of governance. In the years of liberalization, both technology and connectivity improved, resulting in various initiatives on e-governance undertaken by the central and state governments. The tax department at both the union and state levels took the lead in using e-governance to make their work easy and effective. In year 1999, the Department of Information Technology was elevated to the Ministry of Information Technology. As electronic activities grew, the need to regulate them was realized. As a result, the Information Technology Act, 2000 was passed to regulate cybercrime, electronic commerce, and commercial transactions carried out by electronic means. With this development, e-governance was formalized.

Various efforts were made by the government at both the central and state levels to simplify the delivery of public services. To formalize and ensure the systematic growth of digital governance, the Indian government launched the National e-Governance Plan (NeGP) in 2006. The plan provided a comprehensive framework for integrating e-governance initiatives across the country under a unified vision. It was formulated by the Department of Electronics and Information Technology, along with the Institutional Change and Public Complaints Department, with the goal of making e-governance accessible and integrating all government initiatives into a shared vision. Initially, the mission comprised 27 Mission Mode Projects (MMPs) with 8 components, later expanding to 31 projects in 2011. The mission played a crucial role in connecting villages and remote areas, digitalizing records, and making the Internet accessible to all. Building on the success of NeGP 2006, NeGP 2.0 (e-Kranti) was launched in 2015 to adopt advanced technologies and address challenges in implementing the mission mode projects. The aim was to provide more citizen-centric services, develop integrated e-government applications, and maximize the utilization of core infrastructure.

In India, the Digital India 2015 was launched as an umbrella program covering many departments, which has brought a paradigm shift in the digital journey of India. Promoting digital payments and achieving the goal of paperless, cashless transactions was the vision of

[2] National Informatics Centre**,** "About Us", *available at*: https://www.nic.in/about-us/ (last visited on Sep. 12, 2024).

[3] M. Moni**,** "DISNIC-PLAN: A NICNET-Based Distributed Database for Micro-level Planning in India"*,* *available at*: https://www.vldb.org/conf/1996/P586.PDF (last visited on Sep. 20, 2024).

this program.[4] Immense efforts were made to empower citizens digitally and to make electronic transactions easy. This initiative was very well supported by the people of India, and India ranked first in real-time payments globally, accounting for 46% of all real-time transactions worldwide in year 2022.[5] During 2020-2021, when the world was facing a global pandemic in the form of the Coronavirus (COVID-19), people were locked in their homes, most of regular activities were halted, and the way of life changed; in such a hard time, technology helped a lot and grew itself to another level. India also utilized the potential of digital technology in the fields of education, health, economy and public services.

At this stage, it can be said that e-governance is steadily growing in India; however, it remains in its early phase and holds significant potential for broader reach and impact. With continued investment and innovation, India has the opportunity to harness the full benefits of digital governance for the betterment of its citizens.

III. LEGAL FRAMEWORK GOVERNING DIGITAL GOVERNANCE

It is undeniable that ICT has transformed governance by making public services more accessible and affordable, it has also led to the rise of cyber- crimes. Issues such as spoofing, denial of service, and fraud associated with digital transactions pose significant risks to e-governance. The challenges posed by these cyber -crimes are serious and can have far-reaching repercussions. Consequently, the need for a dedicated legal framework to address these threats has become increasingly apparent.

A. The Information Technology Act, 2000

The Information Technology Act was promulgated with the objective of providing legal recognition to electronic methods of communication and storage of information.[6] This Act facilitates electronic transactions and the electronic filing of documents with government agencies, ensuring the validity of digital signatures for e-governance and e-commerce. The Act establishes two authorities: the Controller and the Certifying Authority, and outlines their functions and powers. It also enumerates several offences related to cyberspace, such as hacking, identity theft, cheating, sending offensive messages through computers, cyber terrorism, and child pornography. Further, it provides for the designation of a National Nodal Agency for the protection of critical information infrastructure and establishes an Indian Computer Emergency Response Team. This Act introduced necessary amendments to the Indian Penal Code, 1860[7] and the Indian Evidence Act, 1872[8] to accommodate electronic methods.

B. The Report of the Working Group on Convergence and E-governance (2002)

This report highlighted the importance of active citizen engagement in administrative processes as a key necessity for successful e-governance. While focusing primarily on public

[4] Invest India, "Digital India is a Global Success Story", June 22, 2023, *available at*: https://www.investindia.gov.in/team-india-blogs/digital-india-global-success-story (last visited on Sep. 25, 2024).
[5] *Ibid.*
[6] e-Gyankosh**,** Unit 1, "E-Governance: Concept and Significance (2017)", *available at*: https://egyankosh.ac.in/handle/123456789/25880 (last visited on Sep. 30, 2024).
[7] The Indian Penal Code, 1860 (Act 45 of 1860), s. 29A.
[8] The Indian Evidence Act, 1872 (Act 1 of 1872), ss. 65A, 65B.

investments, the report overlooked the potential role of private sector initiatives in various industries. One of its major proposals was the establishment of a National Institute of Smart Governance and a Council for E-governance to foster the development and implementation of e-governance systems across India, laying a foundation for more integrated and transparent governance frameworks.[9]

C. The Rights to Information Act, 2005

It grants citizens the right to inspect works, documents, and records of the government and its agencies; take notes, extracts, or certified copies of documents; and obtain samples of material. This law provides citizens with the opportunity to make well-informed decisions by accessing official information. It has ensured a transparent and accountable government, establishing a two-way dialogue between citizens and the government. This Act is a significant step towards minimizing corruption and improving service delivery across the country.[10]

D. The Digital Personal Data Protection Act, 2023

With the emergence of digital technology, individuals' privacy rights have increasingly conflicted with ICT-based developments. The foundational concepts for the Act stem from a report presented by an expert committee chaired by Justice B.N. Srikrishna, which led to the introduction of the Personal Data Protection Bill in 2019. This bill was withdrawn in 2022 due to several loopholes. Following extensive discussions and consultations, a new act was introduced under a different name, which was passed in August 2023. Its aim is to balance individual rights with the need for data processing for legitimate purposes. The Act identifies two key stakeholders: Data Fiduciaries and Data Principals. A Data Fiduciary refers to any person or entity that determines the purpose and means of processing data, encompassing both public and private entities. In contrast, a Data Principal is the individual to whom the data pertains. The Act places responsibility on Data Fiduciaries to manage individual data, obligating them to obtain the Data Principal's consent and communicate the intended purpose for data use. It grants several rights to Data Principals, including the right to access personal data, the right to correct and erase data, and the right to grievance redressal. Moreover, the Act establishes a comprehensive framework for data privacy and imposes financial penalties for data breaches. The user's consent for data processing is vital to ensuring respect for individual privacy rights.[11] Further, the Act includes provisions for Data Fiduciaries, Data Protection Officers, and the Data Protection Board of India to oversee compliance.[12]

E. The Digital India Act, 2023

It is proposed by the Ministry of Electronics and Information Technology, to replace the outdated Information Technology Act of 2000. This initiative reflects the need for a contemporary legal framework that can adapt to the rapid advancements in technology. The

[9] Government of India, "Report of the Working Group on Convergence for the Tenth Five Year Plan (2002-2007)" (The Planning Commission, 2001).

