E-Governance: E-State in Iran — Administrative Reform Plan

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Abstract

This paper aims to review Iran's plans and practices in the field of e-government as well as various related developments in some chosen developed and developing countries.

E-government is the delivery of government services and information to the public using electronic means. In other words, it is the use of information and communication technologies (ICTs) to promote more efficient government by allowing better access to information and making government more accountable to citizens. The main goals of e-government include: (1) offering effective delivery of public goods and services to citizens via quick response government; (2) strengthening good governance mainly promoting a transparent and accountable government; (3) broadening public participation; (4) improving the productivity and efficiency to cut red tape and minimise the expenses; and (5) promoting priority economic sectors.

However, we prefer use the term, 'e-state', which covers the meaning of an e-country in a better way, since all three branches, i.e. executive, judiciary and legislative, ought to be actively involved in the process of electronic delivery of services in an e-country.

A study in Iran estimates that over 70 percent of intra- and inter-city trips made by the people is for the purpose of obtaining information, not services. Therefore, developing an e-government and distance delivery of services will assuredly cut many kinds of expenses and save time and energy to an unbelievable extent. Iranian Majlis (parliament) approved the allocation of over 100 million dollars for the development of information and communication technologies (ICTs) to public organisations in the year 1382 (21 March 2003 to 21 March 2004). Henceforth, the cabinet ratified a detailed program for implementing several national information and communication projects. The program included projects in the fields of e-government, e-commerce, e-banking, e-learning and e-health.

The Management and Planning Organization (MPO) prepared an action plan for accomplishing the e-government project to be fulfilled by different organisations. The e-government action plan was approved by the Supreme Administrative Council in May 2002. Five categories of the plan include:

1. Automation of general procedures like office automation, paperless environment, human resources management systems such as personnel and financial systems, etc.
2. Application of IT to re-engineer agency-specific procedures across the nation for a total of ten procedures a year
3. A mandate for all government agencies to connect their LAN to Internet and to create their websites by early 2003

4. Creation of a citizen portal by 2004 through which governmental agencies' information and services could be accessed
5. Selection of IT courses to be held for those employees required attending such courses <http://www.mporg.ir>.

Of course, the needed information infrastructure should be provided, and the culture required for the electronic administrative system has to be disseminated. Many efforts are being accomplished in these regards.

The first and foremost issue in implementing an e-government is to prove IT advantages through tangible examples so that all people might be encouraged to cooperate and most importantly to involve themselves. For instance, applicants may at present electronically register for the university entrance examination (about one million sit for this exam each year).

In order to prepare the needed culture, another significant effort to make people, public organisations and private sector familiar with e-government is to hold national and international exhibitions. It should be noted that the first E-Government Fair was held in Tehran in late December 2003 <http://www.egov-fair.org>. One other effort to foster the required culture is publishing various periodicals including one by MPO titled as Payam-e Tahhavvol Edari, No. 125,<http://www.mhr-mpo.ir, <http://www.elixiran.com/persian/paygahetelaat/nashriat/nashriat.htm>.

Iranian Cabinet, Majlis (parliament), and the Supreme Administrative Council have had different key approvals and sanctions (ratifications) concerning e-state in the Islamic Republic of Iran. A variety of activities have been also predicted and fulfilled all throughout the country. For instance, all governmental organisations were ordered to merely use .ir TLD (top level domain) for their Internet addresses by March 2003. Also, MPO offered to pay for part of the costs of designing and creating their websites, if they only followed MPO's mentioned guidelines.

Among other key prerequisite efforts is anticipation of many IT training courses for the civil servants in order that they might be well prepared for delivery of their related services in an e-state.

The grounds have been also paved for accomplishing an e-police in the Islamic Republic of Iran.

Meanwhile, utilising the experiences gained by other countries in the field of e-government will surely help each and every country to lessen expenses, to avoid previous mistakes and to accelerate the procedures. Hence, in this paper, we take a look at some chosen world countries to use their successful strategies, policies, practices and results, and to preplan for the problems and obstacles.

