

## CHALLENGES AND OPPORTUNITIES OF E-GOVERNANCE IN INDIA

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### ABSTRACT

E-governance denotes the provision of government information and services to citizens, businesses, employees, or government agencies through Information and Communications Technology (ICT). E-governance in India has gained attention in recent times. Several success stories have also been shared publicly. Though the implementations are commendable, they focus on effort rather than results. India is an emerging nation. However, it must meet the socio-economic goals through efficient governance by the government. In the age of ICT, nearly every country globally has embraced ICT in their governance, delivering crucial goods and services to the populace promptly. In the realm of the Indian economy, each sector is affected by E-Governance. As a result, the Government of India has initiated E-Governance programs, offering all services electronically whenever feasible. In terms of e-governance, it typically began around seventy years ago. Since that time, we've implemented various initiatives related to E-Governance. In the meantime, the Government of India initiated numerous projects to promote E-Governance, such as E-Seva, Smart Govt, Digital India, E-Kranthi, among others. It appears that each of these initiatives is significantly benefiting the citizens. Despite this process, there are still several challenges related to the implementation of E-Governance. In other words, these obstacles appear to be barriers to the success of E-Governance. Specifically, socio-economic, cultural, technical limitations, privacy, security issues, and so on. Despite numerous challenges and obstacles, the government has great confidence in overcoming these barriers and facilitating the success of E-Governance. This paper aims to outline the current state of E-Governance in India.

**Keywords:** E-governance, ICT, Govt. of India, Challenges, Projects, Administration.

### INTRODUCTION:

Information and Communication Technologies can improve the evolution of work culture by achieving various objectives, including enhanced delivery of government services to the public, improved government engagement with business and industry, empowering citizens via access to information and involvement in decision-making, and more efficient management within government. E-Governance aims not only to implement technological tools but fundamentally seeks to transform mindset and work culture to unify government processes and functions for improved services to citizens. In this process, it is essential for the government to remain receptive to criticism and to implement a new social contract among all stakeholders, affirming a collective responsibility in the transformation processes.

### Concept development:

E-governance can be characterized as the provision of governmental services and information to citizens through electronic methods. This method of conveying information is commonly known as Information Technology, or simply 'IT' for short. Utilizing IT in government institutions is an effective, quick, and clear method for sharing information with the public and other organizations and for executing government administrative functions.

### **Definition of E-Governance :**

E-governance is the application of information & communication technologies to transform the efficiency, effectiveness, transparency and accountability of informational & transactional exchanges with in government, between govt. & govt. agencies of National, State, Municipal & Local levels, citizen & businesses, and to empower citizens through access & use of information.

### **Concept & Scope:**

E-Governance is thus a wider concept than E-Government, which is the use of ICT's in the dissemination of services of government. The Commonwealth Network of Information Technology for Development (COMNET-IT), in association with and with the financial support of UNESCO, has developed national profiles detailing current status and developments in this area. Whilst impacts of e-governance in the commercial, NGO and professional areas are covered in these studies, the main focus centers around specific government initiatives, such as:

1. The Development of Cyber Laws
2. The Liberalization of Telecommunications
3. Plans for e-Governance
4. Plans for the Development of Community e-Centers
5. The Deployment of Community e-Centers
6. Instances of Public Feedback to statements of direction, Draft Legislation and so on.
7. Websites of Government Agencies, particularly if these offer value beyond a public relation image

### **E-governance in India:**

Both central and state governments in India have committed to e-governance and are consistently working to enhance the delivery of citizen services. Numerous successful initiatives have been implemented, and several remarkable case studies have been developed regarding them. The Rural Tele-Centers of the M. S. Swaminathan Research Foundation in Southern India have achieved significant success through the use of participatory service delivery approaches. Several other effective initiatives include Gyandoot, E-Seva, Bhoomi, and CARD. Various initiatives in different locations, including the slums of New Delhi, the fishing communities of Pondicherry, and the villages of Madhya Pradesh, have shown how effective IT can be in enhancing life by boosting the livelihoods of those on the other side of the digital divide (impoverished and semi-literate individuals) who are typically marginalized from these projects.