[10] Shalini Singh, "Promoting E-Governance through Right to Information: A Case-study of India" 1 *International Journal of Scientific Engineering and Research* 1 (Nov. 2010).

[11] Shashank Mohan, "New Data Law, a Barrier to Journalistic Free Speech" *The Hindu*, Apr. 16, 2024, *available at*: https://www.thehindu.com/opinion/op-ed/new-data-law-a-barrier-to-journalistic-free-speech/article68068923.ece (last visited on Sep. 28, 2024).

[12] Anirudh Burman, "Understanding India's New Data Protection Law", Carnegie Endowment for International Peace (Oct. 3, 2023), *available at*: https://carnegieendowment.org/research/2023/10/understanding-indias-new-data-protection-law?lang=en (last visited on Sep. 28, 2024).

new proposed Act also embraces developments in artificial intelligence and blockchain technology. This is essential to keep pace with new challenges. With over 850 million internet users in India today, the complexities surrounding cybercrimes, misinformation, and user safety have grown exponentially. The proposed Digital India Act aims to establish comprehensive cyber laws that align with global standards, facilitating India's ambition to achieve a $1 trillion digital economy by 2026. Further, the Act emphasizes principles such as online safety, accountability, and the rights of citizens in the digital realm. It seeks to create a robust framework for regulating new-age technologies while ensuring that the interests of users, businesses, and the government are balanced. By incorporating provisions for data privacy and cybersecurity, the Digital India Act, 2023 aims to foster an environment conducive to innovation and growth.[13] The proposed Act is set to significantly impact the *'safe harbour'* protections currently available to online intermediaries, reflecting a trend toward increased regulatory scrutiny. This shift mirrors legislative frameworks like the United Kingdom's *Online Safety Act, 2023* and the European Union's *Digital Services Act, 2022*, which prioritize online safety and hold platforms accountable for the content they host. By implementing stricter obligations on intermediaries, these laws aim to foster a safer digital environment while balancing user rights and platform responsibilities.

F. The Digital Services Act, 2022

It is a landmark legislation adopted by the European Union, addresses the responsibilities of online platforms and intermediaries in creating a safe digital environment for consumers while upholding their fundamental rights. By consolidating various national legislations, the DSA seeks to effectively regulate illegal content and combat online harassment, particularly targeting vulnerable groups like children and marginalized communities. The Act covers a broad spectrum of digital services, including internet access, cloud services, online marketplaces, search engines, and social networking platforms. It imposes specific obligations on *Very Large Online Platforms* (VLOPs) and *Very Large Online Search Engines* (VLOSEs)**,** mandating them to implement robust systems for content moderation and risk assessment to ensure user safety and compliance. Further, the Act emphasizes transparency by requiring platforms to disclose their content moderation policies and algorithms, thus fostering accountability and consumer trust. Moreover, the Act encourages innovation and competition by balancing the interests of businesses with consumer protection. It introduces a framework for cross-border cooperation among EU member states, allowing for efficient enforcement and the ability to address challenges that transcend national boundaries. The Act aims to create an equitable digital landscape that prioritizes both user safety and the rights of online service providers.[14]

G. The Online Safety Act, 2023

It represents a significant step by the UK Parliament to regulate cyber services and impose strict penalties for breaches of its provisions. Aimed at online platforms, the Act mandates these entities to take proactive measures against illegal content, with fines of up to 10% of their annual turnover for non-compliance. Central to the Act is the concept of a duty of

[13] Sanhita Chauriha, "Explained: The Digital India Act 2023", Vidhi Center for Legal Policy (Aug. 08, 2023), *available at*: https://vidhilegalpolicy.in/blog/explained-the-digital-india-act-2023/ (last visited on Sep. 24, 2024).
[14] Antje von Ungern-Sternberg (ed.), I *Content Regulation in the European Union: The Digital Services Act, Trier Studies on Digital Law* [Verein für Recht und Digitalisierung e.V. Institute for Digital Law Trier (IRDT), 2023], *available at*: https://irdt-schriften.uni-trier.de/index.php/irdt/catalog/download/3/3/25? inline=1 (last visited Aug. 04, 2025).

care, requiring internet intermediaries to conduct risk assessments of illegal content, uphold freedom of speech, establish effective redress mechanisms, and maintain comprehensive records. In particular, the Act introduces heightened responsibilities concerning child safety. Platforms must implement measures to protect children from harmful content, ensuring they are not exposed to violence, sexual exploitation, or cyberbullying. Moreover, the Act promotes transparency by requiring platforms to disclose their moderation policies and procedures, fostering accountability in content management. By addressing the growing concerns around online safety, this aims to create a safer digital environment, balancing the need for regulation with the principles of free expression.[15]

IV. IMPORTANT GOVERNMENTAL PROGRAMS AND ITS EFFECT

To promote e-governance, the Government of India has launched various transformative programs that have changed the picture of Indian public administration. These programs not only enhance transparency and accessibility of government services but also promote citizen engagement and safeguard their rights in the digital sphere. By leveraging technology, they aim to streamline processes, reduce bureaucratic hurdles, and empower citizens with real-time access to information. Some of the initiatives are:

A. National E-Governance Plan 2006

While discussing the background of e-governance, we have discussed the National E-Governance Plan (NeGP) launched in 2006 to promote a more accessible and transparent government through ICT. By integrating technology into governance, it seeks to bridge the gap between citizens and government services, thereby facilitating a more efficient and accountable administration. Various projects have been implemented under this program to support its objectives.[16]

i **E-Courts:** The e-Court mission mode project, proposed under NeGP 2006, aims to transform and simplify the workings of the Indian judiciary, making it more accessible and transparent. E-filing of documents, technological case management, and virtual hearings are some changes introduced by this program.[17]

ii **IG Cloud:** The IG Cloud, named Meghraj, was announced by the government to harness cloud computing in governance. This initiative enables departments to host their applications on a centralized cloud platform, enhancing scalability and reducing IT costs while promoting collaboration between various government agencies.[18]

iii **Mobile Seva:** This initiative provides government services through mobile devices and tablets. Through the mobile application e-App Store, over 200 applications grant access

[15] Department for Science, Innovation & Technology, "Online Safety Act: Explainer" (May 08, 2024), *available at*: https://www.gov.uk/government/publications/online-safety-act-explainer/online-safety-act-explainer (last visited on Sep. 22, 2024).

