

E-Government and Politics

Developing Transformation Paths to E-Government

Heinrich Reinermann
German University of Administrative Sciences Speyer
Post Box 1409D-67324 Speyer, Germany
reinermann@dhw-speyer.de

Abstract

What is it that makes e-Government different from earlier forms of IT-application in public administration? It is mainly the potential to create new models of state and administration, based on a drastically improved electronic accessibility of persons, data, or computer programs anywhere and anytime on the globe. However, exactly because of this spanning potential, e-Government is much more challenging than traditional EDP. The author holds that a proper understanding of true eGovernment and the necessary support by politicians and public managers have yet to be developed.

Povzetek

E-uprava in politika – Tranzicijske poti do e-uprave

Kaj je tisto, po čemer se e-uprava razlikuje od zgodnejših oblik uporabe informacijske tehnologije v javni upravi? To je predvsem sposobnost oblikovanja novih modelov delovanja države in njene uprave, ki temeljijo na bistveno izboljšani elektronski dostopnosti oseb, podatkov ali računalniških programov kjerkoli so in kadarkoli jih potrebujemo. Prav zaradi teh svojih hitro rastočih potencialov je e-uprava veliko večji izziv kot tradicionalna AOP. Avtor trdi, da se mora pravo razumevanje e-uprave in nujne menedžerske podpore le-tej šele razviti.

1 Introduction

Although a lot of progress in the e-government arena can be observed, most of us would agree that the practise of e-government does not at all live up to its potential yet.¹ However, what is e-government in the first place? Is it e-government when all public agencies have their website?

E-government is nothing less than *the latest generation of information technology (IT)*. Each generation before – from the original mainframe over teleprocessing, Personal Computers, Client/Server Systems or Local Area Networks – has had an influence on structures and procedures of public administration. In other words: each IT generation has enabled new models of administration. Just one example of this is the wave of decentralisation in the wake of the Personal Computer.

The main characteristic of e-government as the latest IT generation is the “*new accessibility*” of people, data, programs and objects (equipped with a chip) regardless of time, space, and hierarchy. This new accessibility is mainly due to the Internet technologies

like the World Wide Web (WWW), E-Mail or File Transfer (FTP) which became known on a worldwide scale in the mid nineties. Again, we can observe that this new IT generation enables new models of administration. “*New accessibility*” means a “*new shapeability*” of state and administration. People, data, programs, and objects which were out of reach during earlier stages of IT applications, can be now incorporated into new e-government solutions. Making use of boundary-penetrating potential of today’s IT, making use of the new accessibility – that is what we should have in mind when we speak about e-government.²

However, the road to new models of state and administration seems to be long and rough. It contains quite a few barriers. Helping to overcome these and paving the way to e-government, are two of the important tasks and duties of politics and politicians in these days. Some aspects of this task will be addressed in the following.

¹ See Heinrich Reinermann and Jörn von Lucke, *Electronic Government in Deutschland*, Speyerer Forschungsberichte Nr. 226, Speyer 2002.

² All states seem to be in a similar situation here. For Slovenia see Mirko Vintar, *E-Government in Slowenien*, in: *Verwaltung & Management*, Juli/August 2002, p. 228-233.

2 Visions and strategies

Life experience teaches us that we leave "well-trodden paths" only reluctantly. Science calls this phenomenon "path dependency of human behaviour". Since our public administrations work quite well: why should we leave the trodden paths of tradition and undergo the burden of change to e-government? Since our administrative information systems seem to be working quite well: what is the benefit, the pay-off of introducing e-government? Why change a winning team?