Definition

Governance may be defined as the way society works and is organised. The term 'digital governance' refers to governance processes in which information and communication technology (ICT) plays a significant role. The role played by ICT could be wide-ranging: in delivery and standards of governance services, to how people access such services, and the participation of people in the governance sphere. Digital governance uses ICT to

induce changes in the delivery and standards of governance services and more importantly, in the way citizens interact and participate in the governance sphere.

E-government, as the World Bank defines, refers to the use of ICTs to improve the efficiency, effectiveness, transparency and accountability of government <http://www1.worldbank.org/publicsector/egov/>.

Information and good governance

Access to information is power. The traditional power-bearers in the society have always realised the role of information to gain control and set up governance mechanisms in their constituencies.

In the case of good governance, information is acquired and used both publicly and strategically for *good* purposes. And in case of *bad governance*, the same information is used for *private gains* and for suppression of the citizens. In either forms of governance, the selective use of information creates hierarchal structures on which power gets unequally distributed. The skew in the distribution of power at each hierarchal level is proportional to the critical information residing at each of these levels.

Some facts on the role of information in governance are:

- access to information forms the basis of decision-making (which could be for public good or private gains)
- well-informed decision-making is dependent on the quality and timeliness of information available
- limiting access to information to an exclusive group opens up avenues for manipulation of information for exploitative purposes, such as private gains.

Good governance and digital governance

Good governance rests on the pillars of knowledge and recognition of this set of knowledge by the decision-makers and people alike. Digitisation of this entire set of knowledge within a network, which is open to all individuals (an *inclusive* network by design), opens up possibilities for all to access and use this knowledge — paving the way for digital governance or e-governance as it is more popularly known.

Introduction of digital governance ensures that citizens can participate in and influence decision-making processes that affect them closely. Citizens no longer remain passive recipients of governance services provided to them, but can proactively decide the types and standards of governance services they want and the governance structures that can best deliver them.

ICT can influence governance processes in three possible ways:

- Technical role — automation of repetitive governance tasks and thereby improving efficiency of governance processes. For instance, automated filing of tax forms, e-voting, periodic information reporting, etc.
- Supportive role — use of ICT to complement existing efforts and processes to improve governance. For instance, use of the Internet to catalyse existing efforts towards transparency in government information and functioning, or embedding use of emails in connecting decision-makers with their constituencies.
- Innovative role — use of ICT to initiate new governance services or new mechanisms for improved service delivery, which would be impossible through non-ICT modes. For instance: online checking of the status of

an application (from remote and beyond office hours); providing instant access to the same information to all individuals through emails and website; ability to instantly access, compare or triangulate information from outside of the constituency or government sources, etc.

The need for developing digital or electronic government

There is no dispute that 'electronic or e-governance' is gradually entering the domain of public administration concepts and strategies in developing countries (or, in what we term as the broader governance sphere). All developed and developing countries are now implementing a general policy to make available government information electronically to the 'public'. For instance, countries including Angola, Ethiopia, Guinea, Lao PDR, Malawi, Moldova, Niger, Qatar, Togo and Yemen have recently committed to Electronic Governance by taking steps to make government information available online. According to the UNPAN report *Benchmarking E-government: A Global Perspective* in 2001, of the 190 United Nations member states, 169 (88.9 per cent), of their national governments used the Internet in some capacity to deliver information and services. Today, all the UN members are utilising the Internet to render services <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan003984.pdf>.

Countries such as Albania, Armenia, Azerbaijan, Bangladesh, Benin, Cambodia, Cote D'Ivoire, Cuba, Ghana, Guyana, Honduras, Kyrgyzistan, Mongolia, Nepal, Nigeria, Uganda, Vietnam and Zimbabwe, for instance, maintain official government websites on the Internet, which provide information to the 'public'. (See the 'Case-Studies' section of the Digital Governance Initiative website <http://65.110.68.184/artman/publish/casestudies.shtml> to access official websites of these countries.)

The movement to e-government, at its core, is about changing the way people and businesses interact with government. It only makes sense to find out what they want, expect, don't want, and worry about. The efforts vary considerably in the methods and in the range and reliability of their results. A quick informal questionnaire distributed in a mall or posted on a website invites only those who 'come there' to express their opinions — but it is a low-cost and low-effort way to get some sense of what the people think. The formal research study that generates statistically significant results or engages carefully selected focus groups tells you more reliably what the public thinks. It also costs a lot more. And all methods are limited by the way the questions are constructed and asked. All the approaches are worth considering. Just be sure to view the results with a discriminating eye and draw only the conclusions that can be supported by the data.