[16] Government of India, "National E-Governance Plan (NeGP)", Ministry of Communications & Information Technology, *available at*: https://www.meity.gov.in/ministry/our-organisation?page=1 (last visited on Sep. 22, 2024).

[17] Ministry of Law and Justice, Government of India, "e-Courts Mission Mode Project", *available at*: https://ecourts.gov.in/sites/default/files/eCourts%20Mission%20Mode%20Project%20-%20Guidelines.pdf (last visited on Sep. 27, 2024).

[18] Government of India, "IG Cloud (Meghraj)", *available at*: https://www.meity.gov.in/content/ig-cloud (last visited on Sep. 27, 2024).

to numerous government services, facilitating convenience for users and ensuring that essential information is just a click away.[19]

iv **E-Kranti:** The National E-Governance Plan 2.0 (E-Kranti) addresses the e-delivery of government services through an integrated system with the vision *"Transforming e-Governance for Transforming Governance."* This plan encompasses 44 mission mode projects, each aimed at streamlining processes and enhancing service efficiency. By leveraging technology, E-Kranti strives to ensure that citizens receive timely and reliable services, thereby fostering greater trust in government operations.[20]

v **MyGovernment.in:** This initiative launched in 2014, aims to promote citizen participation in policy-making. The platform allows citizens to share their ideas and register their participation in governance issues. This initiative aims to create a more democratic and inclusive governance framework by amplifying the voices of ordinary citizens in the decision-making process.[21]

vi **Digital India Mission:** The Digital India Mission is a significant initiative taken in the journey of transformative governance which converts India into a digitally empowered society and economy. It was launched in 2015 with a comprehensive vision to create a stable digital infrastructure, promote universal digital literacy, and ensure the smooth delivery of government services employing digital modes.[22] This program was launched by the Government of India's Ministry of Electronics and Information Technology, encompassing nine pillars: Broadband Highways, Universal Access to Phones, Public Internet Access Programme, E-Governance*, eKranti,* Information for All, Electronics Manufacturing, IT for Jobs, and Early Harvest programmes.[23]

vii **Other Programs:** Some other initiatives like *Gyandoot, e-Chaupal, Jagrati e-Sewa, Akashganga,* and *Kisan Call Centers* have been launched by the Indian government to focus on rural development. These programs aim to empower rural communities by providing them with essential services, information, and access to markets, thus enhancing their livelihoods and fostering sustainable development in underserved areas.[24]

V. INITIATIVES TAKEN UNDER THE DIGITAL INDIA MISSION

Digital India Mission, launched in 2015 with an aim to transform country into a digitally empowered society and knowledge economy. The core areas of the mission are digital infrastructure as a utility to every citizen, governance and services on demand, and empowering individuals with digital skills and tools. Programs like UMANG, Digi-Locker and e-NAM are designed to strengthen digital infrastructure and streamline the delivery of online services.

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[19] Government of India, "Mobile Seva", *available at*: https://www.mobileseva.gov.in (last visited on Sep. 27, 2024).

[20] Government of India, "E-Kranti, National E-Governance Plan 2.0", *available at*: https://www.digitalindia.gov.in/ content/e-kranti (last visited on Sep. 27, 2024).

[21] Government of India, "MyGov.in", *available at*: https://www.mygov.in (last visited on Sep. 27, 2024).

[22] Government of India, "Digital India Mission", *available at*: https://www.digitalindia.gov.in (last visited on Sep. 27, 2024).

[23] Department of Electronics and Information Technology, Government of India, "Digital India: A Programme to Transform India into a Digitally Empowered Society and Knowledge Economy" 7 (2015), *available at*: https://egov.eletsonline.com/2023/10/indias-egovernance-initiatives-transforming-governance-in-the-digital-age/#:~:text=The%20National%20E%2DGovernance%20Plan,promote%20e%2Dgovernance%20across%20India (last visited on Sep. 27, 2024).

[24] Kaushik Chetia, "E-Governance for Rural Development: Assessing the Impact of E-Governance Initiatives and Projects in Rural India" 7 *Journal Citation Reports* 2 (2020).

Key initiatives under this mission include:

i **Digi-Locker:** Digi-Locker is an initiative launched in 2015 under the Digital India initiative. It provides a storage system for containing important documents like mark sheets, driving licenses, etc., digitally. By ensuring the security and authenticity of documents, Digi-Locker promotes a paperless environment and facilitates hassle-free access to essential records anytime, anywhere. It is provided by the Ministry of Electronics and Information Technology.[25]

ii **UMANG:** Unified Mobile Application for New-age Governance (UMANG) is a platform that provides access to e-government services from central to local bodies for citizens. It was developed by MeitY and the National e-Governance Division (NeGD) to drive Mobile Governance in India. With a user-friendly interface, UMANG offers a wide range of services, including bill payments, certificate requests, and various citizen services, thereby enhancing the convenience and efficiency of accessing government services on the go.[26]

iii **E-NAM:** e-NAM works as an electronic trading platform that consolidates all Agriculture Produce Marketing Committee (APMC) *mandis* across the nation. It serves as a unified digital marketplace, providing single-window access for all agrarian goods. The platform offers real-time information about commodity prices and arrivals, trade offers, and provisions to respond to those offers, making farmers informed and helping to prevent their exploitation. Moreover, eNAM aims to improve market access for farmers, thereby enhancing their income and livelihoods.[27]

iv **National Knowledge Network:** The National Knowledge Network (NKN), managed by the National Informatics Centre, is a high-speed multi-gigabit education and research network designed to create a unified network backbone for educational institutes nationwide. This initiative enhances collaboration among institutions, enabling seamless access to high-quality educational resources and research facilities. By connecting various universities and research organizations, NKN fosters innovation and knowledge sharing across disciplines and geographical boundaries.[28]

v **e-Granthalaya**: e-Granthalaya is a digital platform developed by the National Informatics Centre for the automation and networking of government libraries.[29] Today, we have a new version, e-Granthalaya 4.0, which is a cloud-ready application that proposes a centralized database in a web-based format. This platform streamlines library management processes, facilitates easy access to digital resources, and supports the sharing of information among libraries, thereby promoting the efficient utilization of library services for citizens and government officials alike.[30]

VI. E-COURT INITIATIVES AND THEIR ROLE IN DIGITAL GOVERNANCE

[25] Ministry of Electronics and Information Technology, Government of India, "Digi-Locker", *available at*: https://www.digitalindia.gov.in/content/digi-locker (last visited on Sep. 27, 2024).
[26] Ministry of Electronics and Information Technology, Government of India, "UMANG", *available at*: https://www.umang.gov.in (last visited on Sep. 27, 2024).
[27] Ministry of Agriculture and Farmers Welfare, Government of India, "E-NAM", *available at*: https://enam.gov.in (last visited on Sep. 27, 2024).
[28] National Informatics Centre, "National Knowledge Network", *available at*: https://www.nkn.in (last visited on Sep. 27, 2024).
[29] e-Gyankosh, Unit 4, "E-GOVERNANCE" (2021), *available at*: https://egyankosh.ac.in/bitstream/123456789/72086/1/ Unit-4.pdf (last visited on Sep. 27, 2024).
[30] National Informatics Centre, "e-Granthalaya", *available at*: https://egranthalaya.nic.in (last visited on Sep. 27, 2024).

