

e-Government Strategies and Learning in Italy

Maria Angela Biasiotti, Roberta Nannucci

ITTIG-Istituto di Teoria e Tecniche dell'Informazione giuridica
del Consiglio Nazionale delle Ricerche
Florence-Italy

Abstract. *Italian government has demonstrated its sensitivity towards innovation by including a modernisation of the country public administration through the application of new ICT technologies among its political programme priorities. In this article are discussed Italian strategies for the development of the Information Society, giving especially attention to the development of e-Government and to the learning of public servants, citizens and the general public.*

Keywords: *e-Government, e-Learning, Information Society, IC technologies.*

Pagrindinės sąvokos: *e. valdžia, e. mokymas, informacinė visuomenė, IK technologijos.*

e-Government in the European Context

The present technological evolution has made it possible to have more and more powerful communication and information technologies and has enabled private and public organisations to be deeply transformed. These technologies have become extraordinary tools employed by State governments for improving the quality, the rapidity and reliability of services provided to private citizens and firms, with the aim, in the long-term, of achieving the goals of the Information Society.

The Lisbon European Council in March 2000 set an ambitious strategic goal for the European Union: to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion. Two strategies have been underlined for the achievement of this objective:

- *supporting and fostering innovation*; that is, European businesses, especially if compared with the US system, must be open to new ideas, new ways of operating, new instruments and devices and be able to use them to meet the new challenges of the global economy. For this purpose in September 2000 the European Commission published a Communication on "Innovation in a knowledge-driven economy", which established the common objectives for innovation policies in the Member States;

- *creating an information society for all*; in June 2000, the European Commission took action to accelerate the digital development of the Member States with the publication of the *eEurope 2002 Action Plan*. It set out a range of measures and actions that Member States should have to adopt in order to take maximum advantage of the opportunities offered by the application of new information technologies.

The major objectives considered in the *Plan* were: to guarantee access to a cheaper, faster and secure Internet; to invest in people and skills and to stimulate the use of the Internet.

During a European Council held in Siviglia on 21 and 22 June 2002 a new *eEurope 2005 Action Plan* was decided, which replaces and enhances the plan adopted in 2000. The new plan aims at bringing all citizens and enterprises of European Member States the benefits of the Internet, considered as a social imperative for any government and a necessary condition for economic growth.

The priorities introduced by *eEurope 2005* are to ensure widespread availability and use of the Internet through broadband connections; to develop an ICT security model; to provide fully interactive online government services (*e-Government*); to foster a dynamic and widespread *e-Business* environment; and to foster fully developed *e-health* and *e-Learning* services.

The term *e-Government* which in previous years did not have an autonomous identity and

relevance has become, especially after the adoption of the new European *Action Plan* a special keyword embracing within it all the aspects of the Information Society connected with the exploitation of new ICT technologies in the modernisation and digitalisation of public administrations.

In order to achieve these goals, especially those connected with *e-Government*, great attention must be given to the identification of major e-Government features and to their diffusion through training and education. Without devoting many efforts also to educating and training people involved, e-Government structural goals will be reached with great difficulty.

e-Government and Italian Political Strategies

Following the European strategies set out for the development of the Information Society, in recent years, the Italian government has demonstrated its sensitivity towards innovation by including a modernisation of the country public administration through the application of new ICT technologies among its political programme priorities.

This approach implies an organizational transformation of existing public administration, which from a top-down and segmented organization should move towards a horizontal, service-oriented model with intensive information exchange among all its parts and externally.

The actions needed to achieve this transformation should be quickly implemented and with special attention to high returns in terms of services to citizens and firms. Citizens however will have to become active rather than passive subjects in relation with the new Public Administration (e-democracy is one of the most stimulating goal to be reached by e-government). Therefore any action towards these directions must be based on a coherent and organic set of initiatives involving not only infrastructures, service tools and distribution systems but also contents, that is the management of change and of consequent legal adjustment as well as the development of new cultural involvements.

The main steps of the Italian Government's political strategy are the adoption of an *Action Plan for the Information Society* approved on 16 June 2000, which was followed and integrated by a more specific *e-Government Action Plan*, approved on 22 June 2000, and the approval on June 2002 of the *Government's Guidelines for the*

Development of the Information Society.

According to the first document (*Action Plan for the Information Society*), the Italian strategy focuses on four major intervention areas, namely those referring to *human capital* (training, education, research and development), to *e-government* (public administration services), to *e-commerce* (coordination, rules and procedures) and finally to *infrastructures*.

