

e-GOVERNMENT AND DIGITAL INCLUSION

e-GOVERNMENT AND DIGITAL INCLUSION

Cesare Maioli (ed.)



Prensas Universitarias de Zaragoza



FICHA CATALOGRÁFICA

e-GOVERNMENT and digital inclusion / Cesare Maioli (ed.). — Zaragoza : Prensas Universitarias de Zaragoza, 2008

135 p. ; 22 cm. — (LEFIS Series ; 4)

ISBN 978-84-7733-552-8

1. Internet en la administración pública. 2. Brecha digital. I. Maioli, Cesare. II. Prensas Universitarias de Zaragoza. III. LEFIS Series (Prensas Universitarias de Zaragoza) ; 4

004.738.5:35.072.7

004.738.5:316.4.063.2

No está permitida la reproducción total o parcial de este libro, ni su tratamiento informático, ni la transmisión de ninguna forma o por cualquier medio, ya sea electrónico, mecánico, por fotocopia, por registro u otros métodos, ni su préstamo, alquiler o cualquier forma de cesión de uso del ejemplar, sin el permiso previo y por escrito de los titulares del Copyright.

© LEFIS

© De la presente edición, Prensas Universitarias de Zaragoza
1.ª edición, 2008

Ilustración de la cubierta: David Guirao

With the support of the Lifelong Learning Programme of the European Union

Director de la colección: Fernando Galindo Ayuda

Coordinadora de la colección: Pilar Lasala Calleja

Prensas Universitarias de Zaragoza. Edificio de Ciencias Geológicas, c/ Pedro Cerbuna, 12. 50009 Zaragoza, España. Tel.: 976 761 330. Fax: 976 761 063
puz@unizar.es <http://puz.unizar.es>

Prensas Universitarias de Zaragoza es la editorial de la Universidad de Zaragoza, que edita e imprime libros desde su fundación en 1542.

Impreso en España

Imprime: Servicio de Publicaciones. Universidad de Zaragoza

D. L.: Z-2424-2008

TABLE OF CONTENTS

Introduction <i>Cesare Maioli</i>	9
Legal Regulation and uneven Global Digital Diffusion <i>Abdul Palizwala</i>	15
Qualification of territorial e-Government policies through promotion of e-Participation <i>Cesare Maioli</i>	41
e-Inclusion in Lithuania: state policy approach <i>Rimantas Petrauskas, Auste Kiskiene, Tatjana Bileviciene</i>	73
The development of e-Governance and the issue of digital inclusion in Greece with particular regard to the constitutional right of e-Participation <i>Ioannis Iglezakis</i>	95
The Agency for the Promotion of e-Government, the Information and Knowledge Society in Uruguay <i>Andrés Saravia</i>	119

INTRODUCTION

Cesare Maioli*

LEFIS organized a meeting in July 2007 in Jaca (Spain) to discuss the status and the perspectives of e-Government especially applied to the legal aspects of society.

As it is known the potential benefits of e-Government are numerous and they include greater efficiency, improved public services, enhanced engagement with citizens.

Yet progress has been relatively slow, particularly when compared with other sectors such as e-Commerce.

From the presentations of some experiences focused in particular on digital divide, e-Participation, form of government, role of citizens, planning methodology in proposing solutions for citizens, the book highlights some problems and solutions to help overcome barriers.

The experiences follow the objectives of the European Commission's 2010 e-Government Action Plan: leaving no citizen behind; making efficiency and effectiveness a reality; implementing high-impact key services for citizens and businesses; putting key enablers in place; and strengthening participation and democratic decision-making.

Considerations on general issues such as e-Inclusion and e-Participation in a global perspective are mixed, in the book, with e-Government development experience in several states (Italy, Lithuania and Greece).

* Faculty of Law and CIRSFID, University of Bologna.

The main findings of the experiences may be summarized according to organizational, technical assessment and managerial points of view.

From the organizational point of view: the rate of involvement and insight of the political and regulatory bodies are of paramount importance; many times the decision making about apparently technical aspects given to information officers and technologists is a short minded and ineffective measure; the strategy adopted seems to ensure that the ICT investments reflect governmental needs and are basis for solutions that stimulate demand. The authorities which have not yet developed such a strategy have been forced to do so in co-operation with the different stakeholders; the appointment of the project ownership to the appropriate level of authorities (according to the principle of subsidiarity make the inner energy grow); the need of e-Voting and direct e-Democracy seems of secondary importance compared with the desire of available services and the willingness of citizens' participation to the decision making process.

From the technical assessment point of view: the network and the Internet paradigms are more and more accepted and assimilated and virtual communities of users of existing services spread the perception of the technologies as an enabler for sustainable communities; in particular the one-stop approach and the availability of a bundle of transactional services behind a single query which was till few years ago just as a target at reach, is felt as an ordinary way to access services by the wide public; high speed connection and support to the convergence between the Internet, telephone and TV are asked by knowledge workers as well as by the ordinary users of generic service; the idea of life-long learning it is widely accepted and the issues of getting more insight on information technologies is considered crucial; while great concern is detected about privacy and data transparency, some basic technical issues, such as data integrity, information redundancy and system consistence, are given for granted by the users while the current practices are far from providing a satisfactory solution; data warehouse processes, data mining techniques and knowledge management procedures in the public administrations are unexpressed necessities that either companies or citizens are looking for.

From the management point of view: the e-Government experiences provides a tool for experimenting new ideas, methods and new regulatory arrangements (e.g. area plans, consortia of bodies at various institutional levels); new and more effective partnership emerged among the local authorities; the involvement of politicians, especially at the European level, has permitted a wider dissemination of best practice at local level, an increase of available resources and has encouraged the creation of the critical mass required for many projects; there is, in a few cases, a gap between design and implementation, also if many projects are still under development; episodes of de-motivation may effect some of the fast running and more entrepreneurial local authorities; sometimes the wide variety of goals, projects, plans, selection procedures and the novelty to define a politics for ICT made the things very complex.

In 2001, at Aix-en-Provence about 100 European researchers and practitioners, in the field of e-Government, under the lead of R. Traummuller and T. Lenk, designed and undersigned, a declaration on e-Government whose main points appear to be valid and followed by the experiences described in the book:

- 1) A holistic view. This means that e-Government must proceed on the basis of an integrated view: it must seek to achieve a permanent transformation enabling governance on a comprehensive scale.
- 2) Service provision as focus. ICT services for businesses, citizens, and communities must be designed so as to serve needs as they emerge from outside government itself.
- 3) Redefining governmental processes. This requires thoroughly rethinking the machinery of government, so as to bring out many more situations in which ICTs as an enabling tool can enhance the effectiveness, quality, and efficiency of public action, all the while making it more legitimate.
- 4) Knowledge-enhanced government. This requires shifting the focus from structures and processes to content, so as to get to the very heart of administrative work: the deeper the understanding of the connections between processes and knowledge, the better the resulting system design.

- 5) A sound engineering approach. This means that tools and methods for reengineering public-governance processes and institutions should take into account the role of human activity, knowledge, and decision-making capacities.
- 6) Reference models and administrative standards. Model practices and pilot projects should be used, because this will give an idea of the full potential.
- 7) Change management. Good government needs strong innovation, and the way to do achieve this is to look to the landmark projects as a guide, using the best practices and guidelines worked out on that basis rather than on new experimentation with peculiar approaches.

Abdul Paliwala in the paper ‘Legal Regulation and uneven Global Digital Diffusion’ goes deep and give insight to the meaning of digital divide as a uneven global diffusion either in developed and undeveloped countries, which can be explained within the overall context of networks and relationships which connect with information technology and such key contexts are provided by the processes of global technology diffusion. Digital divide is as well a danger that can be tackled by holistic considerations of the legal, regulatory and other processes which lead to inequalities in global diffusion of digital technologies. The conclusion is that there is need to address the fundamental structural issues of power and these can only be resolved by resort to concepts of human rights and social justice.

Cesare Maioli in the paper ‘Qualification of territorial e-Government policies through promotion of e-Participation’ stresses that Local government is providing services and encouraging people to be involved in shaping their ideas and the future of their communities; once a virtuous cycle is in motion, citizen engagement in the public sphere will happen by progressive stages. Four Italian success stories are presented dealing with education, health, access to service, and cooperation and group decision.

Rimantas Petrauskas with A. Kiskiene and T. Bileviciene presents ‘e-Inclusion in Lithuania: state policy approach’ where it is explained how

e-Inclusion related policy and research activities can take many different forms: from full-fledged policy programs or policy statements to grassroots initiatives, from basic research projects and technology development to market implementation studies. Several types of e-Inclusion are related to public policy activities: inclusive online services, independent living, e-Services for social inclusion. The main goal is to ensure, that people could use ICTs, be more flexible and adjust to changing circumstances. Full details are then given to several practical governmental initiatives to stimulate e-inclusion in Lithuania.

Ioannis Iglezakis in the paper ‘The development of e-Governance and the issue of digital inclusion in Greece with particular regard to the constitutional right of e-Participation’ indicates the many chances and risks for the society connected with the development of e-Government initiatives, in particular on the digital divide issue. Starting with the general legal framework on e-Government and the Greek legislation pertaining to digital inclusion, and making considerations of general value, it is reminded how the imperative to promote digital inclusion is enshrined in the Greek constitution itself, which provides for a right to e-Participation; however, this right is not directly actionable, and therefore, it does not provide the means to judicial recourse. Policies with regard to digital inclusion could be included in the definition of the ‘universal service’, and also in legislative programmes having this objective.

