# Mobile Governance, Roadmap For E-Governance: A Critical Evaluation in the Indian Context

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*Abstract*

*This is a proven fact that techno-savvy nations have always led the world. The application of technology in political, socio-economic and above all in the war field enabled these advanced nations to expand their political boundaries, establishing their economic empires and consequently, their cultural empires, europeanisation of the whole globe is a living example of this fact. Techno-savvy races explored new horizons overlooking the formidable high mountains, fierce seas and vast ocean. Initially, the technology was limited to strategies and economic fields which created new modes of production and distribution. Now the ever-innovative technology has now become so soft and at the same time so mesmerizing that it has come to affect the daily life of the common man in all spheres of life. Technology or the digital revolution has changed the modes of living and interaction among and between the people. The socio, political and economic interaction between/among the people has been revolutionized by this new technology. Specifically, the relationship between the governors and the governed has changed. Digital technology or e-governance or whatever name is given to this e-phenomenon has changed the modus operandi of the government and the governance. this research paper intends to investigate this new mode of governance through the e-technology of the digital revolution.*

*KeyWords: E-governance, Mobile Governance, digitisation, mobile apps, technocrats*

## INTRODUCTION

We are now living in a new democratized world, but now the concept of democracy has evolved to new meanings and contents. Democracy is no longer merely a set of some primary institutions or structures performing traditional functions. It has now become a mode of governance where governments are giving way to good ---better ---better governance. Now democracy is not just a rule by consent of the people but convincing the people to take care of their conveniences. It is not just enforcing the rule of law by force but enforcement by their endorsements. Governance is more democratic in the sense that it has become a two-way process, the participation of the people in the governance of their affairs. In the new mode of governance, the people are not required to reach the Ganga to fetch the holy water, but now the benefits of the Ganga flow in the streets and people find the Ganga of governance at their doorstep. It has become possible due to the e-mode of governance. This is somewhat mesmerizing.

The technology has helped in a big way and it is making feasible economic democracy. All the miracles come true due to the application of technology. Ever-changing technology has revolutionised and changed every aspect of life differently. The democratic process has been advancing with the application of ICT and increasing interface between government and people and vice versa. This technology ensures peoples' participation in government activities and people's input in policy formulation along with feedback to the government for further quality improvement in the execution of policies. The concept of governance has changed drastically with the adoption of e-governance in policy-making and execution. It makes hassle-free delivery of public services and deepens the roots of democracy with the voices of citizens in core strategic issues of governance through providing their input in decision-making along with feedback on policy evaluation. E-governance has the potential to improve the quality of government services and efficiency in the political process. On mobile, the Prime Minister and Chief Ministers are approachable to man in the dark of his house and can address the nation to solve issues of the country.

Mobile government is one step forward of electronic government, which refers to the application of ICT in all kinds of government activities in education, health agriculture and governance and is regarded as an alternative and complementary approach to the delivery of public services. Mobile governance (m-Governance) can be defined as the delivery of all types of public services (www.meity.gov.in). It is minimizing the gap between government and people and realising the dream of maximum governance and minimum government. The introduction of e-Governance applications in different countries was to bridge the digital divide between government and people, providing effective and efficient services,

increasing productivity and extending other benefits to its citizens, (Malik, et al., 2014). Both e-governance and mobile governance certainly share the goal of providing better public services to citizens (https://core.ac.uk/ p. 13).

Digital technology takes administration beyond files, and the process of exercising power becomes easier and smoother as well. The concept of minimum government means short file roots are being adopted in offices, and government machinery promotes time-bound services. India successfully runs health care schemes, educational programmes, schemes for empowerment of weaker sections, and safety-related programmes for girls and women, and eliminates the babu mindset from the offices. Therefore, e-government has been covering all aspects of life and making the procedure easier to avail the government service delivery facilities. This way of participation makes the system more effective and efficient.

**E-Government and Mobile Government:** Mobile government is not separate from e-governance but it is an integral part of e-governance and takes it one step ahead of wherein mobile applications are used to deliver public services to the people. It is an integral component and gives new direction in the development of e-governance. Mobile government is an extension or evolution of e-government through the utilisation of mobile technologies for public service delivery (http://www.itu.int/ITU). It also ensures active citizen participation in government operations and promotes faceless administration. After 1990 it began to study the use of ICT in the various aspects of government, particularly in terms of delivery of service and enhancing the efficiency of the institution of governance. The available mobile apps cover all categories of people and provide services at their door in an efficient manner through the application of technology. M-government matters because it has the potential to free users from physical or geographical barriers (Raja, et al. p.87) and citizens have access to all delivery of services through mobile and internet connection anywhere and anytime. Being citizens, they directly benefitted from all these mobile apps of government. The government of India is implementing the digital India initiatives to build people-centric services for marginalised groups (UN e-Government Index 2022).