E-governance — primary principle for developing countries

Digital governance in developing countries does not mean linking every citizen to a digital node or giving them access to the Internet and computers.

E-governance in developing countries implies that ensuring every community or a village has easy access to information available on the digital network and no one is excluded from accessing information on this network. Access to information could be through:

- Private/individual ICT nodes such as individual access to the Internet

- Public ICT nodes such as community Internet centres, post offices, public phone booths and government information centres
- Convergence of modes such as extension volunteers, community radios and local newspapers, which have access to an ICT node and can then relay critical information to targeted users in a timely manner (implying convergence of ICT with conventional modes).

Table 1. People participation in digital governance vs. conventional governance models

Participation indicators	**Conventional governance models**	**Digital governance models**
Mode of participation	Representative	Individual/collective
Domain of participation	In-situ	Ex-situ
Approach to participation	Passive/reactive	Proactive/interactive
Impact of participation	Indirect/delayed	Direct/immediate

From Table 1, it is evident that the use of digital governance transforms governance from 'representative' to a more 'individual-based' form, and from 'passive' to being 'proactive'. It does not require an individual to be based in the local constituency 'insitu' to influence or benefit from governance delivery services. Furthermore, as use of digital governance leads to closer contact of individuals with decision-makers/officials in the government, the impact is immediate. On the whole, it puts greater access and control over governance mechanism in the hands of individuals, and in process leads to more transparent, accountable and efficient governance.

How is Europe progressing?

In the web-based Survey on Electronic Public Services, Cap Gemini Ernst & Young (CGE&Y) (January 2004) released the results of its fourth web-based survey on Electronic Public Services in Europe, conducted on behalf of the European Commission in October 2003. The survey measures the level of online availability of a series of 20 basic public services (12 for citizens and eight for businesses) in the 15 European Union member states, plus Norway, Iceland and Switzerland.

CGE&Y evaluates these 20 services against four levels of sophistication: (1) simple online information provision; (2) one-way interaction (e.g. downloadable forms); (3) two-way interaction (e.g. electronic submission); and (4) full electronic case/transaction handling. In addition to this, a new scoring framework was added this year: (1) no full availability online; and (2) full availability online (i.e. the online service reached its maximum possible level of sophistication).

Key findings of the CGE&Y survey

The most important findings of the survey include:

- While the adoption of e-government continues to grow, the pace of this growth slowed between 2002 and 2003.
- The level of online availability and sophistication of public services has increased in almost all countries measured. Overall, this level grew seven per cent and is now at 67 per cent, compared to 60 per cent in 2002 and 45 per cent in 2001. Sweden remains on top of the league table with a score of 87 per cent. Austria, Luxembourg, Belgium, the Netherlands and France are the countries that progressed most between the third and fourth measurements, with growth figures exceeding ten per cent.
- Forty-five per cent of services surveyed are now fully available online (i.e. have reached the highest possible level of sophistication), compared to 35 per cent in 2002 and 20 per cent in 2001. Denmark leads the way in this category with 72 per cent of services receiving the maximum score, followed by Austria (68 per cent) and Sweden (67 per cent).
- Income-generating services (such as tax collection) remain by far the best performing online services in terms of online availability and sophistication, while services that deal with the administrative obligations of citizens and business and those where citizens and businesses receive value in return for their taxes score below the overall averages.
- Once again, in almost every country more progress was made concerning online services for businesses than concerning those for citizens. Services for businesses reach an overall score of 79 per cent for online sophistication and 63 per cent for full online availability, while services for citizens stay at the level of 58 per cent for online sophistication and only 32 per cent for full availability.

