

# 2

## MODELS OF E-GOVERNANCE

### CHAPTER OUTLINE

After comprehensive study of this chapter, you will be able to:



- Introduction to Model of Digital Governance
- Broadcasting/ Wilder Dissemination Model
- Critical Flow Model
- Comparative Analysis Model
- Mobilization and Lobbying Model
- Interactive-service Model/Government-to-Citizen- to- Government Model (G2C2G)
- Evolution in E-Governance and Maturity Models
- Five Maturity Levels
- Characteristics of Maturity Levels
- Towards Good Governance through E-Governance Models

Online working of a government or providing its services online to its citizens at their door step is known as E-Governance. E-Governance is E-Commerce technology means online availability of government services. The technology and the methods used in E-Governance project provide a roadmap for efficient delivery of services at the door step. E-governance models, are essential for a right perspective on e-governance implementation.

## INTRODUCTION TO MODELS OF DIGITAL GOVERNANCE

Digital governance in developing countries may seem to be a distant thought for many but it is certainly making its presence felt, and in a form which is different from that evident in developed countries. Models of Digital Governance are continuously evolving and improvising to harness the potential offered by the ICT and deal with new realities in the area of governance. There are no rigid and finite models of Digital Governance. In fact several developing countries are putting into practice innovative e-Governance models that are technologically simple but are changing the way information is distributed in the society.

Based on primary experimentation and secondary research, a few generic models which have emerged and are being practiced have been identified.

These **Digital** Governance models should be examined in light of discussions on :

- Emergence of knowledge societies and knowledge networkers
- Role of information in governance process, and
- The link between ICT and governance.

All these models share in common, the inherent characteristics of the new technologies which are:

- Providing equal access to information to anyone who is linked to the digital network, and
- Providing information across the entire digital network.

The five generic models of digital governance in developing countries are:

1. Broadcasting/Wider Dissemination Model
2. Critical Flow Model
3. Comparative Analysis Model
4. Mobilisation and Lobbying Model
5. Interactive-Service Model

## BROADCASTING

### Principle

Broadcasting model is already available in awareness among those that are available to them.

It allows citizens to receive information delivered to them - the service received. The level of bureaucracy involved makes citizens feel more involved and make them more engaged.

The application of this model in failure situations' can be seen in the government's role in governance related issues.

### Applications

1. Putting up of hoardings
2. Making of official websites
3. Media coverage

## BROADCASTING/ WIDER DISSEMINATION MODEL

### Principle

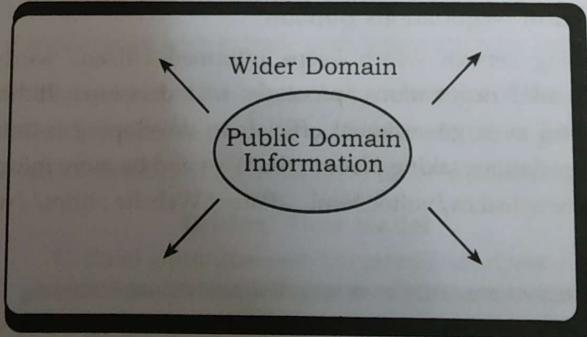
Broadcasting model is based on mass dissemination of governance-related information which is already available in the public domain into the wider public domain using ICTs. This raises awareness among the citizens about ongoing governance processes and government services that are available to them and how they can benefit from them.

It allows citizens to form an opinion of the government and its administration based on services delivered to them - whether the government services were available to them, and the quality of service received. This could be judged in terms of time spent, number of visits required, and level of bureaucracy encountered to avail the services. Equipped with this information, the citizens can feel more empowered to voice their concerns and influence governance processes to make them more efficient.

The application of this model using appropriate technologies, could reduce the "information failure situations" where citizens are unaware of new and existing services being provided by the government. It can also provide as alternative channel to people to stay updated of governance related information and to validate information received from other sources.

### Broadcasting/Wider Disseminating Model

Public Domain → Wider Public Domain



**Fig: Broadcasting/Wider Disseminating Model**

### Applications

1. Putting government laws and legislation online.
2. Making available the names, contact addresses, emails, and fax no's of local government officials online.
3. Making available key information pertaining to governmental plans, budgets, expenditures, and performances online.

4. Putting key quote judgement/judicial statement that are of value to common citizens at creating our precedence for future actions online, viz. Key environment related judgements, state v/s citizen court rulings, etc.

#### Some Organizations / Projects based on such models

- **India:** Directory of Official Websites of Government of India  
National Informatics Centre (India) is the official website of the Government of India which makes available Ministerial Information, Indian Laws and Legislation Online, Contact Details etc. online for public access.  
<http://goidirectory.nic.in/exe.htm#min> (Parent Website : <http://www.nic.in>)
- **Brazil:** Official government website  
The website provides comprehensive information on Brazilian government as well as links to integrated citizen services.  
<http://www.brazil.gov.br>
- **South Africa:** The PIMS Monitor  
Idasa's Political Information and Monitoring Service (PIMS) providing an easy-to-use reference and record (with plain-language summaries) of all bills, acts and policy documents that pass through parliament. The Monitor aims to help audience engage with democracy, intervene in the legislative process and make submissions to parliament in South Africa.  
<http://www.pims.org.za/monitor/>
- **Global:** Earth Negotiations Bulletin  
A reporting service which keeps informed citizens worldwide about global environmental negotiations, processes and decisions. It has a great value for citizens and even government officials in developing countries to keep track of global negotiations taking place in the West and be more informed about them.  
<http://www.iisd.ca/voltoc.html> (Parent Website : <http://www.iisd.ca>)

#### Evaluation

The Broadcasting Model is a stepping stone to more complex Digital Governance models. It is also the most fundamental model as it enhances 'access' and 'flow' of information to different segments of the society, which is essential to bringing good governance.

In several developing countries, even the basic governance-related information is unavailable for instance, the opening and closing times of government offices, or information from specific government department and units which deal with specific issues such as agricultural subsidies or getting a license for opening a business.

Central and state governments in developing countries need to aggressively adopt this model to provide greater governance services to their constituencies, and to enhance the participation

citizens in governance processes. Such models to enable access to government of people.

