CHAPTER - III
HISTORY AND DEVELOPMENT OF e-GOVERNANCE

3.1. Introduction

Information and Communication Technologies can enhance the transformation of work culture by serving a variety of ends, better delivery of government services to citizens, improved government interactions with business and industry, citizen empowerment through access to information and participation for decision-making and more efficient government management. e-Governance is not meant only for introducing or using technological tools, it fundamentally strives to bring about a change in mindset and work culture to integrate government processes and functions to serve the citizens better. In this process, it is crucial that the capacity of government to be open to criticism as well as the application of new social contract between all stakeholders, confirming a shared responsibility on the transformation processes.

The interaction between a citizen and a government agency takes place in a government office. With emerging Information and Communication technologies it is possible to locate service centers closed to clients. In all the cases public traditionally look for information and services addressing his or her needs and in both cases quality, relevance and efficiency are of paramount importance. Therefore, the establishment of e-Governance requires a good knowledge of the needs that exist in the society and that can be offered using ICT. The effectiveness of ICT in government is closely related with the capacity of government to induce a culture change-placing network within its institutions as instrumental to transparency and knowledge exchange and creation.
3.2. Conceptualization

E-governance may be defined as delivery of government services and information to the public using electronic means. Such means of delivering information is often referred to as Information Technology or ‘IT’ in short forms. Use of IT in government facilities is an efficient, speedy and transparent process for disseminating information to the public and other agencies, and for performing government administration activities.

The term governance may be described as the process by which society steers itself. In this process, the interactions among the State, Private Enterprise and Civil Society are being increasingly conditioned and modified through the influence of Information and Communication Technologies (ICTs), constituting the phenomenon of e-Governance. Examples of these shifts in dynamics are exemplified by:

i. The use of the Internet by Civil Society, NGO’s and professional associations to mobilize opinion and influence decision-making process that affect them

ii. The increasing electronic delivery of government and commercial service and Information

iii. The electronic publication of draft legislation and statements of direction for public feedback

iv. On the infrastructure side, the liberalization of telecommunication markets and trends towards web-enabled mobile telephony and digital television are facilitating this evolution

3.3. 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

i. The Development of Cyber Laws
ii. The Liberalization of Telecommunications
iii. Plans for e-Governance
iv. Plans for the Development of Community e-Centers
v. The Deployment of Community e-Centers
vi. Instances of Public Feedback to statements of direction, Draft Legislation and so on
vii. Websites of Government Agencies, particularly if these offer value beyond a public relation image

In this process, it is crucial that the capacity of government to be open to criticism as well as the application of a new social contract, between all stakeholders, confirming a shared responsibility on the transformation process. The respect for human rights and freedom of expression is essential to promote and maintain public participation in public consultation spaces. This implies that governments personnel have to learn to network and to place people in the centre of the political process.

So, the effectiveness of ICT in government is closely related with the capacity of governments to induce a culture of change placing networking within its institutions as instrumental to transparency and knowledge exchange and creation. It forces a rethinking of the way hierarchical structures are placed. The transition to a more horizontal government structure, where integration of functions plays a greater role, takes time since the main players need to change attitudes and behavior as they acquire new skills and knowledge that make them confident in the work culture.

According to recent data, there is a close relationship between levels of infrastructure development, education, democratization, political
leadership and commitment to the principles of good governance and the level and quality of e-Governance implanted in the countries. These are strong indicators of e-readiness and the opportunity cost of such endeavor.

The resulting benefit can be less corruption, increased transparency, greater convenience, efficiency, revenue growth, and or cost reductions, as well as increased legitimacy.

3.4. Use of ICT in Government Organizations

Traditionally, the interaction between a citizen and a government agency takes place in a government office. With emerging information and communication technologies, it is possible to locate service centers closer to the clients. Such centers may consist of an unattended kiosk in the government agency, a service kiosk located close to the client outside the government agency, or the use of a personal computer at home or office. In all the cases the public traditionally looks for information and services addressing his or her needs and in both cases quality, relevance and efficiency are of paramount importance. Still in some of the conditions, e-Governance lags behind in understanding the buyers and sellers needs precisely.

The development of e-Governance includes

i. Publishing

ii. Interaction

iii. Transaction

These activities aim at broadening access to government information such as laws, regulations and data; increasing public participation in decision-making through, for example the publishing of e-mail addresses of government officials and on-line forums, making government services more readily available to the public through e-filing of government documents, online permits.
To date, most effort, in e-Governance, is centered on publishing and not in the subsequent phases of interaction and transaction. Governments, particularly in developing countries face limited resources to move fast in e-Governance, so a strong partnership between the public, government, business and the civil society is instrumental in determining the expected outcomes and the effectiveness of e-Governance.