Our governments have very seldom answered such questions. Therefore, we need more *visions* of e-government. For the first time and due to recent technological progress we can treat all participants in administrative activities as a unity: politicians, employees in ministries, agencies and offices, their clients, like citizens or companies, and their suppliers. We can share the data, which are stored and processed, with these participants. We can integrate the procedures, we can organize the necessary work between application and decree, between question and answer, as holistic supply chains. Thus state and administration can become more transparent, responsive, accountable, participative, cost-efficient and professional. With e-government we have a much better chance to create a public sector corresponding to the expectations of information society. We need more visions of e-government which would reflect this IT potential.³

Beyond visions, our politicians must have *strategies* how to transform today's administration into e-government. It is like building a subway system in a large city: although this could be done step by step, one needs an overall plan of future lines, stations and connecting knots. In addition, one needs goals and resources and feedback whether these goals and means have proven to be realistic. When it comes to e-government, however, very often such strategies are lacking.⁴ This is a pity considering the fact that e-government is ambitious because it tries to connect parts of administration which were separated so far, because it involves many decision makers and because it usually requires the adaption of many laws and regulations.

3 Knowledge Management

Those, who want to deal with e-government effectively, need knowledge in several areas. However, often this knowledge is not provided because there is no institution in charge of knowledge management in the field of e-government. In that case, firstly, the *potential of today's IT* will probably be underestimated, the "new accessibility" not appreciated.

Secondly, our mental ability to create new models of administration on the basis of modern IT or to reinvent government is rather limited anyway. We need *stimulating examples*, otherwise we are in danger to digitalize traditional administrative patterns more or less 1:1 which may lead to "e-agencies" or "e-activities" but not to "e-government".

Thirdly, history has taught us that only those technical inventions which meet the values and expectations of society, have a chance to survive. Taking into account the change of *value systems* in the information society, we should consider the following criteria as relevant for sustainable e-government solutions: freedom of access to networks and to information, transparency of public affairs, privacy of personal data, peer-to-peer communication, consensual decision-making, and professionalism of each knot within the new networks of collaboration.

Fourthly, knowledge management must provide an overview of e-government projects nationwide and, even better, worldwide since space and time are no barriers to information systems any longer. Too often we try to re-invent the wheel. Instead, we need a national *division of labor* for e-government. Solutions can be and should be made available for others via the Web and their quality should be evaluated and certified. This would also spur competition and lead to "best of breed" applications.

And fifthly, knowledge management should raise the awareness of the many *complementary measures* necessary to make e-government a success, such as organizational, financial, personal, technical or legal provisions.

4 Leadership and Management

With the afore mentioned features e-government needs political and administrative leaders to stay in

³ See e. g. Heinrich Reinermann, *Verwaltung in der Informationsgesellschaft*, in: Klaus König (ed.), *Deutsche Verwaltung an der Wende zum 21. Jahrhundert*, Baden-Baden 2002, p. 163-205.

⁴ Similar Janet Caldwell, *Seven E-Government Leadership Milestones*, in: Posebna številka revije Uporabna informatika na temo e-uprava, Letnik 9, št. 4, str. 184-190.

power. It can be observed, however, that politicians or top executives – after an initial phase of euphoric support of e-government – too soon lose their interest and turn away. This is harmful for several reasons.

Leadership is necessary to define and to shape true e-government projects which utilize the boundary-penetrating potential of modern IT and often cut across traditional division of labor. Motor vehicle registration by local agencies might serve as an example. Technical vehicle data provided by the manufactures are needed there, as well as insurance data, data kept by national registers about motor vehicles and driving licences, statistical data et cetera. The new accessibility opens opportunities for process integration, multiple use of data resources and so on. "E-government" projects should not only justify this term by including into information systems persons, data, programs, and objects, which were formerly out of reach – they should be also convincing to the public because of their added value.

The development of such projects requires innovation networks. On one hand the *employees*, who actually do the daily work, must be involved. For they know best about potential improvements and requirements for better solutions. However, such an involvement of the civil service requires enough time, equipment and qualification. And this can be granted only by political and administrative leaders.

On the other hand the *clients* of public administration need to be part of these innovation networks. E-government means greater external orientation of public agencies⁵, therefore it is necessary to learn from experiences and expectations of citizens, companies and other partners.