Andrés Saravia in the paper ‘The Agency for the Promotion of e-Government, the Information and Knowledge Society in Uruguay’ shows how Uruguay started e-Government programs in the framework of South American experiences. The cooperation among already existent networks as well as the reuse of solutions are of paramount importance to speed up the processes of e-Inclusion. The steps of the recent launch of e-Government programs are detailed and explained.

LEGAL REGULATION AND UNEVEN GLOBAL DIGITAL DIFFUSION*

Abdul Paliwala**

Abstract

The swift emergence of a global ‘information society’ is changing the way people live, learn, work and relate. An explosion in the free flow of information and ideas has brought knowledge and its myriad applications to many millions of people, creating new choices and opportunities in some of the most vital realms of human endeavour. Yet too many of the world’s people remain untouched by this revolution. A ‘digital divide’ threatens to exacerbate already-wide gaps between rich and poor, within and among countries. The stakes are high indeed. Timely access to news and information can promote trade, education, employment, health and wealth. One of the hallmarks of the information society – openness – is a crucial ingredient of democracy and good governance. Information and knowledge are also at the heart of efforts to strengthen tolerance, mutual understanding and respect for diversity.
Kofi Annan (2003).

I don’t have a Mercedes Benz and I want one, but I cannot afford it.
Michael Powell 2001 as cited in Cooper (2003).

The notion of a digital divide has become an accepted part of the information society scape as ‘one of the greatest impediments to development’ (Wolfensohn, World Bank, 2000). Yet the significance of

* This chapter is a revised version of the paper published in *UTS Law Review* Vol. 6, and is published with the kind permission of the editors.

** Professor of Law, University of Warwick. Associate, CSGR.

the divide does not go unchallenged. For those such as Michael Powell, chairman of the US Federal Communications Commission, technology diffusion is a matter of the market working things out over the course of time with wealthy people always getting there first.

This paper argues firstly that while the notion of digital divide highlights critical problems for developing countries, this phenomenon is an aspect of fundamental global differences and inequalities. It suggests that the terminology of a bipolar digital divide between the digital haves and have-nots does not satisfactorily explain the complexity of differences between and among the developed, newly industrialising and developing countries. It therefore suggests the idea of 'uneven global diffusion'.

Secondly, it suggests that dealing with the unevenness requires not merely ultimately ineffective ameliorative policies, but a holistic consideration of the legal, regulatory and other processes which lead to inequalities in global diffusion of digital technologies.

1 Introduction

The notion of a digital divide has become an accepted part of the information society scape as 'one of the greatest impediments to development' (Wolfensohn, World Bank, 2000; WSIS, 2003). Yet the significance of the divide does not go unchallenged. As can be seen above, for those such as Michael Powell, chairman of the US Federal Communications Commission, technology diffusion is a matter of the market working things out over the course of time with wealthy people always getting there first.

This paper argues that while the notion of digital divide highlights critical problems for developing countries, the notion of the divide is not unproblematic. In particular, it ignores the different characteristics of digitalisation among western, newly industrialising and developing countries. It may be important to consider digital inequalities as an aspect of inequalities which are intrinsic to current promotion of corporate globalism. It further suggests, that such promotion does not only merely construct an inequality of access to digital technology, but

prevents those on the Other side of digital divides from creative participation and control of software and creative development – to becoming ‘Read-Only’ cultures. In this context, the paper examines attempts to ameliorate the problem of digital divide and finally suggests that the global regulatory framework may itself be responsible for the growing prevalence of inequalities in digital diffusion.

Digital Divides?

Digital divide is generally defined in terms of differences in the access to the essential tools of the information society and to the infrastructure of the networked society or economy. These can be measured by surveys comparing access to computers, phones, cable, and other Internet-related technologies (e.g. Spectar, 2000).

For example, while Africa had one million estimated Internet users in 2000, the vast majority were in South Africa and the Maghreb states. The rest of Sub-Saharan Africa had less than 200 000 for a population as large as that of the United States which had 154 million users in 2000 (Norris, 2001: 47). Furthermore Africa suffers the world’s highest costs, critical skills shortages and unfortunate governance policies. The situation is a little better but still deplorable in other countries of the South. While there have been significant acceleration of mobile telephony and Internet access in recent years, this does not affect the fundamentals (Mutula, 2004). Perhaps the most important question to be asked is the chicken and egg one of the relationship of the digital divide to development. It is generally assumed that ameliorating or ending the digital divide will enhance development. A different way of looking at it is that the underlying issue is development – that when development occurs, digital divide issues may be resolved, and thus the primary issue is not how to increase the number of computers, etc., but how to promote development (Mutula, 2004).

In her comprehensive examination of the subject, Pippa Norris suggests a slightly more complex picture:

The digital divide is understood as a multidimensional phenomenon encompassing three distinct aspects. The global divide refers to the divergence of Internet access between industrialised and developing

societies. The social divide concerns the gap between information rich and information poor in each nation. And finally within the online community, the democratic divide signifies the difference between those who do, and do not, use the panoply of digital resources to engage, mobilize, and participate in public life (Norris, 2001: 4).

Her main findings are that:

- The global divide in access to digital technologies is substantial and that it has been growing during the first decade of the Internet age. The root cause is lack of economic development. However, it is not a simple distinction between western developed countries and the rest. Newly industrialising countries such as Taiwan and Singapore have shown a remarkable acceleration in the use of information technology (West, 2004; Liu, 2004). There is also some unevenness in the use of technology in which some developing countries such as South Africa, India and Brazil and transitional economies such as Estonia perform better than some more developed countries.
- Similar social divides exist within countries, including within developed countries. The root cause is once again socio-economic stratification and it is not necessarily true that the gap will automatically close as the Internet becomes more ubiquitous.
- The Internet is likely to be used to maintain the domination of the existing governance forces, and it is likely that those currently disengaged from governance will not engage because of e-Government. However, there is also a possibility that e-Governance, by promoting transparency and reducing the costs of political engagement for the committed, will enable minor parties, smaller groups and fringe movement activists to promote shifts in the balance of power.

Norris suggests the necessity to look at wider issues than mere technology access. Manuel Castells, who has been inspired by the rise of information technology in his definition of network society, has nevertheless placed the divide in the context of social networks:

In the information age, the critical organisational form is networking. The most critical distinction in this organisational logic

is to be or not to be – in the network. Be in the network, and you can share and, over time, increase your chances. Be out of the network, or become switched off, and your chances vanish since everything that counts is organised around a world wide web of interacting networks (Castells, 1998).

The stark absolutism of exclusion may need to be corrected, but the network provides a compelling analogy.

Similarly the World Bank group sees information technology in terms of its social connectivities, relying on theories of Bourdieu and Putnam to suggest a key link between information technology and social capital:

Information technology directly lessens the costs associated with imperfect information. In this way, information technology has the potential to increase social capital – and in particular bridging social capital which connects actors to resources, relationships and information beyond their immediate environment (World Bank, 2002).

It is in this context that Warschauer challenges the technology determined concepts of digital divide as unsatisfactory even when they have been stretched in the manner proposed by Norris (Warschauer, 2002, 2004). He suggests two reasons for this. Firstly, that ICT is about much more than providing Internet and computer connections. This is because access to ICT is:

(E)mbedded in a complex array of factors encompassing physical, digital, human and social relationships. Content and language, literacy and education, and community and institutional structures must all be taken into account if meaningful access to new technologies is to be provided.

Secondly, the notion of a ‘divide’ assumes a bi-polar societal split of the haves and the have-nots at global and national levels. However, the situation is much more complicated because of the existence of a continuum which involves wide varieties of quantities and qualities of access among all countries and peoples. Warschauer contrasts the gradation between ‘the UCLA professor with high speed connection from her office, the Seoul student who occasionally uses a cybercafe and the rural activist in Indonesia who has no computer or phone line

but whose colleagues in her women's group download and print out information to her'. He therefore suggests that social inclusion, or the EU's e-Inclusion, is a more holistic way of approaching the problems now defined as the digital divide:

A framework of technology for social inclusion allows us to re-orient the focus from that of gaps to be overcome by provision of equipment to that of social development to be enhanced through the effective integration of ICT into communities and institutions. This kind of integration can only be achieved by attention to the wide range of physical, digital, human, and social resources that meaningful access to ICT entails (Warschauer, 2002).

While Warschauer is holistic in considering how technology may be used to solve specific social and economic problems, he ignores a key dimension. In my opinion, it may be as important to study how current patterns of diffusion occur, to what extent they solve and to what extent they create social and economic problems. The spread of corporate global networks provides one dimension for considering this diffusion. Communities of access are interconnected through global corporate and other links. Thus, to describe the developing country subsidiary of a multinational law firm which has satellite based access to all the resources of the parent firm as an example of successful digitalisation for the country ignores the fact that the fundamental relationship for the subsidiary is not to the country but to the firm of which it is a tentacle or Web link. For example Champlin and Olson suggest in relation to programmers employed in Silicon Valley and Bangalore:

[i]ndeed, two software professionals, one in Boston and one in Bangalore may share the same job in the same firm. While one sleeps, the other works. As one author observes, 'In cyberspace, Boston and Bangalore are practically the same place' (Champlin and Olson, 1999).

Similarly the Indonesian activists who are linked to a global NGO network are part of a global digitalisation process. To see these as examples of the division between haves and have-nots within one country provides only a partial view and does not provide an effective analysis of the electronic reshaping of the world.