Nonetheless, without the scaling and enhancement of the projects, the innovative features of the projects have been diminished, and the attention on objectives is fading. Many successful E-Government projects have been noted to fail in the long run due to insufficient financial stability and technological appropriateness, with obsolescence stemming from a lack of upgrades resulting from inadequate financial self-sustainability of the project. Additional reasons for failure include excessive reliance on the vision and drive of a single charismatic leader, which can lead to ego-centrism, insufficient infrastructure such as electricity, bandwidth, and communication systems like telephones (stemming from poor long-term

planning and dependence on donor funding that is typically short-term, resulting in a lack of long-term financial sustainability).

The common facets of all the E-Governance projects in India are as below,

1. They are geographically restricted, i.e. the access of citizens is limited to specific geographical locations.
2. All of them are geared towards fulfilling the immediate needs of citizens e.g., filing application at the local office, getting the application forms etc.
3. They are constrained by infrastructure adequacy viz., lack of bandwidth, storage space, etc. and by human factors viz., literacy, mindset, etc.

A country like India needs E-Governance to provide the facilities to its citizens. Most of the projects are fulfilling limited needs properly, but they need a holistic approach to progress this to make it self-sustainable in the long-term.

Government of India established the Department of Electronics in 1970. The subsequent establishment of the National Informatics center (NIC) in 1977 was the first major step towards E-Governance in India as it brought 'information' and its communication in focus. However, the main thrust for E-Governance was provided by the launching of NICNET in 1987 – the national satellite-based computer network. This was followed by the launch of the District Information System of the National Informatics center (DISNIC) program to computerize all district offices in the Country for which free hardware and software was offered to the State Governments. NICNET was extended via the State capitals to all district headquarters by 1990.

E-Governance was started in India by AKSHAYA in Kerala. This project involves setting up around 5000 multipurpose community technology centers called Akshaya E- Kendra's across Kerala. Run by private entrepreneurs, each E-Kendra set up within 2-3 kilometers of every household, will cater to the requirements of around 1000-3000 families to make available the power of networking and connectivity to common man. Akshaya is a social and economic catalyst focusing on the various facets of E-learning, E-transaction, E-governance, information and communication.

#### **The Basic Structure of E-Governance:**

Layne in 2001 described a four-stage growth model to develop a fully functional e-government. Based on technical, organizational and managerial feasibilities, the four stages of a growth model for E-governance are:

1. Cataloguing (Information)
2. Transaction
3. Vertical integration (Interactive)
4. Horizontal integration (Strategic, interactive) or transformation

#### **The Development of E-Governance Includes**

1. Publishing
2. Interaction
3. Transaction

## E-Government Services in India

E-Governance services can be shared between citizens, businessman, government and employees. These four models of e-governance are as:-

1. Government to citizens (G2C)
2. Government to government (G2G)
3. Government to employees (G2E)
4. Government to businessman (G2B)

Service is the process of serving or a system providing a public need. Indian government provides a set of online services to its identified customer base. There are a number of categorizations for interaction within e-Government: Government-to-Citizen (G2C), Government-to-Government (G2G) and Government-to-Business (G2B), Government to employees (G2E). G2C implies that citizens are allowed to retrieve government information and perform government transactions online. G2G supports online communication between government agencies. G2B allows businesses to retrieve government information and complete transactions with government agencies online.

### E-governance models:

Sl. no.	Models	Explanation	Type of services or information which are provided by this model
1	Government to citizens (G2C)	This is the communication process of individual citizens with the government. G2C are those activities in which the government delivers online access to information and services to citizens. A great number of initiatives have been taken in this category by the Governments. Some of these G2C applications are Right to information (RTI), E-District, E-Payment and Dial.Gov etc.It has separate gateways for individuals, students, business, women, children's, farmers and youth. The information about benefits is available to the citizen through different channels like Dial.Gov web portal, an interactive voice response service and call Centre helpdesk.	<ol style="list-style-type: none"> <li>1. Payment of online bills such as electricity, water, telephone bills etc.</li> <li>2. Online registration of applications.</li> <li>3. Copies of land-record.</li> <li>4. Online filling of complaints.</li> <li>5. Availability of any kind of online information</li> </ol>
2	Government to government (G2G)	This is the non-commercial interaction and transaction between Government organizations. G2G initiatives help in making the inside government procedures more efficient. The example of G2G services such as Crime and CriminalTracking Network & Systems (CCTNS), EOffice, E- Procurement and E-Courts etc.E-Office: E-office is focused on facilitate office proceduresin order to	<ol style="list-style-type: none"> <li>1. Sharing of information between police department of various state.</li> <li>2. Government document exchange which includes preparation, approval, distribution, and storage of all governmental</li> </ol>

