e - Governance in India: A review of Developmental Projects

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ABSTRACT

The governance has taken a paradigm shift from being more administratively cohesive to more decentralized, agile and responsive. The arrival of information communication technologies has reconciled traditional barriers of distance and is playing vibrant role in promoting participatory, transparent, responsive and inclusive democracy to enhance grass root development. The achievement of sustainable development by harnessing benefits of information communication technology has become more attraction for researchers. The present research focuses on the evaluating various facets of e–governance in India and the application of same in creating instrumental platform for disseminating information, enhancing citizens participation, sending feedback, monitoring and evaluation of developmental government projects activities

Key Words
e-Government, Service Delivery, Interactive Platforms and Development.

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INTRODUCTION

The recent advancements in communication technologies and the internet have provided tremendous opportunities to transform the relationships between governments and citizens in a newer way, thus contributing to the optimization of processes and achievement of good governance goals. It is envisaged that the use of information communication technology can increase the broad involvement of citizens in the process of governance at all levels by providing the possibility of online discussion group and by enhancing the rapid development and effectiveness of pressure group. In addition, the transaction cost can be lowered and government services can become more accessible *(UNESCO,2005)*. According to *(Danfulani, 2013)*, e – governance evolved as a result of revolution in information and communication technology (ICT) which finds expression in digital technologies like personal computing, internet-based services, mobile telephony and different electronic applications. The confluence of these varied technologies eased the flow of information, its accessibility and delivery. Thus, creating numerous advantages as the citizens were connected with government, therefore making governments more efficient, robust, reducing cost of government operations and transactions. According to *(Akbar,2004)* e-governance is improving the lives of billions of people worldwide and is integrating government services in a way never seen before. The idea of e - governance has changed the way in which governments communicate with one another and with their citizens. In the past communication used to be via public meetings, printed media, radio and television. Today communication is also done via the modern information and communication technologies e.g. the internet and satellite *(Kroukamp, 2005)*. The electronic governance is playing a vital role in delivering services to the stakeholders and bringing in more efficiency and accountability within the system of delivering information and quick services to citizen, business enterprises and institutions *(Charag and Mufeed,2013)*.

The 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 organising and delivering information and services *(Tlagadi,2007)*. Electronic governance is using information and communication technologies (ICT's) at various levels of the government and the public sector and beyond, for the purpose of enhancing governance *(Bedi, Singh and Srivastava, 2001; Holmes, 2001; Okot- Uma, 2000)*. According to *Keohane and Nye (2000)*, governance implies the processes and institutions, both formal and informal, that guide and restrain the collective activities of a group. As from the research it is evident that the governance need not necessarily be conducted exclusively by governments. The private firms, associations of firms, non-governmental organizations (NGO's) and associations of NGO's all engage in it, often in association with governmental bodies, to create governance; sometimes without governmental authority. Clearly it suggests that the e - Governance need not be limited to the public sector only. The electronic governance is playing a vital role in delivering services to the stakeholders and brings in more efficiency and accountability within the system of delivering information and quick services to citizens, business enterprises and institutions *(Charag and Mufeed,2013)*. It implies managing and administering policies and procedures in the private sector as well. Citizens access to the government has been a key issue in the field of public administration. A number of hurdles impede citizen access to policy processes, such as red tapism, high transaction costs and insufficient knowledge and information *(Cooper, 1979*; *Kellogg and Mathur, 2003)*. In this regard, recently emerging internet technologies have been expected to provide alternative ways for citizens to interact with public officials. A growing body of literature has focused on "e - Government initiatives," which refer to the use of the Internet or web technologies to foster public service delivery and citizen participation in policy processes *(Coursey and Norris, 2008; Dunleavy, et al.,2006; Norris and Moon,2005; Robbins, et al., 2008; Thomas and Streib, 2005; Tolbert, et al., 2008; United Nations, 2008; West, 2005)*. The rise of internet technologies, however, has sparked an intense debate on the democratic potential of information and communication technologies (ICTs) *(Norris,2001)*. The nations across the world are changing and trying to be more responsive and cohesive in delivering services to their citizens, business enterprises and stakeholders *(Charag and Mufeed,2013)*. Reinforcement theory argues that the web technologies add to the political resources of the powerful elite or activists, strengthening their influence on policy processes *(Davis,1999; Weare, et al.,1999)*. By contrast, mobilization theory points out that new ICT's provide politically alienated citizens with alternative channels to represent their interests in policymaking processes *(Scott,2006; Stanley and Weare,2004*; *Thomas and Streib, 2003)*. For instance, e-voting systems expand opportunities for citizens to make choices among policy options such that the systems empower them to be direct policy makers *(Becker,2001; Coleman and Gøtze,2001)*. In addition, online forums hosted by the government help engage geographically dispersed citizens in policy debates and suggest their ideas to public officials for consideration in decision making *(Shulman*, et al., 2003; Stanley and *Weare, 2004)*.

However, despite their democratic potential, e-voting or online policy forums make citizens passively express their preferences regarding agendas predetermined by the government *(OECD,2003)*. One important issue in e - government studies is whether government web technologies impact public sector performance. Although e - government initiatives have been credited as engines of governmental reform, empirical evidence is insufficient to determine their effects on public agency performance. Information and Communication Technology (ICT) together with internet is making it possible to share vast amount of knowledge and information and is driving all round socio-economic changes and growth *(Charag and Mufeed,2013)*.

CONCEPTUAL FRAMEWORK

In basic terminology governance is the act of governing, it is not a new concept or a creation, it is as old as the human civilization. In purview of a country, the decisional processes and related systems are typically administrated by the government policies and strategies. As with the advent of new technologies and systems becoming more flexible and dynamic in working and processing of information *(Charag and Mufeed, 2014). The World Bank,(2008),* defines governance as the way the power is exercised through a country's economic, political and social institutions. The *UNDP(1997),* states that, it is the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It generally comprises of mechanisms, processes and institutions through which citizens and group articulates their interest, exercise their legal rights, meet their obligations and mediate their differences. In basic concept of electronic governance may be referred to the application of ICT by the government agencies to streamline processes, enhance accountability, create knowledge bases and ensure transparency and fair conduct in the governmental business. It is sometime considered as political strategy through which the activities and processes of government institutions are made known through the enactment of modern technologies. The governments all over the world are in continuous quest of developing newer ways to deliver public services more efficiently and effectively *(Charag and Mufeed,2014).* According to *Backus,(2001),* electronic governance is defined as the application of electronic means in the interaction between government and citizens and government and businesses, as well as internal government operations to simplify and improve democratic, government and business aspect of governance. Whereas the term interaction stands for delivery of government products and services, exchange of information, communication, transactions and system integration. As in purview of the conceptualized framework for the research, given here under are the definitions from esteemed institutions and authors.

- *World Bank(2008):* e-government refers to the use of information technologies such as wide area networks, the internet and mobile computing that have the ability to transform relations with citizens, businesses and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.

- *UNESCO(2007):* e-governance is the use of information and communication technologies in public sector 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. As same 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.

- *United Nations(2006):* e-government is defined as utilizing the Internet and the world-wide-web for delivering government information and services to citizens.