According to the specific *e-Government Action Plan*, the stress is on the improvement of operational efficiency of administrations, offering citizens more integrated services and assuring them access to online information and public services.

The tools for reaching these goals are identified in the overall interlinking of the various government departments and in the interoperability of their information systems; both can be attained with the implementation of a national extranet network connecting all central, peripheral and local Public Administration nets, together with the adoption of an electronic identity card to be distributed to each single citizen with which he/she will also be able to gain access to all online services supplied by public administrations and, finally, with the utilisation of an electronic signature so that all relations between citizens and public administrations become legally effective. Furthermore, in order to achieve full access to online services and information, central administrations are to create specific unified portals equipped with specialised search engines such as the one concentrating on legislation (the NIR project) or the one devoted to services for the citizens (civic nets), etc. Special attention must be paid to the training of public servants in order to favour their involvement into the modernisation of the administration.

The implementation of the *Action Plan for e-Government* is delegated to a special government body aiming at formulating political strategies for the computerization of public administrations. A new department within the Prime Minister's Office was created in 2001 headed by a Minister for Innovation and Technologies, who will have the task of collaborating with the representatives of local governments in appropriate institutional forums.

Finally, the *Government's Guidelines* enacted in June 2002 by the Minister for Innovation and Technologies for the implementation of the Government's programme for the development of the Information Society integrate and enhance

the *Action Plan's* objectives through three clearly defined strategic approaches:

1. *The transformation of government by means of information and communication technology* based on a model in which the public administration is responsive to the needs of users (individual citizens or businesses), provides modern services and adds value to public services while guaranteeing ease of access (so-called *e-Government*). Ensuring the efficiency and transparency of government administrative operations is a key factor for promoting innovation and competitiveness in Italy. The most highly evolved *e-Government* systems are also powerful tools for stimulating citizen involvement and participation in decision-making, encouraging evolution towards e-democracy models.

This project can only be undertaken by coordinating all of its elements: legislation, financing, organisation, procedural issues and, above all, human resources, which are an essential factor in all consistent transformations.

2. *The implementation of actions for innovation and the development of the Information Society*, which rely on a State model in which the Information Society not only plays a role in all of its great opportunities for economic development but also ensures social balance and equity. To achieve this, a series of initiatives regarding human capital, industrial and financial policy, legislation and infrastructures are to be undertaken. Special attention must be given to the consolidation of a training policy for public servants and to the introduction of digital literacy as essential and urgent actions to be taken within the educational system (including the University) and within the post educational stage.

3. *International action*, aiming at developing an international cooperation programme for the digitalisation of governments in developing countries (so-called *e-Government for Development*). **ese lines of action are developed in a consistent and synergistic**

e-Government Learning in Italy

As we have already underlined, it is impossible to attain huge transformations within the public administration system without, at the same time, focusing attention on the human resources involved in the use of services (citizens) and in the realization of them (public servants). The human factor must not be underestimated as it is essential even for the structural and organizational development of the labour-intensive world

of the public administration.

Studies show that large sections of the population do not have the knowledge they need to use information technologies and, therefore, risk being excluded from the digital revolution and that a "digital divide" exists within society which must be faced with policies favouring widespread computer literacy. Digital literacy initiatives are, therefore, the major tool for promoting innovation in the various fields of the country's economic and social life and for moving towards the development of the Information Society, as recognized in various political and legislative documents.

However, it is generally acknowledged that it is necessary to teach the general public both how to use new technologies and to understand their benefits: this means increasing the level of skills in the use of information technology both by those who have only very basic knowledge and those who are using information technology tools for the first time, in order to increase the productivity of all those who need to use computers, and last but not least, to provide training that allows anyone, regardless of his or her basic education, to be a part of the Information Society. The *Government's Guidelines for the Development of the Information Society* recognize priority lines of action such as: bringing digital literacy into schools and universities, promoting the European Computer Driving Licence (ECDL), equipping public sector employees with IT skills, providing post-educational courses in computer literacy, providing access points to the Internet. Schools and universities are considered the fundamental channels for digital literacy, and present curricula should be adjusted in order to offer a global response in the medium-to-long term. Proper training and updating courses are, on the other hand, to be created for solving medium-to-short term needs, especially referred to the refresher courses for public servants engaged in the use of new technologies.

The extent and quality of the transformation of competences and abilities of human resources (comprising citizens and public servants) can easily be managed by traditional means (classroom teaching), but also through innovative approaches, such as, e-learning, which is to be proposed as the most suitable tool, even in accordance with what is believed by the Italian government. In fact the importance of e-learning derives from the present need for providing a sort of ongoing retraining of skills which become

obsolete very quickly in today's competitive system, while the traditional model of education is no longer sufficient.