		use less paper.	documents is also done through e-governance. 3. Most of the finance and budget work are also done through e-governance.
3	Government to employees (G2E)	This model increases the transparency between government and its employee. Here, employee can keeps a check on the functioning and working of government and government can keeps on its employees.	<ol style="list-style-type: none"> <li>1. All kind of data submission (attendance record, employee record etc.) from various government offices is done by this model</li> <li>2. Employee can file all kinds of complaints and dissatisfaction by this model.</li> <li>3. All kind of rule-regulation and information for employees can be shared by this.</li> <li>4. Employees can check their payment and working record.</li> <li>5. Employees can register all kind of working forms online.</li> </ol>
4	Government to businessman (G2B)	This is the interaction between government and the commercial business sector to get the businesses information and services online. The Government of India launch the website „www.makeinindia.com“ where the Make in India program includes major new initiatives designed to facilitate investment and build best-in-class manufacturing infrastructure. Most common example of G2B is Ministry of Corporate Affairs Department discussed in detail. Ministry of Corporate Affairs (MCA 21): The Ministry of Corporate Affairs has implemented the MCA 21 Mission Mode Project under the National e-Governance Plan (NeGP) in September 2006. It is an innovative program being the first mission mode project being undertaken in the country. The Project offers online accessibility of all Corporate	<ol style="list-style-type: none"> <li>1. Collection of taxes.</li> <li>2. Rejection and approval of patent is also done by this model.</li> <li>3. Payment of all kind of bills and penalty.</li> <li>4. Sharing of all kind of information, rules and data.</li> <li>5. Complaints or any kind of dissatisfaction can be shown by this.</li> </ol>

	Affairs services including filing of documents, registration of companies and public access to corporate information	
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### Technologies Used In E-Governance

1. Optical Character Recognition (OCR)
2. Magnetic Ink Character Recognition (MICR)
3. Video Conference
4. Personal Digital Assistant (PDA)
5. Cloud Services
6. Biometric Technologies

### There are four pillars of E-Governance:

1. **Connectivity:** Connectivity is required to connect the people to the services of the government. There should be a strong connectivity for an effective e-governance.
2. **Knowledge:** Here knowledge refers to IT knowledge. Government should employ skill full engineers who can handle the e-governance in an efficient way. These engineers also handle all kind of fault that may occur during the working of e-governance.
3. **Data Content:** To share any kind of knowledge or information over the internet, there should be its database. This database should have the data content which is related to government services.
4. **Capital:** Capital can be on public or private partnership. It refers to money used by government to provide their services or to that sector of the economy based on its operation

### Challenges in E-Governance

<b>Technical Challenges</b>	<ol style="list-style-type: none"> <li>1. Interoperability</li> <li>2. Privacy</li> <li>3. Security</li> <li>4. Multiservice Interaction</li> <li>5. Authentication</li> </ol>
<b>Organizational Challenges</b>	<ol style="list-style-type: none"> <li>1. Lack of Integrated Services</li> <li>2. Lack of Key Persons</li> <li>3. Population</li> <li>4. Different Languages</li> </ol>
<b>Economical Challenges</b>	<ol style="list-style-type: none"> <li>1. Cost</li> <li>2. Maintainability</li> <li>3. Reusability</li> <li>4. Portability</li> </ol>
<b>Social Challenges</b>	<ol style="list-style-type: none"> <li>1. Accessibility:</li> <li>2. Usability:</li> <li>3. Use of local languages:</li> <li>4. Awareness about e-governance</li> </ol>
<b>Other Challenges</b>	<ol style="list-style-type: none"> <li>1. Underutilization of existing ICT infrastructure.</li> <li>2. Attitude of Government Departments and government officers need a</li> </ol>

	<p>proper counseling. Many officers perceive their department as most important and disregard other department's needs.</p> <p>3.Lack of coordination between Govt. Department and Solution developers.</p> <p>4.Resistance to re-engineering of departmental processes is also a challenge, but this approach is changing now. 5.Low IT Literacy.</p> <p>6.Different Language</p> <p>7.Services are not accessible easily. 8.Lack of integrated services</p> <p>9.Lack of awareness in people. 10. Maintenance of electronic devices.</p>
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### State Wise Projects of E-Governance