- *Organization for Economic Cooperation and Development(2003):* introduced four definitions of Electronic Government: 1) internet service delivery and other internet-based activities by government; 2) all uses of ICT by government; 3) transforming public administration through the use of ICT; and 4) the use of ICT, particularly the internet, as a tool to achieve a better government.

- ***Working Group on e-government in the Developing World(2002)***: e-government is the use of information and communication technologies (ICT) to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information and make government more accountable to citizens. e-government might involve delivering services via the internet, telephone, community centers, wireless devices or other communications systems.

- ***The Council of Europe(2002):*** the use of electronic technologies in three areas of public action: relations between the public authorities and civil society, functioning of the public authorities at all stages of the democratic process (electronic democracy), the provision of public services (electronic public services.

- ***The US e–Government Act(2002):*** the use by the Government of web-based Internet applications and other information technologies, combined with processes that implement these technologies, to enhance the access to and delivery of Government information and services to the public, other agencies, and other Government entities; or to bring about improvements in Government operations that may include effectiveness, efficiency, service quality, or transformation".

- ***Global Business Dialogue on Electronic Commerce(2000):*** electronic government (hereafter e-government) refers to a situation in which administrative, legislative and judicial agencies (including both central and local governments) digitize their internal and external operations and utilize networked systems efficiently to realize better quality in the provision of public services."

- ***Gartner Groups(2000):*** the continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the Internet and new media."

The definitions of electronic governance from some of the distinguished thinkers, scientists and philosophers is given here under in a chronological order:

- ***Dawes, (2008):*** e-governance comprises the use of Information and Communication Technologies (ICTs) to support public services, government administration, democratic processes, and relationships among citizens, civil society, the private sector, and the state.

- ***Dr. APJ Abdul Kalam(2003):*** former President of India, has visualized e-Governance in the Indian context to mean: a transparent smart e-governance with seamless access, secure and authentic flow of information crossing the interdepartmental barrier and providing a fair and unbiased service to the citizen.

- ***Fraga(2002):*** e-government is the transformation of public sector internal and external relationships through net-enabled operations, IT and communications, in order to improve: government service delivery; constituency participation; society.

- ***Brown and Brudney(2001):*** define e-government as the use of technology, especially web-based applications to enhance access to and efficiently deliver government information and services and has categorized e-government efforts into three broad categories of government-government (G2G), government-to-citizen (G2C), and government-to-business (G2B). One may include two additional categories in this list: government-to-civil societal.

- ***Means and Schneider(2000):*** define e-government as the relationships between governments, their customers i.e. businesses, other governments, and citizens and their suppliers by the use of electronic means.

- ***Duffy(2000):*** defines e-government as simply using information technology to deliver government services directly to the customer 24/7. The customer can be a citizen, a business or even another government entity.

- ***Tapscott(1996):*** defines e-government is an internet-worked government which links new technology with legal systems internally and in turn links such government information infrastructure externally with everything digital and with everybody – the tax payer, suppliers, business customers, voters and every other institution in the society.

Evolution of e – Governance

The technology as well as e -governance initiatives have come a long way as 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 electronic governance is one of the most important platforms, where interaction and action takes place in the modern times of today (*Charag and Mufeed,2013*).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 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 live hoods. 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 was to increase efficiency in administration and service delivery, but this shift can be conceived as a worthwhile investment with potential for returns. However, it is not an easy task to streamline various government process occurring in a routine manner. The gap between citizens and government can only be bridged by the creation of electronic interface, which has the ability to provide information at a required time and in a required manner (*Charag and Mufeed,2013*).

Developmental phases of e - Governance

As mentioned by Gartner, an international consultancy firm, has formulated four phases of evolution of e-governance. This can serve as a reference for governments to position where a project fits in the overall evolution of an e -governance strategy. As foreseen requirement of an effort as tremendous as complete realization of e-governance has to be addressed in these phases. 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.

Phase I – Versatile 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 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 pending as a reference for government agencies. With this first phase, the very critical task of building the infrastructure, such as telecommunications would be undertaken. The presence phase is marked by web presence of public institutions and dissemination of information. This has been facilitated by the Right to Information Act, 2005 (RTI) and this has been developed as a basic feature of all public services where type of service and service provider details are made available in a proactive manner. This information is also being integrated for citizen access through the National and State Portals which provide basic information on Government programmes and services. Web presence can range from basic and static information to access to databases, documents, policies etc. with the aid of help features and sitemap.

Phase II – Systematic 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. The interaction stage is marked by an interactive interface with stakeholders with pro-active solutions to problem solving and electronic requests for services and financial transactions. The service starts on the internet but does not always end there. Applications related to property tax, land registration, property titles and programmes like bhoomi are now being replicated at the national level. Efforts to widen the reach of these basic services to ordinary citizens through community access in several ways through online sections at government offices, integrated service delivery through one-stop service centers i.e. e-kiosks, e-sevakendras etc., Post Offices, call centres, cooperative centres etc. – are now well tested in states like Andhra Pradesh, Karnataka, Maharashtra, Rajasthan, Gujarat, UP etc.

Phase III – Agile 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. This phase is marked by completion of transactions on the internet and access to internet. This interaction in turn results in vertical and horizontal integration which changes the way a service is delivered, the effort being for completion of the transaction for the service through the internet with putting in place of back-end integration. The architectural model for this stage requires interoperability and convergence. There is electronic communication between the platform and citizen and the transaction is completed online.

Phase IV – Comprehensive Transformation

The fourth stage is marked by a Government to Citizen (G2C) framework based on an integrated network of public agencies, process certification and participation in basic process design and political processes. Web comment forms, upcoming events, on line polling mechanism, discussion forums and online consultation facilities are part of this stage. Integrated portals are central to this integration. Web based political participation and institutionalization of stakeholder participation with tools like citizen polling mark important benchmarks in this stage. The promise of inclusion of all is an important hallmark of this stage developing a single point of contact to constituent entities would provide an integrated platform for government services and organization totally transparent to citizens and businesses. Developing focus on virtual agencies where government information is readily available to all allowing a seamless interface to respective agencies involved in the transactions. Strengthening 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.