The model can lose its effectiveness if possible. This can happen in case if freedom is restricted, or there are individuals who also loses its effectiveness in situations where people are indifferent / not motivated to act and decision-makers take wrong decisions disregard of available information.

## CRITICAL FLOW MODEL

### Principle

The model is based on broadcasting information that cannot be disclosed by those involved in the process. ICTs and other tools. Targeted audience includes the judicial bench, independent investigators.

Those who would disclose such information include affected parties and those who were involved but now changed their minds or may have died.

The strength of critical flow model is that it is distance and time redundant. This is due to time lag between availability of information.

Critical

citizens in governance processes. Simultaneously, the civil society groups should demand for such models to enable access to governance information which can improve the quality of lives of people.

The model can lose its effectiveness in societies, where the free-flow of information is not possible. This can happen in countries where freedom of speech and expression, or political freedom is restricted, or there are tight governmental controls to censor information. The model also loses its effectiveness in situation of optimal ignorance. This happens when citizens are indifferent / not motivated to act upon information available to them, or when governments and decision-makers take wrong decisions, not because of absence of information, but complete disregard of available information.

## CRITICAL FLOW MODEL

### Principle

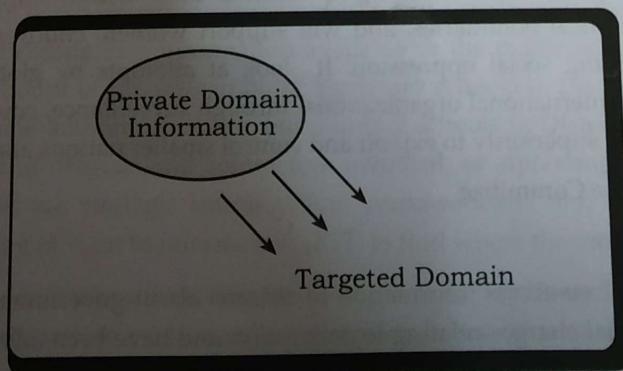
The model is based on broadcasting information of 'critical' value (which by its very nature will not be disclosed by those involved with bad governance practices) to targeted audience using ICTs and other tools. Targeted audience may include media, affected parties, opposition parties, judicial bench, independent investigators or the general public.

Those who would disclose such information could include upright officials and workers, affected parties and those who were themselves involved in bad governance practices but have now changed their minds or may wish to trade such information for lenient punishments.

The strength of critical flow model is the inherent characteristics of ICT that makes the notion of distance and time redundant. This reduces the cases of exploitative governance possible earlier due to time lag between availability of information to different users.

### Critical Flow Model

Critical Domain → Targeted Wider Domain



**Fig: Critical Flow Model**

### Applications

- Making available corruption related data about a particular Ministry / Division, Officials online to its electoral constituency or to the concerned regulatory body.
- Making available Research studies, Enquiry reports, Impact studies commissioned by the Government or Independent commissions to the affected parties.
- Making Human Rights Violations cases violations freely available to Judiciary NGOs and concerned citizens.
- Making available information that is usually suppressed, for instance Environmental Information on radioactivity spills, effluents discharge, information on green ratings of the company to concerned community.

### Examples

#### Global: Wikileaks

[www.wikileaks.org](http://www.wikileaks.org)

WikiLeaks is a not-for-profit media organization. It brings important news and information to the public. It publishes secret information, news leaks and classified media from anonymous sources to keep the public informed, amongst others on cases of corruption, whistle blowing and crimes.

#### Global: Transparency International -Daily Corruption News

<http://www.transparency.org/feed/dcn>

A service is being run by Transparency International called the "The Daily Corruption News" which reports on corruption from around the world. The daily corruption news has been coming out since May 2000.

#### Bangladesh: Human Rights Portal

<http://www.banglarights.net>

The portal actively promotes human rights reforms both within Bangladesh and across geographical and political boundaries, and will support women, children, and marginalized communities in resisting social oppression. It looks at attempts by global forces (powerful governments, TNCs, international organizations) through surveillance, covert mechanisms and military and economic superiority to exploit and control smaller nations and communities.

#### India: Central Vigilance Committee

<http://cvc.nic.in>

The website provides free-access information to citizens about government officials who have been indicted on judicial charges relating to corruption and have been advised penalty. People can also file complaints against any public servant who fall within the jurisdiction of the Commission.

### Evaluation

This model is more Dissemination Model. In governance they situation information and location awareness about the best practices. Critical Flow intended users. Due to governance and decision failure and bad governance, public unrest, the individuals to take into processes. The onus of emerge as an effective work in cases where information of critical over all information. Through the Internet is an opportunity interested may use the public access (as indicated).

### COMPARATIVE

#### Principle

Comparative Analysis for developing country governance with the reasons and people

The model is based on information sets with instance, if a given then why does the because of corrupt things? The outcome possible action, etc.

Essentially, the model uses them as advocate positive comparison could

### Evaluation

This model is more directed and evolved in comparison to the Broadcasting / Wider Dissemination Model. Different organizations can use it differently depending on the aspect of governance they situation they want to address. By focusing on the critical aspect of information and locating its likeable users, the model corrects information failure, raising awareness about the bad governance practices, and acts as a hindrance to bad governance practices. Critical Flow Model is more focused in terms of its information content and its intended users. Due to critical aspect of information, the model exposes the weakest aspects of governance and decision-making mechanisms and informs people about specific cases of state failure and bad governance to build up a case for concerted action. At the same time, by fuelling public unrest, the model exerts pressure on the concerned government institutions and individuals to take into cognizance the interest and opinion of the masses in decision making processes. The onus of creating such models may lie more with the civil society organizations to emerge as an effective watch guard to government policies and actions. The model will not work in cases where government mechanisms do not foster public debates and censure all information of critical nature. It will also fail where the government maintains a tight control over all information. There it remains restricted to top few levels of the government. Inherently the Internet is an open medium. Thus, restricted dissemination is only typical-only those interested may use the critical and subject based information lodged on Internet websites for public access (as indicated above) as applications.

## COMPARATIVE ANALYSIS MODEL

### Principle

Comparative Analysis Model is one of the least-used but a high potential e-governance model for developing countries. The model can be used to empower people by comparing cases of bad governance with those of good governance and identifying specific aspects of bad governance, the reasons and people behind them, and how the situation can be improved.

