

Legal Information Systems: Aspects of Quality and Access

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My Personal Background 1

- *Annual EGOV- Conference Series*: Founded 2001 they have become the big European conference with scientific focus; about 200 researchers attending: Aix, Prague, Zaragoza, Copenhagen, Krakow, Regensburg, Torino – next Linz.
- *eEurope Awards 2003*: The Como event 2003 involved 357 cases. The report drawing conclusions co-authored by the presenter - see <http://www.eipa.nl>.
- *eEurope Awards 2005 and 2007*: The Manchester and Lisbon events involved the presenter as juror for the competition.
- *Roadmap 2020*: Cooperation in EU Roadmap project on “e-Government in the Next Decade”.

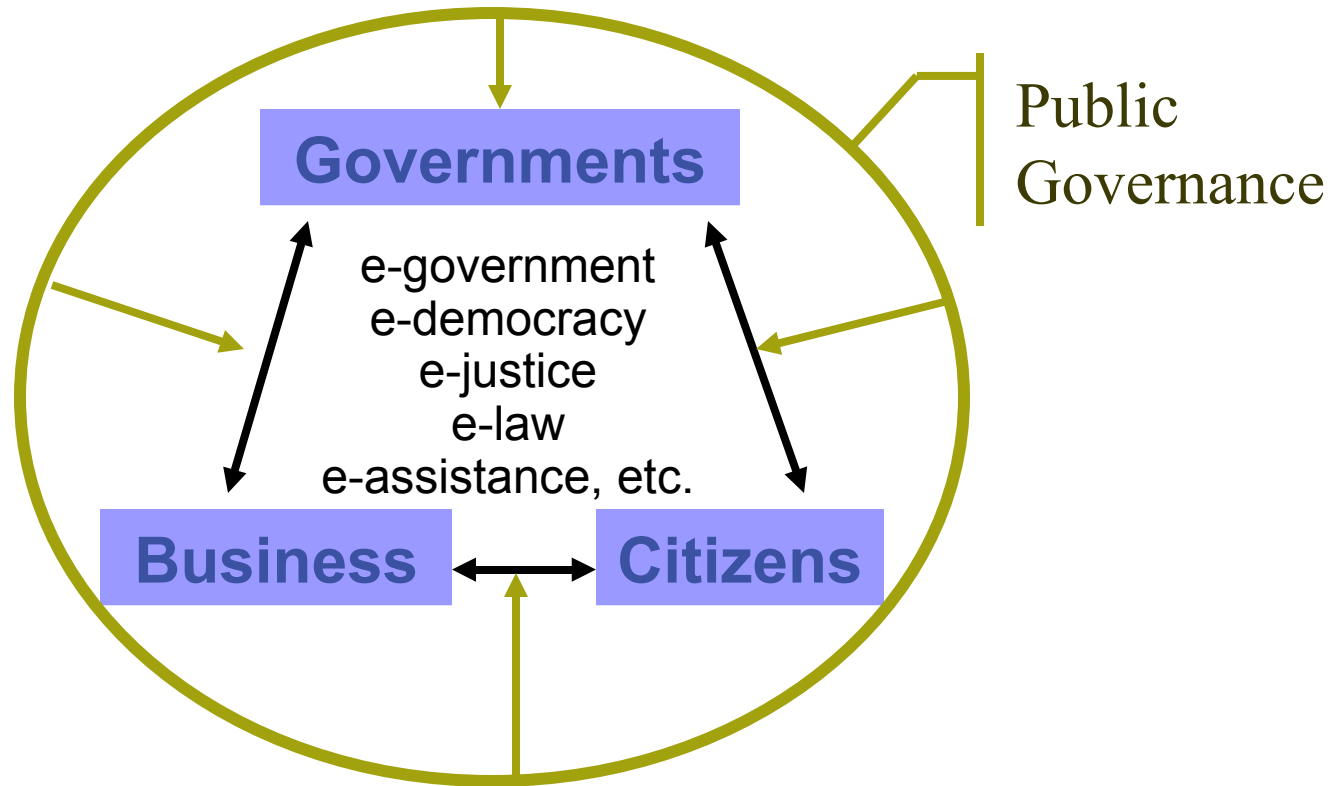
My Personal Background 2

- *Eastern Europe eGOV Days*: Annually organised by the presenter - the last years in Budapest and Prague, next event 22-24 April 2009 in Prague.
- *MEA – Workshops on e-Government*: The presenter organised one-day Workshops in Schiras and Damascus; last a WS at ICTTA in April 2008, Damascus.
- *MEA - World Information Technology Forum*: Organization by UNESCO and IFIP in 2005 in Gaborone (Botswana). The presenter was in charge of Section 8: *Empowerment and Participation*.