As to the conceptual framework on which courses are to be based, attention should be paid to both technical issues able to guarantee a basic technological background and to political and legal issues, essential for the promotion of the Information Society, especially those referring to *e-Government*.

It is now worthwhile focusing on the educational initiatives that have been carried out in Italy in the last few years for the training and updating of public servants and for the acquisition of basic digital literacy by citizens and the general public.

e-Government Learning for Public Servants

Recently, some refresher courses for public officials to be used off-line and via the Web have been developed by the Istituto di Teoria e Tecniche dell'Informazione Giuridica (ITTIG) of the Italian National Research Council, utilising hypertext instructional modules. The Institute is engaged in a large national research project entitled *Norme in Rete* (Legislation on the Net), financed by the Italian Ministry of Justice which aims at creating a unified portal on Italian legislation. For reaching this goal, all public administrations collaborating with the NIR Project are to standardize the representation of their legal information in a structured way through the application of a personalized markup language based on XML and on its specific document type definitions (DTDs). A teaching module relating to the peculiarities of the XML language was, therefore, developed for training the public servants involved and applied to numerous administrations at local and regional level.

This system, dealing with general concepts of the XML language, consists of 12 units, subdivided into more short lessons and was developed with object-oriented programming tools, including various components: *texts of the lessons*, into which the disciplinary domain was subdivided, presented and organised in hypertext form; *multimedia material* such as videos, animations, sound files, interactive graphics of relevant legal or technical procedures and electronic notebooks for stimulating the user's cognitive development; *exercises*, also of an interactive kind, for providing the user with tools for personal evaluation of the level of learning she/he has reached; *a search engine*, with weighted terms, using the

information retrieval vector model; *online animated help* to make the software use more user friendly.

Other experiences should be mentioned.

A Master's Degree on *e-Government* was organised by a Consortium of local authorities in the South of Italy. It was held this year in Naples and aimed at updating and improving the ICT knowledge of public servants and employees. The Master's concentrates on the most relevant legal and practical issues of the electronic public administration system, focusing especially on new technologies and integrated public services. The Master's deals with: e-Decisions or cooperation models among local authorities (digital signature, digital identity card), e-Services or relations between citizens and private firms, e-Procurement or relations with suppliers and e-Works or relations with employees.

Another Master's on the *PA and Innovation Technology* was organized only for public officials by the public administration schools together with the University of Bologna. The course was divided into two sections, one concentrating on technological issues (information systems, communication networks, tools and methodologies for public communication) and the other focusing on legal instances of the innovation of technology in the PA (security, information technology law, internet law). The courses in both sections are mainly based on e-learning tools and methodology.

For accelerating the innovation process within their organization, in accordance with the *e-Government Action Plan*, some Italian Ministries have promoted the realization of refresher training courses to be given to all personnel. One of the most relevant examples is offered by the Ministry for Education, which has created its own training center for educating its leading staff to take advantage, in its work organization, from the application of new technologies and, in this way, to accelerate change from inside. Another important experience is represented by training courses on e-Government issues organized by Regional Centers recently founded for these purposes and already administered to a great number of leading staff involved in regional and local governments.

e-Government Learning for Citizens and General Public

With regard to courses or Masters' specifically oriented to teaching *e-Government* issues

in the Italian educational and post-educational system, different approaches have been identified.

A Master's for lifelong learning was promoted this year by the European School of Economics entitled *Internet Law* dealing with the issues of information society and globalization (privacy protection, e-commerce, digital signature, cyber crimes, digital intellectual property, e-government) and some e-learning seminars on PA innovations and on e-Procurement and e-Commerce for lawyers were also held.

A Master's on the *Law of the Digital Era* was organized by Trento University and, although the main subject of the course is e-commerce, attention is also paid to major e-government topics.

Other Masters' were organized by the University of Camerino (*Law, Economics and New Technologies*), Bologna (*Information Technology Law and Legal Informatics*), Pavia (*New Technologies for the Public Administration and E-Government*) and Rome (*Ma.Go.L. -Local Government Management and Institutional Communication and Organisation through Advanced Technologies*).