The model is based on using immense capacity of ICT and social media tools to explore given information sets with comparable information available in the public or private domain. For instance, if a given amount of money can build 5 primary schools in District 'A' in a country, then why does the same amount of money build only 2 schools in District 'B'? Could this be because of corruption of officials and contractors involved, or siphoning of money for other things? The outcomes are strategic learnings and empowerment, and can lay the basis for possible action, eg: filing of right to information (RTI) to find where the money went.

Essentially, the model continuously assimilates "best practices" in different areas of governance and uses them as benchmark to evaluate other governance practices. It then uses the result to advocate positive changes or to influence 'public' opinion on existing governance practices. The comparison could be made over a time scale to get a snapshot of the past and the present

situation or could be used to compare the effectiveness of an intervention by comparing two similar situations.

The strength of this model lies in the infinite capacity of digital networks to store varied information and retrieve and transmit it instantly across all geographical and hierarchical barriers.

### Comparative Analysis Model

Private/Public Domain + Public/Private Domain  
→ Wider Public Domain

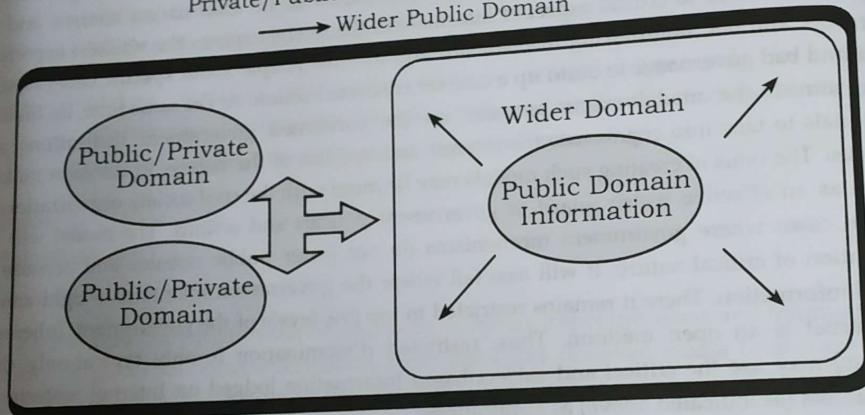


Fig: Comparative Analysis Model

### Applications

- To learn from past policies and actions and derive learning lessons for future policy-making.
- To evaluate the effectiveness of the current policies and identify key learnings in terms of strengths and flaws in the policies.
- To effectively establish conditions of Precedence, especially in the case of Judicial or legal decision-making (example for resolving patent-related disputes, public goods ownership rights), and use it to influence/ advocate future decision-making.
- To enable informed decision-making at all levels by enhancing the background knowledge and also providing a rationale for action.
- To evaluate the performance and track-record of a particular decision-maker/ decision-making body.

### Examples

#### Global: Human Development Indicators

<http://hdr.undp.org/en/statistics/>

The Human Development Report of UNDP makes use of archived Statistical information pertaining to literacy, health, national income etc. as a benchmark to assess the progress made

by different countries with regards to the recommendations based on that.

Many countries now also prepare national reports for different states in a country.

### India: Comparative Learning from Disaster

<http://www.cddc.vt.edu/digitalgov/Land/>

In the wake of earthquake in Kutch in 1992 and learning relating to disaster management in Latur in India in 1993. The extensive damage caused by these earthquakes open up vast scope of comparative analysis.

### Evaluation

Developing countries can effectively use this model to compare global and local knowledge products. Local monitor groups could use the model to share them in their constituency. This will help in creating more effective comparative information sets and thus arguments or self explanatory graphs. This model is ineffective in the absence of a strong political will.

## MOBILIZATION AND LOCALIZING

### Principle

E Advocacy/Mobilization and Localizing is a process of translating global governance models and has often been used by NGOs in developing countries to impact international policies. It involves a directed, strategic flow of information from the real world. It takes up the problems of people with similar values and concerns, mobilizing communities, and linking them with international partners.

The strength of this model in the real world lies in the resources accumulated through advocacy and mobilization to overcome graphical, institutional, and cultural barriers. It provides a strong virtual arena for particular individuals or decision-makers to interact and work together.

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by different countries with regards to their Human Development Index and suggests policy recommendations based on that.

Many countries now also prepare national level indicators to compare progress made in different states in a country.

#### India: Comparative Learning from Disasters

<http://www.cddc.vt.edu/digitalgov/Latur-Gujarat.htm>

In the wake of earthquake in Kutch in India (January 2001), there was a lot of comparative learning relating to disaster management drawn from a high intensity earthquake which shook Latur in India in 1993. The extensive information available on internet on both these earthquakes open up vast scope of comparison by all segments of the society.

#### Evaluation

Developing countries can effectively use this model to their advantage as ICT opens access to global and local knowledge product at a relatively low cost. Watch guard organizations and monitor groups could use the model to track the performance record of electoral candidates and share them in their constituency. The model is, however, dependent on the availability of comparative information sets and the ability of the users to analyze and bring out strong arguments or self explanatory graphics from the analysis. The model however becomes ineffective in the absence of a strong civil society interests and short public memory.

## MOBILIZATION AND LOBBYING MODEL

#### Principle

E Advocacy/Mobilization and Lobbying Model is one of the most frequently used digital governance models and has often come to the aid of civil society organizations in developing countries to impact international decision making processes. The model is based on planned, directed, strategic flow of information to build strong virtual allies to strengthen action in the real world. It takes up the proactive approach of forming virtual communities which share similar values and concerns, promoting active sharing of information between these communities, and linking them with real world activities.

The strength of this model in the diversity of its virtual community and the ideas, expertise and resources accumulated through virtual forms of networking. The model is able to effectively overcome graphical, institutional and bureaucratic barriers to shape concerted action. It also provides a strong virtual arm to several activities such as directing campaigns against a particular individuals or decision making body.