Financing e-government projects is obviously another important leadership responsibility. The following context needs to be taken into account: modernization of public administration requires innovation. Innovation costs money. Budget money is a scarce resource. For an agency it is easier to get budget allocations if it can prove corresponding savings and revenues. Savings in resources often are possible, indeed. To realize them, however, an e-

government project needs to be considered a business case: who benefits from the project and could contribute financially? Are fees justified? Which savings are possible? A prerequisite for this to happen is, of course, that the political and administrative leaders remain involved in e-government projects to the end in order to shift the switches and to back unpleasant decisions.

5 Systematization of the Public Sector

As far as the substance of e-government is concerned, politicians and politics have to make sure that the projects deal with two fields: systematization of the public sector, and new forms of governance which have become possible.

The new accessibility of persons, data, programs and objects means, without any doubt, a big step forward. However, at the same time it becomes evident how large has actually become the *variety of our public institutions* over time. Obviously, this is especially true for federal states with autonomous local communities. Consequently e-government is faced with the task of bringing a certain degree of order mainly into data and procedures. Thus e-government means stock-taking, transparency, clearing-up, complementation, correction, harmonization, standardization, reorganization et cetera. Without a certain level of order the boundary-penetrating potential of modern IT cannot be utilized.

The Internet is in other words the end of many technical problems, but at the same time the beginning of many organizational problems. So far Internet technologies have been used to help IT experts, now we need to focus with our support on managers and organizers.

With respect to data this means more exchangeability via XML, more *compatibility* in terms of syntax, semantics and pragmatics of administrative data, but also the digitalization of the files, which are still stored analogously, and the warranty of quality as far as the content of the Internet is concerned.

As regards procedures e-government means starting processes in order to *integrate former islands* of IT applications and to utilize new software concepts like

⁵ See also Mirko Vintar, Effective Approaches to Reform of the Government/Citizen Relationship, in: Proceedings of the Second NISPAcee Civil Forum: Openness and Transparency in Governance, Maastricht 1999.

middleware or web services for application integration within and between public agencies or even private companies.⁶

But there is a big question which has to be solved by our politicians: To what extent do we really want "seamless government"? For a long time many have called for "unity of administration", but since it has become possible, we need to decide which of the built-in cracks in the flow of information we want to keep up in order to prevent side-effects which are considered harmful.

6 New Forms of Governance

Political impuls and support is also necessary in order to realize the potentials of today's IT for the new forms of governance. The input legitimacy of public activities as well as their output legitimacy can be raised this way. In other words, there is room to improve the effectiveness of the state and administration from two sides: by making better use of information and knowledge for public decisions and by delivering better service at higher productivity. In order to demonstrate some new models of public action here, let us look briefly at each side of a triangle between citizens (meant to include business companies and other clients), politics and parliament and government, administration and justice.

Citizens/ politics: This side of the triangle represents the opinion-making phase of public decision-making. The Internet has already had a deep impact there.⁷ Our public institutions have become transparent as never before. But improvement is still possible. Imagine a "democracy button" on the home-pages of each agency, allowing you to get information on all relevant laws, tasks, organization, forms, goals, impacts, outputs or costs. E-mail is also being used very frequently, but still needs improvement in order to make sure that each petition by a citizen is confirmed immediately and directed to an employee in charge where the suggestions will be dealt with and the results communicated back to the citizens. Such procedures also require electronic file processing with new requirements, e. g. for data security, for long-term filing etc.

Politics/administration: This side can benefit a lot from parliamentary and leadership information systems. Given the high degree of computer penetration in our societies, much *more digital data is available* which reflect the effects, public activities are having. In accordance with the ideas of New Public Management these data can be fed into planning, decision-making, moderation and evaluation procedures. It is a rather new situation that – via the Internet – citizens have almost the same access to information as politicians and the civil service, and that citizens are able to check if this information is used in the political processes. Rather new is also the situation that persons in a certain agency, in charge of working out or amending a law or a statute, now – via the Internet – can look for others, dealing with a similar process, whose experience can be utilized by telecooperating with them.

