Electronic Governance: A Precursor of Direct democracy?

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Abstract

The concept of democracy is in theory interwoven with direct decision-taking at a level as close as possible to citizens. In practice, however, the above theoretically correct and long-pursued concept has not been possible to achieve after the so-called Athenian democracy. Technological developments and the continuous spread of electronic governance show that the issue of applying direct democracy may again be considered, not in terms of just another theoretical question but as an accomplishable event of our times. The aim of this essay is to examine the usefulness of electronic governance and whether it is realistic to consider that it will become the precursor of the establishment of direct democracy in important aspects of public life.

Keywords: E-Services, Electronic Commerce, Electronic Governance, Information Services, Telecommunication Technologies, Public Administration

1. Introduction

Electronic governance is the use of information and telecommunication technologies in public administration, in combination with organizational changes and the development of new personnel skills, in order to improve customer service, strengthen democracy and support public policies. It is also an easy way to carry out transactions within governmental units. Electronic governance could also be characterized as a new tendency towards the use of technology in supporting public administration functional areas. Technology provides profound support to public services, helping them to improve their operations and offer concrete services of use to citizens.

2. Historical Background and Recent Developments

At first, the term "e-governance" was associated with using the Internet to perform public transactions with the government. For example, citizens could submit their income tax returns from home, using their personal computer. Later it was discovered that the Internet could also be used to promote citizen participation in democratic procedures (Anastasiadis & Panagiotis, 2000). Today, governments declare that electronic governance is not limited to process automatization, but also constitutes the greatest tool towards a broad administrative reformation, where new technologies play an important role.

In the first years of the information technology spread, it was common knowledge that public institution **electronic services** (or e-services) only involved plain publication of information on the Internet regarding the institution, its operation and objectives. All was no more than plain text. Soon, however, the difficulties and constraints encountered in the definition and application of e-services revealed failures in many aspects that were important for the successful modernization of public institutions. A successful incorporation of e-services in public administration should not only involve information technologies (installed software and operational computers), but also the strategy, structure and culture of the organization. **E-services** in the public sector must be implemented following examination of all necessary governmental aspects, in order to lead to reformation, make public services more flexible and face the increasing needs of citizens.

It is commonly accepted that **electronic commerce** systems may be transferred without making any changes in the public sector. But unfortunately, simple application of electronic commerce rules in electronic governance is not enough. Public institutions entail several aspects that distinguish them from enterprises. The reformation of public services and the introduction of new procedures relate to many different factors, such as politics, legislation, national security, **personal data** relating to citizens and more (Makris, 2003).

Electronic governance can help today's citizens in many aspects, such as the following: Local and regional authorities, Health & Education, Labour market, Welfare and Security, Justice, Taxation, Postal services and Defence.

The role of e-governance is to set out a new impetus to the management of civil services by providing the best possible services while using the least possible resources. In a manner, a change of course needs to take place in the management of public affairs, in order to engage in new business activities that will develop more attractive and competitive products. Through the Internet, public information will be available in many languages, resulting in the establishment of pan-European services based on telecommunication technology innovations.

In this context, the European Union in an effort to promote electronic governance has planned and implemented Action Plans aiming at the development of applications in member states. Electronic Governance does not constitute a local trend but a global phenomenon. States such as the US, Canada, Australia and Great Britain spearhead new developments. Electronic governance, being a product of electronic

commerce, entails many of its practices and methods adjusted to a public level. According to the United Nations, "... it is a form of governance in which Information and Communication Technologies (ICT) are applied in order to reform its internal and external interrelations and optimize its functions (Bellamy and Taylor, 2003). By implementing the above technologies, governance maintains its functions and liabilities to remain useful, legal, transparent and punctual." Its main component - new technologies - is used to offer improved services, equal to the ones offered in traditional ways, without sacrificing quality; on the contrary, citizen expectations increase.

It might be that all the above face extreme delays in Greece, yet the plan exist and the Country has committed to gradually adjust to the new facts. The key word is electronic governance and the European Union has been bringing pressure towards this direction, at first through the "Lisbon Strategy" adopted in 2000, and recently through the i2010 initiative (Deconti, 2002).

