
Role and Importance of Information and Communication Technology in E-Governance of India

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Abstract

The ‘E’ in E-Governance stands for ‘Electronic’. Thus, E-Governance is basically associated with carrying out the functions and achieving the results of governance through the utilization of what has today come to be known as Information and Communication Technology (ICT). The new technologies offer vast opportunities for progress in all walks of life. 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. The technology as well as E-Governance initiatives have come a long way since then. E-Governance refers to the delivery of national or local government information and services via the Internet Technology or other digital means to citizens or businesses or other governmental agencies. The development of E-Governance in Indian can parallel with the development of Information and Communication

Technology. This paper has endeavored to investigate the impediments associated with the development and diffusion of E-Governance with a concentration on non-technical, technical and state-specific factors. The focus of this paper is to provide a comprehensive and holistic insight about E-Governance and its various interactions, using advanced nations and other Indian states experiences in the same domain to establish benchmarks. We also discussed in present paper different challenges faced by E-Governance in India.

Key Words: ICT, E-Governance, Importance, Interactions and Challenges

1. Introduction

E-Governance, meaning ‘**Electronic Governance**’ is using Information and Communication Technologies and particularly the Internet to support government operations, engage citizens, and

provide government services at various levels of the government viz; local, state and national and the public sector and beyond, for the purpose of enhancing governance. In other words, in E-Governance uses electronic means to support and stimulate Good-Governance. Therefore the objectives of E-Governance are similar to the objectives of Good-Governance. Good-Governance can be seen as an exercise of economic, political, and administrative authority to better manage affairs of a country at all levels, national and local. The interaction may be in the form of obtaining information, filings, or making payments and a host of other activities via the World Wide Web (WWW). Use of Information and Communication Technology makes governing process transparent. All the information of the government would be made available on the Internet. The citizens can see the information whenever they want to see. But this is only possible when every piece of information of the government is uploaded on the Internet and is available for the public to peruse. Current governing process leaves many ways to conceal the information from all the people. Information and Communication Technologies helps make the information available online

eliminating all the possibilities of concealing of information.

The UNESCO definition (www.unesco.org) is: *“E-Governance is the public sector’s use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective. E-Governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. E-Governance is generally considered as a wider concept than e-government, since it can bring about a change in the way citizens relate to governments and to each other. E-Governance can bring forth new concepts of citizenship, both in terms of citizen needs and responsibilities. Its objective is to engage, enable and empower the citizen.”*

2. Objectives of the Research work

2.1. The present study aims at the role of the E-governance in the modern democracy

where almost every citizen of the nation is aware of the internet and communication possible through it. So the objective is to provide the means of the E-Governance and its action as the bridge between the various functionaries of the nation.

2.2. The other aim of the study is to focus the challenges of E-Governance with solutions and the role a common man can have with the same.

3. Distinction between E-Government and E-Governance

The two terms- E-Government and E-Governance are independent of each other, but are at times used alternatively, there by the major distinction between E-Government and E-Governance is missed out. *“Electronic or E-Government means providing public access via the Internet to information about all the services offered by central government departments and their agencies; and enabling the public to conduct and conclude transactions for all those services...”*, (Comptroller and Auditor General, U.K. in 2002). E-Government is understood as the use of Information and Communication Technology to promote more efficient and cost effective government, facilitate more convenient

government services and allow greater public access to information, and make government more accountable to citizens, where as governance is a wider term which covers the state’s institutional arrangements, decision making processes, implementation capacity and the relationship between government officials and the public.

E-Governance is the use of Information and Communication Technology by the government, civil society and political institutions to engage citizens through dialogue and feedback to promote their greater participation in the process of governance of these institutions. Thus, E-Government can be viewed as a subset of E-Governance, and its focus is largely on improving administrative efficiency and reducing administrative corruption. Many countries are looking forward to a corruption-free government. E-Government is one-way communication protocol whereas E-Governance is two-way communication protocol. The essence of E-Governance is to reach the beneficiary and ensure that the services intended to reach the desired individual has been met with. There should be an auto-response to support the essence of E-Governance, whereby the Government realizes the efficacy of its governance. E-

Governance is by the governed, for the governed and of the governed.