To take another example, digital diffusion is taking place at markedly different rates for different aspects of technology. While North America led the way, followed by Europe initially in access to digital technology and the internet, more recently Newly Industrialising East Asian countries have accelerated the access and quality of technology provision. Internet access has grown exponentially in all East Asian jurisdictions (Yoon, 2004). For example Taiwan has transformed itself into a world leader in ICT production for export and also promoted effective government strategies, research and investment in e-Taiwan, with a budget of over US \$ 1 billion. Taiwan has been listed in the most recent report on e-Government as ahead of the US in the provision of qualitative e-Government (West, 2004; Liu, 2004). On the other hand, Africa shows the greatest acceleration in mobile telephony, but from a very low base. Yet, there are three areas where the US continues to dominate which may be crucial. The US is the dominant Web site host. Secondly, the continued domination of English as the language of the Internet continues to discriminate in qualitative terms against those people for whom English is not an easy language for reading and writing. In spite of the recent rise of Chinese Web sites, and the rise in English use among Chinese speakers, this phenomenon will continue to remain a problem at a global level (Yoon, 2004). Thirdly, there is the US and Western domination of information technology patents including the more recent and controversial rise of business methods patents in e-Commerce. A key consequence of these intellectual property developments is to restrain creativity and innovation in technology and e-Business development for the developing and newly industrialising countries.

Thus, a further dimension to technology diffusion is provided by the notion of free culture:

A free culture supports and protects creators and innovators. It does this directly by granting intellectual property rights. But it does this indirectly by limiting the reach of those rights, to guarantee that follow-on creators and innovators remain as free as possible from the control of the past. [...] The opposite of a free culture is permission culture – a culture in which creators get to create only with the permission of the powerful, or of creators from the past (Lessig, 2004: xiv).

In the context of global digital divides, a pervasive free culture must also combine with a culture which ensures that the scope for creativity and innovation is given to those who are currently at the other end of the digital divide. As Elizabeth Daley suggests:

From my perspective, probably the most important digital divide is not access to a box. It's the ability to be empowered with the language that the box works in. Otherwise only a very few people can write with this language, and all the rest of us are reduced to being read-only (Elizabeth Daley cited by Lessig, 2004: 37).

Thus the idea of digital divide goes beyond access to empowerment, contribution to and share in the control of the digital box of tricks. We need to explore digital diffusion in all its complexities. The world is not divided starkly into digital haves and have-nots.

This is where the role of legal regulatory frameworks becomes significant.

2 Attempts to bridge the divide

The issue of an 'information' divide has been a matter for consideration since the 1970's. Developing countries argued for New World Information and Communications Order (NWICO) through UNESCO and other UN agencies as an aspect of the New International Economic Order. While the main thrust of NWICO was in terms of the news media, telecommunications and information technologies were also involved with the hope expressed that international organizations would offer assistance in areas such as 'technology transfers, aid for higher education in communications science within Third World countries, tariff reductions for communications flowing from developing countries, and research and development of new, inexpensive, and more user-friendly technology'. The New International Economic Order movement attempted to combine the notions of global equity and national sovereignty. However, western governments, particularly the US, supported free market based flows of information in which they had a dominant position and NWICO had very little impact (Spectar, 2000).

The new initiatives on the Digital Divide take place in a very different environment of free market based globalisation. The attempt to create the Global Information Infrastructure (GII) and a Global Information Society (GIS) linking the world have been largely dominated by the concerns to develop e-Commerce (Yarborough, 2001). They take place in the context of a regulatory environment which emphasises competition and economic liberalisation.

Attempts to bridge the divide have involved a variety of international organisations such as the UN, IFIs, OECD, the G8, the EU and other donor countries. Key developments have been the G8 Summit at Kyushu–Okinawa in 2000 which adopted the Charter on the Global Information Society and agreed to establish a Digital Opportunity Task-force (DOT) and the recent World Summit on Information Society (WSIS). The brief of the DOT report was:

[to] integrate efforts to bridge the digital divide with the main aim of facilitating discussions with developing countries, international organisations and other stakeholders to promote international co-operation with a view to fostering policy, regulatory and network readiness; improving connectivity, increasing access and lowering cost; building human capacity; and encouraging participation in global e-Commerce (DOT Report, 2001).

The DOT involved 43 members including representatives from G8, Developing Countries, International Organisations, Global Networks, Private Sector and NGOs. While this list appears broadly representative, the dominant groups in global networks, private sectors and NGOs involved representatives from the G8 countries. The DOT Report with its Genoa Plan of Action suggested that appropriate application of ICT can make a substantial direct or indirect contribution to every one of the International Development Goals of the UN's Millenium Declaration:

ICT cannot of course act as a panacea for all development problems, but by dramatically improving communication and exchange of information, they can create powerful social and economic networks, which in turn provide the basis for major advances in development.

The Report suggested a number of initiatives including:

- National e-Strategies: These would be encouraged and linked to national and international development goals. However, the main thrust would be a 'pro-competitive regulatory framework' including economic liberalisation to foster local and foreign entrepreneurs.
- Participation in international regulatory efforts: Developing countries would be supported to participate in international regulatory efforts including global self-regulation such as for Internet domain names.
- Improving Connectivity, Increasing Access and Lowering Costs: There would be emphasis in targeted interventions on community based access points. Backbone access would be promoted through the private sector, but there would be support for joint stakeholder initiatives such as the African Partnership and the Africa Connection.
- Building Human Capacity: There would be targeted training, education, knowledge creation and sharing initiatives, including in the use of ICT for health including HIV/AIDS.
- National and International Effort to Support Local Content and Applications Creation: This would include promoting local software communities and developing country relevant software and content encouraging both cheap commercial and non-commercial applications.
- Prioritise ICT in G8 and Other Development Assistance Policies and Programmes and Enhance Coordination of Multilateral Initiatives: Development policies including of the G8 countries as well as of the IFIs and UNDP would prioritise ICT but in ways which integrated ICT consideration as part of wider programmes in areas such as health, education and poverty relief.

There is an interesting mix of strategies in the DOT Report. But they do not provide for the substantial transfer of resources to developing countries necessary to make a real difference to technology diffusion. While the main thrust of the proposals is on National Strategies based on a pro-competitive regulatory framework and economic liberalisation

to promote local and foreign entrepreneurs, there seems to be a recognition that promotion of local content and applications might not be easily enabled through this strategy. Therefore there are exhortations to encourage both open source and commercial communities to make software available to developing countries and to localise software applications; for free access to government information; for the support of organisations making information available on a non-commercial basis and for commercial publishers to develop business models which would enable cheap access to information. In principle, the DOT Report adheres to the orthodoxy of global market competition as the best solution to the problem.

This orthodoxy is especially apparent in developed country policies in relation to national digital divides. The OECD Report on the Digital Divide in 2001 considered that the main basis for promoting an information society had to be the creation of a regulatory environment which reduced barriers to market entry and fostered competition. For example, while an earlier generation of telecommunications regulation led by the ITU has provided Universal Service Obligations for telephony, there is strong resistance to extending such obligations to encompass broadband Internet. The Australian Information Economic Advisory Council has argued:

The delivery of new services on a highly cross-subsidised, uniform price basis reduces or eliminates the prospect of competitive entry and discourages the incumbent from further investment and service improvement in non-profitable or less profitable areas of the market (Australian Information Economy Advisory Council, 1999: xi).

The EU Universal Service Directive does not extend the concept of universal service to broadband Internet, but leaves it to member states to determine. This does not prohibit a Member State from taking its own initiative to make broadband services publicly available in its own territory. But in doing so, no compensation mechanism involving specific undertakings, operators or service providers may be imposed. Instead any support has to come out of general revenue. In the circumstances, only the Scandinavian countries which are the most advanced Internet users have provided funding support for backbone

development which would provide universal broadband access. On the other hand, of the OECD countries, Korea has considered it important to provide state funding for backbone development as have other South East Asian countries with 'Development State' policies such as Malaysia, Singapore and Taiwan (Yoon, 2004; Liu, 2004).

For the poorer countries, the advantage of the DOT Report and similar initiatives is the development of a co-ordinated agenda. UNDP, IMF, World Bank and other donors have provided support for telecommunications development and project funding for specific ICT projects. While these are significant and have increasingly involved funding which goes beyond provision of equipment to the provision of digital information gateways and interesting initiatives such as the Grameen rural mobile phone businesses, rural e-Communication centres and support for school teachers, the funding is insufficient to do more than pilot projects. Sustainability of many tele- and ICT centre type programmes is a continuing concern (Warschauer, 2004). There is also multi-sector funding for the promotion of dot-com enterprises. A major emphasis is on regulatory reform to promote economic liberalisation.

The World Summit on Information Society (WSIS) is intended to provide a coherent global strategy as a culmination of these developments. The Declaration of Principles and Plan of Action (WSIS, 2003) also affirm the main principles of the DOT Report but seek a balance between the role of the market and the state suggesting:

Policies that create a favourable climate for stability, predictability and fair competition at all levels should be developed and implemented in a manner that not only attracts more private investment for ICT [...] but also enables universal service obligations to be met in areas where traditional market conditions fail to work (para 23).

The Declaration of Principles proposes facilitation of access to public domain information. However, it is noteworthy that crucial decisions as to Digital Fund and Internet Governance were shelved to be dealt with by the 2005 Summit as a result of Western and particularly US resistance.

On the whole, while Wolfensohn and Annan see the consequences of the digital deprivation to be key to future development and poverty alleviation, there is realisation that insufficient funding is available to make a substantial difference. Innovative initiatives such as the UN Secretary General's Digital Volunteer force constitute little more than ameliorative devices.

3 Regulatory Construction of Global Technology Diffusion

Thus the underlying strategy of technology diffusion is the global information infrastructure (GII) supporting a global information society (GIS). This is based on the development of free market reforms with only minor obeisance to notions of amelioration of the digital divide. In this section, I suggest that wider policies on international trade promote a system of information technology diffusion which promotes corporate globalism on terms advantageous to global corporations based in developed countries.