3. Types and Scope of Electronic Governance

The main types of electronic governance are the following three (Bellamy & Taylor, 2003):

* Government-to-Government (G2G): data and information exchange among public services. A few examples: Interlink GSA supplies.

* Government-to-Citizens (G2C): services and communication between the state and the citizens. For example, citizens can renew their drivers licence; pay their taxes; fines or vote.

* Government-to-Business (G2B): state-business transactions. A few examples are: promotional electronic auctions, collection and management of taxes, and group purchases.

In this new way of interaction between the state and its members, all transactions performed traditionally can be incorporated, as well as new services that are supported by technological environments. Therefore, apart from electronic information services, it is also possible to offer transactions through web delivery. In general, covered fields involve the following (Fountain, 2001):

* Economic transactions (such as on-line taxation, VAT, submitting information for statistical use)

* Health services (such as the e-Health programme)

* Interaction services between citizens and several authorities (building permits, certificates, passports)

* Public information services (public libraries, higher education)

* Electronic commerce

When referring to electronic governance services, we describe a series of activities, which can be classified in four levels. These levels will enable the unimpeded flow of information to and from the public sector, and will provide both citizens and enterprises (the private sector) with better access to state services.

These levels, depending on the level of application maturity are (Hill & Hughes, 2003):

LEVEL	FUNCTIONS
1	On-line services from which the user can read or download information.
2	On-line application forms that can be rendered back by post, fax or e-mail.
3	Personal transactions and on-line applications fill-up.
4	Multiple transactions completely automated.

Finally, the application of e-Governance is not limited to the field of Computers, but also involves other technological areas, such as mobile telephony. This essay, however, will focus on the Internet, by examining related technologies and applications that involve organizing and presenting electronic governance information.

4. Advantages of Electronic Governance

The positive impact of electronic governance mainly consists of the following (Kamarck & Nye, 2002):

* Improved efficiency of public administration

Electronic public administration not only makes it possible to have easy access to the information of public authorities, but also facilitates, to a large extent, citizen transactions and reduces waiting times.

* Less administration fees for companies and citizens

Improved electronic administration services increase productivity and competitiveness. This is due to cost cuts both in public services and in corporate transactions (time, resources). For example, electronic customs clearances and VAT transactions, as well as electronic submission of tax returns accelerate procedures and, at the same time, improve the quality of transactions. Based on a recent study by the Hellenic Federation of Enterprises, bureaucratic costs are significantly less when transactions with the state are carried out through the Internet.

* Less communication costs

* Reinforcement of cooperation

This cooperation is developed among national, regional and local authorities, as well as Community institutional bodies (Simon, 2000). Public regional and local authorities are often very advanced in the field of public electronic services.

Besides the above and according to Eurostat and Transparency International data (2005), it appears that countries with the highest percentage of on-line public services rank high based on the corruption perception index of Transparency International (i.e. transparent procedures).

5. Disadvantages of Electronic Governance

The negative impact of e-governance mainly involves the following (Kamarck & Nye, 2002)**:**

* Selective access

Unequal access to information and information technologies are due to lack of education and training. In this context, education and training are of major importance, in order for citizens to acquire the essential information technology knowledge.

* The digital gap between citizens and the state

* The need of purchasing, using and accessing the Internet

* The lack of trust by users

The lack of a completely secure access to services provided. Public authorities should meet all requirements to guarantee secure access to users. With regards to this objective, the confidential nature of personal data, and the security of digital transactions and communications constitute issues of vital importance, and it is necessary to apply the maximum degree of protection.

* Necessary technological infrastructure

Access difficulties of Less Developed Countries due to lack of infrastructure; It is essential to establish cooperation among public authorities of member states in order to establish the proper infrastructures. For example: Broadband Networks, fiber optics, the interconnection of services and investments on Information and Communication technologies.

* Delays in processing due to lack of solid community regulations

In Europe, the lack of solid community regulations has so far acted as a deterrent in drafting public contracts.

Security is an important issue for the proper functioning of electronic governance. All organizational electronic information systems should undergo security checks. The aim is to protect against misuse of resources and corporate services, as well as to ensure authorized expansion of services among different people of several units within an organization (Webster, 1997).