The term governance needs to be understood before we move on to E-Government and E-Governance. Governance is not the exclusive preserve of the government. It extends to civil society and the private sector. It covers every institution and organization from family to the state. It involves exercise of political, economic and administrative authority to manage the affairs in, and *“the manner in which power is exercised in the management of a country’s economic and social resources for development”*. It can be better understood as, *“the complex mechanisms, processes, relationships and institutions through which citizens and groups articulate their interests, exercise their rights and obligations and mediate their differences”*.

“Government’s use of technology, particularly web-based Internet applications, to enhance the access to and delivery of government information and service to citizens, business partners, employees, other agencies, and government entities”, Stowers (2001).

It goes without saying that the Internet and the World Wide Web have the potential to change fundamentally how

public organizations work. There is, as far as India is concerned, interest in the effect of the Internet to revitalize democracy, by improving Government to Citizen (G2C) as well as Government to Government (G2G) relationships. Many efforts have been undertaken. While such efforts are important, the role of the computer-based operations in transforming the public administration, the nuts and bolts of government, is no less important for the ultimate success of any reform. Currently, too little is known about the effects of these new technologies in public administrations of developing countries. Encouraged by the international community as a whole, these countries are engaged in these challenges without their policy makers and public managers having substantive and empirical research on which to base choices.

4. Types of Interactions of E-Governance

4.1. Government to Citizen (G2C)

With the increase in Internet and mobile connections, the citizens are learning to exploit their new mode of access in wide ranging ways. Citizens have started expecting more and more information and services online from governments and corporate organizations to further their civic,



professional and personal lives, thus creating abundant evidences that the new '*E-Citizenship*' is taking hold. Governments to Citizens are those activities in which the government provides one-stop, on-line access to information and services to citizens. Government to Citizen facilitates citizen interaction with government, which is primary goal of E-Government. This attempts to make transactions, such as payment of taxes, renewing licenses and applying for certain benefits, less time consuming and easy to carry out. Government to Citizen applications enable citizens to ask questions of government agencies and receive answers; file income taxes (federal, state, and local); pay taxes (income, real estate); renew driver's licenses; pay traffic tickets; change their address; and make appointments for vehicle emission inspections and driving tests. Government to Citizen initiative also strives to enhance access to public information through the use of websites and kiosks. Further, one of the main goals of implementing these initiatives has been to create a "*single window*" where citizens can carry out variety of tasks, especially those that involve multiple government departments, without requiring the citizen to

initiate contacts with each government department individually. Thus, the Government to Citizen initiative is driven by an urge to provide "*better government*" through improved efficiency and more reliable outcomes. In addition, government may spread information on the web; provide downloadable online forms; conduct training (e.g., in California, drivers education classes are offered online); help citizens find employment; provide tourism and recreation information; provide advice about health and safety issues; allow transfer of benefits like food coupons, file flood relief compensation (as in the case of Hurricane Katrina in New Orleans, USA) electronically through the use of smart cards; and the list goes on.

E-Governance also plays an important role during elections between government and citizens. There are several methods of Government to Citizen. Two-way communication allows citizens to instant message directly with public administrators, and cast remote electronic votes (electronic voting) and instant opinion voting. Electronic voting is important application within the domain of E-Governance. Manual voting processes are subject to error, manipulation, fraud, and

rigging leading to losers calling for recounts. Voting faces a broad spectrum of technological and social problems that must be systematically addressed – voter registration to voter authentication to the casting of ballots to the counting and adding of results. The Election Commission of India used two similar voting machines made by Electronics Corporation of India and Bharat Electronics. These machines are battery-operated machines which are portable, *‘easy to operate’*, *‘reliable’*, *‘tamper-proof and error free.’* The machines were operated by supervised officials at polling stations. The illiterate voters were able to vote based on pictures and logos of the candidates and the party they represented. It not only greatly reduced the counting process time but also saved tons of ballot papers. There were hardly any complaints against the use of this system in India.