The WTO has had a major impact in the development of this approach. Thus, the Basic Telecommunications Agreement annexed to GATS provided a key regulatory thrust for dismantling the previous global telecoms structures which were dominated by state telecoms monopolies. Henceforth, the State's role is to regulate the market in the interest of transparent and fair competition (Braithwaite and Drahos, 2000: 336). Some obeisance is made in the Agreement towards the special needs of developing countries which can place under their accession schedules:

[r]easonable conditions on access to and use of public telecommunications [...] to strengthen its domestic telecommunications infrastructure and service capacity and to increase its participation in international trade in telecommunications services.

However, international agencies such as IMF and World Bank have promoted full liberalisation of the telecoms sector in developing

countries as part of structural adjustment and now Poverty Reduction Programmes (PRSP & PRGF).

Similarly developed member countries are exhorted under the Telecommunications Agreement Article 6 to assist the efforts of international agencies such as the ITU, UNDP and World Bank in improving the telecommunications infrastructure in developing countries.

There have been significant recent improvements in telecoms coverage in developing countries. The most important motor for change has been the rise of mobile telephony which avoids the infrastructure costs of land lines. These improvements are widely attributed to privatisation. However, this is not entirely clear. There may be other contributory factors such as technology, competition and state regulation (Wallsten, 2001; Warschauer, 2004). For example, China has seen a tremendous growth of telecoms and Internet access largely based on state owned enterprises (UNDP, 2000; Ke, 2004). The OECD Report on Information and Communications Technologies and Rural Development 2001 acknowledges:

Deregulation and competition between telecommunications operators are not sufficient, on the basis of market based decisions, to permit the same level of ICT service (accessibility, speed, tariffs) in rural areas as in urban ones. This is particularly the case for broadband infrastructure and services, new applications that are the basis of the networked economy and the pre-condition for full implementation of ICT and e-Commerce.

Rural areas are at a disadvantage because:

- Local businesses will not have the same cost efficient opportunities to fully use ICT, in particular to access other markets.
- Inward investment will not be attracted to the area.
- Consumers will not have the same possibilities to use ICT as their urban counterparts. ICT offer very useful educational and public service applications that can remedy distance and remoteness.
- The issues of telecommunications infrastructure and services in rural areas should thus be given proper attention, to avoid the risk of a territorial ‘digital divide’ (85).

These issues apply even more to the digital divide between developed and developing countries.

The Information Technology Agreement provides for the abolition of all customs and other duties on information technology goods. The agreement was entered into only between a minority of countries but the underlying principle was that technology diffusion required full competition with minimum of import duties. This would result in overall reduction in the costs of the Global Information Society. Yet, few developing countries other than NICs subscribed to this agreement, because the dilemma for most developing countries is that they are largely technology importing countries often with precarious balance of payments. Customs and excise duties often represent an important revenue resource and secondly eliminating tariff barriers for expensive products might exacerbate balance of payments difficulties. This is not an issue for NICs such as Taiwan, Singapore and Malaysia which export high technology products (Yoon, 2004). It is again more complicated for countries such as India which have historically attempted to develop their own import substitutes. The advent of competition can either kill off their home-grown feather-bedded industries or lead to sufficient reform for a thorough restructuring. The economic argument is that the social and economic costs of discontinuing uneconomic or poor quality local production of goods such as PCs have to be set off against the reduced costs and value throughout the information economy of cheaper and or more efficient imports (James, 1999). However, the assumption that the technology needs are identical worldwide may threaten appropriate technology initiatives such as India's Simputer.

A key thrust of the GII and GIS is e-Commerce. A significant decision was taken on e-Commerce by the WTO in providing temporarily in 1998 that e-Commerce transmissions should be free of customs duties. This was continued at Doha and a WTO work programme intends to consider aspects of e-Commerce including implications for developing countries. The UN Conference on Trade and Development (UNCTAD) Report (2002) on e-Commerce and Developing Countries places considerable emphasis on liberalisation of regulation, for example through intellectual property protection.

Some argue that e-Commerce provides possibilities for developing countries to leapfrog by not having to undergo the costs of earlier technology (Davison, 2000). Examples are occasionally cited of positive aspects of e-Commerce for developing countries such as the purchase by a German woman of a bicycle from Sri Lanka on the Internet. A more important phenomenon is the growing development of trade in 'back office' services such as data entry and call centres, which can make a strong contribution to export trade of high skilled developing countries such as India (Panagariya, 2000). On the other hand, significant participation in e-Commerce is only possible if there is a sufficient infrastructure to enable e-Commerce. This includes the availability at low cost of hardware and software, a suitable low cost communications system for link to Internet including a reliable power supply and electronic transactions systems to enable payments by credit cards and foreign exchange transactions and an appropriate level of personnel to operate the system. In this respect, only the newly industrialising countries, which have the capacity to invest in infrastructure, are capable of taking reasonable advantage of the potential of e-Commerce. Yet, as we shall see below in relation to business methods patents, the thrust of global e-Commerce law apparently supported by the WTO Trade Related Intellectual Property (TRIPS) Agreement promotes restrictive practices by permitting patenting of e-Business methods which go beyond traditional intellectual property rights (Accascina, 2000). The other developing countries, particularly the poor ones are likely to suffer even greater imbalances in e-Commerce trade in the absence of significant funding for infrastructure development.

A second issue is whether the type of e-Commerce services in which developing countries have a comparative advantage are provided access by developed countries in their schedules under GATS. Until recently liberalisation commitments in relation to services have largely been in areas where developed countries are exporters and developing countries importers (Panagariya, 2000). In principle, the reformed regulatory regime may not enable the theoretical advantages of e-Commerce to be obtained by all but a small group of developing countries. At the same time, it may expose their markets to services

from developed countries creating difficulties for customs revenue and balance of payments as well as leading to losses and decline of their own service sectors.

The consequences of the Agreement on Trade Related Intellectual Property Rights (TRIPS) raise even deeper problems about technology transfer. Hardware, Software and Business Methods Patents and Software Information Copyright have become crucial and new forms of intellectual property in recent years. The Agreement is an apparently protectionist measure entrenching intellectual property rights, which are claimed overwhelmingly by TNCs, and thus denying access to technological knowledge and preventing innovation, especially by small players and by developing countries. However, TRIPS was justified on the grounds that it sought a balance between ‘the short-term interests in maximizing access and the long-term interests in promoting creativity and innovation’ (WTO, 2002). Under Art. 7, its objectives are to promote technological innovation, transfer and dissemination, the mutual advantage of producers and users, social and economic welfare and a balance between rights and obligations. In the absence of IP protection, corporations would be unwilling to trade or transfer technology (Kelsey, 1999: 263). As Trebilcock and Howse (1999) indicate, neo-classical trade theory does not support the case for a global increase in welfare as a consequence of strong IP protection. This is because for some countries the comparative advantage may lie in innovation and for others in imitation and adaptation of others’ innovations. In the circumstances, strong IP protection will advantage the innovators but disadvantage the imitators both in developed and developing countries. Furthermore, stronger IPR will have a tendency to raise prices of goods and services using those IPRs. Overall they suggest, relying on Maskus (1991), that global welfare would suffer through increased IP protection (Trebilcock and Howse, 1999). In the circumstances, US insistence on stronger IP protection was not so much calculated to promote global welfare but to protect the interests of major US firms, which were responsible, in collaboration with the USTR and the OECD, for developing and promoting TRIPS (Kelsey, 1999: 263). The beneficial effects for US firms and economy for TRIPS and other developments in IPR can be observed in the positive

correlation between the enactment of IPR protection in countries and the increase in US exports to those countries (Correa, 2000: 6).

In an era promoting corporate globalism, arguments about intellectual property protection go beyond simple issues of protection of innovation. The protection of intellectual property is generally seen to be about the trade-off between promoting innovation through remuneration of innovative development and promoting the spread of knowledge, research and development as a public good (Braga, 1995).

In essence TRIPS involves an attempt at global harmonisation of IPR in ways which make it difficult for any players other than global corporations to participate in effective use of innovations. They have the resources and effort required for obtaining patents on a world wide basis. They utilise practices within IPR laws which ensure that the limited monopoly provided by IPR is extended through defensive patenting; new patents based on slight changes in the patented product; complex combinations of a range of IPRs in a single innovative development in ways which make it difficult for competitors and the provision of insufficient information to enable reverse engineering. On the one hand, there are the advantages of global corporations as the most dynamic force in international economy. On the other is a new enclosure movement in which global commons in knowledge and innovative development is effectively monopolised by global corporations (Lessig, 2002: 141; 2004).

A possible consequence for developing countries is that global corporations and small firms will spread research and development to them as part of their global operations in the new global division of labour, as is the case with the use of programmers in India and other countries (James, 1999; Coward, 2003). However, the extent to which there will be a real shift in R&D is not clear. The involvement of developing countries in R and D activities until now has largely been in low level activities such as data input and low level programming (James, 1999; Correa, 2000: 152; Coward, 2003). It is possible that these may become part of technology led leapfrogging take-offs in some developing countries. Or such activities may possibly remain part of

developmental ghettos of global corporate networks (Carmel, 2002; Davison, 2000; Yoon, 2004a).

The reliance on markets, effectively global corporate oligopolies, has other implications for developing countries. The expansion of ICTs in these countries depends on the development of appropriate technologies. As Warschauer (2004) suggests:

Market-oriented systems reward and protect those that are developing products and services for the already existing market, especially the business sector and middle- and upper-middle-class consumers. In order to counteract this tendency, other kinds of support and incentives, most likely from governments, will be required to nurture technologies that meet the needs of low-income populations who only represent potential rather than existing markets.