### Mobilization and Lobbying Model

Networking Networks for Concerted Action

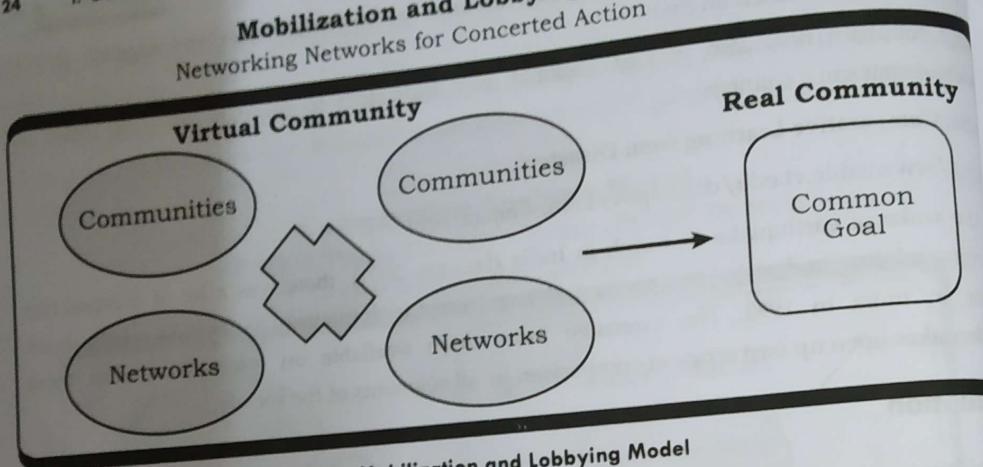


Fig: Mobilization and Lobbying Model

#### Applications

1. Fostering public debates on global issues, themes of upcoming conferences, treaties, etc.
2. Formation of pressure groups to pressurize decision makers to take their common concerns into cognizance.
3. Amplifying the voices of marginalized groups such as backward classes or minorities who are traditionally marginalized from the decision making process.
4. Encouraging wider participation in decision making processes.
5. Developing global expertise on a particular theme in the absence of localized information to aid decision-making.

#### Examples

**Global: Greenpeace Cyber-activist Community** - an effort towards creation of virtual communities to mobilize global support against some of the disputable environmental policies actions of the Government. Since the cyber activist system began in June 2000, there are now 116794.0 registered cyber activists, who participated in 357003 action alerts and sent 160597 e-cards to individuals and organizations.

[http://cybercentre.greenpeace.org/t/s/community\\_articles](http://cybercentre.greenpeace.org/t/s/community_articles)

**Global: Drop the Debt Campaign** - the campaign spreads awareness of their activities through emails and mobilizes support of concerned individuals, and encourages them to directly express their concern to key decision-makers (by making available their email and other contact addresses).

<http://www.jubileeusa.org/>

#### India: PRS Legislative Research

Tracks parliamentary bills which have analyses the bills, prepares summaries position, and engages in processes which <http://www.prssindia.org/billtrack/>

#### Global: Independent Media Centre

The Center was established by various activists for the purpose of providing (WTO) protests in Seattle in 1999. journalists, and provided up-to-the-minute website.

<http://www.indymedia.org/>

#### Global: IGC Internet

Institute for Global Communication worked by introducing them to e-Internet offers progressive individuals organize. At the moment, IGC Internet profit professionals into the Internet and new, collaborative tools.

<http://www.igc.org>

#### Evaluation

This model has grown manifold since Organization in 1999, which saw concerns in the WTO agreements was in some ways a result of the the virtual networks months prior the Regional level as an end result.

The Mobilization and Lobbying communities in policy issues government bodies and individuals local and global community Government to encourage public part of good governance strategy.

**India: PRS Legislative Research**

Tracks parliamentary bills which have been introduced and are coming up for discussions. It analyses the bills, prepares summaries of reports of standing committees, puts forward its position, and engages in processes which allow them to voice their opinions.

<http://www.prssindia.org/billtrack/>

**Global: Independent Media Centre**

The Center was established by various independent and alternative media organizations and activists for the purpose of providing grassroots coverage of the World Trade Organization (WTO) protests in Seattle in 1999. The center acted as a clearinghouse of information for journalists, and provided up-to-the-minute reports, photos, audio and video footage through its website.

<http://www.indymedia.org/>

**Global: IGC Internet**

Institute for Global Communications (IGC) has changed the way the progressive community worked by introducing them to email, online discussions, mailing lists and the Web. IGC Internet offers progressive individuals and groups a place on the Internet to learn, meet and organize. At the moment, IGC Internet is changing to take its community of activists and non-profit professionals into the Internet's next wave by focusing on content, information sharing and new, collaborative tools.

<http://www.igc.org>

**Evaluation**

This model has grown manifold since the onset of debates on the Seattle round of World Trade Organization in 1999, which saw the formation of several virtual communities to express their concerns in the WTO agreements. The display of a unified, informed civil society force at Seattle was in some ways a result of the intensive interaction and exchange of opinion happening over the virtual networks months prior to this WTO summit. There was a lot of concerted actions at the Regional level as an end result of such discussions which built into the global movement.

The Mobilization and Lobbying Model enhances the scope of participation of individuals and communities in policy issues and debates. The model also creates an effective deterrent for government bodies and individuals to be watchful in their actions; they turn the opinion of local and global community against them. This model could be effectively used by the Government to encourage public debates and to gauge public opinion on a particular issue as a part of good governance strategies.

## INTERACTIVE-SERVICE MODEL/ GOVERNMENT-TO-CITIZEN TO GOVERNMENT MODEL(G2C2G)

### Principle

Interactive-Service Model in many ways is a consolidation of the earlier digital governance models and opens up avenues for direct participation of individuals in the governance processes. This model fully captures the potential of ICT and leverages it for greater participation, efficiency and transparency in the functioning of government as well as savings in time and costs relating to decision making. The Interactive-Service Model makes possible various services offered by the government to be directly accessible to citizens. It creates an interactive government to consumer to government (G2C2G) channel in various functions such as election of government officials (E-ballots), filing of tax returns, procurement of government services, sharing of concerns and providing expertise, conducting opinion polls on public issues, and grievance redressal.

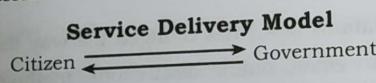


Fig: Service Delivery Model

### Applications

- To establish an interactive communication channels with key policy-makers and members of planning commissions.
- To conduct electronic ballots for the election of government officials and other office bearers.
- To conduct public debates / opinion polls on issues of wider concern before formulation of policies and legislative frameworks.
- Filing of grievances, feedback and reports by citizens with the concerned governmental body.