4.2. Government to Business (G2B)

Government to Business sector includes both the procurement of goods and services by the government as well as the sale of surplus government goods to the public on line. There are two motivating forces behind Government to Business.

Currently; the business community prefers to carry out its activities such as sales, procurement, and hiring through electronic means. There are large numbers of software companies, which are producing number of products focusing on performing routine business activities on line. Thus, many companies like to extend the cost savings realized through Business to Business (B2B) transactions to their business with union, state and local level governments. The second reason for the growth of Government to Business is the demand for cost cutting and efficient procurements in the government. Developing countries, where there is great pressure to minimize costs due to shortage of funds, Government to Business are being encouraged by the governmental agencies. In Government to Business, the government deals with businesses such as suppliers using the Internet and other Information and Communication Technologies. Government to Business includes two-way interactions and transactions: Government to Business and Business to Government. Business to Government refers to businesses selling products and services to government.

The objective of Government to Business is to reduce difficulties for

business, provide immediate information and enable digital communication by Electronic-Business. In addition, the government should re-use the data in the report proper, and take advantage of commercial electronic transaction protocol. Government services are concentrated to the following groups: human services; community services; judicial services; transport services; land resources; business services; financial services and other. Each of the components listed above for each cluster of related services to the enterprise.

According to Riley (2001), *“E-Governance is the commitment to utilize appropriate technologies to enhance governmental relationships, both internal and external, in order to advance democratic expression, human dignity and autonomy, support economic development and encourage the fair and efficient delivery of services.”*

4.3. Government to Employees (G2E)

Government is by far the biggest employer and like any organization, it has to interact with its employees on a regular basis. This interaction is a two-way process between the organization and the employee. Use of Information and Communication Technologies tools helps in making these

interactions fast and efficient on the one hand and increase satisfaction levels of employees on the other. It is the relationship between online tools, sources, and articles that help employees maintain communication with the government and their own companies. E-Governance relationship with employees allows new learning technology in one simple place as the computer. Documents can now be stored and shared with other colleagues online. E-Governance makes it possible for employees to become paperless and makes it easy for employees to send important documents back and forth to colleagues all over the world instead of having to print out these records or fax. Government to Employees is an effective way to provide Electronic-Learning to the employees, bring them together and to promote knowledge sharing among them. It also gives employees the possibility of accessing information in regard to compensation and benefit policies, training and learning opportunities and civil rights laws. Government to Employees services also includes software for maintaining personnel information and records of employees.

4.4. Government to Government (G2G)

In this case, Information and Communication Technology is used not only to restructure the governmental processes involved in the functioning of government entities but also to increase the flow of information and services within and between different entities. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organization, or vertical i.e. between national, provincial and local government agencies as well as between different levels within an organization. The primary objective is to increase efficiency, performance and output. The goal of Government to Government is to achieve online non-commercial interaction between two different government units with each other so as to simplify governance for government. The purpose to include E-Governance to government is to means more efficient in various aspects. It means to reduce cost by reducing paper clutter, staffing cost, or communicating with private citizens or public government. E-Government brings many advantages into play such as facilitating information delivery, application process/renewal

between both business and private citizen, and participation with constituency.