Civil Society Organisations at the WSIS raised the implications of TRIPS and other WTO Conventions as a key issue. However, this was strongly resisted by the US and other Western Governments on the basis that such issues were best dealt with at WTO. A likely consequence is that developing countries are denied the path to development through imitative adaptation of technologies which enabled Japanese and South Korean acceleration of development. As the world of innovation is cast in the multinational mould, all forms of innovative activity, such as small firm and alternative technology based development are undermined or taken over and substituted by the new multinational culture (Correa, 2000: 36).

More significantly for developing countries and all those on the other side of the digital divide, the costs of obtaining or developing ICT result in inequitable and inappropriate participation in the diffusion and development of information technology.

It is in this context that the ideas of free culture become relevant. The first notion of free culture is opposition to the domination of 'permission culture' through intellectual property and other laws. Lessig's distinction between legitimate protection of intellectual property and that in which the dead hand of property owners stifles further innovation and creativity is a sound one. Among other things

this distinguishes between creativity and piracy. Nevertheless, for developing countries in which there is overwhelming imbalance between the controllers and users, Lessig's approach would constrain innovation and creativity. This is because there is a much more complex relationship between 'legal' and 'extra-legal' in countries such as India than can be encapsulated by simple notions of piracy derived from Western legal orders. Thus Lawrence Liang (2004) suggests in a study of Indian practice in the music industry that the concept of 'porous legality' provides a better framework for understanding the intense creativity of subaltern media and information technology in contemporary India.

Two other ways in which notions of 'free culture' are being promoted are through the Open Source and Free software movements and their equivalent the Open Content movement. The open source software movement can be considered a license agreement, a philosophy, or a way of doing things. Its philosophy, which harks back to the original principles of software development, and which has had a renaissance with the phenomenal success of Linux is that software should be freely available for modification, use and redistribution with certain restrictions. Open Content is the content equivalent of Open Source and has various tributaries such as the CopyLeft and Free Law movements. As a philosophy, open content refers to the principle that content should be freely reusable so as to make knowledge available as common knowledge for the common good (see Newmarch, 2001). A key fundamental of open content licensing is that any object is freely available for modification, use, and redistribution with certain restrictions (Keats, 2003). The Free Law movement ensures that primary legal materials are a commons right and should be available free at source.

As Lawrence Liang (forthcoming 2004) suggests:

The open software and open content movement is often read in a narrow technical manner as though the entire question were a legal one, in terms of the validity of the license, the legal innovation etc., forgetting often that beneath the license lies newer modes of organizing modes of production and distribution of knowledge and creativity. [...] I can think of no metaphor which captures the

limitation of such a task, than the metaphor of mapping. The map is always an imprecise distortion, in the same manner that the map does not reveal the hidden secrets of the city, its surprises or its anxieties, the license is not the story of cultural production. The license can and will only remain as an imprecise attempt to capture the complexity of what is actually happening at the level of the new principles through which people are willing to engage in the act of collaborating, creating and sharing.

This principle is taken somewhat further by Dan Hunter (2004) who endows the Open and Free Software Movements with elements of historic class struggle in a new funky label of Marxism–Lessigism. In my opinion, the weakness of the Lessig argument is in its adherence to an abstract what is good for global innovation within an overall market framework. Ultimately the case for the realignment of uneven digital diffusion has to take fundamental account of structural unevenness in global power systems.

4 Conclusions

This paper has suggested that concepts of digital divide can best be explained within the overall context of networks and relationships which connect with information technology and such key contexts are provided by the processes of global technology diffusion. Policies which promote amelioration of the divide will not be effective by themselves without consideration of the underlying dynamics of global technology diffusion. In this respect, the regulatory environment which promotes unequal relationships enables corporate globalism to take advantage of the same unequal relationships. For some countries, and more significantly specific individuals and groups within them, digital opportunities may be opened up by corporate globalism. Newly Industrialising Economies such as Taiwan are in a particularly advantageous position and yet may suffer relatively from the software dominance of the West. Countries which have the right circumstances such as India and Brazil may also invest their way into fuller participation in global digitalisation. India has recently announced a \$ 3.7 billion digital investment programme over the next 4 years.

However, such state aid initiatives are likely to be threatened in the future as WTO prescriptions such as TRIMS bite for developing countries. Furthermore the possible acceleration in technology development in some countries will not necessarily result in fundamental national or global equity. Yet, global digital diffusion also provides opportunities for minority and resistant voices because greater transparency, increased communication and reduced IT costs can empower committed activists (Norris, 2001). The proper promotion of equity therefore requires a concerted push against 'permission culture' particularly in its regulatory aspects. Such a push requires loosening the boundaries of the rules which construct the domination in favour of corporate globalism. In my opinion, this has to go beyond a balance between intellectual property rights and creative innovation in favour of the creative commons. There is need to address the fundamental structural issues of power and these can only be resolved by resort to concepts of human rights and social justice.

References

- Accascina, G. (2000), *Information Technology and Poverty Alleviation*. Sustainable Development Department. Food and Agriculture Organization of the United Nations (FAO). [Online] Available at <<http://www.fao.org/sd/CDdirect/CDre0055h.htm>> [Accessed; 11-05-2004].
- Akst, P., and M. Jensen (2001), *Africa Goes Online. Digital Divide Network* <<http://www.digitaldividenetwork.org/content/stories/index.cfm?key=158>>.
- Annan, K. (2003), *Secretary-General's message to 'The Net World Order: Bridging the Global Digital Divide'*. Conference hosted by the Business Council for the UN, New York, 18-06-2003 – [delivered by Amir Dossal, Executive Director, UN Fund for International Partnerships].
- Australian Information Economy Advisory Council (AIEAC) (1999), *National Bandwidth Inquiry: Report of the Australian Information Economy Advisory Council*, Canberra.

- Braga, C. (1995), *Trade-Related Intellectual Property Issues: The Uruguay Round Agreement and its Economic Implications in The Uruguay Round and the Developing Economies*.
- Braithwaite, J., and P. Drahos (2000), *Global Business Regulation*. Cambridge: Cambridge UP.
- Carmel, E. (2002), 'The New Software Exporting Nations: Impacts on National Well Being Resulting From Their Software Exporting Industries'. *Electronic Journal of Information Society in Developing Countries*, 9, 1, 1–13.
- Castells, M. (1998), *Information Technology, Globalisation and Social Development*. Conference on Information Technology and Development, Geneva, UNISRD. <<http://www.unisrd.org/infotech/conferen/castel1.htm>>.
- Champlin, D., and P. Olson (1999), 'The Impact of Globalization on US Labor Markets: Redefining the Debate'. *J. of Econ. Issues*, 33: 443, 449.
- Cooper, M. (2002), 'Inequality In The Digital Society: Why The Digital Divide Deserves All The Attention It Gets'. *Cardozo Arts and Entertainment Law Journal*, 73.
- Correa, C. (2000), *Intellectual Property Rights, the WTO and Developing Countries: The Trips Agreement and Policy Options*. Zed Books: London and New York, TWN: Penang.
- Coward, C. (2003), 'Looking Beyond India: Factors that Shape the Global Outsourcing Decisions of Small and Medium Sized Companies in America'. *Electronic Journal of Information Systems in Developing Countries*, 13, 11, 1–12.
- Davison, R., et al. (2000), 'Technology Leapfrogging in Developing Countries – An Inevitable Luxury?'. *Electronic Journal of Information Society in Developing Countries*, 1, 5, 1–10.
- DOT Report (2001), *Digital Opportunities for All: Meeting the Challenge*. Report of the Digital Opportunity Task Force (DOT Force) including a proposal for a Genoa Plan of Action 11 May 2001. (Accessed 06-11-2003) <<http://www.dotforce.org/reports/>>.
- Hunter, D. (2004), 'Culture War' (2), *Law, Social Justice and Global Development Journal* (LGD). <http://www.go.warwick.ac.uk/elj/lgd/2004_2/hunter>.

- James, J. (1999), *Globalization, Information Technology and Development*. Macmillan: Basingstoke and London.
- Ke, Hui Xin (2004), 'China' in Chin Saik Yoon (ed.) (2004), *Digital Review of Asia Pacific. Asia-Pacific Development Information Programme of the United Nations Development Programme, Pan Asia Networking Programme of the International Development Research Centre, Orbicom, Southbound* <<http://www.digital-review.org/bhp01.htm>>.
- Keats, D. (2003), 'Collaborative development of open content: A process model to unlock the potential for African universities'. *First Monday*, volume 8, number 2 (February), <http://firstmonday.org/issues/issue8_2/keats/index.html>.
- Kelsey, J. (1999), *Reclaiming the Future: New Zealand and the Global Economy*. Bridget Williams: Wellington.
- Lessig, L. (2002), *The Future of Ideas: The Fate of the Commons in a Connected World*, New York: Vintage.
- Lessig, L. (2003), *The Creative Commons*. Florida. L. Rev. 55: 763.
- Lessig, L. (2004), *Free Culture: How Big Media uses technology and the law to lock down culture and control creativity*. London and New York: Penguin Press.
- Liang, L. (2004), *Porous Legality: An argument for media piracy*. Seminar, University of Warwick, May.
- Liu, Ching-Yi (2004), 'Taiwan' in Chin Saik Yoon (ed.) (2004), *Digital Review of Asia Pacific. Asia-Pacific Development Information Programme of the United Nations Development Programme, Pan Asia Networking Programme of the International Development Research Centre, Orbicom, Southbound* <<http://www.digital-review.org/bhp01.htm>>.
- Maskus, K. (1991), 'Normative concerns in the International Protection of Intellectual Property Rights'. *World Economy*, 13: 497.
- Mbarika, V. (2002), 'Re-thinking Information and Communications Technology Policy Focus on Internet versus Teledensity Diffusion for Africa's Least Developed Countries'. *Electronic Journal of Information Society in Developing Countries*, 9, 1, 1-13.
- Mutula, S. (2004), *Critical perspectives of peculiarities of the 'African digital divide'*.