Recently, during a hearing, Chief Justice of India D.Y. Chandrachud emphasized the need for judges to receive technology training, stating, *"Technology is no longer an option but a necessary tool."*[31] The Indian judiciary has travelled a significant distance since the initiation of ICT in courts. Currently, it has adopted Phase III (2023 onwards) of the e-Courts program, which spans four years and aims to offer an integrated technology platform for the judiciary, enhancing access to justice by moving towards fully digital courts. This initiative establishes a smart system that enables data-driven decision-making for judges and case registries. The core philosophy adopted in Phase III is *'Access and Inclusion'*.[32]

The journey of introducing ICT in the Indian judiciary began when the e-Committee of the Supreme Court was constituted by the Government of India on the proposal of the Chief Justice of India to prepare a roadmap for a National Policy for Computerizing the Indian Judiciary. The e-Committee submitted the National Policy and Action Plan for implementing ICT in the Indian Judiciary in 2005. The e-Court project, a pan-India initiative, was founded on the basis of this action plan and has been implemented in different phases.

The first phase of the e-Courts project began in 2007 and concluded in 2015, marking a transformative period for the Indian judiciary, particularly at the district level. This phase focused on the computerization of district courts, which involved the installation of hardware, local area networks (LAN), and Case Information Software. Many district courts launched websites to facilitate easier access for various stakeholders. Moreover, digital training programs were initiated to train judicial officers and district system administrators, successfully implementing the Case Information System.[33]

Under the second phase, On August 4, 2015, the Government of India sanctioned amount for the project. It covered the computerization of district courts that remained from Phase I and newly developed courts. The project promotes collaboration among different institutions, departments, and ministries of the Government, such as the e-Committee, Department of Justice, Ministry of Finance, Department of Electronics and Information Technology, NIC, and High Courts as implementing agencies within their jurisdictions. Arrangements have been made for the computerization of the Offices of the District Legal Service Authority and Taluka Legal Service Committees, as well as the National Judicial Academy and State Judicial Academies, for the smooth execution of services and training. This phase emphasized rendering services to litigants, lawyers, and other stakeholders. Mobile apps, SMS services, and emails were widely used for the dissemination of information.[34]

Third phase of the e-Mission Mode Project commenced in 2023, focusing on four key components: Digitalization, Infrastructure, Tech-Up, and Capacity Building. Major objectives include bridging the digital divide through e-Sewa Kendras, introducing live streaming of court proceedings, promoting alternative dispute resolution mechanisms, and implementing an AI-based smart system for automatic translation and case grouping. Additionally, there is a significant push towards paperless courts through the use of e-records.

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[31] Akshat Khetan, "Digital Courts: Future of the Indian Legal System" *LiveLaw*, Oct. 17, 2023, *available at*: https://www.livelaw.in/law-firms/law-firm-articles-/virtual-hearing-e-courts-project-digital-preservation-standard-operating-procedure-internet-and-mobile-association-of-india-240329 (last visited on Sep. 23, 2024).
[32] Department of Justice, "Phase III", *available at*: https://doj.gov.in/phase-iii/ (last visited on Sep. 23, 2024).
[33] E-Committee, Supreme Court of India, "Brief Overview of e-Courts Project" *available at*: https://ecommitteesci.gov.in/project/brief-overview-of-e-courts-project/ (last visited on Sep. 28, 2024).
[34] *Ibid.*

How has the e-Court Project mission transformed the Indian Judiciary and impacted the people?

The integration of ICT into the Indian judiciary has been a transformative journey, initiated with the e-Courts Mission Mode Project. This initiative has brought about significant improvements, speeding up court operations, enhancing transparency, and easing the workload for judges, court staff, litigants, and lawyers. There are some key achievements of the e-Court project, showcasing its widespread positive impact on the judicial system:

i) Building Public Infrastructure: Upon completion of the first two phases, public infrastructure was significantly enhanced with the installation of hardware and software in around 13,500 courts to support digital efforts. Solar energy backups were established in 242 court complexes, and approximately 3,477 courts were equipped with video conferencing facilities. As of May 2023, over 4.82 lakh cases in the Supreme Court, over 78 lakhs in High Courts, and more than 1.98 lakh cases in subordinate courts were conducted through video conferences, showcasing the project's role in improving judicial efficiency and access.[35]

ii) Strengthening System: The development of the Case Information System (CIS) for case management, assigning Case Number Records (CNR), and implementing e-filing systems have contributed to a more robust judicial system. Additional tools such as Quick Response (QR) codes for judgments, the National Judicial Data Grid (NJDG) for transparent case statistics, and the Interpol Criminal Justice System (ICJS) for data sharing among criminal justice entities (police, prisons, and courts) have further strengthened the system. Moreover, digitalizing case records has been a significant step toward an efficient, accessible, and integrated judiciary system.

iii) Services:

a. Services for Judges:

- JustIS Mobile App: This app assists judges in managing their caseloads, particularly in scheduling and accessing details of cases in their courts.[36]
- E-Diary for Judges: Some High Courts have implemented an E-Diary system, enabling judges to track pending cases, daily disposals, and judgments.[37]
- Training Programs: Specialized training programs were developed for District and High Court judges, court staff, advocates, and registrars, using master trainers to facilitate the modernization and effective implementation of the judiciary's digital transformation.[38]

b. Initiatives for Litigants and Lawyers:

[35] Ministry of Law and Justice, "E-Courts Integrated Mission Mode Project", *Press Information Bureau* 5 (2023), *available at:* https://cdnbbsr.s3waas.gov.in/s3ec0507845cd9aefa6cde3f8926d25138/uploads/2024/01/2024010697.pdf (last visited on Sep. 28, 2024).

