Information & Communication Technologies and Digital Government: The Turkish Case

Turhan Mentes
Hacettepe University

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"Information & Communication Technologies and Digital Government: The Turkish Case"

Dr. Turhan Mentes

President of Informatics Association of Turkey

President Internet Council of Turkey

Secretary General of Hacettepe University

National Center for Digital Government 24 September
Amherst, Massachusetts
The Outline

- Information about IAT
- Some Figures about Turkey
- History of IS and e-government process
- Best Practices
  - MERNIS
    - The Identity Information Sharing System
  - UYAP
    - SMS Information System
  - Turkey e-government gateway
Informatics Associations of Turkey

- Informatics Association of Turkey (IAT) has been established in 1971.
- Currently have reached to ten thousand members.
- IAT which is the oldest ICT association, is also the only institution in Turkey, which intends to embrace all information systems professionals as well as those other professionals who benefit from and associate themselves with information systems in any manner when performing their respective professions.
- Organisation of IAT is of two tiers: IAT Centre and IAT Regional Branches. At present the Istanbul, Eskişehir, İzmir, Bursa, Antalya, Samsun and Ankara Branches are fully operational and work is going on for establishing new regional branches in several other major cities.
Informatics Associations of Turkey

- Establishing standing or ad hoc Committees or work groups which shall be responsible for investigation, reporting, formulation and recommendation of policy, implementation and advisory functions with regard to general areas or specific functions or concerns as designated by its Statute, or by the General Assembly and/or the Governing Board.

- At present work groups on IT Standards, Management of IT Projects, IS Terminology, Urban Development Information Systems and two so-called "IT Managers Clubs", one in Istanbul(Private) and the other one in Ankara(Public), are active.

- Also IAT is involved in e-transformation project.
Some Figures about Turkey

- Population of Turkey ~ 71 million
- 70% of the population living in urban area
- ~25 million between ages 15 – 34
- Broad band subscribers ~ 5 Millions
- Internet penetration ~ 30% of households
- Internet use of individuals ~ 40%
- ~%65 of users use Internet every day
- ~1.8% of Internet users from Turkey
- Land line phone subscribes ~ 19 Million
- GSM subscribes ~ 65 Million
- Telecommunications Services Revenue ~ 17 Billion USD
<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Internet Users</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>World</td>
<td>1,018,057,389</td>
<td>2005</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>253,000,000</td>
<td>2008</td>
</tr>
<tr>
<td>3</td>
<td>European Union</td>
<td>247,000,000</td>
<td>2006</td>
</tr>
<tr>
<td>4</td>
<td>United States</td>
<td>223,000,000</td>
<td>2008</td>
</tr>
<tr>
<td>5</td>
<td>Japan</td>
<td>88,110,000</td>
<td>2007</td>
</tr>
<tr>
<td>6</td>
<td>India</td>
<td>80,000,000</td>
<td>2007</td>
</tr>
<tr>
<td>7</td>
<td>Brazil</td>
<td>50,000,000</td>
<td>2007</td>
</tr>
<tr>
<td>8</td>
<td>Germany</td>
<td>42,500,000</td>
<td>2007</td>
</tr>
<tr>
<td>9</td>
<td>United Kingdom</td>
<td>40,200,000</td>
<td>2007</td>
</tr>
<tr>
<td>10</td>
<td>Korea, South</td>
<td>35,590,000</td>
<td>2007</td>
</tr>
<tr>
<td>11</td>
<td>Italy</td>
<td>32,000,000</td>
<td>2007</td>
</tr>
<tr>
<td>12</td>
<td>France</td>
<td>31,295,000</td>
<td>2007</td>
</tr>
<tr>
<td>13</td>
<td>Russia</td>
<td>30,000,000</td>
<td>2007</td>
</tr>
<tr>
<td>14</td>
<td>Canada</td>
<td>28,000,000</td>
<td>2007</td>
</tr>
<tr>
<td>15</td>
<td>Iran</td>
<td>23,000,000</td>
<td>2007</td>
</tr>
<tr>
<td>16</td>
<td>Mexico</td>
<td>22,812,000</td>
<td>2007</td>
</tr>
<tr>
<td>17</td>
<td>Spain</td>
<td>19,690,000</td>
<td>2007</td>
</tr>
<tr>
<td>25</td>
<td>Turkey</td>
<td>13,150,000</td>
<td>2006</td>
</tr>
</tbody>
</table>

Turkey is at the 6th place after Germany, England, France, Italy and Spain
Turkish Informatics Market 2005-2009