Review of best practices of e-governance in India

India has been harnessing the benefits provided by the Information & Communication Technologies (ICT) to provide integrated governance, reach to the citizens faster and provide efficient services and citizen empowerment through access to information. The aim is to redefine governance in the ICT age to provide smart governance. Several significant initiatives have been taken at the Centre and the State level in this direction. At the Central level, the government has extensively promoted the use of IT in managing its internal processes and has drawn up a minimum agenda of e-governance. Further Ministries and departments have provision of 2 to 3 percent of their annual budgets to be spent on IT related activities. The government has enacted IT Act 2000 which provides legal status to the information and transactions carried on the net. Several State Governments have also taken various innovative steps to promote e-governance and have drawn up a roadmap for IT implementation and delivery of services to the citizens on-line. The applications that have been implemented are targeted towards providing G2B, G2C and B2C services with emphasis on use of local language. Recognizing that e – Governance is playing an increasingly important role in modern Governance; various agencies of the Government and civil society organizations have taken a large number of initiatives across the country. Indicated below are some of the key initiatives taken in the country across some of the important citizen/business related departments:

Customs and Excise (Government of India)
- 98% of export and 90-95% of import documentation computerized
- Electronic filing through ICEGATE at 3 locations (Mumbai, Delhi, Chennai)
- 80% of Service Tax returns electronically processed

Indian Railways (Government of India)
- Anywhere to Anywhere reservation from Anywhere
- Electronic Booking of tickets on select sectors
- Online Information on Railway reservation on Internet

Postal Department (Government of India)
- Direct e-credit of Monthly Income Scheme returns into the investors accounts
- Dematerialization of Savings Certificate (NSC) and Vikas Patras (KVP), offering full portability

Passport / Visa (Government of India)
- 100% passport information computerize
- All 33 Regional Passport Offices covered
- Machine readable passports at some locations

AP Online (State Government of Andhra Pradesh)
An Integrated Citizen Services Portal providing citizen centric services such as: Birth/Death Certificates, Property Registration, Driver's License, Govt. Applications & Forms, Payment of taxes / utility bills etc.

Bhoomi – Automation of Land Records (State Government of Karnataka)
It provides computerized Record of Rights Tenancy & Crops (RTC) – needed by farmer to obtain bank loans, settle land disputes etc. It has also ensured increased transparency and reliability, significant reduction in corruption, exploitation and oppression of farmers. This project has benefited 20 million rural land records covering 6.7 million farmers.

CARD – Registration Project (State Government of Andhra Pradesh)
Computerization Administration of Registration Department (CARD)impacting 10 million citizens over a period of 3 years. It has completed registration of 2.8 million titles with title searches made in 1.4 million cases. The system ensures transparency in valuation of property and efficient document management system. The estimated saving of 70 million man-hours of citizen time valued at US$ 35 mill (investment in CARD - US$ 6million). Similar initiatives in other states like SARITA (State Government of Maharashtra) STAR (State Government of Tamil Nadu), etc. have further built upon this initiative.

Gyandoot: Intranet in Tribal District of Dhar (State Government of Madhya Pradesh)
This project offers e – Governance services including online registration of applications, rural e-mail facility, village auction site etc. It also provides services such as Information on Mandi (farm products market) rates, On-line public grievance redressal, caste & income certificates and Rural Market (Gaonka Bazaar).

LOKMITRA (State Government of Himachal Pradesh)

- Offers e – Governance services:
    - Online registration of applications,
    - Rural e-mail facility, village auction site etc.

- Key services provided to citizens
    - Information on Mandi (farm products market) rates

- o On-line public grievance redressal
- o Sending and receiving information regarding land records, income certificates, caste certificates and other official documents.
- o Market rates of vegetables, fruits and other items

e - Mitra - Integrated Citizen Services Center (State Government of Rajasthan)

- o Implemented using a PPP (Public Private Partnership) model
- o Private partner paid by the government department / agency
  G2C services like:
  - - Payment of electricity, water, telephone bills
  - - Payment of taxes
  - - Ticket Reservations
  - - Filing of Passport applications
  - - Registration of birth/death
  - - Payment by cash/cheque/ credit card

Project: e-Seva (electronic Seva)

Launched on the 25th of August 2001, electronic seva (e-Seva) is the improved version of the TWINS project launched in 1999, in the twin cities of Hyderabad and Secunderabad in Andhra Pradesh. e Seva centers offer 118 different services like payment of utility bills/taxes, registration of births/deaths, registration of applications for passports, issue of births/deaths certificates, filing of Sales Tax returns, Trade licenses of MCH, B2C services like payments of Tata Teleservices, Reliance, sale of Airtel Magic cards. Kalia's (2005) research on e-Seva in Andhra Pradesh illustrates potential positive impacts. In case of e- Seva (earlier known as the TWINS project) after the successful implementation of the pilot, private sector partners were involved to give citizen-centric services. The government supported the system with physical infrastructure and acted as the regulator. This project has won the confidence of citizens and has made government more creditable, responsive, efficient and transparent. This model also shows the potential benefits of involving private partners (Indo-Asian News Service 2006).

Project: FRIENDS
Fast, Reliable, Instant, Efficient Network for the Disbursement of Services is part of the Kerala State IT Mission. FRIENDS counters handle 1,000 types of payment bills originating out of various PSUs. The payments that citizens can make include utility payments for electricity and water, revenue taxes, license fees, motor vehicle taxes, university fees, etc. Firewalls safeguard data from manipulation.

Project: Gyandoot
The Gyandoot project was initiated in January 2000 by a committed group of civil servants in consultation with various gram panchayats in the Dhar district of Madhya Pradesh. Gyandoot is a low cost, self-sustainable, and community-owned rural Intranet system (Soochnalaya) that caters to the specific needs of village communities in the district. Thirty-five such centers have been established since January 2000 and are managed by rural youth selected and trained from amongst the unemployed educated youth of the village. They run the Soochanalayas (organised as Kiosks) as entrepreneurs (Soochaks); user charges are levied for a wide range of services that include agricultural information, market information, health, education, women's issues, and applications for services delivered by the district administration related to land ownership, affirmative action, and poverty alleviation.

Project: VidyaVahini
This portal provides the opportunity for schools, teachers and students all across the nation, to express and share their creative and academic potential via the internet. The portal aims at creating such an environment by providing facilities for Content Development, Content d employment and collaboration. Shiksha India is anon- profit organization launched in December 2001 to equip schools with the 5 Cs: Computers, Connectivity, Coaching (teacher Training), Content and models of Commercial sustainability. The Ministry of Information Technology in the project VidyaVahini and Ministry of Human Resources under the CLASS scheme which aims to connect 60.000 schools (approximately 20 million students) across the country in next five years.

Project: STAMPS & REGISTRATION SOFTWARE

The Stamps and Registration Department of a State is typically one of the top revenue earners for any Government. Stamp & Registration software provides efficient government citizen interface, and also enables enhanced revenue earnings for the Stamps and Registration operation. The heart of this application consists of the Registration and Valuation module. Other modules are the Networking and Scanning modules that enable exchange of information securely across departments, and "electronic copying" of the registered documents thereby enabling return of the original document within few minutes of presentation.

Project: SETU- A bridge for facilitation between Citizen & Government

The Integrated Citizen Facilitation Centers (SETU) is an approach in this direction. At present there are multiple points of interaction between the citizen and individual departments spread over so many different Government offices. A one-stop service center for all such routine matters must be made available. To create foundation for citizen centric e-governance, at district headquarters & subsequently at taluka headquarters- Single window clearance of 83 important certificates (includes renewal of leases, permits and licenses)

- Quick Redressal of public grievances
- Common registry of letters, petitions for all sections of the office.
- On line pendency monitoring of all above
- To provide services after office hours & on holidays also in order to save Time, Money & Energy of the public.

Project: JAN MITRA

Jan Mitra is an integrated e-platform through which rural population of Rajasthan can get desired information and avail services related to various government departments at kiosks near their doorsteps. To achieve this end, a system has been integrated using IT tools. This project has been successfully implemented on pilot basis in Jhalawar, Rajasthan. Jhalawar is the first district among five project location districts in India, where the project has been implemented before schedule.