e-Government has a History

- Concepts on Government and IT have changed.
- The **praxis**: Big administrative projects since **five decades**.
- **Academic** interest emerged **three decades** ago starting with the term Data Processing in Public Administration.
- **International** institutionalisation by **IFIP** (International Federation of Computer Societies) with founding **1990** IFIP Working Group “Information Systems in Public Administration”.
- **One decade** ago the concepts **electronic Government** (Europe) and **digital Government** (US) were created.
- **Further concepts** have emerged: some replacing “e” with “m” for mobile or “k” for knowledge; others such as “**drop the e**” bring a radical view.
- Some years ago a new label **e-Governance** intended to broaden the scope of e-Government.

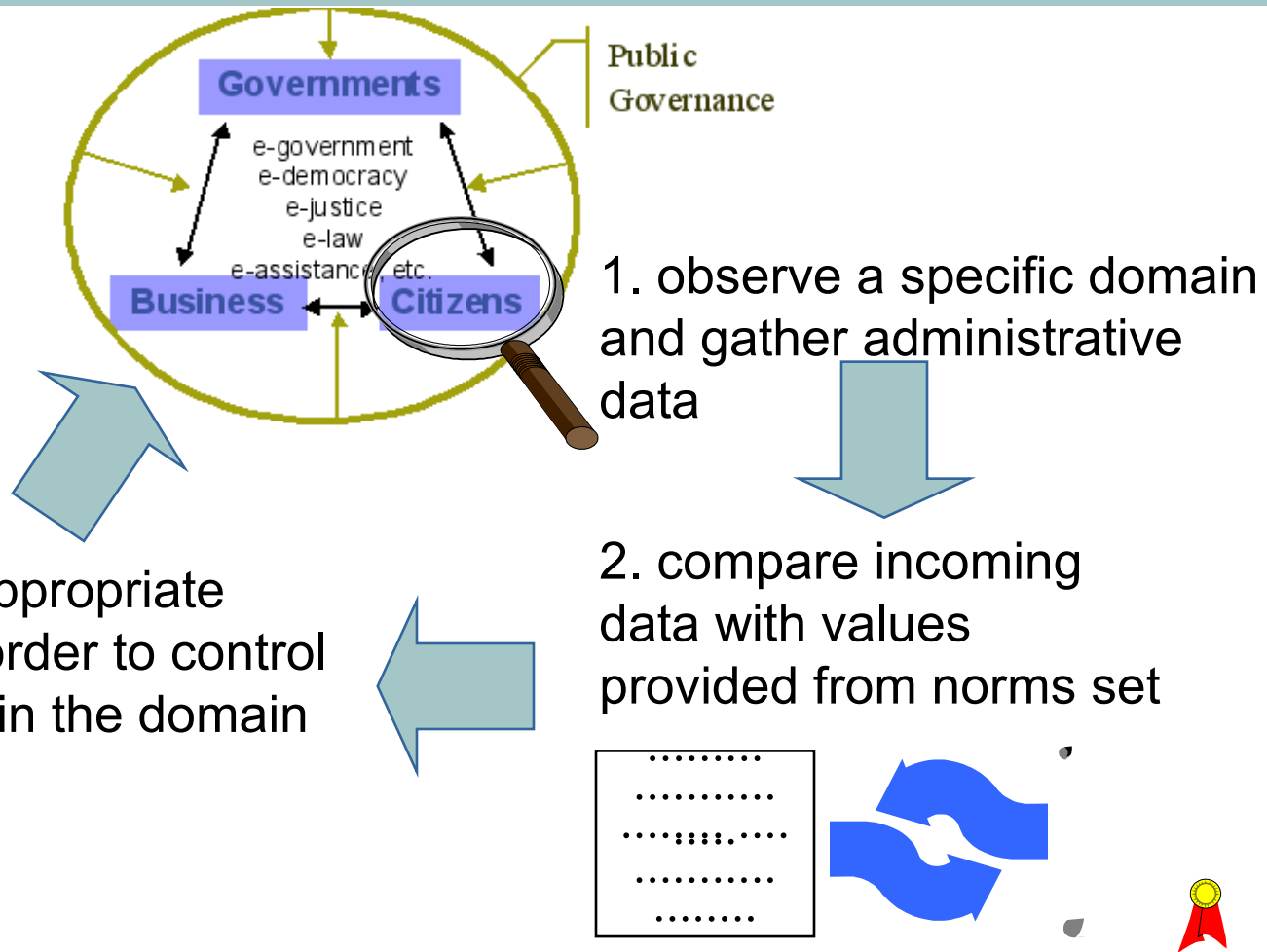
Governance as Scope



Governance - a Broader Focus

- Governance can be seen covering three zones.
- Inner: Public Administration as the machinery of Government – the main theme in e-Government.
- Middle: The “governance cycle“ or “policy cycle” (and ICT).
- Outer: The shifting balance of the public and private realm; also the role of new actors (intermediaries, NGOs) and new means (Public Private Partnership)
- The discussion on Governance has got momentum on diverse grounds:
 - a co-evolution of Public Governance and e-Transformation;
 - a trend in evaluating/ranking Governments (Education: PISA);
 - a stimulation by the corporate governance discussion.

Control Loop in Public Governance



Governance Cycle Spurring new Themes

- Ideas from the Sixties are recalled (e.g. political cybernetics). The whole “governance cycle” is regarded; attention is cast on particular themes:
 - e-Participation
 - e-Voting
 - Managing legal and admin. domain knowledge
 - Assisting legal drafting and retrieval
 - Assisting policy modelling
 - Assisting collaborative work
 - Social networks and Web 2.0
 - Evaluation with div. foci (e-Maturity, good practice projects)

Some Subject Matters

- In the following we treat several themes:
 2. Information quality - two aspects
 3. Providing information for individual citizens
 4. Providing information for e-Participation
 5. Managing the legal - administrative domain knowledge
 6. Assisting legal drafting
 7. Assisting policy modelling

Information Quality in General