Telecom 74% 
Hardware 18%
Service 5%
Software 3%

- Telecom - Hardware - Service - Software
European Union Informatics Market

- Telecom: 54%
- Hardware: 13%
- Service: 24%
- Software: 9%
Share of ICT Sector in Employment in Turkey
Temel göstergeler, 2007 - 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Internet Access (%)</th>
<th>Computer Use (%)</th>
<th>Internet Use (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>19.7</td>
<td>25.4</td>
<td>30.0</td>
</tr>
<tr>
<td>2008</td>
<td>33.4</td>
<td>38.0</td>
<td>40.1</td>
</tr>
<tr>
<td>2009</td>
<td>30.1</td>
<td>35.9</td>
<td>38.1</td>
</tr>
</tbody>
</table>
Internet use for age groups

![Bar chart showing internet use for different age groups in Turkey, with data for women and men.](chart)
Types of Internet Connection in Turkey and EU

<table>
<thead>
<tr>
<th>Type</th>
<th>EU</th>
<th>TURKEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>79.4%</td>
<td>98.0%</td>
</tr>
<tr>
<td>OTH</td>
<td>15.3%</td>
<td>1.6%</td>
</tr>
<tr>
<td>CABLE</td>
<td>5.3%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Percentage distribution of internet connection types.
History of IT in Turkish Public Sector

- Ministry of Transportation - TÜBİTAK (1999): TUENA National Informatics Master Plan
- Turkish Informatics Congress (May 2002)
- Prime Ministry (2001-2002): e-Turkey Initiative
- The Scientific and Technological Research Council of Turkey (TÜBİTAK) (2002-2004): Vision 2023
- e-Transformation Project of Turkey 2003 to date…
e-Transformation Project of Turkey

- In Turkey, endeavours on transformation into an information society have also started to gain momentum since early 2000s in parallel to these developments.
- Turkey has become a party to the eEurope+ Initiative, which has been designed for EU candidate countries in 2001.
- The “eTransformation Turkey Project” that was included in the 58th and 59th Government Urgent Action Plan was launched in 2003 and hence all individual studies being carried out in our country have been gathered under an umbrella project and accelerated.
e-Transformation Project of Turkey

- The e-Transformation Turkey Project aims to carry out the process of transformation into an information society in a harmonious and integrated structure all over the society with all citizens, enterprises and public segments.

- General coordination of the Project has been assigned to the State Planning Organization and the e-Transformation Turkey Executive Board with the participation of the State Minister and Deputy Prime Minister, Minister of Transportation, Ministry of Industry and Trade, top-level bureaucrats and non-governmental organizations (NGOs), and the Advisory Council with the participation of public and private sectors and NGOs have been established.
e-Transformation Project of Turkey

- In this process, “Turkey’s Information Society Transformation Policy” which was prepared with the participation of all relevant parties, has been adopted by the e-Transformation Turkey Executive Board.

- The policy document states Turkey’s vision of transformation into an information society as follows: “To be a country that has become a focal point in the production of science and technology, that uses information and technology as an effective tool, that produces more value with information-based decision-making processes and that is successful in global competition, with a high level of welfare”.
E-Transformation Executive Board

- Board is composed of the Minister of State and Deputy Prime Minister, Minister of Industry and Trade, Minister of Transport, Undersecretary of State Planning Organization (SPO) and Chief Advisor to the Prime Minister, and was given the responsibility of supervision of e-Transformation Turkey Project. Representatives from a number of government agencies and NGOs also participate in the meetings of the Board, which are held regularly once a month.

- SPO is in charge of providing secretarial support to the Board.

- IAT is one of the five NGOs in executive board and responsible for monitoring the projects and development.
Organizational Structure of e-Transformation Turkey Project and e-Government

Members-Participants:
- e-Minister
- Min. of Industry and Trade
- Min. of Transportation
- Undersec. of SPO
- Chief Coun. to PM
- Public Agencies
- NGOs

Members:
- Ministries, Public Agencies
- NGOs
- Universities

Executive Board

SPO

Advisory Committee

e-Government Working Group

Infrastr.-Info. Security WG

e-Commerce WG

Legal Infrastr. WG

Standards WG

e-Health WG

Human Res. and Educ. WG

Monitoring WG
Best Practices of e-Transformation in Turkey
The amendments made to the abrogated Law No 1587 envisaged that "The Ministry of Interior shall be empowered to ensure the transfer of family registries to registries kept in electronic form and to facilitate carrying out civil registration acts using these registries, to provide measures ensuring the security and privacy of the registries kept in electronic form, to repel the civil registries kept in paper form,