- Newmarch, J. (2001), 'Lessons for open source: Intellectual property and coursewar', *First Monday*, volume 6, number 6 (June), at <http://firstmonday.org/issues/issue6_6/newmarch/>, accessed 28-11-2002.
- Norris, P. (2001), *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge: Cambridge University Press.
- OECD (2001a), *Bridging the Digital Divide: Issues and Policies in OECD Countries*. Committee for Information, Computers and Communication Policy, OECD, Paris DSTI/ICCP/2001.Final.
- OECD (2001b), *Information and communication technologies and rural development*, OECD, Paris.
- Palgrave Macmillan, Basingstoke.
- Panagariya, A. (2000), 'e-Commerce, WTO and Developing Countries', *Journal of International Economics*, 959.
- Powell, M. (2001), *Testimony on Telecommunication and the Internet. Hearing Before House Energy and Commerce*, 108th Cong. 54 (2001) (statement of Michael Powell, Chairman, FCC), available at 2001 WL 312498 (F.D.C.H.).
- Spectar, J. (2000), 'Bridging The Global Digital Divide: Frameworks For Access And The World Wireless Web'. *North Carolina Journal of International Law and Commercial Regulation*, 26: 57.
- Trebilcock, M., and R. Howse (1999), *The Regulation of International Trade*. 2nd ed. Routledge: London.
- UNDP (2000), *Report of the meeting of the high-level panel of experts on information and communication technology* (New York, 17–20 April) <<http://www.undp.org/info21/new/n-ecosoc.html#1>>.
- Wallsten, J. S. (2001), 'An econometric analysis of telecom competition, privatization and regulation in Africa and Latin America', *The Journal of Industrial Economics*, XLIX, 1-19.
- Warschauer, M. (2002), 'Reconceptualising the Digital Divide'. *First Monday*, 7: 7 <http://firstmonday.org/issues/issue7_7/warschauer/index.html>.
- Warschauer, M. (2004), *Technology and Social Inclusion: Rethinking the Digital Divide*, MIT Press, Cambridge, MA.

- West, D. (2004), *Global e-Government 2004*. <<http://www.InsidePolitics.org/egovtdata.html>>.
- World Bank (2000), *World Bank and Softbank to Invest in Internet Enterprises for the Developing World*, at <<http://www.worldbank.org/>>. (Feb. 12).
- World Bank (2002) (Web site accessed Nov 2003), *Social Capital and Information Technology* <www.worldbank.org>.
- WSIS (2003), *World Summit on Information Society: Declaration of Principles*, WSIS Geneva 12 December 2003. WSIS-03/GENEVA/DOC/4-E.
- WTO (2002), *Technical Note: Intellectual Property: Trips and Pharmaceuticals*. <www.wto.org> (accessed June 2003).
- Yarbrough, T. (2001), 'Connecting The World: The Development Of The Global Information Infrastructure'. *Federal Communications Law Journal*, 53: 315.
- Yoon, Chin Saik (2004), 'Asia-Pacific ICTs: An overview of diversity' in Chin Saik Yoon (ed.) (2004), *Digital Review of Asia Pacific. Asia-Pacific Development Information Programme of the United Nations Development Programme, Pan Asia Networking Programme of the International Development Research Centre, Orbicom, Southbound* <<http://www.digital-review.org/bhp01.htm>>.
- Yoon, Chin Saik (ed.) (2004), *Digital Review of Asia Pacific. Asia-Pacific Development Information Programme of the United Nations Development Programme, Pan Asia Networking Programme of the International Development Research Centre, Orbicom, Southbound* <<http://www.digital-review.org/bhp01.htm>>.

QUALIFICATION OF TERRITORIAL e-GOVERNMENT POLICIES THROUGH PROMOTION OF e-PARTICIPATION

Cesare Maioli*

1 e-Participation as a case of e-Government

e-Participation is about the ‘framing of politics in the electronic medium’¹ and it deals with each of three basic nodes² around which ICT works: policy, administration, and civil society. What we have here is a set of processes that get linked together, processes such as those by which clients and organisations meet, policy objectives are set down (in ways that take tradition into account), and formal democracy gets revitalised in a professional and social meeting place such as the Web.

In a broader sense, e-Participation is the process where citizens share information and knowledge in seeking to participate in the functions of government via information-and-communication technology (or ICT, such as the Internet) thereby interacting with their administrative and political bodies. Thus, new technological channels are developed to facilitate effective participation in the democratic process and in decision-making.

* Faculty of Law and CIRSIFID, University of Bologna. Cesare Maioli (cesare.maioli@unibo.it) is full professor of ICT law in the Faculty of Law, University of Bologna. Thanks to Roberto Camporesi, Sandra Lotti, Monica Palmirani, Paolo Pellizzardi, Chiara Rabbito.

1 Castells (1996).

2 Gronlund (2001).

e-Participation comes by way of two trends having to do with e-Government:³

- the growth of technological potential; this growth offers opportunities to set up new businesses and develop existing ones, and it more generally allows citizens and administrators to effectively and creatively support and attain strategic development aims;
- the need for joint work and coordination among government bodies at different levels; the strategic aims and the challenges arising from the development of an information society are too much for an administration to handle on its own. An adequate response requires teamwork and active collaboration with the lower-level, administered system, setting up to this end a system of strategic agreements on shared objectives to which the participants are mutually committed.

Without such coordinated action in an area of the public sector, it will be impossible to achieve these efficiency results, which the innovation of public services is seeking and the citizenry is in urgent need of. ICT can significantly contribute to achieving such results, but only if used consistently with the changes that are taking shape.

ICT encourages communication among people and an integration of processes: ICT is most fruitful in just this sense, rather than in increasing individual productivity. But if we are to exploit this potentiality in full, we will have to act openly and collaboratively, promoting discussion, debate, and research in the processes of transformation, with a firm resolve to overcome intra-organisational and institutional individuality.

However much ICT instruments may be capable of supporting integration, they need clarity of purpose and determination, lacking which ICT is apt to reproduce and increase the fragmentation presently affecting sources of information, procedures, and potential partners in the public sector, further complicating, rather than simplifying, the lives of citizens and enterprises. It is in this perspective that the Italian

3 Maioli (2001).

Government, in association with the regions and the main provinces and city administrations, launched national e-Government plans in 1997 and 2001 (Bassanini laws 1997–2001; Phase One, 2001–2003; Phase Two started in 2003 and finished in 2006), the idea being to coordinate the use of the new tools available and to enable citizens to access all the e-Government services offered by the public administration and also by private companies.

The challenge of modernisation, and the consequent need to use ICT as profitably as possible, is widely felt more or less urgently throughout the local public administration. The financial resources and the skills (often new skills) required to meet this challenge represent a common difficulty: we must therefore work at it together, with coordinated actions that are consistent over time, a strategy that makes it possible to save a lot of time and money (such as are needed to learn the new skills).

Looking at the results, recent e-Government plans, especially those made by the European Union,⁴ stress as fundamental the need for greater coordination over wider areas if we are to avert, at least regionally, a situation of lapsing from ‘first class administration and citizens towards second class administration and citizens’, even if only in regard to availability and access to the services offered through ICT. The spontaneous dynamics of the market notoriously tend to push ICT development in large urban centres, where the greater part of the population and the advanced-services sector are concentrated, which means that the cities offer better facilities and services at lower costs.

2 Objectives of e-Participation and relations with administrations

The main administrations having jurisdiction over wide territories are making proposals for agreements on e-Government development: these proposals they are making in the first place to subordinate local

4 European Commission (2005) and Holmes (2001).

organisations, but also to society at large; the need and the intent is to verify and discuss these proposals, thereby forging, with the contribution of all the interested parties, new programs of public interest.

We think that unless the political decision-makers become more interested in developing ITC policies, gaining insights along the way, the public sector risks a governance deficit that will prevent it from keeping pace with the processes that are reshaping everybody's life.

Also, if we appreciate the need for a constructive understanding between politics, business, and the public, we will see that the ICT industry can be a solution provider, but then we have to stress the need for politics to take the lead in interpreting and anticipating the public's requests and wishes. The e-Government agenda is about ensuring that the entire population can access to all government services in ways that they find convenient and comfortable.⁵ The national e-Government strategies state that e-Government can help councils adopt innovative approaches in engaging those who are currently excluded from democratic participation. Local government is not just about providing services; the point is also to encourage people to be involved in shaping their ideas and the future of their communities.

Once a virtuous cycle is in motion, citizen engagement in the public sphere will happen by progressive stages as follows: the citizens are provided with information, they enter into active participation and involvement, and then they undertake consultation. When this cycle does its work, not only do services improve, but ultimately the citizens become more actively involved in their community and will have a direct hand in the local democracy.

e-Participation was originally⁶ intended to help the disabled use ICT, but beginning in 2003,⁷ it was extended to provide e-Government services to citizens at large.

5 CapGemini (2006).

6 Orita (2004).

7 United Nations (2003).

There are two complementary processes that citizen action may be classed in:⁸

- a) direct interaction between users and the administration; this process makes it possible to find points of interest and negotiate solutions; discussions are carried on and laws and rules proposed; pressure is brought to bear on decision-making, and forms of e-Democracy are tested;
- b) information exchange and knowledge-building among groups of people sharing an interest; this process is rather more connected with administrative data and information services; the idea is to evaluate operational systems and get the administration to handle citizen requests properly.