[36] e-Committee, Supreme Court of India, "JustIS Mobile App", *available at*: https://ecommitteesci.gov.in/project/justis-mobile-app/ (last visited on Sep. 28, 2024).

[37] e-Committee, Supreme Court of India, "E-Diary for Judges", *available at*: https://ecommitteesci.gov.in/project/e-diary-for-judges/ (last visited on Sep. 28, 2024).

[38] e-Committee, Supreme Court of India, "Training Programs", *available at*: https://ecommitteesci.gov.in/project/training-programs/ (last visited on Sep. 28, 2024).

- Virtual Courts: A system for solving cases online, eliminating the need for the presence of litigants or lawyers. This system is particularly used for traffic challans.[39]
- Kiosks: Informational kiosks have been established to facilitate access to case information for litigants and lawyers at High Courts. Display boards outside filing counters provide information about the status of case filings and any detected defects.[40]
- E-Sewa Kendra: To address the challenge of the digital divide, 819 E-Sewa Kendras have been set up at High Courts and one district court in each state to assist lawyers and litigants with the e-filing process and in accessing information.[41]
- E-filing: The electronic filing of legal documents allows lawyers to submit cases at any time. This system is implemented at both High Courts and District Courts and accepts electronic payment of fees.[42]
- DISHA: Standing for Designing Innovative Solutions for Holistic Access to Justice, DISHA is a scheme launched by the Ministry of Justice for a five-year period (2021-2026) to achieve the objectives of justice as enshrined under articles 21, 14, and 39A. The scheme aims to consolidate various initiatives to provide citizen-centric delivery of legal services, raising awareness among citizens regarding their rights and remedies through simple educational materials and technology.[43]
- Tele-Law Program: The Tele-law program launched in 2017, is a legal aid initiative operating through common service centres at gram panchayats and via the Tele-law mobile app. It provides legal assistance through lawyers to needy and marginalized individuals using video conferencing, chat, and telephone facilities.[44]
- Nyaya Bandhu: This initiative refers to Pro Bono Legal Services, where advocates provide legal assistance free of cost to those eligible under Section 12 of the Legal Services Authorities Act, 1987. Advocates can voluntarily register on the mobile app to offer these services.[45]
- Legal Literacy and Legal Awareness: This initiative aligns with the goals outlined in the Preamble to the Constitution of India, ensuring justice for citizens by creating awareness of their rights and entitlements.[46]
- Live Streaming: Live streaming allows individuals to experience court proceedings in an audio-visual format. The High Courts of Patna, Madhya Pradesh, Orissa, Guwahati, Gujarat, Jharkhand, Karnataka, and the Supreme Court of India permit media coverage of these proceedings.[47]

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[39] e-Committee, Supreme Court of India, "Virtual Courts", *available at*: https://ecommitteesci.gov.in/project/virtual-courts/ (last visited on Sep. 28, 2024).

[40] e-Committee, Supreme Court of India, "Informational Kiosks", *available at*: https://ecommitteesci.gov.in/project /informational-kiosks/ (last visited on Sep. 28, 2024).

[41] e-Committee, Supreme Court of India, "E-Sewa Kendra", *available at*: https://ecommitteesci.gov.in/project/e-sewa-kendra/ (last visited on Sep. 28, 2024).

[42] e-Committee, Supreme Court of India, "E-filing", *available at*: https://ecommitteesci.gov.in/project/e-filing/ (last visited on Sep. 28, 2024).

[43] Ministry of Justice, Government of India, "DISHA", *available at*: https://www.disha.gov.in/ (last visited on Sep. 28, 2024).

[44] Ministry of Law and Justice, Government of India, "Tele-Law Program", *available at*: https://www.legalaidservices.in/tele-law-program (last visited on Sep. 28, 2024).

[45] National Legal Services Authority, "Nyaya Bandhu", *available at*: https://nalsa.gov.in/nyaya-bandhu (last visited on Sep. 30, 2024).

[46] National Legal Services Authority, "Legal Literacy and Legal Awareness", *available at*: https://nalsa.gov.in/legal-literacy (last visited on Sep. 28, 2024).

[47] e-Committee, Supreme Court of India, "Live Streaming", *available at*: https://ecommitteesci.gov.in/project/live-streaming/ (last visited on Sep. 28, 2024).

The E-Court Mission Mode Project has undoubtedly succeeded, significantly impacting the workings of the judiciary and simplifying processes for judges, lawyers, litigants, and other stakeholders. The digitalization of courts has made the judicial process cheaper, time-saving, and more transparent. Video conferencing reduces the need for undertrials to appear in court. The National Judicial Data Grid (NJDG) enhances infrastructure by providing accurate statistics. This shift has transformed the judicial environment, offering improved accessibility, efficiency, and transparency, ultimately enabling timely justice.[48] However, challenges such as digital illiteracy, the digital divide, and cybersecurity issues persist. Nonetheless, this development marks a significant step toward modernizing the Indian judiciary and building trust among the public.

VII. IMPACT OF E-GOVERNANCE ON PUBLIC ADMINISTRATION

The pace of digital information and technology has now exploded, impacting every aspect of government, business, and public life. Citizens have become more aware of their rights and understand the government's responsibility to deliver services in a transparent and timely manner.[49] Governments must evolve by adopting beneficial changes and finding new ways to provide more potent and productive services. An ICT-based system of governance, also known as e-governance, is one of these approaches. Here are some developments through which the impact of e-governance can be assessed.

a) *Enhancing Transparency and Efficiency:* By promoting automated administrative processes, e-governance minimizes human involvement and meets the increasing demands of citizens through advanced technology. The online transferability of files, budgeting, and accounting has streamlined processes, saving time. Integration of services from different departments into one platform reduces confusion and enhances accessibility. By enabling easy public access to information, the automation of administrative processes ensures accountability, improves service quality, and contributes to increased transparency and efficiency.
b) *Promoting Citizen Engagement and Digital Inclusion:* Now, citizens can have quick and reliable access to government services through numerous e-portals, offering services across various sectors. These easily accessible platforms save time and enhance participation in governance. Further, government efforts to enhance digital literacy help achieve the true potential of e-governance by bridging the digital divide.
c) *Safeguarding the Rights of Citizens in the Digital Sphere:* Providing rights and ensuring their protection are two distinct but equally important responsibilities of the government**.** While promoting e-governance is crucial, preventing its misuse is equally important. The Information Technology Act, 2000,[50] The Digital Personal Data Protection Act, 2023,[51] and the proposed Digital India Act, 2023, aim to address these concerns and establish robust frameworks for digital governance and internet regulation.[52]
d) *Revolutionizing Administration:* The introduction of Information and Communication Technology (ICT) has transformed administrative structures significantly. The automation of processes, reduced paperwork, improved service quality, and heightened accountability