Sl. No	State/Union Territories	e-Projects
1.	Andhra Pradesh	e-seva, card, VOICE, MPHS, FAST, e-cops, Saukaryam
2.	Bihar	E-Khajane, Sales Tax Administration Management Information
3.	Chhattisgarh	Chhattisgarh Info Tech Promotion Society, Treasury Office, e-linking project
4.	Delhi	Automatic Vehicle Tracking System, Electronic Clearance System, Delhi Slum Computer Kiosks.
5.	Goa	Dharani Project
6.	Gujarat	Dairy Information System Kiosk(DISK), Form Book Online, Census Online, Tender Notice
7.	Haryana	NaiDisha, Result through Binocular
8.	Himachal Pradesh	Lok- Mitra, e-pension, Unreserved Ticketing System by Indian Railways
9.	Jharkhand	Vahan, Tender Notice
10.	Karnataka	Bhoomi, Kaveri, Khazane
11.	Kerala	RD Net, Fast, Reliable, Instant, Efficient Network for the Disbursement of Services(FRIENDS)
12.	Madhya Pradesh	Gyandoot, Gram Sampark, Smart Card in Transportation Department, Headstart.
13.	Maharashtra	SETU, Koshvani, Telemedicine Project, Online Complaint Management System Mumbai
14.	Orissa	E-Shishu, Common Service Centers(CSCS) in Panchayats
15.	Punjab	SUWIDHA(Single User Window Disposal Help Line for Applicants),SUBS (Suwidha Backend Services),SSIS (Social Security Information System) WEBPASS (District Passport Application Collection Centre)
16.	Rajasthan	Jan Mitra, Lokmitra, RajNidhi, Aarakshi-Online FIR, Professional e-Delivery of Tax Payers by Income Tax
17.	Tamil Nadu	Application Forms Related to Public Utility, Tender Notice & Display
18.	Uttar Pradesh	Lokvani, e-Suvidha, Bhulekh, Treasury Computerization, PRERNA: Property Evaluation and Registration Application
19.	Uttarakhand	KisanSoochnaKutirs (KSKs),Village Information Centre(VICS), Computerization of Land Record Department
20.	West Bengal	Vehicle Registration, Land Records, Birth and Death Registration, Computerization of Heath Records, Payment of

		Excise Duty, Sales Tax and Local Tax, Electronic Bill Payment of Water and Electricity
21.	Assam	ASHA

### **BENEFITS OF E-GOVERNANCE:**

1. **Convenient and Cost Effective Service Delivery:** With the advent of e-Service delivery, the government can provide information and services at lesser costs, in reduced time and with greater convenience. For instance, after the computerization of land records in Karnataka, farmers can obtain a copy of their Records of Rights, Tenancy and Crops (RTC) within 30 minutes, as against 30days that it used to take earlier. Moreover, a printed copy of the RTC at kiosks costs `15 only, as against heavy bribes that one had to pay earlier.
2. **Transparency, Accountability and Reduced Corruption:** Dissemination of information through ICT increases transparency, ensures accountability and prevents corruption. An increased use of computers and web based services improves the awareness levels of citizens about their rights and powers. This helps to reduce the discretionary powers of government officials and curtail corruption. For instance, land registration requirements in Andhra Pradesh after computerization can now be completed within an hour without any official harassment or bribes.
3. **Increased Participation by People:** With easy access to the government services, the faith of the citizens in the government increases and they come forward to share their views and feedback. Increased accessibility to information has empowered the citizens and has enhanced their participation by giving them the opportunity to share information and contribution implementation of initiatives.

### **CONCLUSION:**

Since Internet Technology has evolved rapidly in the last few years, there is a need to think strategically about where we want to be in the future. As time goes on, new technologies will continue to develop at a rapid pace and we must be flexible enough by showing quick response to the technology explosion. The state that are faster in adopting the technology have started reaping the benefits already. Process level changes are required before rushing to the web to launch the 'Government Online'. At the same time the government managers should quickly learn to use technology fueled management tools for administrative efficiency and use them for a more value added service to the citizens.

As the usage of Information Technology is growing very fast, Indian government is making many efforts to provide services to its citizens through E-Governance. Although Indian government is spending a lot of money on E-Governance projects but still these projects are not successful in all parts of India. Unawareness in people, local language of the people of a particular area, privacy for the personal data of the people etc. are main challenges which are responsible for the unsuccessful implementation of E-Governance in India. Government must take some actions to make the people aware about the E-Governance activities so that people may take full advantage of these activities and E-Governance projects can be implemented successfully. The participation of people can play a vital role in implementation of E-Governance in India.

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