Interaction and transactions among public authorities should take place within an environment in which security and confidentiality are of primary importance. Such an environment guarantees secure Internet access to all users and, as a result, to public authorities.

Other important issues in the interaction of e-governance services is data protection, user identification, identity authentification and other related security mechanisms (Simon, 2000). No public authority can afford to fail the above mechanisms, in order to ensure that all digital transactions and communications are secure and protected. Citizens must always be in position to control access to their personal data and to know how to save, use and assess these data. If this is not the case, besides lawbreaking, there will be significant social and economic impact. Only the data necessary to fulfil a particular purpose must be collected. Towards this purpose, importance must be paid to the use of technologies that improve the protection of personal data.

The use of high-level protection is promoted through European programmes, in order to resolve security and protection issues in data transfer networks. Data protection, network and information security, fighting cyber-crime and reliability are prerequisites for the smooth functioning of information society and constitute key policy issues within the EU. The Commission, along with the Member States, has applied a strategy relating to the above issues.

Therefore, access to specific user data and personal information is protected by law, and every user processes his/her affairs by using high-level technological products. In recent years, important developments have taken place in identification and user authentification systems (Anastasiadis & Panagiotis, 2000). Access to citizen information must fully comply with European and national laws on data protection, by incorporating the proper technologies that enable citizens to maintain as much as possible the protection of their personal information (Communications of the ACM, 2003). However, the implementation of efficient and personalized services focusing on citizen information is often hindered by rigid administration practices, competence issues and competitive systems. In most countries, the adoption and spread of these systems are still at a rather early stage and experience is gradually gained in this field. Given the size and importance of this challenge, it is the right time to strengthen cooperation in this field and to plan a joint effort to overcome difficulties in the future.

6. Implementation of Electronic Governance

The transition from traditional towards electronic governmental services is a difficult and long-lasting process. According to Delloitte and Touche Consulting, this process can be divided in six phases (The Economist, 2000). These are briefly:

Phase 1: Issuing/Dissemination of information
The various governmental units create their websites, which contain useful information on the unit and services offered. In this way, the employees needed to meet requests are less and, as a result, bureaucracy is reduced.

Phase 2: 'Official' bidirectional transactions with one unit at a time
With the help of legal digital signatures and secure websites, clients are in position to submit their personal information and perform economic transactions with certain state units.

Phase 3: Multiple-user electronic portals
Considering that clients need to outreach departmental limits, an electronic portal allows them to use a single entry point, send and receive information, and process cross-department economic transactions.

Phase 4: Electronic portal personalization
The government assigns power to citizens, allowing them to personalize electronic portals as they wish (Norris, 2001). The advantage is that more precise information will be available to meet citizen preferences.

Phase 5: Grouping of common services
This phase involves the real transformation of state structures. Governments group their services based on common lines of action, in order to accelerate the delivery of common-use services.

Phase 6: Complete integration and transformation of the operation
A center of integrated services is provided, personalized according to client needs and preferences.

The key points of strategy in more developed countries in the field of electronic governance are (Knill, 2001):

* E-governance programmes are now client-centered (or "citizen-centered"). This means that the state does not organize information on the basis of governmental structures (ministries, departments etc.), but on the basis of information pursued by clients, who do not need to know which ministry handles them.

* Electronic governance in technologically developed countries now refers to a broad number of services offered electronically, at a percentage of 90% of total governmental services.

Electronic governance programmes are based on single platforms - portals. Most technologically advanced governments offer their services through a single electronic portal.

Electronic governance services addressed to enterprises are more advanced than those addressed to citizens. This is normal in terms of public administration business models, as the improvement of corporate services brings more tangible results, refers to large projects and, therefore, brings significant cost reductions (Sunstein, 2001).

7. The Spreading of Electronic Governance in Greece and other European Countries

The institution of electronic governance is more and more spread in both Greece and Europe. After presenting certain trends in the historical development of e-governance spread in Greece and Europe, we will attempt to conduct a comparative analysis between Greece and other European member states.

In most European countries, the categories of services for which more developed systems are available in terms of on-line provisions are tax returns. The same stands for Greece, where the rate of development for these systems reaches 100% (IDABC, E-governance Observatory, 2005). The above percentage is clearly due to the TAXIS system launched in May 2000, which provides tax return and income tax options for natural and legal persons ("Online Availability Of Public Services, How Is Europe Progressing?", CapGemini, 2005).