Its usefulness for developing countries

This survey may also be useful for many developing countries in terms of identifying those services that should be given a priority based on the experience of more developed countries. Such services may include online tax collection, job search, social security benefits, car registration, obtaining certificates and access to public libraries. At the same time, the level of sophistication reached by these countries by 2003 shows that it is an ongoing process that requires significant amount of planning, commitment, experience, and resources. Thus, developing countries may consider concentrating resources on the most cost effective e-government projects having the biggest impact on its users, as well as starting with small projects and scaling up upon obtaining experience and resources.

What US citizens want from e-government

In October 2000, Meghan E Cook tried to write a report to inform the US authorities what citizens want from e-government services. Governments in the US have used a variety of methods to find out what citizens want from e-government services. Although different methods were used, including telephone interviews, emails, questionnaires (with open-ended questions), local, regional and national conferences, random telephone survey (such as in Texas), the Web or paper ballot, different kinds of results have been generated with different levels of reliability. However, what is important is that respondents generally chose the followings from the list they had in hand:

- Renewing a driver's licence

- Voter registration
- State park information and reservations
- Voting on the Internet
- Access to one-stop shopping (one portal for all government services)
- Ordering birth, death, and marriage certificates
- Filing state taxes
- Ordering hunting and fishing licenses
- Accessing medical information from the National Institute of Health.

Renewing a driver's licence was the typically the first choice. It was followed most often by voter registration, obtaining state park information and making park reservations. Another common theme is the notion of one-stop shopping for government services, or the ability to access specific government information, such as medical or health care data. Additional services, chosen by less than 30 per cent of the respondents, were reviewing state police reports, paying parking violations, reviewing real estate records, and paying taxes by credit card.

According to a study done by Hart-Teeter for the Council for Excellence in Government, citizens see the biggest benefits as increased government accountability to citizens (36 per cent), greater public access to information (23 per cent), and more efficient/cost-effective government (21 per cent). Finally, 65 per cent of the public felt that government should proceed slowly in developing communication between citizens and government. This was due in large part to issues with security and privacy of information. Government managers, by contract, believed the effort should proceed quickly <http://excelgov.org/usermedia/images/uploads/PDFs/bpnt4c.pdf>.

When Minnesota citizens were asked if they had done business online with the state government, 87 per cent said that they had not. And when asked if they would use it if it were available, 61 per cent said they were either very likely or somewhat likely to do so.

The e-government working group in Miami-Dade County in Florida plans to develop a survey to assess the needs of the public. This effort, along with the development of a county-wide customer service program, will identify services that can be provided electronically by the local government. The state of New Jersey is working with the Eagleton Institute of Politics at Rutgers University to investigate e-government services to citizens <http://www.dir.state.tx.us/egov/surveys.htm>.

E-state in the Islamic Republic of Iran (IRI)

In order to accelerate and place further emphasis on ICT and developing an e-government in Iran, an independent unit, Information Technology Management (ITM), has been established in the Management and Planning Organization (MPO), reporting to the MPO deputy for Human Capital and Management Development. The main goals and responsibilities shouldered by the ITM briefly include:

- formulating criteria and standards in various fields of IT development in a bid to favorably render services and communicate with the public all throughout the executive organisations

- formulating policies on IT development required for the state organisations
- paving the way for establishing and developing an e-government and providing the public with electronically rendered services.

To carry out its duties and achieve the preplanned goals, the ITM has accomplished and/or is taking a series of measures, the most important of which are:

- carrying out the approvals made by Supreme Administrative Council (SAC) in the fields of automating general and specified activities (of public organisations) as well as realising an e-government
- preparing a comprehensive plan on realising an e-government, and also monitoring how the plan is being carried out
- performing the duties of the Secretariat of the Professional Commission on Administrative System Automation, which is affiliated to the High Information Council of the Islamic Republic of Iran.

IRI government investments on ICT development

The Islamic Republic of Iran Government has attached great importance to allocating increased budgets to the public organisations and state companies to develop the IT industry. The Islamic Republic of Iran in its third five-year Development Plan (2000–2004) seriously started to provide the government family with the specified annual budgets for ICT. It was in 2001 when the first considerable budget, about US$160 million, was allocated to the expansion of the ITC industry. Almost three-fifths of this budget was considered for hardware and software equipment as well as a commercial comprehensive information network, while the remaining was spent on employment generation through IT.