[48] Ministry of Law and Justice, "The National Judicial Data Grid (NJDG)", *available at*: https://doj.gov.in/the-national-judicial-data-grid-njdg/ (last visited on Sep. 28, 2024).
[49] Manish Mohan, Dinesh Pangarkar, *et.al*., "E-Governance as a Tool for Improvement of Public Service Delivery in Customs" 2, *available at*: https://nacin.gov.in/resources/file/downloads/569768be75c10.pdf (last visited on Sep. 24, 2024).
[50] The Information Technology Act, 2000 (Act 21 of 2000).
[51] The Digital Personal Data Protection Act, 2023 (Act 22 of 2023).
[52] *Supra* note 13.

have all positively impacted public administration. Online grievance redressal mechanisms highlight the government's responsiveness. The ICT also accelerates procedures by bypassing hierarchical delays, as data can be shared across levels instantly. These advancements aim to make governance more efficient and citizen-focused. E-Governance has emerged as significant tool in transforming public administration. It revolutionizes the system of interaction between government and the public and lays the foundation for a more accountable and citizen- centric government model.

VIII. CHALLENGES AND ISSUES IN DIGITAL GOVERNANCE

The internet is not just a technology but a part of the life of almost every individual. This ocean of information is a great help to the world as it dilutes physical boundaries, increases connectivity and simplifies everyday dealings with the widest reach. The internet has become a boon for students seeking education from home. People can order food, book hotels, bus, train, and flight tickets, book rides for shorter distances, and order medicine, clothes, and other essentials online with just a few clicks. Modern life has become dependent on the internet for many things. Its usage has even promoted it to the level of fundamental rights: "The right to have access to the internet is part of the right to education and the right to privacy under article 21 of the Indian Constitution."[53]

Implementing Information and Communication Technology in India has been a Herculean task. It further poses new challenges as technological advancement continues to flourish. Now, the Internet is the biggest supplier of information, with technologies like blockchain, artificial intelligence, and the Internet of Things growing rapidly. These technologies give rise to numerous serious concerns, such as the dark web, deepfakes, human rights issues related to artificial intelligence, misuse of data, and violations of the fundamental right to privacy.

A. Jurisdictional Challenges and Accountability Gaps in Indian Digital Governance

The rapid expansion of digital technologies in India has brought about significant advancements in governance and public service delivery. However, this growth has also highlighted a series of jurisdictional challenges that hinder effective governance in the digital landscape. One of the most pressing issues is the ambiguity surrounding jurisdiction in cases involving cross-border digital interactions. The existing legal framework, primarily governed by the Information Technology Act, 2000, was established before the proliferation of the Internet and the globalization of digital services. Consequently, it struggles to address complex questions of jurisdiction arising from online activities that transcend national borders. For instance, when a crime occurs online, such as data breaches or cyber harassment, determining the applicable jurisdiction becomes complicated when the parties involved are located in different countries.[54] This ambiguity not only impedes effective law enforcement but also creates opportunities for offenders to evade accountability.

The lack of harmonization between domestic laws and international legal standards further exacerbates the jurisdictional challenges faced by India. Countries around the world are adopting varying regulatory frameworks, often emphasizing different aspects of digital

[53] *Faheema Shirin* v. *State of Kerala*, AIR 2020 Ker 35.

[54] Justice S. Muralidhar, "Jurisdictional Issues in Cyberspace" *The Indian Journal of Law and Technology* 6 (2010), *available at*: https://repository.nls.ac.in/cgi/viewcontent.cgi?article=1055&context=ijlt (last visited on Sep. 27, 2024).

governance, such as data protection, privacy rights, and freedom of expression. This discrepancy creates friction for Indian companies operating internationally and raises questions about compliance and enforcement. This misalignment not only complicates compliance for businesses but also limits the effectiveness of legal mechanisms in holding offenders accountable for violations that span multiple jurisdictions.[55]

The emergence of non-state actors in the digital sphere complicates the accountability landscape.[56] With the rise of social media platforms and other digital intermediaries, the responsibility for content moderation and compliance with legal standards increasingly falls on private entities rather than public institutions. This shift raises critical questions about accountability when these platforms fail to address harmful content or engage in censorship. The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, impose extensive obligations on intermediaries to monitor and remove illegal content, blurring the lines of accountability between the state and private companies. When users encounter some issues, their recourse often lies with these platforms rather than state authorities, leading to a fragmented accountability structure that may not prioritize user rights or public safety.[57] This scenario creates significant gaps in governance, as platforms may prioritize profit over accountability, leaving users vulnerable in an environment where responsibility is diffuse.

Apart from that, the lack of effective regulatory oversight further complicates the accountability gaps in India's digital governance framework. While regulatory bodies such as the Telecom Regulatory Authority of India (TRAI) and the Data Protection Board of India[58] are entrusted with overseeing various aspects of digital governance, their effectiveness is often hampered by inadequate resources, limited jurisdiction, and overlapping mandates. However, nearly a year after the commencement of the Digital Personal Data Protection Act, 2023, the government has failed to establish the Data Protection Board of India, which raises significant concerns about its commitment to enforcing data protection laws. This inaction undermines the effectiveness of the Act, leaving individuals without a critical mechanism for addressing personal data breaches and ensuring compliance. This regulatory uncertainty undermines public trust in digital governance, as citizens may feel that their rights are not adequately protected or that offenders are unlikely to face consequences for their actions.

Finally, the increased emphasis on technology and digital infrastructure in governance brings its own set of accountability challenges. Initiatives such as Digital India and various e-governance projects aim to enhance service delivery and efficiency through technological advancements. However, the reliance on technology can also lead to systemic vulnerabilities, particularly regarding data security and privacy. The high-profile data breaches and incidents of unauthorized surveillance have raised concerns about the robustness of cybersecurity

[55] Harsh Raj, "Digital Age and Constitutional Challenges in India: Adapting to New Technologies" *Manupatra* (Aug. 26, 2024), *available at*: https://articles.manupatra.com/article-details/Digital-Age-and-Constitutional-Challenges-in-India-Adapting-to-New-Technologies (last visited on Sep. 27, 2024).
[56] Rebecca J. Hamilton, "Platform-Enabled Crimes: Pluralizing Accountability When Social Media Companies Enable Perpetrators to Commit Atrocities", *available at*: https://dashboard.lira.bc.edu/downloads/1eb3b4a8-3d6c-4847-a81d-e8e610bdfc67 (last visited on Sep. 28, 2024).
[57] Indranath Gupta and Lakshmi Srinivasan, "Evolving Scope of Intermediary Liability in India" 36 *International Review of Law, Computers & Technology* 294-324 (2023), *available at*: https://doi.org/10.1080/13600869.2022.2164838 (last visited on Sep. 28, 2024).
[58] The Digital Personal Data Protection Act, 2023 (Act 22 of 2023), s. 18.

measures and the safeguarding of personal information.[59] Further, the lack of transparency in how data is collected, processed, and utilized by both state and private actors can exacerbate feelings of distrust among citizens. As India advances its digital governance agenda, it is crucial to establish clear accountability mechanisms that not only address jurisdictional challenges but also ensure that citizens' rights are protected in an increasingly digital world. This requires a multi-faceted approach that includes legal reforms, regulatory empowerment, and enhanced public engagement to create a more accountable and transparent digital governance framework.