The Master's held in Camerino is a post-graduate course, aiming at training highly qualified experts in the use of new technologies and at making them aware of the legal aspects involved. Teaching is partly traditional and partly online. The course consists of 10 modules, dealing with computer science aspects, digital literacy, legal informatics, e-commerce from the economical and legal point of view; digital documents, domain names, computer crimes, telecommunications law; a module is devoted to e-Government issues, treating specifically the relations between technology and PA; the right of access, legal documents drafting and e-procurement.

The Master's held in Bologna was promoted by CIRSIFID and focuses especially on the main domains of information technology law (e-commerce, intellectual property, privacy protection, security, digital signature, informatics applied to the public administration).

The Master's held in Pavia aimed at training experts on the technological and legal responsibilities strictly connected to e-Government.

A Master's on *Institutional Communication and Organisation through Advanced Technologies* was promoted by the University of Rome and several modules are devoted to the legal aspects of e-Government.

4. Conclusions

If we consider the present panorama outlined above, we can observe the following:

- there are only a few courses specifically oriented to public servants although they should be the main actors and the key human resource of PA transformation;

- a certain number of post-graduate courses (Masters') have been promoted in some main university centres but they are usually attended by graduate students wishing to locate themselves within the development process of the Information Society;

- courses oriented to offer basic digital literacy to ordinary citizens are very rare;

- if we consider that e-Government raises instances relating both to public and private law, it is to be pointed out that the attention of the courses is focused almost exclusively on private law issues involved with so-called citizens rights;

- e-Government courses do not deal with topics of public and constitutional law (European and national legislation, European and national political strategies);

- e-Government courses do not deal with topics of a social nature which, on the contrary, should be known to all citizens if they are to become actors of social transformations;

- the methodology usually implemented is *blended learning*, that is, a combination between traditional teaching and on line work and learning;

- e-commerce is the major subject covered within the courses on e-Government, consolidating a mercantilistic view and approach to it by the majority of people.

Anyhow, if it is recognized that social transformation is also based on e-Government, this must be interpreted, from the conceptual point of view, as a whole made up of different disciplines, including information technology and administrative sciences as well as social sciences and finally the law. The interdisciplinary approach means that the topics to be taught are to be derived from all the disciplines involved, also taking in due account the priorities and aims expressed in official government documents.

It would be useful to create an *ad hoc* university curricula specifically oriented to e-Government issues. These should be inserted within the law school system or applied in post graduate courses, in order to create new skilled professionals able to better implement e-Government actions and to support citizens in becoming

ing more aware and informed of their rights and of the services available to them through the public administrations.

Also as *e-Europe 2005* aims at a digital harmonisation among European Member States, the creation of a permanent observatory of teaching experiences in the European context would be advisable, as it should help to compare topics and disciplines taught and to face the

problem of the digital divide among different countries.

Bibliography

1. e-Government in the European Context, <http://europa.eu.int/>
2. e-Government and Italian Political Strategies, <http://www.innovazione.gov.it/ita/index.shtml>

Maria Angela Biasiotti, Roberta Nannucci

Elektroninės valdžios strategijos ir mokymasis Italijoje

Santrauka

Šiuolaikinių technologijų evoliucija sudaro sąlygas naudoti vis galingesnes komunikacines ir informacines technologijas bei sudaro prielaidas privačių ir viešųjų organizacijų kaitai. Šiame straipsnyje nagrinėjama visuomenės transformacija į informacinę visuomenę bei e. valdžios įtaka šiam procesui. Taip pat nagrinėjama Europos Sąjungos e. valdžios vizija, Italijos e. valdžios įgyvendinimo strategijos bei projektai, turintys įtakos e. valdžios kūrimui Italijoje. Daug dėmesio straipsnyje skiriama Italijos tarnautojų ir piliečių mokymams, susijusiems su informacinėmis technologijoms ir šių mokymų daromai įtakai e. valdžios kūrimo procesui, remiantis tuo, kad e. valdžios sėkmingos veiklos ašis yra tarnautojai ir piliečiai, kurie moka ir nori naudotis informacinėmis, komunikacinėmis technologijomis.

Maria Angela Biasiotti – Teisinės informacijos teorijos ir technikos instituto prie Italijos nacionalinės tyrimų tarybos mokslinė darbuotoja

Elektroninis paštas m.biasiotti@ittig.cnr.it

Roberta Nannucci – Teisinės informacijos teorijos ir technikos institutas prie Italijos nacionalinės tyrimų tarybos mokslinė darbuotoja

Elektroninis paštas r.nannucci@ittig.cnr.it

Straipsnis įteiktas 2004 m. spalio mėn.; recenzuotas; parengtas spausdinti 2004 m. lapkričio mėn.