To determine the civil registration offices empowered with issuing, registration and safekeeping of reference documents, to decide on the use of electronic signature in all kinds of civil registration acts carried out in electronic form, and to meet the requests for information from the records kept centrally in electronic form by the public institutions and the work flow in the headquarters and the districts in the scope of the principles and procedures to be determined within the completeness of civil registration services."
The Central Civil Registration System (MERNIS)

- The Law also dictated that the civil registries, comprised of family registries, special registries and microfilms maintained in paper or electronic form, are official documents maintained in paper or electronic form on a district and family basis which include information used to determine the rights and obligations of persons, their identity, family relations, nationality and civil status. Civil registries are official documents which have to be kept indefinitely. Currently, the main legislation covering all aspects of civil registration is the Civil Registration Services Law No 5490, dated 29.04.2006.
The Central Civil Registration System (MERNIS)

- The modernization of civil registration system in Turkey culminated in 2000 with the introduction of the Central Civil Registration System or MERNIS, as is known by its abbreviations in Turkish, set up after long and arduous work.

- MERNIS is a centrally administered system where any changes in civil status are registered electronically in real time over a secure network by the 966 civil registration offices spread throughout the country. The information kept in the central database is shared with the public and private agencies for administrative purposes. The aim of the system is to ensure the up-to-datedness and secure sharing of personal information and therefore increase the speed and efficiency of the public services provided to the citizens.
MERNIS has become the backbone of the e-Government infrastructure in Turkey. Currently, the MERNIS database houses more than 130 million personal data files and (as of January 2009) more than 2000 public bodies are using the up-to-date data from the MERNIS database. The services provided by MERNIS are as follows:

- Modernization of civil registration services by transferring the civil registries into electronic form
- Assignment of an unique Turkish Republic Identity Number to every Turkish national
- Provision of on-line exchange of personal information using the identity numbers as identifiers
- Provision of better demographic statistics using information technologies
- Enabling easy, fast and secure delivery of public services to the users by sharing identity information with public sector institutions and agencies, thus reducing bureaucracy
The modernization of civil registration system in Turkey culminated in 2000 with the introduction of the Central Civil Registration System or MERNIS as known by its abbreviations in Turkey, set up after long and arduous work.

The basic document used for identification purposes in Turkey is the national identity card issued by the civil registration offices located in every district. The current design of the paper-based card dates back to 1989. Recently, however, in the scope of the modernization of the civil registration services and the Information Society Strategy Action Plan9, a new e-ID card project has been initiated.
The Identity Information Sharing System (abbreviated KPS in Turkish) went into operation in 2005 as an extension of MERNIS.

Public institutions and agencies can access ID information stored in MERNIS database via the KPS under strictly specified conditions in the respective access protocols. KPS works over a Virtual Private Network and every user is assigned with a user name and password. The system keeps logs of every user and the conducted enquiries.
The Identity Information Sharing System

KPS offers the following enquiry services:

- **Web Sites**
  - Enquiry of personal information using the TR Identity Number
  - Enquiry of TR Identity Number using personal information
  - Enquiry of identity information based on information of the place of registration
  - Enquiry of copy of civil status records using various criteria.
UYAP-Turkey's eJustice System

- UYAP is an eJustice platform developed in order to ensure a fast, reliable and accurate judicial system in Turkey. As a central information system it covers all the judicial institutions and other governmental departments, which have been equipped with computers and given access to all legislation, jurisprudence and judicial records.

- All judiciary processes and transactions are now transmitted into an electronic environment. UYAP is carried out by Ministry of Justice since 2000. All the judicial units and agencies use ICT in their daily processes; UYAP currently has 34,250 users and 24,714,923 files stored. Nearly 50,000 new files are being entered into the system daily.
UYAP-Turkey's eJustice System

- UYAP directly or indirectly has influence and impact over the daily life of 5,951 judges and 3,739 public prosecutors, 818 administrative judges, 30,000 auxiliary court staff, 1,159 trainee judges, 300 highcourt members, 66,000 lawyers (aprox.), 58,000 detainee and prisoners, 31,000 prison staff, etc.

- Citizens and lawyers can realize their justice related works through internet without going to the courts. According to latest figures, 18,992 lawyers have been registered in the lawyer's portal and 4,517 of them use this system effectively.
UYAP-Turkey's eJustice System

Context and Legal Framework

- Turkish Constitution sets out under Art. 36 that everyone has the right to a legal remedy either as plaintiff or defendant and entitled to the right to a fair trial. Bearing in mind the eternal reality ‘justice delayed, justice denied’ the constitution states that Justice should be maintained in a swift and economic manner.