- Establishing decentralised forms
- Performing governance functions
- governmental procurement, p

### Example of organisations

**India:** Gyandoot Gyandoot is an intranet system developed by the Government of India to meet the everyday needs of the masses. The system has been developed to facilitate the hope that it has generated by networking the various government departments across India

- Commodity / Agricultural Market Information System
- Copies of land maps
- On-Line Registration of Agriculture Land
- Public Grievance Redressal System

<http://www.gyandoot.net/gyandoot/>

**Philippine Customs Reform :** Using an integrated system as a building block, the Philippines Customs has simplified the clearance of imports, payment of duty, and tracking of goods through ports and docks. The new on-line system has reduced opportunities for fraud, and helped the government to collect more taxes.

<http://www1.worldbank.org/publications>

### Evaluation

This model is more embedded in digital governance. It has often been proposed for implementation in developing countries. However, its transfer may not be very effective. It is less effective compared to the other models. This is because of the absence of individual and secure ID cards. Careful consideration should be given to the implementation of this model in developing countries before such blind duplication of the model. The trend is definitely in this direction, but it needs to be modified to suit the needs of developing countries with due modifications for the local context.

### EVOLUTION IN E-GOVERNANCE

The development in the Information and Communication Technology has made it possible for citizens to interact with the government in a more convenient manner. In the context of Electronic Governance, the role of Information and Communication Technology (ICT) in systems of governance is crucial. It has transformed the way governments interact with their citizens, businesses, and other stakeholders. The evolution of e-governance can be divided into several stages:

- Establishing decentralised forms of governance.
- Performing governance functions online such as revenue collection, filing of taxes, governmental procurement, payment transfer etc.

#### Example of organisations

**India:** Gyandoot Gyandoot is an intranet in Dhar district connecting rural cybercafes catering to the everyday needs of the masses. The site has following services to offer in addition to the hope that it has generated by networking, the first district in the state of Madhya Pradesh in India

- Commodity/ Agricultural Marketing Information System
- Copies of land maps
- On-Line Registration of Applications
- Public Grievance Redressal

<http://www.gyandoot.net/gyandoot/intranet.html>

**Philippine Customs Reform :** Using an "off-the-shelf" customs application package as the main building block, the Philippines Customs Bureau has developed an on-line system to process clearance of imports, payment of duty, and delivery of release orders for shipments to leave the docks. The new on-line system has lessened the cost of trade for businesses, reduced opportunities for fraud, and helped the Bureau to maximize revenue collection.

<http://www1.worldbank.org/publicsector/egov/philippinecustomscs.htm>

#### Evaluation

This model is more embedded in digital-governance initiatives in the developed countries and has often been proposed for implementation in developing countries. Such forms of solution transfer may not be very effective. The model is on the higher end of technology reliance as compared to the other models. This makes it difficult to replicate in developing countries in the absence of individual and secure ICT access. Various other issues also need to be considered carefully before such blind duplication can be attempted in the developing countries. However, the trend is definitely in this direction and sooner or later will be implemented in all the countries with due modifications for local adaptation.

### EVOLUTION IN E-GOVERNANCE AND MATURITY MODELS

The development in the Information and Communications Technology (ICT) has made it possible for citizens to interact with the government remotely without physically visiting any government office in most of the cases and avail the e-Governance services in a convenient manner. In the context of Electronic Service Delivery - "e-Governance is about the making use of ICT in systems of governance for a wider participation and a deeper involvement of citizens,

institutions, civil society groups and the private sector in the decision making process of governance." There is no fixed definition of eGovernance and several different agencies have tried to define this term according to their own objectives and requirements. At many places the term 'e-Government' is also used in place of 'eGovernance'.

An e-government e-portal's maturity model is a set of stages (from basic to advanced ones) that determines the maturity of the e-government e-portal. The main benefit of those maturity models is to offer a way to rank e-government portals.

The maturity model provides a mode to measure the methods and processes being used against a clear set of external benchmarks. Maturity is indicated by the award of a particular "Maturity Level". A maturity level assessment may provide the following benefits.

- Ability to compare Maturity Level with other government ministry / departments
- A known Maturity Level, with precise recommendations for improvement
- An independently held set of "benchmarks" Simply put, maturity models are used to assess as-is situations (to diagnose and eliminate deficient capabilities), to guide improvement initiatives (to map the way for improvement), and to control progress.

E-governance journey encounters several milestones that need to be identified and modeled so that efforts invested can be assessed and an appropriate course of action be taken by the organization to further its way on the path of e-governance. The E-governance Maturity Model (EMM – version 1.0) proposes five levels of maturity, depending on the effectiveness with which the e-governance efforts have been initiated, pursued, utilized and institutionalized. EMM 1.0 will facilitate government organizations to assess the current level of e-governance initiatives and accordingly make efforts for the future.

## FIVE MATURITY LEVELS

The Five Maturity Levels of e-Governance is based on fact that speed, openness and ubiquity are some major capabilities of ICT. The maturity levels, described below provide a necessary mechanism to benchmark the efforts invested by an organization in implementing e-Governance.

### Level 1- Closed

Here an organization does not use ICT as a facilitator for good governance and has no plans to do so in the near future.

- Such situation may arise due to lack of exposure to ICTs and associated benefits that again may depend upon a number of reasons: remoteness, lack of resources and strategic thinking.
- As a result the organization is closed in terms of being connected and sharing information in the context of "E-governance".
- However, even in this condition the organization may be efficiently functioning.

### Level 2- Initial

In this stage, top management knows ICT organized efforts have been attempted to are experimental and with lack of direct necessity of eGovernment is realized. Main organization, perception of eGovernment and productivity evaluation of efforts.