Mobile phones are generally considered a tool to connect people socially and have a great impact on connecting people across the globe. In the present context, these mobile phones have tremendous potential to expand the access to and reach of public services in India (www.meity.gov.in). It is a tool where people can avail government services even when they are on board and anytime, which means there is no need to present physically at their home or own region. It also supports a faceless governance process. M-government can be defined as the "use of mobile and wireless communication technology within the government administration and in its delivery of services and information to citizens and firms" (Sareen et al., 2013). Najafabadi and Pashazadeh, 2011 defined M-government means when the government uses the mobile application for the delivery of services. Mobile technology is significantly expanding the capacity of government to deliver citizen-and business-centric services (http://www.itu.int/ITU). M-governance can be defined as the delivery of all types of public services (www.meity.gov.in).

**Application of Mobile Technology in the delivery of government services:** In the era of the digital revolution, government has been utilizing mobile services in the following manner:

M-Communication - it refers to communication between government machinery and people regarding providing information and services. Various digital platforms for interaction between people and government were initiated where government take peoples' ideas and suggestions and government address the issues of people on the same platform.

M-Democracy- citizens are given facilities to participate in democratic activities like voting, and up-to-date information on election activities, which strengthens the roots of democracy. Democracy is known for its inclusiveness which is successfully fulfilled by mobile governance.

M-Services delivery - it enhances the delivery of government services in an effective and efficient mode. There are no intermediaries/agents between people and government. These mobile apps may be downloaded and can be used with a click to avail the government services.

M-Administration- A mobile application is used to improve interpersonal communication and communication between administrators and people to give feedback regarding public policies. Mobile apps connect people and governing apparatus strongly. There is high interest in the application of mobile not only in developed countries but in developing countries in the 21st century. Mobile services aim to widen the reach of and access to, public services to all citizens in the country (http://mgov.gov.in/about). India also adopted e-government and mobile applications to deliver government services to the people

and minimise the gap between people and government, which can be understood in the following manner.

**Mobile services in India:** The Indian Government is at the forefront of digital transformation https://icea.org.in/ and has been proactive in leveraging technology to enhance governance and citizen services. As part of this initiative, several mobile applications have been made available to facilitate various aspects of governance, service delivery, and information dissemination. These apps cater to different sectors and address the diverse needs of citizens across the country (https://apps.mgov.gov.in/). These mobile apps are as follows:

Mobile apps are being created in the fields of education, health, finance, agriculture and other fields. These mobile apps are like the Aarogya Setu App, which provides information related to COVID-19, MyGov App ensures opportunities for partnership between citizens and government, and MADAD App- which is made to handle the imprisonment of an Indian citizen in a foreign land, worker abuse, repatriation, etc, not visa and passport-related issues, GST rate Finder App- to check the GST rates anywhere in the market or at a restaurant to find the GST rates. Other important Apps like DigiLocker- through this apps all Aadhaar holders get their authentic documents such as a driving license, vehicle registration, and academic mark sheets in digital form from the original issuers, mParivahan: helps locate the nearest RTO and pollution checking centre and provides the registration details for the purchase of a second-hand vehicle. Agrimarket app keeps farmers abreast with crop prices in markets within 50 km of their location. Kisan Suvidha Mobile App-help farmers by providing relevant information to them quickly -(mkisan.gov.in). mPassport- helps track application status, etc., UMANG app- provides compiled necessary services in one app, BHIM UPI App: allows users to financial transaction money from UPI payment addresses to non-UPI-based accounts, Indian Police at your call App- provides information of the nearest police station. Mobile phones are widely available throughout the country, which makes them an ideal platform for the Government to interact with people residing in rural areas (https://www.meity.gov.in/writereaddata). Apps for rural areas are Awaas App, Janmanrega provides an opportunity to improve quality under MGNREGA, Meri Sadak app enables the citizens to give their feedback regarding progress and quality of work (http://rural.gov.in). More and more Government apps are adding regional languages to their platforms (https://icea.org.in/P. 42) and these mobile apps provide many government services in one click. These mobile apps cover the following areas:

**Mobile Governance in the Agriculture Sector:** The main occupation in India is still agriculture; therefore, considering this phenomenon government started several projects, and programmes and launched various mobile apps for updating the weather, price of crops and other relevant information. These mobile apps ensure quality services to farmers and enhance their agriculture style. Subsidies and direct benefits come into their accounts without mediators.