The term e-Governance refers to the process of using information technology for automating both the internal operations of the government and its external interactions with citizens and other businesses. Automation of internal operations reduces the cost and improves their response time while at the same time allowing government processes to be more elaborate in order to increase their effectiveness. Automation of interactions with citizens reduces the overhead for both the government and the citizens, thus creating value for the economy.

3.5. E-Governance Framework

The design and development of such complex solutions poses significant challenges. One such challenge is that in current development environments, the application developers have to work at a low level of abstraction. This means taking care of low-level issues such as intercrosses messaging, tools integration, and data modeling while defining the application logic. Similarly, solution reconfiguration and management requires the solution administrator to have a detailed understanding of the application logic, making the task time-consuming and error-prone. Handling these challenges effectively requires highly skilled and experienced Information Technology professionals, increasing development costs for effective e-Governance solutions. Solution administrators typically lack these IT skills, rendering change management impossible. In solutions developed to date, each e-Governance solutions has customized existing products to address an individual government agency requirement. However
this might not always be the most economical way to develop a solution. In most industries, around 85 percent of the processes are same across companies within that industry. A similar fraction of the processes can be expected to be similar across different government solutions. Clearly, it is desirable to develop these processes once and then reuse them for many solutions. This is also likely to be true for data models, user interfaces, etc. For example, the address verification process in the driving license renewal solution considered above can be reused while developing a passport renewal solution. Similarly, the traffic violation record verification process can be offered as a service to insurance businesses to be reused in a car insurance solution. Lack of information (metadata) on available processes and components and difficulty in customizing these for a specific need currently hinder their reuse for multiple solutions. One can really conclude from the preceding discussion that there is a need for a framework that can simplify the development, deployment, and management of e-Governance solutions.

i. Enabling modeling of a hierarchy of building blocks that can be used to abstract government process to a higher semantic level.

ii. Enabling specification of workflow for government processes independent of standards; the platform takes care of generating the deployable solution that conforms to the appropriate standards.

iii. Enabling reuse of effort across solutions by providing tools to develop generic, parameterized applications or processes that can be stored in a repository with appropriate metadata and effectively reused by various applications with appropriate customization.

iv. Extending programming models to specify the customization points in an application or solution during development, and intuitive interfaces to enable modification of solutions easily after deployment without the need for the business user to modify the application source code.
Extending programming models to simplify specification of multilingual and multidevices interfaces.

Providing tools to anther the wrappers for the legacy applications and workflows integrating multiple applications to automate processes spanning several government agencies. The current framework prototype described in this chapter will evolve with customer engagements. The approach is to maximize the reuse of available tools and middleware. In the initial stages, the focus of the effort is on the Indian e-Governance market; however, the platform can be extended to suit the needs of other countries as well.

3.6 Evolution of E-Governance

Global shifts towards increased deployment of IT by governments emerged in the nineties, with the advent of the World Wide Web (WWW). The technology as well as e-governance initiatives have come a long way since then. With the increase in Internet and mobile connections, the citizens are learning to exploit their new mode of access in wide ranging ways. They have started expecting more and more information and services online form governments and corporate organizations to further their civic, professional and personal lives, thus creating abundant evidences that the new ‘e-citizenship’ is taking hold.

The concept of e-Governance has its origins in India during the seventies with a focus on development of in-house government applications in the areas of defense, economic monitoring, planning and the deployment of IT to manage data intensive functions related to elections, census, tax administration etc. The efforts of the National Informatics Center (NIC) to connect all the district headquarters during the eighties was a very significant development.

From the early nineties, IT technologies were supplemented by ICT technologies to extend its use for wider sectoral applications with policy emphasis on reaching out to the rural areas and taking in greater inputs from
NGO’s and private sector as well. There has been increasing involvement of international donor agencies under the framework of e-governance for development to catalyze the development of e-governance laws and technologies in developing countries.

While the emphasis has been primarily on automation and computerization, state governments have also endeavored to use ICT tools into connectivity, networking, setting up systems for processing information and delivering services. At a micro level, this has ranged from IT automation in individual departments, electronic file handling and workflow systems, access to entitlements, public grievance systems, service delivery for high volume routine transactions such as payments of bills, tax dues to meeting poverty, alleviation goals through the promotion of entrepreneurial models and provisions of market information. The thrust has varied across initiatives, with some focusing on enabling the citizen-state interface for various government services, and others focusing on bettering livelihoods. Every state government has taken the initiatives to form an IT task force to outline IT policy document for the state and the citizen charters have started appearing on government websites.