- Modernization of Justice is included as fundamental priorities in the Accession Partnership and in the National Plan. Legal, technical and politic reasons resulted in UYAP, which is now considered as an indispensable part of the eGovernment programs, policies and strategies. The job done by UYAP totally complies with the E-Plus strategy of the EU which aims to establish a high level information society and remove the gap between the justice staff and the individuals seeking justice.
Impact

- With the online connection of courts, expenses of bureaucracy and postal costs are removed. The judicial record database has been integrated with the database of UYAP. Birth certificates, Land Registries and driver licenses can also be retrieved online and instantly at every stage of the trials. All cases in courts can be accessible on line by judges without delay.

- The processes and correspondences that formerly took hours or days can now be done only in minutes through UYAP. Before UYAP, judicial units used to write the forms by hand one by one. All data is now automatically received by the system and transmitted into the documents. As a result, it has led to some 30% labor force savings and provided speed and reliance.
UYAP-Turkey's eJustice System

Result

- Using informatics technologies in judiciary has more advantages than supposed. At the beginning of the project there was resistance, until perceiving UYAP’s benefits. In the course of the studies the initial scepticals have also contributed the development of the new versions of the program.

- It is not so difficult to use and to get used the technology. Ministry of Justice has achieved all of its personnel to be computer literate in just three years time period. This includes staff who have been working for the Ministry for more than 25-30 years.
The SMS judicial information system provides an outstanding service for the citizens and lawyers which enables them to receive SMS messages containing legal information such as ongoing cases, dates of court hearings, the last change in the case and suits or debt claims against them.

Therefore, they can be instantly informed by SMS about any kind of legal event related to them without going to courts. A cooperation agreement has been signed with the GSM operators in order to establish this system that makes it possible to send SMS to the concerning parties’ mobile phones.
This system aims to automatically inform all related parties of cases when any legal event, data or announcement (which has to be sent parties) realized by the judicial units such as courts, public prosecutor offices and enforcement offices.

Sending a SMS does not replace official notification as it provides information to the parties so that they can take necessary measures in time without delay in order to prevent loss of legal rights.
Advantages to Courts

- The courts or public prosecutors can also send SMS to the citizens mobile phone instead of preparing and sending physical legal summons. By this way it has been saved from the expenses of postal costs, time and paper.

- When the citizen immediately applies to the courts after receiving a SMS which costs 0.047 TL there is no need to send official summon which costs 4 TL which could be covered by parties. In most cases it proves to be more effective and quicker to send SMS to invite witnesses for giving evidence in the cases since they take it serious when they receive this message.

- In addition, with this system judges and prosecutors can be informed and notified by SMS about how many days remain from their annual day off limit, the decision of appointments, assignations, placements and also any kind of development in their personal file.
All of the objectives of the Project have been achieved as a result huge workload of staff due to answering enquires of citizens in courts has been decreased significantly. Citizens can reach every kind of information about their cases anytime and from anywhere which provides efficient judicial services.

It prevents the loss of time and money, and enables better access to justice. Citizen and lawyers save from time, labour force and expenses which are needed to go courthouses for obtaining information about the processes of their files. It becomes very easy for lawyers and citizens to access their case information via mobile phones which provides a substantial save in working hours of the judicial staff.
e-Government Gateway

- In late 2005, Turkey has contracted the construction of the e-Government Gateway. Pursuant to the protocol signed with Ministry of Transportation, TURKSAT, a state-owned firm, has been assigned with the development of the e-Government Gateway Project that is still in progress. The TURKSAT team monitors and supports the development of the project.

- e-Government Gateway (www.türkiye.gov.tr) is a platform on which government services are offered electronically to citizens, businesses and other government agencies from a single website, with a simple and easy to understand format.
e-Government Gateway

- e-Government Gateway provides an infrastructure whereby our citizens can have secure access to the information and services they need. A joint structure is being established for development, provision and improvement of e-Government services by identifying the needs of our citizens and government agencies.

- Through this platform, where ID verification will be done through password and e-signature and the privacy of personal information will be protected, citizens can securely benefit from the government services offered electronically.
e-Government Gateway

- access to information and services from a single point,
- contents aimed at ensuring easy access to government services by citizens,
- customized contents and services,
e-Government Gateway

- offers public information and services to citizens and businesses with a clear and understandable language,
- is freed from legal, technical and foreign terminology,
- provides up-to-date information regularly,
- prevents the waste of effort, time and resources,
- can easily be used by disabled citizens,
- enables prompt access to public services on a 7/24 basis.
**e-Government Gateway**

**e-Service Integration**

- Point of data exchange among government agencies,
- Design and provision of common e-Government services,
- Central security, ID verification and payment unit infrastructure
E-government gateway was opened December 18, 2008
Special Thanks to NCDG Fellow R. Erdem ERKUL for his support in the preparation of this presentation...
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