From the government's perspective, e-Participation is intended to achieve four objectives as follows:⁹

- 1) granularity: the aim here is to reach as wide a public as possible in the effort to encourage citizen involvement;
- 2) distribution: consist in supporting participation through multichannel facilities that help citizens use their different technical and communication skills;
- 3) usability: consists in providing relevant information that will make it easier to understand, access, and use different formats, thereby also enabling users to provide feedback;
- 4) motivation: consists in encouraging users to play a part in public debates.

Objectives (1) and (4) may be said to go with process (a) and objectives (1) and (3) with process (b). Objective (2) is mainly an enabling facility.

The new technologies play a central role when it comes to engaging citizens and supporting decision-making and democratic processes. The Internet is the main ICT technology we have, being widely accessible

8 A. Orita et al., *The three ways the Internet empowers an ordinary individuals*, Proceedings of INET200, Yokohama, 2000.

9 Macintosh (2002).

through personal computers, mobile phones, palm pilots, information kiosks, and interactive television.

We cannot have democratic political participation without adequate means of information and other tools that citizens can use to get involved, and hence without enabling citizens to contribute to discussion on political issues. The idea set out in the Green Book¹⁰ whereby citizens must be enabled to contribute in a knowledgeable way to framing the political agenda requires that the digital services designed for citizen participation be expanded to include the following:

- information services: one-way delivery of digital services from government to citizens (as when requesting a telephone number);
- communication services: a two-way link allowing citizens interact with the government and hence play a part in administrative processes (as by completing and presenting forms over the Internet) as well as in the political process, as through opinion polls;
- transaction services: the government delivers to the citizens a full service (such as payment for another service) that requires access to different archives and information systems as well as collaborative processing operations activating different requests (as from one-stop shops, enabling developers and businesses to request authorisations to start construction or manufacturing).

The services available cut crosswise relative to the previous classification and so may be sorted according to three functions as follows:

- daily tasks and chores: pieces of information grouped together for requests relating to the tasks of everyday life;
- tele-administration: information is provided in reply to requests concerning the public administration;
- political participation: pieces of information are grouped together to meet the needs of users in furthering political activity.

¹⁰ European Commission, *Green Paper on Public Sector Information in the Information Society*, COM (98), EC, 1999.

3 Experiences in the making

The foregoing considerations can be illustrated by having a look at certain projects carried out in past years, projects requiring different skills and in which we have had different degrees of involvement. Following are the projects briefly described.

Partecipa.Net. The project is designed to test different methods by which citizens may participate in framing regional policies and managing institutional services. It was launched by Emilia-Romagna Region jointly with 21 local administration in 2005 in the framework of Italian e-Government Phase One initiative. The first step taken toward this goal was to engage all the participants who may have an interest in the policies in question, providing them with complete information about the project and using targeted channels of communication; part of the effort consists in working toward overcoming the digital divide. The second step was to provide administrators with methods and tools that they can put to use to augment citizen participation. These methods and tools consist in what is called the e-Democracy Kit. This Kit was designed for open-ended application, meaning that it is flexible and should allow different sorts of administrations to enact participation processes according to specific needs. Some of the methods and procedures are designed for active citizen participation: they include guidelines for organising a team, methods for moderating debates online, and methods for carrying citizen-participation projects to success and for publishing a project's results.¹¹

I-Care. The I-Care Project was designed to support local government bodies (city administrations, provinces, the region, and health-care organisations) in providing community services, and the service of care delivery at home in particular. It was launched in 2004 by municipal, county and health authorities of Forlì in co-operation with a few technical partners:¹² it eventually was implemented as a commercial

11 A full illustration of the Partecipa.Net project is available at <<http://www.partecipa.net/>>, 2006.

12 A description is available in <<http://first.aster.it/doc/rete/icare.pdf>>, 2004 and the results in <<http://www.cedaf.it/icaro.html>>, 2006.

product, named Icaro. Another part of the project consisted in setting up an observation point to be used in the effort to strengthen and integrate programs for the needy by providing for these programs effective organisation and management and the required technology.

It seems a fitting choice for a project of this sort to devote itself to exploring new health-care solutions. According to a report that CRC-Italia¹³ issued in 2004 on innovation in the regions, health care and manufacturing are the two areas where policy is keenest to address issues relating to ICT and the information society – and they are likewise the two areas in which citizens are most interested. In fact, most regions have drawn up health-care and community programs that often have required setting up information systems and online medical services. The pilot programs run in Bologna and Basilicata, offering single access points for setting up appointments online, are already in full swing and have proved popular as well as useful.¹⁴

People. The PEOPLE (Progetto Enti On-Line Portali Locali E-government)¹⁵ project, financed by the national government under the 2000 e-Government Action Plan, was designed to simplify and innovate relationships between public administrations and the citizen, this by setting up a multichannel online system providing about 200 services. The project ended in October, 2006. More than 50 territorial administrations participated to the initiative. This system is served by a portal giving access to the services of different city administrations, thereby enabling these territorial administrations to form a network in which they each have an equal standing. The driving force of this partnership is the willingness of sharing experiences and know-how, and it was based on the capitalisation on successful stories and best use of local innovative capacity for driving the innovation at the national level. Therefore the approach of PEOPLE was mainly bottom-up oriented with regard both to the strategy and its implementation. In

13 The Centre of Regional Competence (CRC) in the development of e-Government issues regular reports such as: CRC (2004).

14 See in Fondazione Censis, *Ottavo Rapporto 'Le città digitali in Italia' 2003–2004*, Rome, September 2004.

15 Full information in <<http://www.progettopeople.it>>, 2006.

fact, the project was based on a federal model within which the diversity (both cultural and technical) of the actors involved had to be preserved.

The Fourth Knowledge Initiative.¹⁶ In 2000, Emilia-Romagna Region launched the Regional Plan for Online Services (RTP), an e-Government initiative aimed at using ICT to improve the services delivered to citizens and enterprises. The idea was to help the region's businesses become more competitive through ICT and to help its residents become more familiar with it, this through a coordinated effort involving more than 500 autonomous local administrations and their investment in ICT. A distinctive part of this RTP project was the Fourth Knowledge Initiative, aimed at supporting ICT teaching and learning.

3.1 Increase of digital citizenship

As the first phase of the national e-Government plan wound down and the second phase is just finished, new experiences had been gained that imparted a new direction to the effort to use the new technologies to get citizens more involved in the life of their government and institutions. It was in particular in the process of bidding for the e-Democracy competitions that have been put to tender (for services offered to citizens and businesses) that many administrations gained greater insight, often being able to share their experiences through cooperative projects. There is now a clearer understanding of the role that information and communication technologies can play in supporting cooperation locally and even across borders.

Projects can be shared among several administrations, and they can be 'adopted' or 'repurposed' and put to a different use. Even technological solutions and the organisation can be designed ad hoc, this thanks to a wide availability of skilled professionals.

Phase Two of the national e-Government plan set out by the Italian Ministry of Technological Innovation singled out e-Democracy as one

¹⁶ 'Fourth' after the three basic skills of reading, writing, calculating. The project evolved into a set of tools to support ICT learning and teaching, whose basic reference is <<http://www.scuolaer.it/>>, 2006.

of five main action lines to be pursued in the years ahead. The ministry announced, in this regard, that it would have selected and funded, under a common budget, two-year projects aimed at developing digital citizenship. These were e-Government projects whose point is to use ICT technology as a tool with which to get citizens to take part in the life and decision-making of public administrations. Specific attention in these projects is being devoted to all those citizens who risk exclusion by not getting their chance at e-Participation, and the idea is to support a sense of community by encouraging groups, associations, organisations, and businesses to also have a part in the process. A great many bids were made nation-wide for the selection, so we had in these numbers strong evidence of just how alert the local administrations are to the opportunities that technology offers in facilitating the human transaction, and just how eager they are to build a new relationship with citizens in designing services and framing local policy. This is certainly one of the changes that we saw with this second phase of the national e-Government plan.

It emerges from a well referenced survey¹⁷ on e-Democracy that citizens are thus far more interested in seeking information than they are in getting involved. But then if they do find the information they look for and get the answers they need, they will see that the administrations are responsive and responsible: they will in consequence be encouraged to get involved and participate, appreciating that they do have a voice in the decision-making process by which their local government frames policies, and that they can make a difference in this regard.

Partecipa.Net was the project that Emilia-Romagna Region presented for the selection announced under Phase Two of the national e-Government plan in favour of e-Democracy. The specific aim of the Partecipa.Net project is to encourage citizens to participate in the territorial planning and development program being brought forward under Regional Law 20/2000.

The idea is to provide tools and channels easily accessible to all citizens in the region so that they may understand regional and local policies,

17 Rur-Censis (2004).

form opinions about them, express these opinions, and get feedback in the process. The basic assumption here is that it is necessary to put out full information and make it accurate before one can even begin to think about getting the citizens involved and then seek their opinions.

But it is only as we go along, as the interaction proceeds, that we can figure out what works best in the effort to elicit participation: what the best way is to make the information available, and what the services should be like, so that targeted communication channels can be set up.

Part of the point in getting as many people involved as possible is to overcome the digital divide in its every form, which means placing a focus not only on those who are at a disadvantage but also on the divide between cultural backgrounds, generations, and forms and types of employment.

Another important focus in the effort to start up participation processes is the policy-makers.

The project is based on techniques of citizen-relationship management designed to establish a stable and fruitful interaction between citizens and the public administration. To this end, participating administrations (and a broader pool of administrations thereafter) have been provided with what is called the e-Democracy Kit, an open-ended software product making it possible to replicate participation processes in as many administrations as possible and with the greatest flexibility.

The Kit is not going to cost too much: the software is distributed through an open-source licence, for one thing, and for another, each administration will be able to make it functional to its specific needs. The citizens, for their part, have at their disposal participatory methods and procedures, such as guidelines for putting together a group, methods for moderating debates online, and methods for publishing the results of their democratic-participation initiatives and carrying them to success.