- Governments, the market, and individuals increasingly need well-defined, timely, accurate, reliable and appropriate information drawn from many sources.
- In the future, guaranteeing information quality will become both more important and more difficult as the number and variety information sources (including informal sources such as wikis and blogs) continues to grow.
- So in future high attention has to go in such directions: to find, select, evaluate, and authenticate information that is appropriate for a given use.
- Evaluation mechanisms, certification and trustworthiness of information sources become important.

The Objective Aspect Information Quality

- Information quality has an objective aspect. This is easy to reach in some fields (physical and chemical data). Other domains are rather soft (social data).
- In law and administration most objective data are rather “hard”. So there is no dispute over taxation facts or the wording of norms.
- But some restrictions on access are given with regard to privacy.
- Information quality has also a subjective side. Do the users get the information they need?
- For the subjective side differences exist according to categories of users:
 - f) Professionals in administrations and in enterprises
 - g) Citizens

The Subjective Aspect of Information Quality

- For the subjective side differences exist for categories of users:
 - b) Professionals in administrations and in enterprises
 - c) Citizens
- For citizens there exist real problems:
 5. Do they have access? The question of e-Inclusion.
 6. Will they find the relevant information?
 7. Do they get information in particular cases as individual citizen?
 8. Do they get the right information for citizen participation?

Having Internet Access

- A basic request is having web access this is not always given.
- Here some examples from Europe taken in 2006 taking roll-out and take-up as examples
- 3. In general, basic services for citizens have an availability of 36 percent and 24 percent of citizens use some of them.
- 4. For enterprises the figures are even more impressive: roll-out of basic services is 68 percent, the up-take in usage is 64 percent.
- Some European initiatives have started to install free internet access in public buildings: post offices in France, parish churches in Portugal, tobacco shops in Austria.

