

# Information in Electronic Government

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## INTRODUCTION

Information and communications technology (ICT) is radically changing productive processes in both the private and public sectors. Institutions that are more efficient eliminate production diseconomies and enable a more functional market. Specifically, institutions can multiply the incentives for human capital accumulation both by reducing the endogenous uncertainty in social-economic relations and by providing additional input to human capital generation itself (think of schools, universities, and research institutes).

Mainstream economic thinking generally accepts the argument according to which the transaction and information costs that are inherent to policy-making are largely greater than those incurred by the private sector (Dixit, 1996). If this is true, then public sector intervention is denied the possibility of achieving more efficient results than those obtained by the private sector (Holstrom & Milgrom, 1991). Yet, ICT is radically transforming the way government entities perform their activities, which makes a timely debate on public sector information, in all its forms, all the more crucial.

Public administrations are following the example of the private sector by harnessing the efficiency-boosting potential of these new technologies. This development goes under the name of "electronic government" (e-government) and it encompasses both the internal and external applications of ICT in the public sector.

The importance of this development is increasingly evident in many countries of the world. Experiments are underway in Europe, at all levels of public administration (local, regional, national, and supranational), to improve the efficiency of public services and to increase interactions with the external world. ICT not only facilitates the inner workings of administrative machinery, it also eases communication between different branches of the administration and its interaction with citizens and businesses. This latter aspect is one of the main advantages of e-government, as it brings public sector entities, businesses, and citizens closer together, as well as improving the standard of public services.

In September 2003, the European Commission issued a Communication on "The Role of E-government for Europe's Future": it stated that e-government "is an

enabler to realise a better and more efficient public administration. It improves the development and implementation of public policies and helps the public sector to cope with the conflicting demands of delivering more and better services with fewer resources" (p. 7).

## BACKGROUND

In order to understand just how complex the impact of ICT on public sector information actually is, it may be useful to start with a clear definition of the scope of e-government.

E-government is defined in the literature as "the process of transforming public administration's internal and external relations through network-based activities, information and communications technologies, in order to: (1) optimize service delivery, (2) increase citizen and business participation, and (3) enhance government capability" (Di Maio, 2001). This is probably the most comprehensive of all of the different formulations suggested so far to mark out the contours of this process, in that it identifies two macro areas—increased internal efficiency in the public administration and improvement of external relations with all parts of society—in addition to setting the medium-to-long term objectives. The implementation of these strategies is part of a broader process of re-definition of the administrator-citizen relationship, in an effort to respond to the need for change in the mechanisms of participation in the democratic life of a nation and also to boost efficiency—in terms of quality and cost—of the public services delivered to the community and to business, enabling the largest possible number of individuals and businesses to enjoy the advantages of the emerging Information Society (Aichholzer & Schmutzer, 2000).

Many of the definitions advanced at an international level go much in the same direction. European Commission (2003) defines e-government as "the use of information and communication technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public policies" (p. 7). EPAN (2004) and IDABC (2005) identify seven types of interconnected benefits: (1) improved quality of infor-

mation and information supply; (2) reduction of process time; (3) reduction of administrative burdens; (4) cost reduction; (5) improved service level; (6) increased efficiency; (7) increased customer satisfaction.

All definitions imply a rather broad vision of e-government, which is perceived not only as an evolution of the activities linked to the public sector, but also as part of a more generalized transformation of the State, through a deep re-examination of democratic practices and processes. For instance, in Zulfiqar et al. (2001) e-government is portrayed as a process that entails a complex and dynamic transformation of the entire state apparatus, at all levels, with ICT being used to involve citizens (C), businesses (B), administrations and governments—including foreign—(G), and public employees (E). These four categories represent the so-called “constituency”—the beneficiaries—of e-government strategies: in practice, it covers civil society and its democratic apparatus as a whole.

In a knowledge-based approach, a successful e-government plan hinges on the full-fledged participation of all of the categories of stakeholders in the process. The combined contribution of all of these agents is the only way to achieve the “dissemination of information and knowledge” which—together with a profound re-thinking of relations between social “communities”—may not only bring about a powerful infrastructural and conceptual evolution of the administrative apparatus, but also modify the way individual rights and duties are exercised (Lenk & Traunmuller, 2000).

The use of ICT in the implementation process of e-government closely reflects the two macro areas mentioned above. On the one hand, these new technologies contribute to an improvement of the internal efficiency of public administrations, by streamlining information and administrative process management—which will have an impact on relations between administrative apparatuses at both a horizontal level (between agencies, departments and ministries) and a vertical one (between central and local agencies). On the other hand, ICT enables better management of external relations—with the constituency—ensuring higher standards of service and information delivery to the public, as well as—at least potentially—enabling levels of democratic participation that were previously unimaginable (Caldow, 2001). Understandably, ambitious objectives such as the above require not only broad-based support, but also the implementation of a series of preliminary steps, including the following (Aichholzer & Schmutzer, 2000):

- Policies to facilitate access to information and public services (tax policies for the spread of screen-based technology, education and training policies, infrastructure endowment, services planned in a

multi-media approach, so as to minimize the exclusion of potential users in a given country (digital divide)

- The reorganization of the internal structure of public administrations in a user-centered approach, more than based on an “administrative” allocation of competence

Figure 1 identifies 4 stages in the implementation of e-government, each of which might be broken down, in turn, on the basis of policies; measures concerning employees; processes underway; and the adoption of technologies including: (a) presence of the public administration on the web, (b) interaction with the public, (c) development of transactional services (enabling the full-fledged implementation of self-service applications, as well as the use of the web as a tool that is complementary to other communications channels), (d) complete transformation of the public administration’s modes of interaction with its branches and with the citizens.

In a context in which e-government is fully implemented, public sector information management extends well beyond the straightforward supply of services to the public. It becomes the nerve center of all relations in the newborn Information Society. However, the somewhat embryonic state of the current “frontiers” of e-government appears (at least in Europe) to call for the need to kickstart the major shift forward that—alone—can transform e-government from a simple improvement in relations between public administrations and citizens to a new paradigm of government and growth in the future Information Society.

## SUPPLY AND DEMAND OF PUBLIC SECTOR INFORMATION

The expression *public sector information* is used to describe the depository of documentation that is produced, collected, and, to a degree, disseminated by the public administration. It does not cover the documentation regarding the public sector that is produced by the private sector.

This concise definition hides a far more complex classification. The wealth of public sector information and documentation may be categorized on the basis of distinctive and, partly, overlapping criteria, such as: type of entity generating the information; legal norms regulating its production and dissemination; different users and addresses; agents processing and managing the documentation; material and formal characteristics of information, etc.

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