5. Main Challenges before E-Governance in India

A worldwide revolution in Information and Communication Technologies is occurring. The Internet, the personal computer, and the mobile phone are fundamentally changing our lives - affecting the way we work, learn and interact. In the past, Internet was mainly used for educational and information sharing purposes, but internet applications now facilitates day-to-day activities. With the support of the Internet, the government processes defined by specializations can be made efficient, effective, and citizen friendly. But the government faced lots of problems in introducing it. Few of the problems or challenges faced by E-Governance are discussed as under:

5.1. Lack of Languages

Success of E-Governance also depends on communication with the people in their local languages. Currently, the most widely used language is English for E-Governance. But given the Indian social conditions, unless we develop interfaces in vernacular languages, it would remain out of

reach of many people who are not capable of accessing these services in English. The English language used in web content is not understood by the majority of the people in rural areas of India and this is a fundamental barrier for them in using web content. Training in other languages that can give people greater familiarity to content on the internet is a rare opportunity for majority of the poor in India. The use of dominant languages on the internet poses problems for the majority of Indians who have had their early education in the regional languages. According to the census report of 2011, there are 22 officially languages recognized by the constitution of India. There exists 29 different languages in India and 844 different dialects are spoken across the country. Hindi is the national language and is widely spoken by at least 45% of the population while English is the second official language used for commerce and official communications. However in India English speaking percentage is very low, less than 10% of the population can speak English. The number of websites in Indian languages is little and some attempts are being made to change this situation.

As technology is available by which transliteration from English into other

languages can be made. Therefore, the problem is manageable provided there is enough motivation to do this difficult task. While E-Government sites have started to offer content in the local languages, most of the information is still in the English language. Indian Information Technology launched a web-based translation facility in October 2008, like Centre for Development of Advanced Computing (CDAC) has developed multilingual software for the purpose to help people translate from English to regional languages through which we can overcome the said challenge. This is only possible when citizens are made aware about these translator software facilities of E-Governance initiatives and how they can effectively utilize them in their day-to-day affairs.

5.2. Lack of Awareness and Skills

Unaware is major hurdle in implementation of E-Governance in India. According to Nathaniel Branden "*The first step towards change is awareness. The second step is acceptance.*" An important part of E-Governance strategy is to develop interactive and user-friendly websites through which government services and information can be made easily available and through which even non-expert citizens

can easily interact with government. The success of an E-Governance would depend on building human capacities in terms of necessary knowledge and skills to conceptualize, initiate, implement and sustain. E-Governance initiatives across government as also on the ultimate use by citizens of the facilities created. In India, there are very high percentage of villages where awareness of E-Governance is required since large portion of rural populations are not aware of about new technologies and computer educations. The government of India has to publish all the information online through websites. This can be facilitated through centralized storage of information, localization of content and content management. The information of government is public information; therefore the citizens are entitled to know every piece of information of the government, because the government is of the people, by the people and for the people. However, much of the Indian people are not aware about E-Governance facilities (Websites) provided by the government in their region. So they are not confident about the usage of E-governance websites. The government needs to campaign for E-Governance, increase people's awareness towards E-Governance.

Government can only encourage people to go online if it can make people feel comfortable with E-Governance. This can be done through educating the people about the advantages of E-Governance over physical governance. This can also be done through raising awareness of the leaders who can motivate the people to go online.

5.3. Illiteracy

It is another cause for the failure of E-Governance in India. Literacy means ability to read and write with understanding in any language. A person cannot be considered as literate who can just read but cannot write. Especially in India, where many of the projects launched by the state governments like ,Gyandoot was launched on January 1, 2000 in Madhya Pradesh, Bhoomi launched by Karnataka etc have much people as end users and because of lack of education they are incapable of using the facilities provided by the government. Low Literacy is big challenge for E-Governance adoption by the people as illiterate citizens are not able to use the E-Governance applications; hence the E-Governance projects do not get much success.

5.4. Poverty

In India, about 60% people are in the grip of poverty. They don't even have proper food, clothing and house to reside. It is becoming meaningless to computerize the government activities, which are not in reach of poor citizens. Poverty is not the only cause of digital divide. It can also be caused by the lack of awareness among the people. Even some of the economic stable people don't know about the importance of E-Governance. Awareness can only help to bring users to that service delivery channel once. It cannot guarantee sustained use of the system unless the system is also designed in such a way as to deliver satisfactory outcome.