### Level 3- Planned

This stage starts with systematic approach technology strategic plan is formulated the areas of implementation and measurement need assessment study, extensive planning various activities, stakeholders, roles and time, money and manpower to undertake are: vision definition, need assessment, o

### Level 4- Realized

After strategy formulation in the last stage. So, according to strategies, required actions are implemented and Gap analysis is a good methodology for

#### a) Retrospected

- Business processes are att
- There is awareness about well as the customers/us

#### E-ready

- The organization has a s
- human) in place, for imp
- The customers/users are

#### Partially open

- Some of the e-governan exchange among the en
- Partially open organiz processes, allowing an organization thus rem

**Level 2- Initial**

In this stage, top management knows ICT, its applications and benefits for organizations. No organized efforts have been attempted to undertake the eGovernment initiation. Efforts usually are experimental and with lack of direction. In the end of this stage, it's expected to that the necessity of eGovernment is realized. Main criteria of this stage are: degree of ICT knowledge in organization, perception of eGovernment advantages and disadvantages, administrative efforts, and productivity evaluation of efforts.

**Level 3- Planned**

This stage starts with systematic approach. With respect to strategic approach, information technology strategic plan is formulated in this stage. Need assessments are made to prioritize the areas of implementation and measure the extent of e-readiness. Taking necessary input from need assessment study, extensive planning has been carried out indicating policies, strategies, various activities, stakeholders, roles and responsibilities and resources required in terms of time, money and manpower to undertake the e-governance exercise. Main criteria of this stage are: vision definition, need assessment, eGovernment plan, and documentation.

**Level 4- Realized**

After strategy formulation in the last stage, we will have implementation and assessment in this stage. So, according to strategies, action plan with budget and time will be defined. Then required actions are implemented and finally their results would be measured and controlled. Gap analysis is a good methodology for assessing results.

**a) Retrospected**

- Business processes are attuned with the vision and overall e-governance objectives.
- There is awareness about e-governance among all concerned – the stakeholders as well as the customers/ users.

**b) E-ready**

- The organization has a sound infrastructure (technological, institutional, legal, and human) in place, for implementing e-governance.
- The customers/ users are oriented and motivated to use e-governance services.

**c) Partially open**

- Some of the e-governance services are deployed, leading to partial information exchange among the entities.
- Partially open organizations sometimes focus only on their internal or backend processes, allowing an information exchange within the confines of the organization thus remaining insulated from its external entities. In such cases,

Government-to-Employee (G2E) interface is visible, whereas Government-to-Citizen (G2C), Government-to-Government (G2G) and Government-to-Business (G2B) interfaces are not yet established.

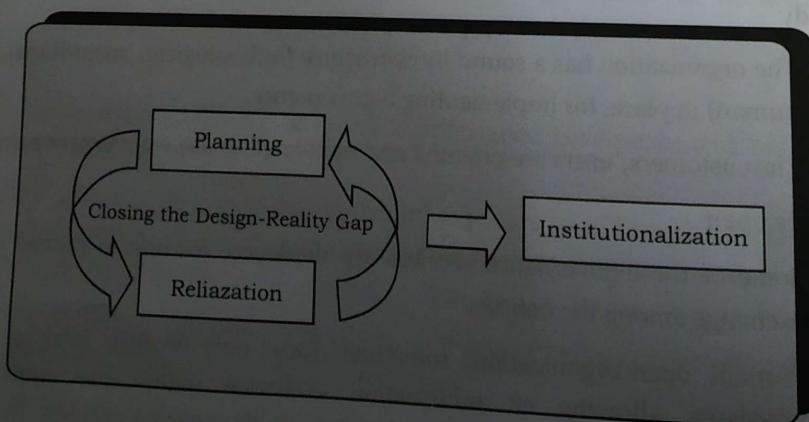
- Another case of partial deployment of e-governance services result in conspicuous G2C interface with no emphasis on building G2E, G2B, or G2G interfaces. In an enthusiasm to quickly open up its front-end, the organization negligibly focuses on computerization of the supporting backend processes, thus creating hollowness behind the face of static web sites.
- A hybrid of the above two cases is characterized by building interfaces with external entities and simultaneously focusing on computerizing the corresponding backend processes, thus opening a balanced information exchange among the internal as well as the external customers of the organization.

#### d) Open

- The organization has an integrated system, reflective of smooth information exchange within and outside the organization, i.e. Government-to-Employee (G2E), Government-to-Citizen (G2C), Government-to-Government (G2G) and Government-to-Business (G2B) interfaces are well established over a solid foundation of e-governance building blocks (the e-readiness essentials).
- Organization focuses on satisfying the users of e-governance services.

#### Level 5:

Institutionalized The e-governance system of the organization is driven by a well established Knowledge Management System that generates an ability in the organization to evolve over time in view of new requirements. E-governance becomes an effortless exercise for the organization and it becomes a way of life for the stakeholders and customers/users. The organization at this level is completely paperless.



**Fig: Reaching the Institutionalized Stage**

Following define the e-readiness of an organization

- Presence of strategic thinking among decision makers. It is necessary for governance on the agenda of implementation and effective
- Institutional infrastructure. Creating e-governance aware during the e-governance exercise.
- ICT infrastructure. A sound essential requirement for effective
- Human capacities. It is important to have knowledge and skills to initiate and maintain e-governance. It is equally important to generate awareness among administration and ICT based staff through intensive training and ICT orientation of officers in the concerned government departments.
- Legal Infrastructure. The need for laws and regulations to support ICT as a tool for good governance.

## CHARACTERISTICS OF MATURITY LEVELS

The characteristics exhibited by the organization at different levels of maturity are used for assessing the current level of e-governance. The following table describes the characteristics of the organization at different levels of maturity.

#### Level 1: Closed

- Organizations are closed to the environment and continue with fully manual processes.

#### Level 2: Initial

- Organization lacks strategic vision.
- There are unorganized and ad-hoc automation efforts.
- Automation efforts are a reaction to specific needs.
- The effort sustains as long as there is a demand and remains and is often abandoned.

Following define the e-readiness of an organization:

- (a) Presence of strategic thinking, leadership and commitment among top level decision makers. It is necessary to have visionaries at the top level who can put e-governance on the agenda of the organization and are able to carry it through to implementation and effective utilization.
- (b) Institutional infrastructure. There should also be institutions responsible for creating e-governance awareness among stakeholders and users, and coordinate the e-governance exercise.
- (c) ICT infrastructure. A sound computing and communication infrastructure is an essential requirement for effective operationalization of e-governance services.
- (d) Human capacities. It is important to build human capacities in terms of necessary knowledge and skills to initiate, implement and sustain egovernance initiatives. It is equally important to generate right attitude that is receptive to ICT based administration and ICT based delivery of services. All require extensive and intensive training and ICT orientation programs at various levels of the staff and officers in the concerned government organization.
- (e) Legal Infrastructure. The necessary laws and regulations should also be in place to support ICT as a tool for good governance.