Information for the Individual Citizen

- Life Event Advice Systems is such a case.
- With the spreading of the Internet citizen demands shifted to the centre of concern. At the same time a new way of thinking emerged regarding the citizens as "customers" of the administration.
- Life Event Advice Systems contain information and help in order to facilitate orientation in public life. In principle it is a kind of electronic administration lexicon, to answer common questions.
- The most important contents are:
 - Proof and guide function
 - Claim information about rights and/or administration services as well as about duties
 - Structure and planning information
 - Everyday life information

Help.gv.at

- A forerunner for citizen advice systems is help.gv.at. - a virtual guide to Austrian authorities and institutions.
- The system won in 2003 the eEurope Awards for e-Government.
- Base on life-situations the citizen gets information about offices and institutions as well as up to date information on procedures, fees, deadlines, etc.
- Help covers 12 federal ministries, 9 federal provinces, 80 local authorities and more than 2000 municipalities.
- Increasing number of transactions is processed through the portal.
- More improvements are necessary:
 7. translating from legal and administrative jargon into real world language and vice versa;
 8. matching automatically an incoming demand with jurisdictional structures, etc

Taking the Citizen's View

- A caveat - demands from the viewpoint of the citizen are quite different from those felt by the administration. Three examples:
 - For the citizen contacts might occur rarely and his/her question rather unique during his life time. So a particular question is a rare occasion yet needing a lot of explanation.
 - Furthermore from the point of the citizen many questions may have an very urgent character (citizen need for a new identity card or formalities necessary when changing flat).
 - Some questions are only punctual and rather subjective. This occurs whenever he demands not the whole service itself, but only some specific part of it. Examples are plentiful comprising the purchase of a railway ticket or registration for a course at the local adult evening school.

A Vision: Interweaving Human and System Expertise

- Up to now multi media is underrated in administrative work. This is due to a pronounced attention on operational processes of the workflow.
- This will change when turning to other modes of administrative work. Mediators and experts may be accessed via multi media.
- Examples are help systems offering a contact with remote experts. The experts themselves may also use diverse repositories – thus human and “machine” expertise become interwoven.

Citizen Participation on the Rise

- The role of citizens in the democratic process has evolved with introducing e-Government.
- Prime is empowering people through debate and discussion, then enhancing the transparency. Thus e-Participation develops and implements new forms of participation the communication should involve citizens, public authorities, elected representatives etc.
- One challenge is the perceived democratic deficit requiring new relationships between state and citizens. Public responsiveness should be improved, one wants to reconnect citizens with politics and policy making.
- Then, given the complexity of decision making and legislation knowledge and expertise of citizens should be tapped in a well.

ICT for Citizen Participation

- Citizen participation can be promoted by ICT use. Concerning tools here only some points:
 - Simple means for communication already help a lot: distributing information over mailing lists; building fora (chat rooms); organising committee work.
 - Collaborative platforms give advanced help.
 - Special tools for modelling (see below)
- In any case providing information is crucial. So focus is given on some key developments regarding information and it's usage for participation.
 - Managing domain knowledge
 - Assisting legal drafting
 - Assisting policy modelling

E-Participation – early Projects

- Looking back – in 2005 e-Participation was still in its infancy with interest in e-Voting and transparency,
- There were several projects using the web for voting. But most projects ran without digital signature and were often directed to rather particular circumstances. This includes voting on special issues or covering areas of less sensitivity such as professional bodies.
- Despite success of such projects the principal hindrance became clear that is rooted in the sensitivity of the issue. Another point of weakness is that an optimal solution for e-Voting needs all having a digital signature.
- Further interest was put on transparency. There is a close connection between transparency and participation in the form a mutual promotion. Transparency means giving relevant information on budgets, plans, and events.