Services

- e - Governance Services
- Public Grievance Redressal System, Online Submission of Application forms
- Land & Revenue Records.
- Public Information Services
- Ongoing Development Works, Public Distribution System, BPL List,

Electricity

- Priority Connection List, Drinking Water Resources, Village Schemes,

Citizen

- Charters and Immovable Property rates
- Public Awareness Services
- Health Information, Agriculture information, Education information and

Animal

- Husbandry Information
- Agriculture Mandi Rates Daily Mandi rates and Weekly / Monthly Mandi rates
- Village to Village Services Gram Haat and Event Information
- Messaging Services e-mail Facility across Departments / Kiosks and

Broadcasting of Bulletin.

- - MIS for District Collectorate and District level officers for effective monitoring of information flow.

Project: DRISHTEE-Connecting India Village by Village

Drishtee's software platform enables e – Governance and provides information about and access to education and health services, market-related information, and private information exchanges and transactions. Drishtee offers its network platform to any service provider who wishes to market its range of services to rural India by plugging their application in with Drishtee's s/w offered directly at the village level. Thus, the Drishtee offering is wide in scope and highly scalable. It aims to be the 'window to the world' for Indian villagers.

Project: Web CITI(Web based Citizen-IT Interface)

Web CITI provides web based interface to citizens seeking services from district administration. These include issuance of certificates such as death/birth, caste, rural area etc; licenses such as arms license, permission for conferences/rallies etc and benefits from socio-economic schemes.

Project: AARAKSHI
Aarakshi is an Intranet based system that has been developed and implemented for Raipur City Police. This innovative system enables the city police officers to carry out on-line sharing of crime & criminal data bases, carry out communication and perform monitoring activities.

Project: FAST - Transport Department Automated
The '**Fully Automated Services of Transport**' is another e – Governance project implemented in the cities of Andhra Pradesh. The objective of FAST is to make the transport department citizen friendly in its functioning and provide SMART services to the public. It is intended to build comprehensive database and provide on-line services to the public covering all gamut of services of Transport Department like Issue of Driving Licenses, Registration of Motor Vehicles, Issue Permits, Collection of Motor Vehicle Taxes, etc. All the offices in the state would have interconnectivity through APSWAN.

Project: VOICE (Vijayawada Online Information Centre)
Launched in June 1998 and implementation was completed in December1999 to deliver municipal services such as building approvals, and birth and death certificates, to the people of Vijayawada. It also handles the collection of property, water and sewerage taxes.

Project: MUDRA (Municipal Corporation towards Digital Revenue Administration)The system will be useful for the Holding owners, Tax collectors, officials at headquarter levels and Circle levels. They will have total picture of tax collection that will help the decision makers to take suitable decision for further improvement. It is designed to computerize the overall functions of tax collection system of Patna Municipal Corporation.

Project: KHAJANE (Online Treasury System)
The online treasury project, KHAJANE, computerizes all the 216 treasury offices in Karnataka and is connected to a central server at the State Secretariat. through VSAT (Very Small Aperture Terminal). It provides regular updates regarding the State expenditure and receipts to the central server. KHAJANE aims to bring about a more transparent and accountable system of financial transactions and also discipline in operations and management, resulting in efficiency and cost
savings for the government. This system eliminates duplication of data entry and maintenance of individual treasuries and enables uniform replication of modified data at the central server.

Project: e Cops (e- Computerized Operations for Police Services)
Launched on the 17th of July 2002, as part of the VISION 2020, the state's focus on modernization of police administration takes the shape of e - COPS. It will help police stations reduce paperwork and automate the

maintenance of registers, report generation, data analysis, planning and coordination, enable the speedy detection of crime and monitor prosecutions

Project: OLTP (On Line Transaction Processing)
Launched in the year 2002, the project connects 16 government departments in Andhra Pradesh on a single network. The services provided include access to information such as income verification and income certificates of citizens, land cultivation details, agriculture marketing, tele -veterinary services, registration of small farmers, birth and death records, house numbering, first information reports, occupation details of residents, drinking water details and irrigation sources, etc.

Project: TARAhaat - Achieving Connectivity for the Poor Case Study
This project, named "TARAhaat" after the all-purpose haat (meaning village bazaar), comprises a commercially viable model for bringing relevant information, products and services via the Internet to the unserved rural market of India from which an estimated 50% of the national income is derived. TARAhaat combines a mother portal, TARAhaat.com, supported by franchised networks of village cybercafés and delivery systems to provide a full range of services its clients.

Project: LokMitra
The LokMitra project was formally dedicated to the people of Hamirpur in Himachal Pradesh as a pilot phase on the 8th of May 2001. The services offered include information about vacancies, tenders, market rates, matrimonial services, village e-mail. An interesting feature is that citizens can use the IT enabled system as a grievance redress system.

Project: Mahiti Shakti
Launched in 2001, the portal http://www.mahitishakti.net/operates like a single window through which the citizens can access information related to all aspects of the government's functioning, various benefit schemes and services ranging from obtaining ration cards to getting sanction for old age pension. Anyone who wishes to avail the benefit has to go to his/her nearest designated STD/ISD kiosk, submit the necessary documents to the Info Kiosk owner and fill in the required form online

Project: Warana Wired Villages
The key objective of this project has been to utilize IT to increase the efficiency and productivity of the existing sugar cane cooperative enterprises besetting up of a state-of-the-art computer communications network. This provides agricultural, medical, and educational information in the local language to villages around Warana Nagar in the Kolhapur and Sangli Districts of Maharashtra.

Project: Community Information Center
On 22 August 2002, the Prime Minister dedicated to the people of the eight North-Eastern states a new structure of localized governance called Community Information Centers. Each is well-equipped with modern infrastructure, including one server, five client systems, a VSAT, laser printer, a dot matrix printer, modem, AN hub, TV, webcam and two UPS'. Each center has two CIC operators as managers and for providing services to the public. Basic services to be provided by CICs include Internet access and e-mail, printing, data entry and word processing and training for the local populace. Most CICs charge nominal amounts from users for services, which helps them to meet day-to-day running expenses. To ensure future financial sustainability of this enterprise, it is proposed to use the Community Information Centers for e-entertainment. CIC program was initiated by the Department of Information Technology, Govt. of India and set up at 487 Blocks of the eight North-Eastern states viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Project: Community Learning Center Project
Set up between March and July 2001, the Community Learning centre (CLC)is a joint initiative between the Azim Premji Foundation (APF) and the State government of Karnataka. The government contributes towards hardware and other related expenses per CLC and the Foundation take care of management and the training of Young India fellows (YIFs) who manage the CLCs. The CLCs are used to enhance classroom learning during school hours.

Project: Dairy Information Services Kiosk

The DISK application targeted at the booming dairy sector has been tested for two milk collection societies by the Indian Institute of Management Ahmedabad's e - governance center. DISK has helped in the automation of the milk buying process at 2,500 rural milk collection societies and has been pilot tested in two co-operative villages of Amul dairy in Kheda district. Software called Akash Ganga has been developed with special features to enable speedier collection of milk and faster disbursement of payments to dairy farmers.