## CHARACTERISTICS OF MATURITY LEVELS

The characteristics exhibited by the organizations at various levels of maturity facilitate assessing the current level of e-governance attained by the organization. The following points describe the characteristics of the organizations at various levels:

### Level 1: Closed

- Organizations are closed to e-governance. No plans or vision is available. They continue with fully manual and conventional operations.

### Level 2: Initial

- Organization lacks strategic thinking and direction for e-governance at top level.
- There are unorganized and isolated efforts of automation in some areas.
- Automation efforts are a result of individual's initiatives.
- The effort sustains as long as the enthusiasm of the individual, who initiated it, remains and is often abandoned due to lack of direction.

- Such organizations generally accumulate hardware without any planning and much of it goes unutilized or underutilized.

#### Level 3: Planned

- E-governance is a part of organization's agenda.
- Strategic thinking and leadership guide the e-governance initiatives.
- Clear understanding of e-governance needs as projected by the external and internal customers/users.
- Extensive plan is prepared for implementing e-governance, addressing all Key Focus Areas (KFAs) and other related issues.
- All the necessary documents for e-governance planning are in place. These documents include Vision and Scope document for e-governance, Needs Assessment Survey document, Policy guidelines, and Action Plan and Outsourcing guidelines.

#### Level 4: Realized

##### a) Retrospected

- Business processes are attuned with the vision and overall e-governance objective.
- There is awareness about e-governance among all concerned – the stakeholders as well as the customers/users.

##### b) E-ready

- The organization has a sound infrastructure (technological, institutional, legal, and human) in place, for implementing e-governance.
- The customers/users are oriented and motivated to use e-governance services.

##### c) Partially open

- Some of the e-governance services are deployed, leading to partial information exchange among the entities.
- Partially open organizations sometimes focus only on their internal or backend processes, allowing an information exchange within the confines of the organization thus remaining insulated from its external entities. In such cases, the Government-to-Employee (G2E) interface is visible, whereas Government-to-Citizen (G2C), Government-to-Government (G2G) and Government-to-Business (G2B) interfaces are not yet established.
- Another case of partial deployment of e-governance services result in a conspicuous G2C interface with no emphasis on building G2E, G2B, or G2G interfaces. In an enthusiasm to quickly open up its front-end, the organization negligibly focuses on computerization of the supporting backend processes, thus creating hollowness behind the face of static web sites.

- A hybrid of the above external entities and similar backend processes, thus internal as well as the external.

##### d) Open

- The organization has a smooth exchange within and between (G2E), Government-to-Government-to-Business (G2G2B) foundation of e-governance.
- Organization focuses on e-governance.
- The internal and external governance services are well integrated.

#### Level 5: Institutionalized

- The e-governance system, Knowledge Management system evolves with time in view of changing needs.
- E-governance becomes a way of life for the stakeholders.
- The organization at this stage is fully institutionalized.

#### KEY AREAS (OLD SYLLABUS)

Key focus areas: Key focus areas are the set of activities that an organization and are a set of related activities at a particular level of maturity.

##### Planned:

- Define a quantifiable objective.
- Conduct a needs assessment in the areas.
- Survey of requirements.
- Analyze the requirements through exercises.
- Assess the extent of achievement of the desired level of e-readiness.

- A hybrid of the above two cases is characterized by building interfaces with external entities and simultaneously focusing on computerizing the corresponding backend processes, thus opening a balanced information exchange among the internal as well as the external customers of the organization.
- d) **Open**
  - The organization has an integrated system, reflective of smooth information exchange within and outside the organization, i.e. Government-to-Employee (G2E), Government-to-Citizen (G2C), Government-to-Government (G2G) and Government-to-Business (G2B) interfaces are well established over a sound foundation of e-governance building blocks (the e-readiness essentials).
  - Organization focuses on satisfying the users of e-governance services.
  - The internal and external customers/users of the organization start utilizing the e-governance services and become dependent on them.

#### **Level 5: Institutionalized**

- The e-governance system of the organization is driven by a well established Knowledge Management System that generates an ability in the organization to evolve with time in view of new requirements.
- E-governance becomes an effortless exercise for the organization and it becomes a way of life for the stakeholders and customers/users.
- The organization at this level is completely paperless.

#### **KEY AREAS (OLD SYLLABUS)**

**Key focus areas:** Key focus areas (KFA) indicate the areas that need to be focused by an organization and are a set of related activities when performed collectively, help achieving a particular level of maturity.

##### **Planned:**

- Define a quantifiable vision for the e-governance exercise.
- conduct a needs assessment survey in view of objectives covering the following areas.
- Survey of requirement both within and outside the organization.
- Analyze the requirement to identify priority areas for initiating e-governance exercises.
- Assess the extent of e-readiness for identified areas and requirement to achieve the desired level of e-readiness.

- Prepare an extensive plan on e-governance that includes the following areas.
- Define objectives and goals for the e-governance exercise.
- design policies and strategies for implanting e-governance.
- Decomposes the e-government exercise into various activities.
- Project the resources requirements in terms of time, money and man power.
- Define implementation methodology.
- Identify risk factors and purposes risk mitigation plan.
- Define the expected impact and propose an impact assessment methodology.
- Prepare all the necessary documentation including vision and scope document for e-governance, need
- assessment survey document, policy guidelines , action plan etc.

#### **Realized**

- Arrange for resources required to Implement the e-governance initiatives.
- Develop a high level awareness and commitment among decision makers, stakeholders and users to initiate and carry forward the e-governance objectives.
- Select vendors for out sourced activities and formalize terms and conditions.
- Set up management committees with holders for executing and monitoring the governance objectives.
- conduct a detailed study and review of the existing business process in view of governance objectives.
- Acquire, design, develop, test and deploy e-governance services with the following issues .
- Address information needs of common man in local language with easy to follow interfaces.
- Ensures interoperability in terms of inter-connectivity , data integration and information access.
- use open standards.
- Ensure easy accessibility to information .
- Provide efficient data communication.
- Build scalable architecture.