Administration/citizens: A final look at the third side of our triangle also reveals new models of public administration, here regarding production and distribution of services. The most important is perhaps the fact that modern IT has reduced the "ground adhesion" of public administration. This is expressed by the term "*ubiquitous or u-government*". Due to the new accessibility, many public services can be handled anywhere – think of putting a laptop and a cell phone in a car and delivering services on the spot in a hospital or in an elderly home. Visible effects of u-government will be: more decentralization in respect of "front offices" and more concentration in respect of "back offices". *Multi-channel access* is another area of new models of public administration. Due to modern IT, physical access to agencies, city halls and other outlets like citizens offices, but also call centers and online-tele-administration have meanwhile become a reality. The citizen is given a choice how to do business with public administration. With respect to online-administration, *portals* represent a new phenomenon: they organize information, communication and transaction around life situations (like marriage, building a house or retirement) or around business situations (like founding a company or getting a concession to run a firm). A pre-condition for

⁶ See Mirko Vintar, Von Business Process Reengineering zu Workflow Management in der Regionalverwaltung, in: Verwaltung & Management, März/April 1998, p. 99-104.

⁷ See e. g. Claus Leggewie and Christa Maas (eds.), Internetpolitik – Von der Zuschauer- zur Beteiligungsdemokratie, Köln 1998.

effective multi-channel access, however, is a respective knowledge management because information input via one channel must be available simultaneously at all others if necessary.

7 Sociopolitics and E-Government

Whereas the foregoing paragraphs have dealt with administrative politics, the concluding remarks will concentrate on socio-, economic, technological and legal policies. Both fields taken together constitute "e-governance" understood as all efforts of state and administration to cope with today's "digital revolution".

As far as sociopolitics is concerned, the main challenge is to avoid a "digital divide". *Qualification* in exploiting and handling modern IT is among the first public tasks which come to our minds. New models of public administration are enabled by IT but they must be created and applied by human beings. In addition to qualification, physical access of all citizens to electronic modes of public administration must be secured – either directly or indirectly via public kiosks, call centers or citizen offices. Generally e-government should be accompanied by a *social dialogue* lest IT is better developed than our awareness of the goals we want to pursue by IT. Such a social dialogue has begun e. g. on the European level with the so called "Bangemann Report" 1994 or with the initiative "eEurope2002" by the European Commission and on the national levels as well, but needs to be intensified a lot by our politicians in order to engage wide sections of our populations.

8 Economic Policy

A nation wanting to be at the forefront of e-government needs a new layer of companies capable to deliver the necessary products, services and data. Hardware and Software, application and web service development, user support, the creation of useful web content and the refinement of raw data for new purposes represent a *new class of services* coming along with e-government. Politics can do a lot to promote these new companies like the advancement of research and development, encouragement of business foundations, financial support, placing of orders, engaging new companies in e-government products, reduction of bureaucratic and legal barriers or ensuring that a qualified labor force is available.

Another important field for economic policy with

respect to e-government is to stimulate competition on the telecommunication market in order to keep the *access rates* to the Internet on an affordable level. E-government needs participation of wide sections of population and this participation depends to a high degree on the cost the citizens and companies have to bear.

9 Technology Policy

Most of the time the influence of IT on government is being discussed. However, the necessary influence of government on IT should not be overlooked either. Information systems ready for e-government must be easy to handle, fast and secure. Politicians should direct respective demands at computer and telecommunication industry and define respective procurement requirements.

Computer networks have become an important part of our critical national infrastructures. They need appropriate protection. And the citizens will not take to e-government on a broad scale if they do not trust that their data are secure. *Public key infrastructures*, which can solve many problems here, are technically ready and available, but seem to need strong supportive measures before they will be used on a wide scale. If we want to stimulate e-government, *broadband networks* will have to be introduced nationwide in order to speed up e-government applications.