Project: Gram Sampark
'Gram Sampark' is a flagship ICT product of the state of Madhya Pradesh. A complete database of available resources, basic amenities, beneficiaries of government programmes and public grievances in all the 51,000 villages of Madhya Pradesh can be obtained by accessing the website. Gram Sampark has three sections-Gram Paridrashya (village scenario), Samasya Nivaran (grievance redress) and Gram Prahari (village sentinel).

Project: Akshaya
As part of Kerala's ambitious e-literacy campaign, Akshaya e-Centers are being set up throughout Kerala. These centers will initially provide e-literacy to one member from every household and act as ICT dissemination nodes and ITeS delivery points in every village.

Project: Head start
Head start provides computer-enabled education and basic computer skills for all students in 6000 Jan Shiksha Kendras of Madhya Pradesh. Madhya Pradesh has6500 Jan Shiksha Kendras (cluster resource centres) located in Middle School premises in 48 districts.

Project: Saukaryam
Launched in the year 2002, Saukaryam, the pilot project of the Municipal Corporation of Visakhapatnam is now being implemented in other parts of the state of Andhra Pradesh as a model e – Governance initiative for local governments. Online payment of Municipal dues has been taken up as its first sub-project another services include, Online Tracking of Building plan Status, Online Filing and Settlement Of Complaints & Grievances, Online Registration of Births and Deaths, Instant Issuance of Birth and Death Certificates, Online Tracking of Garbage Lifting.

Project: e - Chaupal
Started by ITC's international Business Division as a cost-effective alternative supply chain system to deal directly with the farmer to buy products for exports is getting transformed into a meta market for rural India. The tobacco gianthas already set up over 700 choupals covering 3,800 villages in four states — which include Madhya Pradesh, Uttar Pradesh, Karnataka and Andhra Pradesh — dealing with products ranging from soya bean, coffee, aquaculture and wheat.

Lokvani Project in Uttar Pradesh:
Lokvani is a public-private partnership project at Sitapur District in Uttar Pradesh which was initiated in November, 2004. Its objective is to provide a single window, self-sustainable e – Governance solution with regard to handling of grievances, land record maintenance and providing a mixture of essential services.

Revenue Administration through Computerized Energy (RACE) Billing
Project, Bihar
The Patna Electric Supply Undertaking (PESU), which is one of the seven area boards of the Bihar State Electricity Board (BSEB), caters to the energy requirements of the Patna Urban Area. Different modules were implemented incrementally and by July 2007, payment of bills of any division at any one of the 31collection counters as per convenience was facilitated. Bills are now being generated with a barcode and consumers can download the bills using the internet and also see the details of payments made by them.

Admission to Professional Colleges – Common Entrance Test (CET)
One of the pioneering efforts was made by Karnataka. The State Government decided to conduct a common entrance test based on which admission to different colleges and disciplines was made. The allocation of seats in different colleges/disciplines is done through a process of 'computerized counseling' where the student can choose the discipline he/she wants – based, of course, on merit.

e -Procurement Project in Andhra Pradesh
Prior to the introduction of an e-Procurement system in Andhra Pradesh the process consisted of a long chain of internal authorizations and scrutiny which necessitated several visits by the suppliers to government departments. The manual tender system suffered from various deficiencies, including discrimination, cartel formation, delays, lack of transparency etc. In order to achieve these objectives, the entire e-Procurement process was designed to avoid human interface i.e., supplier and buyer interaction during the pre-bidding and post-bidding stages. The system now ensures total anonymity of the participating suppliers, even to the buyers, until the bids are opened on the platform. The e-Procurement application provides automatic bid evaluation based on the evaluation parameters given to the system. These improved processes have eliminated subjectivity in receipt and evaluation of bids and has reduced corruption to a significant extent.

e - Procurement in Gujarat
The system of e-procurement was introduced in the State of Gujarat from October 2004 onwards. Roll out of the system was carried out in a phased manner starting from few works/items for limited departments and was made compulsory for all government departments in 2007. The project was funded by the State Government with the objective of deriving the benefits of increased efficiency frame-enablement of business processes. It aims to establish transparency in procurement process, shortening of procurement cycle, availing of competitive price, enhancing confidence of suppliers and establishing flexible and economical bidding process for suppliers.

MCA 21
The Ministry of Corporate Affairs has implemented the MCA 21 Mission Mode Project under the NeGP in September 2006 and presently the project is in the post-implementation phase. The project aims at providing easy and secure online access to all registry related services provided by the Union Ministry of Corporate Affairs to corporate and other stakeholders at any time and in a manner that best suits them.

CHALLENGES TO e - GOVERNANCE
Like any government infrastructure project, e- governance can be done in phases and the costs of implementation will depend on current infrastructure availability, supplier and user capabilities, and mode of service delivery (whether through the internet or through telephone hotlines and one-stop shops).The developments in the institutions of governance has determined the apparatus of governance and created a reasonable difference between administration and governance. The newer aspects like governance for sustainable development as a functioning standard has taken greater relevance. The failing aspect of efforts and the inability of nations to sustain growth in most parts of the world, and thereof has limited achievements of economic progress, poverty reduction and social progress, which have primarily highlighted the importance of governance for sustainable development (*Charag Mufeed,2015*). The more complicated and sophisticated the kind of services the government wants to offer, the more expensive it is. Governments should focus on small, self-financing or outsourced projects. Because e-government projects must be financially sustainable, there must be a revenue/ cost-reduction model in place from the beginning. Smaller projects with a clear revenue-generation strategy and minimal initial investment are the most likely to be sustainable over the long term. For instance, Web sites are one of the easiest and cheapest ways to achieve high impact e-government with minimum of investment. e-Government projects are, more often than not, long-term endeavors, requiring large capital infusion in software, hardware, infrastructure and training. A viable financing plan should not only pay for the immediate needs to jumpstart e-government; it must also consider its long-term financing options for the sustainability of the project. There are various business models for funding e-government projects, and the private sector plays a critical role in these. Under partnership arrangements, the private sector builds, finances and operates public infrastructure such as roads and airports, recovering costs through user charges. Various financing schemes exist—from soft and development assistance loans from donor/multilateral aid agencies to partnerships and outsourcing deals with private third party vendors under special financing schemes (e.g., the Build-Operate-Transfer or BOT scheme) that can minimize the initial cost to government. BOT and its variants are usually the favored financing models / arrangements for government projects that require large and immediate financing from the private sector. Under BOT, the private sector designs, finances, builds, and operates the facility over the life of the contract. At the end of this period, ownership reverts to the government. A variation of this is the Build-Transfer-Operate (BTO) model, under which title transfers to the government when construction is completed. Finally, with Build-Own-Operate (BOO) arrangements, the private sector retains permanent ownership and operates the facility on contract. Cooperation, rather than competition, with the private sector can facilitate effective e-government. Government can encourage private sector investment by complementing and supporting private sector efforts rather than duplicating them. The key to e-government is to improve citizen access to service delivery, not

further expand the role of government. Government should not attempt to create products and services where public-private partnerships or private service providers can adequately provide these products and services more efficiently and effectively. In Indian case the governments both –the Union and the States must make earnest efforts to complete the daunting, but formidable task of quicker and effective e -government programs by:

- making a policy choice in favor of computerization to overcome radically the even if it requires huge investments for the purchase of hardware and software;
- serious efforts would be required to mobilize resources for this arduous job. One way to deal with the situation could be that governments enter into arrangements for leasing of computers. This would reduce initial heavy capital investments. There are a large number of agencies which would like to fund the leasing to the departments. Ministry of Finance can be asked to provide concessions to these agencies;
- establishing complete connectivity between various ministries and departments so that transfer of files and papers could be done through internet thereby choosing efficacious speed as an alternative to manual labour. To make this really effective, there is a need to make databases of various departments compatible with one another. Thus, interoperability of e-governance projects is of vital importance if the citizens are to feel the benefit of IT in day to day life;
- supplying information to the public in a language that they understand and are comfortable with, and generally, it is the local language. 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 onerous task;
- changing the mindset of the government employees who are used to working only in the manual mode. This is a big task and needs patience and careful planning. Workshops, seminars, and training programmes are required to be organized to spread awareness among the employees at all levels;

CONCLUSION

The movement to e-government, at its heart, is changing the way people and businesses interact with government. e- Government offers a huge potential in seeking innovative way to reach the ideal of government of people, by people and for people. E-government was taken to international and national development agendas since the mid-1990s due to the benefits it was expected to bring to communities and society as a whole. One overall starting point was that as the society develops towards information society or knowledge-based society, similar kind of development should take place in the governmental sector too. So, e-government is a government that utilizes the emerging opportunities of the information society. The other general aspect is that e-government refers to a transformation in which ICTs are seen as means for restructuring and re-organizing government. As to the trends in the public sector, there is a continuous tendency towards streamlining administrative machinery. Public organizations are becoming nodal points and coordinators in the multi-sectoral governance field. ICTs can be used in making the transition towards more competitive and contractual models of public governance and service delivery. Yet at the same time there is constant pressure to increase transparency, inclusiveness and responsiveness in government, which, together with civic movements and community-oriented governance strategies, constitute a counterforce to neo-liberal or NPM-oriented e-government trend. Therefore, from the assessment and analyzing the various electronic governance initiatives launched in India it is quite clear that e – Governance has played an tremendous role in development and bridging information gap between the government and citizens and thereby creating a common platform for information sharing and working as a tool for development of the India.

REFERENCES

1. Akbar A. (2004). Automating Government with e-Governance; Linux J.
   www.linuxjournal.com/article/7591 Accessed (September 15, 2008).
2. Backus M. (2001). E-Governance and Developing Countries; Research Report No. 3, April 2001.
3. Basu, M. (2000). Leader Honors Heritage, while Hailing Technology as key to Prosperity. The Atlanta Journal-Constitution, November 30, p. 2C. In Mahmood, R. 2004. Can Information and Communication Technology Help Reduce Corruption? How So and Why Not: Two Case Studies from South Asia, Perspectives on Global Development and Technology, Volume 3 (3), Koninklijke Brill NV, Leiden. 347-373. Accessed 18 February 2005 from: <http://ingenta.com>

4. Becker, T. (2001). Rating the Impact of New Technologies on Democracy. Communication of the ACM, 44(1).

5. Bedi, K., Singh, P.J. & Srivastava, S. (2001). Government@net: New Governance Opportunities for India, New Delhi: Sage Publications.

6. Bhatnagar, S. (2003). Administrative Corruption: How Does E-Governance Help – on E-Governance Solutions. Accessed 15 September 2005 from: <http://www.apdip.net/documents /WhitePaper>.

7. Bhatnagar, S. (2005). A Framework for ICT Use to Combat Administrative Corruption, Presentation Delivered At Anti Corruption Thematic Groups One-Day Clinic On Building ICT Applications for Combating Administrative Corruption-Held on 21 April 2005. Accessed 30 August 2005 from: http://www1.worldbank.org /publicsector/PREMWK2005/ICT/bhatnagar-ICT%20and%20 corruption.ppt

8. Bhatnagar, S. (2005). Reducing Corruption in Service Delivery to Citizens, Presentation Delivered at Anti Corruption Thematic

9. Bhatnagar, S. and Chawla, R. (2001). Bhoomi: Online delivery of land titles in Karnataka. Accessed 30 September 2005 from: <http://www1.worldbank.org/publicsector/egov /bhoomi_cs.htm>.

10. Bowankar, M.C. (2004). The Status of e-Governance in Maharashtra: An Exploratory Study, Ashwattha, Vol 4 (2), April-June (2004). Accessed 10 September 2005 from: <www.yashada.org/>.

11. Brewer, Gene A., Bruce J. Neubauer, and Karin Ceiselhart. (2006). Designing and implementing e-government systems: Critical implications for public administration and democracy. Administration & Society 38:472–99.

12. Brown, M. M., & Brudney, J. L. (2001). Achieving advanced electronic government services: An examination of obstacles and implications from an international perspective. Paper presented at the National Public Management Research Conference, Bloomington, IN, October.

13. Budhiraja, R. (2003). Electronic Governance – A Key Issue in the 21st Century, Additional Director, Electronic Governance Division, Ministry of Information Technology, Government of India. Accessed 2 September 2005 from: <http://www.mit.gov.in /eg/article2.htm>.

14. Budhiraja, R., and Sachdeva, S. (2002). eReadiness Assessment. Conference Proceedings. International Conference on Building Effective eGovernance, Chandigarh, India.

15. Budhiraja, Renu. (2001) Electronic Governance — A Key Issue in the 21st Century. Ministry of Information Technology, India. [http://egov.mit.gov.in]

16. Charag and Mufeed. (2013). Challenges Posed by Standardization & Cross Operability on Performance and System Deliverable of Electronic Governance System in India, International, , Page No. 239-250 , 2013, Journal of Logistics and Supply Chain Management Perspective, ISSN (P) 2319-9032 ISSN (O) 2319-9040

17. Charag and Mufeed. (2013). Developmental Role of Electronic Governance Initiatives in India – A Case Study: International Journal of Computing and Business Research (IJCBR), ISSN (Online): 2229-6166, Volume 4 Issue 2May 2013.