- Collect, compile , validate and store data.
- Conduct an impact analysis.

#### **Institutionalized**

- Address the design realizations phases.
- Evolve a mechanism to entire system develops requirements.

## **TOWARDS GOOD GOVERNANCE MODELS**

E-Governance is the key to the-Governance model. It reduces corruption, provides efficient and effective services, increase democratic participation, and delivery of services. However environment needs to be improved. The world has changed and triggered by scientific and technological development. The world has been craving for more transparency. The economic liberalization of economy in India in 1991 ended of the scams underscored the lack of accountability of the bureaucracy to the people. The governments that came in. Therefore, the needs of the people, whose trust in the government is shaken. The decisions are readily available online.

In order to ensure good governance, the government should follow various principles:-

#### **Accountability**

The biggest challenge of governance is that the interfaces are complex because the government has to manage such complex tasks, which require defined personnel who are responsible for the same. There is always a chance of corruption when a common man tries to manipulate the system.

- Collect, compile, validate and update data.
- Conduct an impact analysis to access the effectiveness of service delivery.

#### Institutionalized

- Address the design reality gaps, if any by iterating between planning and realization phases.
- Evolve a mechanism to make e-governance an effort less exercise, so that the entire system develops an ability to evolve and scale up with time and new requirements.

## TOWARDS GOOD GOVERNANCE THROUGH E-GOVERNANCE MODELS

E-Governance is the key to the Good Governance for the developing countries to minimize corruption, provides efficient and effective or quality services to their citizens. E-governance increase democratic participation, accountability, transparency, and the quality and speed of services. However environment needs to be developed for the effective implementation of e-government. The world has changed a lot over centuries and all these changes were mainly triggered by scientific and technological innovations and inventions. But over last fifty years, the world has been craving for more innovations in the field of governance. The opening of the economy in India in 1991 ended of license raj and freed the market forces. But later on, various scams underscored the lack of transparency in the governance mechanism in India. The inability of the bureaucracy to change with time only hampered the credibility of the governments that came in. Therefore there is a need for "A Government which is responsive to the needs of the people, whose transactions have clearly defined time bound accountability and whose decisions are readily available for public scrutiny." Indian government has announced 25th December as Good Governance Day.

In order to ensure good governance for the country, the E-governance system will have to follow various principles:-

### Accountability

The biggest challenge of governance is the lack of accountability. Problems that a government faces are complex because the needs of the people are complex and rapidly changing. To manage such complex tasks, clear accountability is required. Currently, there is no clearly defined personnel who are responsible for handling any specific task and is solely responsible for the same. There is always a game of passing the buck from one department to the other when a common man tries to access the government services. To avoid this problem, the

governance system must define the personnel and the stakeholders who are accountable for the provision of services. Further there is need for classifying the requests from the people into daily administration problems, interdepartmental problems and policy level problems so that targeting of problems is more precise.

### Daily Administration Problems

Most of the problems that common man faces in the society are regular administrative problems. For these, it is easier to define the time frame by when the issue would be resolved, the government and who are accountable for the resolution of the issue. This ensures that citizen is empowered to know whom to question for the resolution of his issue and also when to expect the service from the government.

### Interdepartmental Problems

Some of the problems that a common man faces would require the intervention of multiple departments of the governments for the resolution. These problems would require greater amount of time, but E-governance systems can still fix the accountability if departmental jurisdictions are clearly defined.

### Policy level issues

These are the most complex issues which arise with the changes coming up in the society. They require thorough analysis as these issues have to be addressed keeping the future in view. Solutions are of long term and therefore require thorough analysis from multiple stakeholders' point of view. E-governance systems can help in such cases by providing accurate input analysis of possible decisions.

### Transparency

The next major requirement from an effective E-governance system is transparency. The government suffered majorly because of multiple scams that were unearthed by the media. People are now demanding far more transparency in the government transactions than they ever did in past. Therefore there is a necessity for not only working in a transparent manner but also communicating to the people that every transaction is happening as per the mandate without any violation. Therefore E-governance systems should be intelligent enough to automate the decision making process so that the transactions are highly transparent and are perceived to be transparent by society at large. It would also ensure that transactions of the government are per the mandated criteria and that there is no scope for a biased decision making, which is the root cause for lack of trust in the governance systems in India.

### Responsive

Lastly, government as an entity needs to be responsive to the people. For a governance system which is responsive, the people are more of administrators participate in the governance and the people are heard. Therefore, they are responsive to the requirements of the people.



Discuss broadcasting/governance along with

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11. Discuss critical flow along with applicati

12. What is digital E-governance with based on these mo

### Responsive

Lastly, government as an entity has to be responsive to the need of the people. There is a need for a governance system which is responsive to the needs of the people. Since major problems of the people are more of administrative nature, the citizen should be given the opportunity to participate in the governance system. The true nature of democracy is to ensure that voices of the people are heard. Therefore E-governance systems must ensure that the systems created by them are responsive to the requirement of the different sections of population.



### DISCUSSION EXERCISE

1. Discuss broadcasting/wider dissemination model and comparative analysis model of e-governance along with applications.
2. Discuss the realized level of maturity model in detail.
3. How can we achieve good governance through e-governance models? Explain.
4. What are characteristics of maturity level? Explain in detail.
5. Discuss key focus areas of maturity levels in detail.
6. What is an E governance maturity model? Explain the various maturity levels of E governance along with their characteristics.
7. How can we use E governance model to achieve good governance? Discuss
8. Discuss critical flow model and comparative analysis model in detail.
9. Discuss broadcasting and interactive service model in detail.
10. What are the key focus area of maturity level? Explain.
11. Discuss critical flow model and mobilization model and lobbying model of e governance along with applications.
12. What is digital governance model? Explain the different type of model of E-governance with prime focus on principle, application, evaluation and various project based on these models.

13. Discuss the institutionalized level of maturity model in detail.
14. What do you understand by Models of Digital Governance? Explain wider dissemination model referring to the principle , application , evaluation and various projects based this model.
15. Compare and contrast between
  - a. Comparative analysis model and interactive service model.
  - b. Wider dissemination and critical flow
16. Short notes:

Good governance through e governance