B. Challenges and Issues of Digital Governance in Protecting Fundamental Rights

Digital governance presents significant challenges in protecting fundamental rights such as privacy, freedom of speech, and access to justice. In India, the growing digital infrastructure, embodied by initiatives like Aadhaar and the proposed Digital India Act has ignited debates on privacy and state surveillance. The Aadhaar judgment in *Justice K.S. Puttaswamy* v. *Union of India* (2018)[60], while upholding the constitutionality of Aadhaar, imposed strict limitations on its usage, particularly concerning private entities. The Supreme Court, by recognizing privacy as a fundamental right under article 21, restricted the mandatory linkage of Aadhaar to services like banking and telecom. Despite this, concerns persist about potential mass surveillance and data misuse by the state. The *Puttaswamy* case highlighted the need for balancing state interests with individual privacy, yet the absence of a comprehensive data protection framework complicates this balance, leaving citizens vulnerable to misuse of their digital footprints. The Digital Personal Data Protection Act, 2023 establishes a framework for the collection, processing, transfer, and storage of personal data, aiming to balance privacy concerns with the interests of data fiduciaries.[61] However, challenges arise from the oversimplified classification of data, unclear definitions, and reliance on delegated legislation, which complicates enforcement. Further, the major challenge lies in balancing these legislative goals with practical, transparent, and detailed regulatory mechanisms that are essential for the protection of individual privacy rights while fostering a conducive business environment.[62]

The internet generates and manages vast amounts of Data, defined as "information, especially facts or numbers, collected for examination and decision-making."[63] Data is pivotal online; whenever we download an application or create an account, we consent to specific terms, allowing access to our information for designated purposes. Misuse occurs when data is utilized without permission or beyond agreed limits. There are three primary categories of data misuse: misuse for personal gain, misuse due to carelessness, and data commingling. Data commingling refers to repurposing collected data for unintended uses. A data breach occurs when unauthorized individuals gain access to confidential information. For instance, in May 2024, the Indian government acknowledged a data breach involving BSNL, potentially allowing attackers to clone SIM cards and disrupt services.[64]

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[59] Sukesh Smrithi, Hephzibah Miriam D. Doreen, *et.al.*, "An Analysis of the Increasing Cases of Data Breaches in India" 17 *i-manager's Journal on Software Engineering* 38 (Jan. 2023), *available at*: https://doi.org/10.26634/jse.17.3.19791 (last visited on Sep. 28, 2024).

[60] *Justice K.S. Puttaswamy* v. *Union of India* (2019) 1 SCC 1.

[61] *Supra* note 58, ss. 4, 9, 14.

[62] "India's Digital Personal Data Protection Act: What Lies Ahead?", *Law.Asia*, *available at*: https://law.asia/india-digital-personal-data-protection-act-implementation/ (last visited on Sep. 30, 2024).

[63] Cambridge Dictionary, "Data", *available at*: https://dictionary.cambridge.org/dictionary/english/data (last visited on Sep. 29, 2024).

[64] "Government Admits BSNL Data Breached in May; Forms Telecom Security Panel" *The Hindu*, July 25, 2024, *available at*: https://www.thehindu.com/news/national/government-admits-bsnl-data-breached-in-may-forms-telecom -security-panel/article68441779.ece (last visited on Sep. 30, 2024).

The challenges of data misuse and data breaches in e-governance directly relate to violations of fundamental rights, particularly the right to privacy. When personal data is mishandled or accessed without consent, it undermines an individual's autonomy and security, constituting a breach of their fundamental rights as recognized in the Indian Constitution. Further, such violations can erode public trust in digital governance initiatives, making it imperative for the government to enforce robust data protection measures, like the Digital Personal Data Protection Act, 2023, to safeguard citizens' rights.

Globally, privacy issues in digital governance are similarly contentious, as seen in the European Union's General Data Protection Regulation (GDPR). The Schrems II judgment in *Data Protection Commissioner* v. *Facebook Ireland and Maximillian Schrems* (2020)[65] declared the EU-U.S. Privacy Shield invalid due to concerns over U.S. government surveillance practices. The Court of Justice of the European Union (CJEU) found that U.S. laws, particularly Section 702 of the Foreign Intelligence Surveillance Act, failed to offer EU citizens adequate privacy protections against surveillance. The judgment[2] highlights the tension between safeguarding fundamental rights and facilitating the global digital economy, where data flows across borders are vital for commerce. As a result, multinational companies face legal uncertainty over compliance with privacy laws, further complicating the global landscape of digital governance. While the GDPR sets a high standard for protecting privacy, enforcing these regulations internationally remains a challenge, especially given the unequal privacy standards in non-EU jurisdictions.

In the Indian context, digital governance initiatives risk deepening socio-economic inequalities due to the digital divide. While the government has moved many services online, significant portions of the population, particularly in rural areas, lack reliable internet access. The Supreme Court, in *Anuradha Bhasin* v. *Union of India*[66], held that indefinite internet shutdowns violate fundamental rights, particularly article 19(1)(a) (Freedom of Speech & Expression) and article 19(1)(g) (Freedom of Trade). The judgment emphasized that the right to access information via the Internet is intrinsic to freedom of speech. However, despite the Court's ruling, the digital divide persists, affecting the ability of marginalized communities to access essential services such as education, healthcare, and legal aid. Moreover, the challenges of digital literacy[67] and unequal access to technology continue to exclude large sections of society from participating in the digital governance ecosystem, thus denying them equal protection under the law.[68]

Internationally, authoritarian regimes have utilized digital governance tools to suppress fundamental rights. In China, the extensive use of surveillance technologies, such as facial recognition and the Social Credit System, raises serious concerns about the right to privacy and freedom of expression. The critics argue that these technologies allow the Chinese government to monitor and control citizens' behaviour, infringing on civil liberties. These developments in

[65] *Data Protection Commissioner* v. *Facebook Ireland and Maximillian Schrems*, Case C-311/18, EU:C:2020:559, Court of Justice of the European Union.
[66] *Anuradha Bhasin* v. *Union of India* (2020) 3 SCC 637.
[67] Pardeep Mittal and Amandeep Kaur, "E-Governance - A Challenge for India" 2 *International Journal of Advanced Research in Computer Science* 3 (Mar. 2013).
[68] United Nations Human Rights Council, *Report on the Right to Privacy in the Digital Age*, A/HRC/27/37 (2019).