18. Charag and Mufeed. (2013). Electronic Governance : Expansion of Service Delivery Magnitude & Lessening Role of Human Resource in Delivery of Public Services, , Page No. 445-456 Charag and Mufeed (2013), International Journal of Retailing and Rural Business Perspectives, ISSN (P) 2279-0934 ISSN (O) 2279-0942

19. Charag and Mufeed. (2013). Evaluating the impact of electronic governance initiatives on reduction of corruption in India, Page No. 455-463, International Journal of Entrepreneurship and Business Environment Perspectives, ISSN (P) 2279-0918 ISSN (O) 2279-0926 (2013)

20. Charag and Mufeed. (2013). Impact of Information Encryption, Protection and Security on user interactions with functional electronic governance system in India. , Page No. 536-545, April 2013, International Journal of Information Technology and Computer Science Perspective, ISSN (P) 2319-9016 ISSN (O) 2319-9024

21. Charag and Mufeed. (2013). Impact of resistance of change on implementation of functional electronic governance system in India, Page No. 407-416, International Journal of Organizational Behaviour and Management Perspectives, ISSN (P) 2279-0950 ISSN(O) 2279-0969 (2013)

22. Charag and Mufeed. (2013). Optimizing Service Delivery Magnitude by usage of electronic service delivery mechanism of e – Governance, , Page No. 428-436, April 2013, International Journal of Applied Service Marketing Perspectives, ISSN (P) 2279-0977 ISSN (O) 2279-0985

23. Charag and Mufeed. (2013). Performance failures of e – Governance system by poor technology skills, infrastructure divide and will of implementing agency : An Indian Case Study , Page No. 448-462, International Journal of Trade and Global Business Perspectives, ISSN (P) 2319-9059 ISSN (O) 2319-9067

24. Charag and Mufeed. (2013). Structural Overview and Analysis of e – Governance Projects Implemented in India, Page No. 433-446,International Journal of Applied Financial Management Perspectives, ISSN (P) 2279-0896 ISSN (O) 2279-090X (2013)Charag and Mufeed (2013), International Journal of Applied Financial Management Perspectives, ISSN (P) 2279-0896 ISSN (O) 2279-090X (2013)

25. Charag and Mufeed. (2014). Impact of e-Governance System on Economic Development in India, Page No. 21-34, The Business Review VoL IB No, 1, Jan-June, 2014, ISSN 0972-8384 (2014)

26. Charag and Mufeed. (2015). Impact of e -Governance System Practices on Organizational Innovation & Achievement of Sustainable Development Goals in India. Author(s) : Dr. S. A. Mufeed, Dr.OwaisCharag, Umar Mufeed, International conference on sustainable development and Technological innovation, Islamic University, 2015

27. Chaurasia, A, R. (2003). Information Technology in Governance. Potentials and Prospects. Centre for Excellence in Information Technology, Academy of Administration and Management, Bhopal Accessed 21 December 2004 from:
<http://unpan1.un.org/intradoc/groups/public/documents/EROPA/UNPAN014372.pdf#search='Information%20Technology%20in%20Governance.%20%20Potentials%20and%20Prospects%20by%20chaurasia>

28. Choudrie J. and Dwivedi Y.K. (2005). Investigating the Research Approaches for examining the Technology Adoption in the Household. Journal of Research Practice, 1 (1).

29. Coleman, S. and Gøtze, J. (2001). Bowling Together: Online Public Engagement in Policy Deliberation. London: Hansard Society.

30. Cooper, T. L. (1979). The Hidden Price Tag. American Journal of Public Health, 69(4), pp. 368-374.

31. Cornford T and Smithson S. (1996). Project Research in Information Systems: A Student's Guide. Macmillan Press Ltd, London.

32. Council of Europe, http://www.coe.int/T/E/Com/Files/Themes/e-voting/definition.asp (2002), Accessed (July 18, 2014).

33. Coursey, D. and Norris, D. F. (2008). Models of E-Government: Are They Correct? An Empirical Assessment. Public Administration Review, 68(3), pp. 523-536.

34. Dada, D. (2006). eReadiness for Developing Countries: Moving the Focus from the Environment to the Users. The Electronic Journal on Information Systems in Developing Countries (EJISDC) (27:6), pp. 1-14.

35. Dada, D. (2006). The failure of eGovernment in Developing Countries: A Literature Review. The Electronic Journal on Information Systems in Developing Countries (EJISDC) (26:7), pp. 1-10.

36. Danfulani J (2013). E-Governance: A weapon for the fight against corruption in Nigeria. On-line publication accessed from www.saharareporters.com. Accessed (June 10, 2014).

37. Davis, R. (1999). The Web of Politics: The Internet's Impact on the American Political System. New York: Oxford University Press.

38. Dawes S (2008). The Evolution and Continuing Challenges of E-Governance; Public Administration Review, Special Issue

39. Dorotinsky, B. (2003). Technology and Corruption: The Case of FMIS, Presentation delivered at International Anti Corruption Conference Seoul Korea, Held on 26 May 2003. Accessed 10 September 2005 from: < http://www.11iacc.org/download/add/ WS11.1/WS%2011.1_P1%20DorotinskyPPP.ppt>.

40. Dorotinsky. (2005). IFMIS, PEM, and Anti-corruption, Presentation Delivered At Anti Corruption Thematic Groups One Day Clinic On Building ICT Applications for Combating Administrative Corruption, Held on 21 April 2005. Accessed 17 sAugust 2005 from:
http://www1.worldbank.org/publicsector/PREMWK2005/ICT/e-gov%20&%20PEM%20.ppt

41. Duffy, Daintry. (2000). Q&A: Balancing the Role of E-Government, Interview with Mike Hernon, Vice President of E-Government for New York City-based GovWorks. CNN, Retrieved on 11/13/2013 at [http://www.cnn.com/2000/TECH/computing/11/13/qna.egov.idg/].

42. Dugger, C. (1999). India Courts World's Riches and Poor Votes, New York Times, September 10, p. A1, 1999. In Mahmood, R. 2004. Can Information and Communication Technology Help Reduce Corruption? How So and Why Not: Two Case Studies from South Asia, Perspectives on Global Development and Technology, 3 (3), Koninklijke Brill NV, Leiden, 347- 373, 2004. Accessed 18 august 2005 from:<http://ingenta.com>.

43. Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J. (2006) New Public Management is dead. Long live digital---era governance. Journal of Public Administration Research and Theory, 16 (3): 467---494.

44. Europa (2001). eGovernment. Electronic access to public services. Retrieved May 2005 from http://europa.eu.int/information_society/eeurope/action_plan /egov/text_en.htm

45. Fraga, E. (2002). Trends in e-Government How to Plan, Design, Secure, and Measure e-Government, Government Management Information Sciences (GMIS) Conference, Santa Fe, New Mexico.

46. Fuliya, R.R. and Bansal, G.S. (2005). Nai-Disha Eka Sewa Kendra (NDESK): Improve Service Delivery in Government,, Journal of the Eighth National Conference on e-Governance, pp 54, 2005. Accessed 21 August, 2005 from: http://search.netscape.com/ns/boomframe.jsp?query=journal+articles+on+egovernance+

47. Gartners. (2000). Four phases of e-government model, www.gartner.com/DisplayDocument?id=317292 Accessed (July 11, 2014).

48. Global Business Dialogue on Electronic Commerce. (2000). GBDE.org. Available at: http://www.gbd-e.org/ig/egov/eGov_Recommendation_Sep01.pdf Accessed (19 January 2013)

49. Grant, G., and Chau, D. (2005). Developing a Generic Framework for eGovernment. Journal of Global Information Management (13:1), pp. 1-30.

50. Grönlund, Å. (2000). Managing Electronic Services - A Public Sector Perspective. Springer London, Practitioners Series.