E-Participation – New Foci

- Progress made is made based on a strong interest in e-Participation.
- The interest in electronic voting has diminished. Current projects cover less sensitive fields: voting for professional bodies, student bodies etc.
- Several projects show a direct ways to the top, so in the UK and in Estonia. One example is e-Petition which gives communication to the Prime Ministers Office.
- Various actions take place to enhance transparency. One example is the Austrian e-Law project that created a continuous production channel in law making.
- Active participation is a further item – so supporting community development and the building up of democratic knowledge.
- A particular point is the use of Web 2.0. This means not only usage of new technological developments; more it stand for an evolution of a different physical and a new virtual world. Web 2.0 applications generate a fan of possibilities.

Managing Domain Knowledge in Government

- Government has to keep up with the knowledge society needing self-reflection as intelligence organization.
- Government as a whole becomes more knowledge enhanced.
- This has been discussed at the start in treating steering models/ feedback cycles of governing.
- There is a general shifts away from structures and processes towards issues of content. This reaches the very heart of governmental work: making decisions.
- Knowledge enhancement is a general demand, that materializes in many regards.

Analysing Domain Knowledge

- Knowledge Management is an important issue. As to cite John Naisbitt: “... we drown in information but we are thirsty for knowledge”
- Our Institute has run several conferences on KM in Government all edited by Maria Wimmer (now Prof. at Koblenz University.)
- Summing up, there are many good projects - yet most solutions are isolated and quite unique.
- Generally, KM means managing:
 - Knowledge and information sources
 - Knowledge carriers and information holders
 - Knowledge needs and knowledge offer
 - Knowledge exchange and communication flows
- Techniques to analyze knowledge are manifold: Task Analysis, Groupware Task Analysis, Observations, Interviews, Scenario-based Analysis and Design, Participatory Design, Ethnographic Studies etc.

Building Knowledge Repositories

- Building repositories is directed by the proper goal. Just to give three examples:
 1. Repositories for planning purpose (e.g. urban planning)
 2. Repositories for legal matters (e.g. translating the demand for a service from a real life description in administrative terms)
 3. Repositories for process knowledge (e.g. helping beginners)
- Multiple technical means are already available: conventional databases, more advanced forms of repositories using knowledge ontology, software agents, avatars, establishing a knowledge cartography.
- The heterogeneity in repositories poses an enormous practical problem.

Knowledge Management Systems

- Knowledge Management Systems integrate diverse concepts and tools. An architecture comprises six main components of features:
 1. Domain ontology
 2. Content repositories
 3. Knowledge dissemination
 4. Content integration
 5. Actor collaboration
 6. Security

Assisting Legal Drafting

- There are three threads of development for tools:
 - Legal modelling: There is continuous work on the standardisation level. Work on description methods goes for XML technology and RDF (resource description facilities). With them it is possible to build standards for rather complex structured concepts.
 - Legal retrieval: Present systems are keyword-oriented and not case-oriented so providing limited help. Needed are tools for case based retrieval; advanced systems using deontic logic, neuronal nets probabilistic measures, etc. belong to the scientific realm.
 - Handling the flow: Workflow management and semi-structured text processing are used. In Austria the flow includes government bills, committee reports, legal enactments. Such stakeholders are ministries, parliaments, parties, consulting bodies etc. In Austria 60 tons of paper are saved by electronic handling.

Modelling Norms - a Core Task

- Modelling norms has become a hot topic. There are two independent strings of demand:
 1. Modelling norms for data exchange (e.g. for Online One Stop Government)
 2. Modelling norms for legal drafting
- For importance further arguments are found in the domain itself; the quasi ubiquity of legal norms, the quantity of rules, the diversity of regulations in various realms, such as international, European, national and local.
- For data exchange the urgency is grounded in technology itself. Data that formerly have been used locally are used globally. This makes it necessary for data to carry along their specific context.

Policy Modelling

- So the Commission started the preparation of the Work Programme for 2009 -2010 of the 7th Research Framework Programme with the topic ICT for governance and Policy modeling.
- The fan of issues is broad: policy modeling tools, opinion visualisation, mass collaborative platforms, and large-scale societal simulations.
- On-line collaborations have the potential to trigger and shape significant changes. Governance and participation toolboxes may comprise advanced tools from gaming and virtual reality technologies.
- This would include opinion visualisation and simulation solutions based on modelling, simulation, visualisation, mixed reality technologies, data mining etc.