10 Legal Policy

Legal policy is another field, where we can observe that some of the analogous structures of our societies must be adapted to the new digital models of public administration. An adequate *legal infrastructure* is a prerequisite for the development of effective transformation paths to e-government. By the way, most of us would agree by now that the Internet, by no means, is a space without law.

The established system of law is naturally in alignment with our traditional communication media. Therefore, quite often further development of laws, rules and regulations within e-government is necessary. Handwritten personal signatures are a typical example. Today they can be substituted by *electronic signatures*, but this requires the amendment of quite a few laws. However, a word of warning seems to be appropriate here, as we should not be "more catholic than the pope" in making electronic signatures a prerequisite for citizen/administration communication. In

the majority of cases easier forms of authentication, like passwords or the knowledge of context, will suffice and thus reduce the barriers to e-government.

Freedom of information is another example which concerns legislation. With most of the data in public agencies digitized and accessible via the Internet, the fundamental question is being posed which data should be public and which data should be secret. In most states respective laws have been released already or are on their way.

A third and final example are the *privacy* laws. They are also being amended in many states right now because of new dangers but also because of new ways of protection brought about by modern IT like encryption, chipcards, or anonymity.

Because technical progress is fast but the process of amending laws slow, experimental clauses should be used more often.

11 Character of Political Decision-making

The transformation to e-government can be compared to a mathematical function with e-government being the dependent variable and with the aforementioned influence factors being the independent variables. But often mathematical functions also contain parameters or constants, which also influence the result, but are difficult or impossible to change. In the case of transformation of e-government some typical properties of our political decision processes resemble those parameters or constants.

Unfortunately the *time horizon of politicians* in a parliamentary democracy is rather short and very often coincides with the date of the next elections. This is harmful considering the fact that e-government needs long-term strategies.

Another parameter is *lack of competition* for most of our public agencies, and this means that they can survive without product or process innovation. Therefore the incentive to turn to new models of behaviour is less frequent than for private enterprises in a market economy.

Thirdly, in some states a "denatured federalism" can be observed. It is characterized by the fact that most major public decisions are coordinated over and over again between federation, states, and local communities. This takes a long time and the results

are often meager. You might call this parameter the "*convoy syndrom*" because it is the slowest vessel that determines the pace of progress. If, on the other hand, agencies become impatient and try a solo attempt, their electronic connectivity to other institutions is in danger whereas – as we have stressed above – the "new accessibility" is one of the most important features of e-government. Politics must strike the right balance here.

12 E-Government and the Electorate

The message of this paper – in a nutshell – has been: exploitation of the "enabling technology" available today requires an "*enabling government*". About seven years after the World Wide Web has made the Internet technologies known worldwide, we have only scratched the surface of the e-government potential. Considering the size of the task ahead of us this is not alarming. But now we need a breakthrough. Will politics and politicians take care of this?

According to political scientists, like *David Easton*, politicians supportively react to demands.⁸ But: where are the demands for e-government, loudly expressed by our electorates? So far, elections have not been decided by issues like e-government. Is it imaginable at all that just public administration given its image becomes a *campaign issue*?

At this point we realize that the hurdles to e-government we have dealt with before, are standing in a circle because to raise the interest of politicians via the electorate requires the development of convincing visions of a well functioning state and administration in the information society. In order to make this happen several levers need to be operated, like the media, consultants, scientists, interest groups, employees, clients and, of course – acting politicians. Only then e-government will become a reality.

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Heinrich Reinermann holds the Chair for Computer Systems in Public Administration at the German University of Administrative Sciences Speyer. Among his fields of interest are: New Public Management and Electronic Governance. Since 2002 he is also member of editorial board of *Uporabna informatika*.

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