51. Heeks, R. (1998). Information Technology and Public-sector Corruption, Manchester: Information Systems for Public Sector Management Working Paper Series No. 4. In Cisar,

52. Heeks, R. (1999). Reinventing Government in the Information Age, Pp. 9-21 In Reinventing Government in the Information Age, edited by Richard Heeks. London: Routledge In Mahmood, R. 2004. Can Information and Communication Technology Help Reduce Corruption? How So and Why Not: Two Case Studies from South Asia. Perspectives on Global Development and Technology, 3(3), Koninklijke Brill NV, Leiden, 347-373, Accessed 18 September 2005 from: <http://ingenta.com>.

53. Heeks, R. (2001). Building E-Governance for Development: a Framework for National Donor Action. eGovernment Working Paper, No 12. IDPM, University of Manchester, UK.

54. Heeks, R. (2002). Understanding and Measuring eGovernment: International Benchmarking Studies. Paper prepared for UNDESA workshop eParticipation and eGovernment: Understanding the Present and Creating the Future, Budapest, Hungary, 27-28 July 2006.

55. Holmes, D. (2001). eGov: eBusiness Strategies for Government. London, U.K.: Nicholas Brealey.

56. Jain V.K. and Ramani A.K. (2005). Concepts and Applications of E-governance: Illustrations through Some Case Studies, Journal of the Eighth National Conference on e-Governance. P. 65. Accessed 21 April 2005 from: <http://search.netscape.com/ns/boomframe.jsp?query=journal+articles+on+egovernance+

57. Jansen, A. (2005). Assessing eGovernment Progress – Why and What. Retrieved September 2008 from www.afin.uio.no/forskning/notater/7_05.pdf

58. Kalam, (2003), Inaugural address at IIT Delhi during International Conference on e-Governance.

59. Kellogg, W. A. and Mathur, A. (2003). Environmental Justice and Information Technologies: Overcoming the Information Access Paradox in Urban Communities. Public Administration Review, 63(5), pp. 573-585.

60. Keohane, R. O. and Nye, J. S. (2000). Introduction, In Nye, J. S. and Donahue, J.D. (editors), Governance in a Globalization World. Washington, D.C.: Brookings Institution Press.

61. Krishnaswamy, G. (2005). E-Services in Government: Why we Need Strategies for Capacity Building and Capacity Utilization?. Internet and Information Technology in Modern Organizations: Challenges & Answers.

62. Kroukamp,H. (2005). E-governance in South Africa: are we coping. Acta Academia, 37(2): 52-69.

63. Means. (2001). E-Government. The Price water house-Coopers endowment for the business of government (pp. 9−43). Oxford: Rowman & Littlefield Publishers, Inc.

64. Moon, M.J. (2002). The evolution of e-government among municipalities: rhetoric or reality?, Public Administration Review, Vol. 62, pp.424–433.

65. Netcaucus. (2001). Introduction – The Purpose of Transforming Government – eGovernment as a Catalyst in the Information Age. Retrieved September 2005 from http://www.netcaucus.org/books/egov2001/pdf/EGovIntr.pdf

66. Norris, D. F. and Moon, M. J. (2005). Advancing E-Government at the Grassroots: Tortoise or Hare? Public Administration Review, 65(1), pp. 64-75.

67. Norris, Donald F., and M. Jae Moon. (2005). Advancing e-government at the grassroots: Tortoise or hare? Public Administration Review 65:64–75.

68. Norris, Pippa. (2001) Digital Divide? Civic Engagement, Information Poverty.

69. Nour, M., Abdel Rahman, A., Fadl Allah, A. (2008). A Context- Based Integrative Framework for eGovernment Initiatives. Government Information Quarterly (25), pp. 448- 461.

70. Okot-Uma, R.W. (2000), Electronic Governance: Re-Inventing Good Governance, London: Commonwealth Secretariat

71. Organization for Economic Cooperation and Development (2003). The e-Government imperative (pp. 1–199).

72. Robbins, M. D., Simonsen, B., & Feldman, B. (2008). Citizens and resource allocation: improving decision making with interactive web-based citizen participation. Public Administration Review, 68(3), 564–575.

73. Scott, J.K. (2006). E the people: Do U.S. municipal government web sites support public involvement? Public Administration Review , 66, 341-353. Google Scholar, Crossref

74. Shulman, Stuart W. (2003). An Experiment in Digital Government at the United States National Organic Program. Agriculture and Human Values 20, 3 (Fall), 253-265.

75. Stanley, J.W., & Weare, C. (2004). The effects of internet use on political participation: Evidence from an agency online discussion forum. Administration & Society, 36, 503-527. Google Scholar, Link, ISI

76. Tapscott, D. (1996). The Digital Economy, New York: McGraw Hill.

77. Thomas, J. C. and Streib, G. (2003). The New Face of Government: Citizen-Initiated Contacts in the Era of E-Government. Journal of Public Administration Research and Theory, 13(1), pp. 83-102.

78. Thomas, J. C. and Streib, G. (2005). E-democracy, E-commerce, and E-research: Examining the Electronic Ties Between Citizens and Governments. Administration and Society, 37(3), pp. 259-279.

79. Tlagadi, P. (2007). E-governance for improved service delivery. Paper delivered at the Free State SMS Conference, Bloemfontein, RSA, 30August2007. [Online]. Available: http://www.fs.gov.za/INFORMATION/Events/2007/Premier/SMS%20Conference/Presentations/Tlagadi.pdf. (Accessed 20 October 2008).

80. U.S E-Government Act of (2002); http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_cong_public_laws&docid=f:publ347.107.pdf Accessed (June 22, 2014).

81. UN and ASPA. (2002). Benchmarking E-government: A Global Perspective. New York, United Nations Division of Public Economics and Public Administration and the American Society for Public Administration.

82. UNDP. (1997). Governance for sustainable human development. United Nations Development Programme [Online]. http://mirror.undp.org/magnet/policy/ Accessed (Jan 01, 2015).

83. UNESCO. (2005). E-Governance Capacity Building available at http://portal.unesco.org/ci/en/ev.php- Accessed (July 4, 2014).

84. UNESCO. (2007). Curriculum Guide On E-Governance For African Government Institutions; African Training and Research Centre in Administration for Development. http://portal.unesco.org/ci/en/files/25720/11980630809curriculum_gui de.pdf/curriculum%2Bguide.pdf

85. United Nations. (2006). Compendium- E-government Innovative Practices, New York, the Author. December. Edition I, ST/ESK/PAD/SER.E/78, available: http://unpan1.un.org/intradoc/groups/public/documents/un/ unpan022196.pdf. Accessed (Jan 22, 2014).

86. Weare, Christopher, Juliet Musso, and Matt L. Hale. (1999). Electronic democracy and the diffusion of municipal web pages in California. Administration & Society 31:3–27.

87. Working Group on E-Government in the Developing World. (2002). Roadmap for E-government in the Developing World 10 Questions E-Government Leaders Should Ask Themselves http://www.itu.int/wsis/docs/background/themes/egov/pacific_council.pdf Accessed (June 11, 2014).

88. World Bank. (2008). Definition of E-Government . http://go.worldbank.org/M1JHE0Z280 [accessed August 6, 2008] . Source: http://go.worldbank.org/M1JHE0Z280 (Assessed on 18.08.2014)

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