6. Research Methodology

Research methodology for this study has consisted of a combination of both primary data collection as well as secondary literature analysis. We have endeavoured to frame the current move towards open data within the evolving relationship in India between the citizen and the government. Researchers also consult archives, reviews and books on the electronic network, as well as photographic and sound databases. Primary material has been collected through in-person interviews, phone calls and e-mails conversations with important actors in

the field, including state and national government officials, transparency activists, '*civic hackers*' including both businesses and groups/ individuals and media organisations.

7. Conclusion

In fact, the Information Communication Technologies are already an integral part of the day-to-day lives of many individuals, and with the increasing integration of these technologies into various social spheres and inter-personal communications all the indications are that this trend will continue. In a sense, the Information and Communication Technologies are fostering a new history paradigm and enabling it to be updated on a daily basis. Historians now have computerized bibliographical catalogues, and more and more documentary sources are being placed on digital media, facilitating direct consultation by researchers. Today, governments worldwide are making use of Information and Communication Technology including E-Governance methods to deliver end-to-end services right at the citizen's doorstep with efficiency, transparency and cost effectiveness. E-Governance is increasingly seen as one of the most important mechanisms to improve

governance. With E-Governance applications there has been a noticeable progress in the delivery of outline services in most countries around the world. The United Nations (UNs) E-Governance Survey 2013 reported that nearly all countries have put in place E-Governance initiatives for the people to further enhance public sector efficiencies and streamline governance systems to support sustainable development. The overall conclusion that stems from the UNs E-Governance Survey is that governments need to place greater emphasis on '*institutional linkages*' between and among tiered government structures in a bid to create synergy for inclusive sustainable development. E-Governance services, indeed, have empowered ordinary citizens. However, it is noticed from the United Nation E-Governance Development Database for 2012, India does not even rank among the top 10 Asian countries.

References

- [1] Aneja. P (2005), "***E-Governance: Opportunities and Challenges for Administrative Excellence***", *Political Economy Journal of India*, Vol-14, Iss-2.
- [2] Bhat Hilal Ahmad (April 17, 2016), "***Challenges before Information and Communication Technology in Education:***

With Special Reference in Rural Areas of India", Vol-4, Iss-6.

- [3] Finance Minister John Dalli speaking at a Corporate Governance workshop organized by the Institute of Directors and the Malta Financial Services Centre: www.businessstimes.com.mt/2001/0530/local28a.html.

- [4] Hashmi Guncha and Khanna Pooja (May 2016), "***E, Governance: A Journey of Challenges, failures and Success in India***", Vol-4, Iss-5, ISSN: 2320-9801.

- [5] Khan Intekhab, Khan Nadeem and Nazia (January 2015), "***E-Governance Reforms In India: Issues, Challenges And Strategies - An Overview***", Published by: International Journal of Computer Science Issues, Volume 12, Issue 1, No 2, ISSN (Print): 1694-0814 ISSN (Online): 1694-0784, (www.IJCSI.org).

- [6] Kumar S. Prem and Dr. Umashankar. C (2010), "***E-Governance Application for Citizens- Issue and Framework***", International Journal on Computer Science and Engineering, Vol-2, Is-07, ISSN- 0975-3397.

- [7] Shivastave Nidhi (2015), "***Rural Governance in Rural India***", Published by: International Journal of Computer Science



and Information Technologies, Vol-6, Is-1,
ISSN-0975-9646.

[8] Sapru. R.K and Sapru Yudhishtira
(April, June 2014), ***“Good Governance
through E-Governance with Special
Reference to India”***, Published by: Indian
Journal of Public Administration, Vol-LX,
Is-2.

[9] Saxena K.B.C, ***“Towards Excellence
in E-Governance”***

[10] Tang Chao and R. Muruga Perumal
(2013), ***“The Characteristics and Values of
E-governance and the Role of E-
democracy”***, Published by: International
Journal of Humanities and Management
Sciences (IJHMS) Vol-1, Is-1, ISSN 2320–
4044.