**Mobile Governance in the Education Sector:** Education has been transmitted to students through different mobile apps. Students are under surveillance and their attendance is on biometric machines. They are being provided study material, access to resource persons, and online teaching mode through various administrative bodies. This is bridging the digital divide such as geographical, socio-cultural, and linguistic, especially during the pandemic where offline education was suspended. Through ICT, the students have been enabled to connect with nationwide classroom and global study material online examinations and other teaching-learning aids. The deprived sections can have access to the most precious institutions and faculty. DigiLocker is being proved a great platform for accessing to authentic documents (www.digilocker.gov.in).

**Mobile Governance in the Health Sector:** Through the mission of the Ayushman Bharat mobile App, the government is providing health facilities to the people. This mission is not to simplify the process of hospitals but will increase ease of living. The records of health card holders will be maintained and protected (https://bis.pmjay.gov.in). During the pandemic, the Aarogya Setu mobile application connected essential health services with the people. The COVID-19 vaccination process was well designed, and everyone can realize its benefits during the pandemic. E-hospitals connect the patients, doctors, and hospitals to provide a one-stop solution for the citizens. The ICT has introduced the elements of grassroots democracy in the field of governance. The introduction of ICT in the health sector introduced transparency and efficiency. The online registration, issue of certificates, and benefits of the government's health scheme are being implemented and monitored through e-technology. The linking of Aadhar with the health sector schemes and service delivery has brought a sea change in transparency,

integrity, efficiency, and service delivery. It helped to connect the most deprived section of society with government health services.

**Mobile Apps and Citizens' Centric Service:**

The Second Administrative Reforms Commission in India (2005) recommended the administration citizens' centric perspective to governance which was the paradigm of India (darpg.gov.in). However, after the 1990s government of India consistently took initiatives for citizen-centric administration and in 1997 first time conference of all chief ministers was convened under the leadership of the Prime Minister. The previous governments prepared the ground for using ICT intensively and extensively in governance and the present government applying digital technology in a very wide manner to enhance the quality of delivery of services in the journey from e-governance vision to implementation. Institutional mechanisms have been set up at various levels to implement digital government policies and now the government has moved one step ahead and started focusing on mobile applications for the delivery of services. Mobile services through various apps provide services to people for basic facilities. The main benefit of this initiative is that it ensures the distribution of resources in an equal manner and makes the system citizen-centric. These services are facilitating citizens, and providing hassle-free governance and citizens' centric services as promised. The citizens, or today known consumers of government products, have every right to access these products easily. The government introduced several e-facilities considering citizens at the centre.

The impact of mobile governance is making governance responsive, transparent and accountable. Now citizens avail of government facilities through these mobile apps in a very simple way. It has brought government services to the mobile in every household through gadgets. The age-old slogan 'Apki Sarkar Apke Dwar' has been realized by households through the application of mobile apps. Since the beginning of the first term of the present government, focus has been made on minimum government and maximum governance, using various instruments, strategies, technology etc. Technology is being used at the maximum level to reach everywhere including the remotest areas, weaker, poor, and deprived sections of society at all levels, and maximised state activities as part of governance through mobile. The benefits of mobile governance in every aspect of life can be seen in the following manner:

**Benefits of mobile governance:** M-governance is a very effective medium for governance (https://icea.org.in/) in which there are two stakeholders in the process of mobile governance first is government and is citizens. Both the stakeholders benefit through means of mobile governance it has wide reach to the citizens, cost-effectiveness, smart initiatives and maximum output and outreach, faster information and services to the people at their doorsteps, government services are better delivered in this way and last but not the least ultimately it strengthens roots of democracy which ensures participation of everyone in the policy formulation and policy implementation process. All the beneficiaries conveniently have access to all government services smoothly and easily. There are no intermediaries or agents between the stakeholders. Public services in the fields of health, education, agriculture, financial, political participation etc are being ensured directly to the citizens without any barrier which leads towards good governance. The benefits of all these initiatives were realised by the people during the pandemic when all the government services were provided through mobile applications and subsidies were done through a direct beneficiary system. Undoubtedly, in every aspect of life, people are getting benefits from it.