Iran's First Millennium Development Goals (MDG) National Report (2004, p. 34) explains that MDG indicators 47 and 48 of Goal 8 (Develop A Global Partnership For Development) measure the success of ICTs in developing countries. Indicator 47 relates to the number of telephone line subscribers per 100 population. (Telephone lines refer to the number of telephone lines connecting subscribers' terminal equipment to the public switched network.)

Graph 8-2 (p. 40) of the same MDG report shows that the number of telephone lines has increased from 4.04 per 100 population in 1990 to 23.2 in 2002. This more than five-fold increase proves that the people have enjoyed a better improved telecommunications access during the period.

The first MDG Report (2004) discloses that the number of personal computers per 100 population has more than doubled from 1.96 in 2000 to 4.80 in 2002. The notable increase proves that the Islamic Republic of Iran Government has attached great importance to the question of access to telecommunications and Information Technologies.

Meanwhile, the rate of domestic Internet users per 100 population, which is defied as the number of Internet users who are linked to a global network of computers to get information, was 8.3 persons in 2003.

It is worth mentioning that the fourth five-year Development Plan of the Islamic Republic of Iran has given special importance to the expansion of the information society, with special emphasis on increased application of information and communication technologies.

Iran's comprehensive ICT Application and Development Plan

The Iranian Council of Ministers approved the Comprehensive ICT Application and Development Plan in July 2002, which is considered a significant and effective step in the field of IT industry. The plan, prepared after 3000 hours of professional efforts, paves the way for coordination and integration of mechanised systems of various public organisations throughout the country.

It might be interesting to note that Singapore prepared such comprehensive plan in 1992, US and Vietnam in 1993, Japan in 1994, Canada in 1996, Ireland in 1997, and Malaysia and the Islamic Republic of Iran in 2002.

Although the compilation of this plan is of great importance, efficient management as well as needed resource allocation will supplement the success of the plan. For instance, Vietnam compiled its IT Comprehensive Development Plan in 1993. However, it was not as successful as the Vietnamese expected, due to various reasons including a lack of all-out organisation.

The Iranian cabinet has approved the by-laws and regulations needed for better accomplishment of the ICT Plan. The key issues of the ICT Plan are:

- formulating a National Comprehensive Plan
- paving the way for human resource development (HRD)
- providing the cultural and social requirements
- specifying the government's domain
- specifying the framework of the services
- developing the economic services
- developing the trade services
- expanding the national infrastructure of the information network
- predicting the needed law as well as the security
- specifying the domain of the Industry
- generating employment.

Respectively for each issue, there is a main section as follows:

- a Comprehensive National ICT Program
- HRD and electronic training
- culture in computer environment
- e-government
- e-services
- e-trade
- e-Economy
- Islamic Republic of Iran's National Network for security and Information Infrastructure

- laws and regulations
- SMEs
- industry sector.

Islamic Republic of Iran e-government action plan

The road map and action plan for implementation of the e-government project by different agencies was prepared by the Management and Planning Organization (MPO) and approved by the Supreme Administrative Council (SAC) in May 2002. In this document, actions to be taken were mostly put in five categories:

1. Automating general processes like office automation, paperless environment, human resource management systems like personnel and financial systems, etc.
2. Applying IT to re-engineered agency-specific procedures (work flow) across the nation for a total of ten procedures each year. The main criterion for selecting these procedures is the importance of the mechanisation of procedures in providing greater majority of citizens with better services.
3. Requiring all governmental agencies to connect their LAN to the Internet and to create their websites by early 2003.
4. Creating a citizen portal by 2004 through which governmental agencies' information and services might be assessed.
5. Selecting IT courses and specifying their contents by all governmental organisations so that their employees can take these IT courses.

Approvals, circulations and regulations on information and communication technology

To direct these efforts, MPO has issued over ten circulars during 2003, the first four of which provided the 20 ministries, four independent organisations under the President of the Islamic Republic of Iran and the 28 provincial MPOs with different Internet addresses with .ir top level domain (TLD). These organisations and agencies are exempted from registration and maintenance fees for three years.