For governments, the more overt motivation to shift from manual processes to IT-enabled processes may increased efficiency in administration and service delivery, but this shift can be conceived as a worthwhile investment with potential for returns.

3.7 Phases of E-Governance

Gartner, an international consultancy firm, has formulated four-phase e-governance model. This can serve as a reference for governments to position where a project fits in the overall evolution of an e-governance strategy.

An effort as tremendous as complete realization of e-governance has to be addressed in these phase. This approach would allow for retrospection
after each phase, and the ability to retrace steps if required, within a feasible frame of time and money. The design and purpose of each step would have to serve the relevant needs of all G2C, G2B and G2G sectors.

3.7.1 Phase I – Presence

This first phase calls for making the intentions and objectives of the government known. Development of an inclusive government website, or a network of sites dedicated to different ministries and departments would set the stage for further advancements. These sites would convey the government’s initiatives, providing information such as official addresses, working hours, as well as forms and applications to the public, economic reviews, corporate regulations for business and budgetary allocations and spending as a reference for government agencies.

With this first phase, the very critical task of building the infrastructure, such as telecommunications would be undertaken.

3.7.2 Phase II – Interaction

This phase would allow for basic interaction with the government. Besides hosting search engines on the sites for easy navigation, information detailing social records and job application forms for the public, permit and license documentation for businesses and census details, submission of requests and approvals to the centre by local government officers would have to be provided.

The task of building the underlying infrastructure would have to be sustained through these two stages, allowing for rapid implementation of advanced applications as endorsed by the consequent phases.

3.7.3 Phase III – Transaction

This phase onwards would signify direct interaction of the government and relevant entities. With the infrastructure in place, complete online service suites can be put forth for the public, businesses and governmental agencies. Services for the public such as bill and fine
payments, license renewal, aggregating opinion etc online procurement tax returns etc for businesses, cooperative budget preparation, tax records, etc for governmental agencies can be envisaged here.

3.7.4 Phase IV – Transformation

This final phase would strive to achieve the true vision of e-Governance.

- A single point of contact to constituent entities would provide an integrated platform for government services and organization totally transparent to citizens and businesses.
- Focus on ‘virtual agencies’ where government information is readily available to all allowing a seamless interface to respective agencies involved in the transactions.
- State-of-the-art Intranets linking government employees in different agencies extranets allowing seamless flow of information thereby facilitating collaborative decisions among government agencies, NGO’s and the public.

The following factors have to be taken into account when examining the risk of implementing e-governance.

- Political stability: Democracy or dictatorial regime
- Level of trust in government: perception of service levels
- The importance of government identity: fragmentation or integration
- Economic structure: education, agriculture, industry or service
- Government structure: centralized or decentralized
- Different levels of maturity: weakest part of the chain determines speed
- Constituent demand: push or pull
3.8 Development & Implementation of e-Governance

The model presented can serve as a reference for governments to position where projects fit in the overall evolution of their e-Governance implementation.

The model can also support governments in defining an e-governance vision and strategy.

A vision is a high-level goal, or ambition level, of government regarding the democracy, government and business aspects of e-governance.

A strategy consists of plans that translate the vision into SMART (Simple, Measurable, Accountable, Realistic & Time-related) projects. A good strategy is crucial to keep the speed in the reform of and implementation process. Thus budgets must be available, time consuming legal transformations should be initiated and quick results must be achieved and communicated to all stakeholders, including the public.

A good approach towards implementation of e-governance is to combine short-term steps (projects) and long-term goals (vision). Projects will have a more structural value for development when embedded in a
vision and supported by a strategy. Accentor has defined an approach to implement e-governance projects: ‘Thinking big, start small and scale fast’.

The process of going from global objectives to concrete targets is complex. It is a joint effort undertaken by all stakeholders. IICD’s core activity is to organize workshops in which this process is facilitated and first steps can be taken.

3.9 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.

To make the futuristic vision work, there is a need for collaboration among e-Governance virtual communities. This demand more political and organizational will take hard decisions, change themselves and learn to build capacities for e-Governance. ‘Outdated’ regulations and procedures are to be removed before launching the project. The above issues and challenges are not beyond our capacity to resolve, but they need immediate attention.

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