Digital services are being provided to all citizens even in the remotest areas, which promotes inclusivity in every sphere of life. In other words, it may be defined that mobile technology is majorly expanding governments' capacity to produce benefits (ITU, OECD 2011). With the set infrastructure and technical and trained manpower, many more digital services may be delivered to the citizens timely and effective. Citizens are getting maximum services through digital technology at their fingertips and have minimum face-to-face interaction with the administration.

**Challenges and Opportunities -** Adopting a new mode of governance for both the stakeholders, in the field of the digital world is a big challenge. Digital technology has been changing the nature of governance and delivery of services to the people. In the present context, most of the government services are being provided through mobile governance but with this increasing number of users as beneficiaries, cyber threats are growing by leaps and bounds. Therefore, governments must maintain the expected level of trust through a combination of legal and technical actions (Raja, et al. p.98).

In India, the process of computerisation has reached mobile governance and now India is the leading country in terms of internet users (Saraswat, p. 9). India is highly affected by cybercrimes as data was

revealed by various national and international organisations. In India, in the year 2019, a total number of 394499 cyber security incidents were observed which reached 1402809 in 2021, tracked by the Indian Computer Emergency Response Team (CERT-In) (http://sansad.in). As per global cybersecurity company Kaspersky's report of 2020, 45% of online users in India were attacked by local threats Kaspersky products detected and blocked 200,238,155 local threats on consumer devices between Jan-Dec 2020 (https://www.kaspersky.co.in/, March 01, 2021).

This data indicates that cyber threats are very common to common people and need a well-drafted legal framework to redress the threat of cyber security. The government has already started taking security measures in this direction like Information Technology Act, of 2000, the Right to Information Act, of 2005, and the Indian Cyber Crime Coordination Centre' (I4C) (http://www.mha.gov.in) to deal with all types of cyber-crime in the country, in a coordinated and comprehensive manner. As part of the I4C, a "National Cyber Crime Reporting Portal" (https://cybercrime.gov.in) has been established to enable the general public to report incidents involving all kinds of cybercrimes, with a particular emphasis on cybercrimes against women and children. The government has generated a toll-free Helpline number, "1930" for online cyber incident reporting. It provides an opportunity for the victims to report the cybercrime on this free number. India's cybersecurity market reached USD 6.06 billion in 2023 (https://economictimes.indiatimes.com/).

The Capacity-building program like certificate online courses for police officers and judicial officers on major aspects of cybercrime investigation, forensics, and prosecution is being implemented. The other training programs of governments are being run for government officials, critical sectors, public and private sector etc. and up to October 2023, some of 7007 have been trained under various training programs. Along with all these capacity-building programs and training programs, the government has constantly making awareness programs through various social platforms on SMS, I4C social media account i.e. X (formerly Twitter) (@Cyberdost, Facebook(CyberDostI4C), Instagram (cyberdostI4C), Telegram(cyberdosti4c), Radio campaign, to bring awareness among users.

A notable recent addition to the division's initiatives is the Digital Personal Data Protection Act of 2023, a landmark legislation that adeptly balances individual privacy rights with the imperative to process digital personal data for lawful purposes. (Ministry of Electronics and Information Technology (www.meity.gov.in). India had bilateral and multi-lateral cooperation and committed to minimising cyber threats and developing international mechanisms for cybersecurity promotion (https://www.orfonline.org/).

All these initiatives taken by the government machinery for cyber security in the country in the last two decades reflect the strong willpower of the government to control cyber threats are provide online platforms for the redress of these online threats (https://pib.gov.in/19 Dec. 2023). But on the other hand, the data of cyber threats is very alarming for both the stakeholders, and need special attention to redress all these. In the era of digital government, there is a need to change the security set-up/mechanism, because the regular preventive machinery is not adequate to deal with cyber threats. A digital army consisting of government machinery, governing apparatus and technocrats, should be formed where they can sit on digital devices to fight these cyber threats.

The above initiatives reflect that the Indian government has been actively working towards enhancing cybersecurity, framing legislation and enhancing the awareness of citizens. Still, there is a need that academicians, researchers, technocrats and practitioners should find out how the quality of delivery of services can be improved through mobile apps and how data of the government and beneficiaries can be protected efficiently.

threats in 2020

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