The remaining three categories, i.e. services relating to issuing licences and documents, records, certificates and benefits, have lower percentages (provision hold the last place). It is interesting that services addressed to enterprises are more developed in terms of on-line provisions, compared with services addressed to citizens (IDABC, E-Government Observatory, 2005, CapGemini, 2005).

As shown in the previous paragraph, services addressed to enterprises have passed to the fourth phase of development with integrated-transaction systems, while services addressed to citizens are still in the third phase, in which on-line form fill-up becomes possible. The percentage of public services that are completely available on-line in Greece is 32%, fairly low compared with the corresponding percentage of other European countries ("eGovernment in Greece", IDABC — eGovernment Observatory, June 2005).

The country with the highest percentage is Sweden, followed by Austria, Finland, Estonia and England ("eGovernment in Greece", IDABC — eGovernment Observatory, June 2005 For EU-25+3: "Online Availability Of Public Services, How Is Europe Progressing?", CapGemini, 2005). On the other hand, the lowest percentages are those of Latvia, Switzerland, Poland and Slovakia (Online Availability Of Public Services, How Is Europe Progressing?", CapGemini, 2005). Regarding the level of development, i.e. the rate indicating the development of on-line services systems, the rate in Greece is 61% while the EU-25 average is 65% including Switzerland, Iceland and Norway. This means that most on-line services systems in Greece are only in still at the stage of providing documents (downloading forms, applications, etc., Online Availability Of Public Services, How Is Europe Progressing?, CapGemini, 2005).

Even though the services available on-line in Greece are less compared with other EU countries, the percentage of enterprises that use the Internet to deal with the

public sector is 81%, the 5th highest among the 24 European countries for which data is available (Online Availability Of Public Services, How Is Europe Progressing?", CapGemini, 2005). The countries that precede are Iceland (97%), Finland (91%), Denmark (87%) and Norway (84%). According to the Observatory for Information Society in Greece, the TAXIS electronic system justifies the high percentage of enterprises that use the Internet; moreover, this ratio only examines enterprises with 10 employees or above. As opposed to enterprises, the percentage of citizens who use the Internet for their transactions with the public sector is particularly low. This is apparently due to the fact that on-line services systems for citizens are not so developed as those for enterprises.

8. Conclusions

Governments, assisted by information technology and the Internet, promote and support electronic governance, aiming to provide fast and effective public customer services.

It has been established that electronic governance can assist public institutions to become more productive and to offer personalized services to all, in an open and transparent manner. The benefits of electronic governance exceed by far the initial achievements of electronically available civil services. It is important that the public sector adjusts its organization and its service capabilities towards the benefit of citizens.

This venture, though, is not an easy one, as it requires correct and timely planning, large-scale availability of infrastructures and changes in the mentality of citizens. In short, there are many limitations and constraints that need to be overcome, as well as significant investments to be made. The procedures necessary to change structures and habits are extremely time-consuming. The transformation of public institutions, as a result of e-governance, is a difficult task but, in the end, a very useful one.

Yet, by gradually following a series of steps, the transition from traditional to electronic governance will be successful. Information and communication technologies can greatly contribute towards this direction, provided that these technologies are adopted by the state and the citizens as part of a greater reformation of the public sector.

Strong leadership and political commitments are also necessary to meet the perspective of the contribution of the public sector to Europe and, in particular, to knowledge society.

The actions analyzed above, the projects and services available to citizens are expected to support and strengthen the e-governance project, which has already started, and to offer perspective towards a better future. The exchange of proper practices and the cooperation among administration units are main factors for accelerating this process and will facilitate all sectors by bringing up specific proposals and solutions.

All member states are requested to assist towards the establishment of an international public administration for European people, which will contribute to the

achievement of the Lisbon objectives and to accelerate the availability of pan-European services to both citizens and enterprises.

As a result, it will be possible to achieve free flow of information to and from the public sector and to give citizens and enterprises the possibility to obtain better and more direct access to state services.

The continuous development and spread of electronic governance will soon or later restore direct democracy after so many centuries, only this time with more quality and at a broader level.

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