China exemplify how digital governance can be weaponized to stifle freedoms and maintain authoritarian control.[69]

While digital technologies offer immense potential for improving governance, their unchecked use can result in severe human rights violations. The global governance bodies, including the United Nations, have raised concerns about the use of digital tools for mass surveillance and the importance of maintaining checks and balances to prevent authoritarian misuse.[70]

C. Challenges in the Development of Unified Cyber Jurisprudence

The development of unified cyber jurisprudence in the context of India faces distinct challenges due to the country's unique legal, political, and social dynamics, as well as its fast-growing digital ecosystem. One major problem is the tension between national sovereignty and international regulatory alignment. The Indian legal framework, including the Information Technology Act, 2000, has historically focused on balancing digital innovation with the need for security and privacy. However, as global norms on privacy and data protection exemplified by the European Union's *GDPR* India faces pressure to adapt its domestic laws, which has led to the introduction of the proposed Digital India Act. This legislation seeks to enhance accountability and regulate the online ecosystem, but India's priorities such as ensuring national security and protecting local data can conflict with international norms, particularly around data localization and cross-border data sharing. India's emphasis on data localization contrasts sharply with international practices that favour data flow across borders, creating a barrier to unified jurisprudence. This divergence highlights the difficulty in creating a global standard when local policies focus on sovereignty and security, which may not align with international priorities on privacy or free expression.[71]

Another major challenge is the fragmentation of legal and regulatory frameworks within the country itself**.** India is in the process of overhauling its digital governance laws, with proposals like the Digital India Act aiming to replace the outdated Information Technology Act, 2000 while also considering new challenges like fake news, misinformation, and platform accountability**.** The problem, however, is that India's approach to regulating the digital space is often reactive rather than proactive, which leads to legal ambiguities and enforcement challenges. For instance, the introduction of intermediary liability rules under the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 sparked controversy as it imposed stricter requirements on platforms for content moderation and data disclosure to the government, raising concerns about free speech and privacy.[72] The lack of clear, consistent standards on issues like intermediary liability, encryption, and data protection makes it difficult for India to align with international cyber governance frameworks, further complicating the development of a unified global jurisprudence. This internal legal complexity

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[69] Genia Kostka, Léa Steinacker, *et.al.*, "Between Privacy and Convenience: Facial Recognition Technology in the Eyes of Citizens in China, Germany, the UK and the US" *SSRN Electronic Journal* (2020).

[70] UN Human Rights Council, *Surveillance and Privacy*, A/HRC/27/37 (2019).

[71] Nigel Cory and Luke Dascoli, "How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them", Information Technology and Innovation Foundation (July 19, 2021), *available at:* https://itif.org/publications/2021/07/19/how-barriers-to-cross-border-data-flows-are-spreading-globally-what-they-cost-and-how-to-address-them/ (last visited on Sep. 28, 2024).

[72] Krishnesh Bapat, Anushka Jain, *et.al.*, "How the Intermediaries Rules are Anti-Democratic and Unconstitutional: An Overview of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021", Internet Freedom Foundation (Feb. 27, 2021), *available at*: https://internetfreedom.in/intermediaries-rules-2021/ (last visited on Sep. 28, 2024).

not only affects India's global digital engagement but also creates uncertainties for multinational companies operating in India, which must navigate conflicting obligations under Indian law and international regulations.

IX. CONCLUSION

The transformation of governance in the digital age through e-governance has ushered in a new era of public administration, characterized by enhanced efficiency, transparency, and accessibility. The integration of digital technologies into governmental processes has revolutionized the way public services are delivered, empowering citizens and fostering greater engagement in governance. However, this transformation also necessitates a critical reevaluation of existing legal frameworks, highlighting the urgent need for adaptive legal frameworks that can effectively address the challenges posed by rapidly evolving digital technologies.

The fast-paced advancement of digital tools and platforms requires legal systems to be flexible and responsive. The traditional legal frameworks may not adequately encompass the complexities introduced by e-governance, such as data privacy, cybersecurity, and the management of online services. The legislature and regulatory bodies must work collaboratively to create dynamic legal structures that can evolve alongside technological advancements. These frameworks should facilitate innovation while incorporating mechanisms for accountability and oversight, ensuring that citizens' rights and interests are safeguarded.

As governments increasingly rely on digital tools to streamline operations and enhance service delivery, striking a balance between technological advancements and constitutional protections becomes crucial. The Fundamental rights, including the right to privacy, freedom of expression, and access to information, must remain paramount in the digital governance landscape. Governments must implement robust data protection measures and ensure transparency in technology use, particularly concerning citizen's personal information. By prioritizing constitutional protections, public trust in e-governance initiatives can be built, fostering a culture of accountability and responsiveness. This balance will enhance the legitimacy of e-governance and ensure the equitable distribution of digital transformation benefits among all citizens.

Apart from that, international collaboration and the sharing of best practices are essential for establishing a cohesive global approach to e-governance. As digital technologies transcend national borders, the challenges associated with e-governance become increasingly global in nature. We need to learn from the experiences of other nations that can provide valuable insights into successful implementation strategies, regulatory frameworks, and technological innovations. The collaborative efforts facilitate the exchange of knowledge and expertise, enabling countries to develop comprehensive approaches to digital governance that address shared challenges. Moreover, engaging with international organizations and forums can help nations align their e-governance strategies with global standards, fostering greater consistency and cooperation in addressing issues such as cyber security and digital rights.

The embrace of e-governance in the digital age presents unprecedented opportunities for transforming governance and enhancing public administration. However, this transformation requires a concerted effort to develop adaptive legal frameworks that can accommodate the complexities of digital governance, safeguard constitutional rights, and promote international collaboration. As Nelson Mandela wisely pointed out, "It always seems

impossible until it's done."[73] By addressing these critical areas, governments can harness the full potential of e-governance as a catalyst for positive change, ultimately leading to a more transparent, efficient, and inclusive public administration that meets the needs of all citizens in the digital age.

[73] Nelson Mandela, *Long Walk to Freedom: The Autobiography of Nelson Mandela* 622 (Little, Brown and Company, 1994).