Since many Iranian governmental organisations are using Internet addresses with .com or .org TLDs (which is contrary to their organisational structure), a fifth circular was issued by MPO that required the governmental agencies to merely use .ir TLD for their Internet addresses by March 2003.

To assure the quality and standardise the content of the governmental agencies' websites, the sixth circular was issued to provide these organisations with the necessary guidelines. In the same circular, the MPO offered to pay for part of the costs of designing and creating the web sites, only if they observe the guidelines.

In its next two circulars, MPO clarified the standards for the personnel and financial systems automation. All governmental organisations are obliged to update their systems to keep them compatible with the standards.

The ninth circular dealt with the selection of the four most developed provinces as far as their communication infrastructure is concerned. All ministries are required to pilot their IT projects first in these provinces. They are also required to set up information kiosks and citizen's portals in these selected provinces.

The next circular related to the IT education program for civil servants. In this program, seven different areas of IT know-how are picked up, and for each of which, the specific requirement (the course content) is specified. A total of 130 hours of instruction for these seven courses are to be taken by the employees during a four-year period.

MPO Council on Coordinating, Steering and Developing Web Sites

In order to coordinate, steer and develop giving information and rendering e-government services (G2G, G2B, G2C, and G2E) and also fostering free flow of information through appropriately employing IT and modern information systems, the Council on Coordinating, Steering and Developing Web Sites was established in MPO. The council shoulders duties and responsibilities, some of which are:

- Approving qualitative and quantitative standards of communication
- Compiling the needed policies, and supporting the research programs to improve the contents of the Web sites
- Determining the policies required for creating links with other websites
- Formulating practices and providing the necessary grounds for excellence of MPO public culture and knowledge regarding offering electronic services
- Reviewing the practices for e-government services
- Monitoring the proper accomplishment of the circulated policies.

Some obstacles to realising an e-government

E-government promises some striking opportunities to improve the business of any government, but this vision is not without a series of serious obstacles. Hurdles such as citizen awareness of electronic services and information, the 'digital divide' and an exodus of skilled workers must be overcome to get from where we are today to the vision of e-government. A study conducted by Brown University reveals that government websites are not making full use of available technology, and there are problems in terms of access and democratic outreach <http://www.insidepolitics.org/eovt01us.html>.

Overcoming these obstacles will take a special kind of leadership that is eager to get involved and initiate change.

According to the World Bank and Iranian First National MDG Report, there were only 48 Internet users per 1000 people in 2002. Although it is a good increase compared to the number of Internet users (16 in 1000 people) in 2001, most of the Internet users use it for entertainment. Hence, the problem is that the people need to be trained to use the e-services.

The problems that hinder the wide-spread use of IT in the government include:

- IT illiteracy among the majority of the government employees
- IT illiteracy among the majority of the people. This happens also for the university graduates
- Although the governmental websites are in Farsi Language, those who are not familiar with the English language do not dare approach computers
- Inadequate communication infrastructure to support the needed contacts

- Lack of clear, well-thought-of, coordinated, and citizen-centered e-government strategies
- Lack of laws and legal frameworks for use of IT, including the digital signature law, digital copyright law, information dissemination law and the like
- Outdated work procedures and strong inertia opposing re-engineering of the procedures, due to lack of IT knowledge
- Digital divide, known as a gap existing between those households that have access to the Internet and online services and those that do not. E-government services are ineffective when people lack necessary computers and Internet connections to use online information and services.
- Competition between government and private companies for new graduates with new skills and for seasoned professionals with deep experience is also an important challenge.

Overcoming these hindrances necessitates committed leadership and management to provide the direction and political will necessary to promote change. A report released by the Kennedy School of Government at Harvard University elaborated, "To be an effective leader in our networked world, you need to engage IT issues. You need to play a key role in establishing strategic direction, implementing specific projects, and formulating new public policies" <http://www.excelgov.org/egovpoll/index.htm>.

Another problem is that although they have the latest models of personal computers in their rooms, most of public sector managers in the developing countries do not use this expensive equipment. Few managers use their computers to accomplish their duties — they do not even send e-mails. So the managers and directors should be trained and also obliged to use Internet, so that their subordinates can be encouraged and motivated to do so.