The Kit has different technological components built into it and makes available different support methods (such as manuals and guidelines) by which to manage the citizen-participation process. Each such method and technology can work on a stand-alone basis, too, and can easily be put to a new use depending on the task at hand.

As all the national reports on e-Government have been stressing for some time now,¹⁸ this idea of reusing a software program or component or a method is proving to be an excellent way to give wide currency to e-Government services and, no less important, to standardise the basic processes and functions of front- and back-office systems and to share solutions, including solutions to the problem of organisation.

The administrations whose projects were selected under the phases of the national e-Government plan have since made these projects available for any other administration that should wish to adapt them to its own context, and the newer tenders are already making it a requirement to present projects designed from the outset with an eye to their reuse.

Reuse comes in handy especially for the smaller administrations, which often lack the resources necessary to plan and develop on their own an e-Government project capable of answering to their specific needs.

What should also be pointed out is that when a single project is extended to cover an entire area (perhaps a region) with a uniform, consistent service, it becomes that much easier to foster a sense of community throughout that area and to achieve quality relationships among its residents and administrators.

3.2 Online access to life-event services

The core part of any e-Government plan consists in its online services, which in Italy and Europe are considered the citizen's gateway to the information society. Government and institutional Web sites in Italy are providing better and better information services, but more-innovative services enabling modes of transaction and interaction between citizen and government are still in embryo. And this is precisely the challenge for the future, the challenge that comes with the social changes brought about by the new technologies: getting citizens to play a more active and direct role in the life of their institutions.

18 IDC (2004).

When the first national e-Government competition was announced, the administrations presenting their bids for selection were urged to cooperate, to envision broader and more ambitious solutions that would otherwise not be possible, and especially to make specific what had theretofore been vague criteria for framing services (criteria setting levels of interaction, types of service, and modes of communication).

The People project was designed to set up a front-office system enabling citizens and businesses to have the widest possible online access to the services offered by the public administration: these services are organised to respond to the needs of citizens and businesses as they go through life events, and they make for an occasion of interaction and exchange between the citizenry and the public administration.

The People Aggregation is a network comprising 55 government bodies, mostly city administrations, that serve about 7.5 million citizens in 12 regions across Italy. The services offered have been grouped in five categories: local taxes, grants and authorisations, information about each area, individuals, and vital statistics. In each such category there are community services as well as online services making it possible to fill out forms, make payments, and find documents and sources; many of the services can be accessed through different channels (over the phone, for example, or over the counter, or by e-mail); connection to the online services is facilitated by specific communications protocols, and some of these services, e.g. file sharing, are specifically dedicated to administrative users making separate contributions in working to carry out a single task.

So everyone is and will be able to use the Web portal ask questions specific to their case; file their taxes; access real-estate records and view different sorts of documents; apply for grants and authorisations; obtain certificates of vital statistics, such as birth and change of address; and take part in the social and institutional life of the community, as by joining forums; and find information, including information relating to tourism, the environment, and traffic.

Regarding the system's architecture, the information and online system are so structured as to enable each city government to retain its

autonomy in running its administration and affairs, at the same time as it will enable individuals and businesses to use the services according to their needs and roles.

The structure conceived for this purpose is based on domains through which each government body can communicate with the others. On top of this structure comes an architecture having three layers: a front-end service layer, a virtual service layer, and a back-end service layer.

The front-end layer is for services provides to citizens, businesses, and other administrations; the virtual layer provides life-event services; the back-end layer makes available information provided by government bodies and service providers.

The government bodies participating in the People project (all of them local governments) are able to provide their services through dedicated Deployment Centres instituted to serve either a city or a larger territory. Each Deployment Centre will enable citizens to find the information they need or to obtain a service directly, and though different channels are available through these centres may be accessed, each channel will present a standard user interface. Government bodies, too, will be able to use the deployment centres to get access to services and infrastructures, and government bodies larger than city administrations will be able to do so at lower prices by sharing tools and pooling resources.

Each centre makes different sorts of services available, among which hosting data and applications, providing centralised management of authentication and documents (through archival and protocol functions), providing automated management and monitoring of networks and systems, providing certified mail, and enabling virtual private networks with reliable interfaces to the open network and intelligent voice responders making it possible to use the Web by voice instructions.

This was not just an e-Government project, designed for such purposes as streamlining administrative procedures and making them speedier and more transparent; it was also an aggregation project enabling citizens to access the services of any of the participating government bodies, even

across districts; so, too, the services so bundled, being provided in uniform fashion and covering the territory with a thick network of access points, will work in the long run toward the goal of overcoming the digital divide. In fact, only by providing equal access to services and infrastructures will it be possible to carry to completion the above-mentioned process of change, the inclusion process by which citizens will have equal access to the information society and services will be provided in uniform fashion. The digital divide, separating those who are computer literate from those who are not, is a real problem rooted in different causes – cultural, generational, social, and psychological – and the risks involved are those of turning this into a social divide proper and thinning out the interaction that citizens can have with their institutions.

So if we want e-Government to have any chance at success, we must first make sure we understand the mechanisms by which citizen participation is fostered, and we must also set in motion synergistic processes by which to increase the quality of social interaction.

The People project, then, offers a concrete technical and organisational solution on which basis to attain the goal (first set out in scholarly writings, subsequently translated into proposals for legislation, and finally finding expression in the national e-Government plan) of enabling citizens and businesses to converse with the public administration by way of a single online access point. The type of administration around which the People project was specifically designed – the type acting as the chief e-Government interlocutor – is the city government, this on account of the sheer number of such governments in the territory and the closeness that they have to the citizens and businesses under their administrative purview.

To understand the structure of the services we have to stress that the primary objective of the People project, then, was to set up a front-office system enabling wide online access to the services through which citizens and businesses have occasion to interact with the public administration.

To this end, it proved necessary in the first place to single out the different services to be offered and to group them according to the ‘life-

event' they respond to. With that done, the project entered its second stage, which consists in designing uniform access channels and a standard graphical user interface with the functions to be built into it.

It should be borne in mind here that many of the participating administrations had already designed online services that they were running. For this reason, the first thing the working groups did under the People project was to make a selection from the services that the administrations in the People aggregation were already offering.

Much of the success of an online service depended on how well the administration has rationalised its back-office procedures, for this making it possible to avoid duplicate operations and useless passages.

Equally important is that each e-Government plan be reusable. The technological solutions therefore had to be portable, or exportable to other administrations, and it is for this reason that it was decided to have a three-layer architecture with uniform modes of access and standardised services.

The services are being set up on the basis of a preliminary study in which it was figured out what technical requisites each service should meet and what regulations it needs to comply with.

The services were sorted in six groups as follows:

- access to personal information. The user requests personal data stored in the records of the public administration – data describing one's vital statistics, for example, or one's status as a taxpayer – and the information so disclosed cannot be modified. This kind of service is immediate and user-activated: the information is delivered on the spot and is made available only upon request;
- access to administrative information. This service works exactly as the previous but for the kind of information that gets requested, namely, public-access information such as legislation, regulations, legal notices, conventions, and policy and information about administrative processes, procedures, and the like;
- requests placed on the public records. These are services performed on the public records storing information about natural or legal

persons. The user will either place a request for existing information or give notice of new information. The service is not immediate, meaning that the request makes it necessary for the public administration to do some back-office work to either retrieve information or update a record. In this latter case, processing the request means modifying the information on record; examples of such services are enrolment in a school, registration for a course, granting licenses and authorisations, and filing taxes;

- calculating or estimating figures. These calculations are based on data produced through back-office processes, and which does not get modified as a result of the calculation. The data may be provided, in part or in full, by the user, as when calculating property taxes on the basis of data relative to a given piece of real property. These services are immediate, in that they get called up at the user's request and the process is fully automated, requiring only a single session between user and system;
- making arrangements. These services are immediate and enable the user to make an appointment to meet with someone in the city administration responsible for a certain service, for example, or to make a reservation to use an athletic facility, or to place a request to obtain a password;
- making payments. The citizen can make a debit- or credit-card payment due to the city administration. The service is not immediate, and the payment may be preceded by a notice.

Following are the functions through which the services so grouped may be integrated:

- displaying information. Display of information may require an authentication or an authorisation and may carry different levels of security depending on the kind of information requested. This is a single-session function at the end of which service delivery is complete;
- meeting requests. This is a two-phase service in which a request is placed by selecting from among a number of options (the user must first provide authentication or obtain an authorisation) and then a

connection is re-established either by the user inquiring about the status of the request or by the public administration notifying the user of any matter relating to the request or of completion of the service itself;

- making arrangements. The user selects a service and makes an arrangement to use it. This kind of function may require authentication or authorisation;
- making payments. The user signals the payment due, and to this end may have to provide an authentication or get an authorisation. The service is assumed to come to completion in a single session. The payment itself may be made using a debit or a credit card, and in this case the public administration will have to have a second interaction, this time with the bank or credit institution that issued the card.

The services may be accessed in a number of ways, such as over the counter (for walk-up assistance), over the telephone, or over the Internet (with an online connection provided through designated access points), or by SMS, fax, e-mail, or regular mail.

Online and e-mail services may require increased security (as through encryption), and the required level will be established on a case-by-case basis by conducting studies that go into the legal matters connected with the service in question.

3.3 Online access to social and health services

The idea behind I-Care, a collaborative project entrusted to a group of university research centres, local agencies, and private companies, was to provide online access to health and social services, chief among which the service of providing care, medical or otherwise, at home. The ICT system necessary to this end will have to support a number of functions, including processing and assessing requests for service, putting together a work plan and the team entrusted to do it, providing the service itself, up to the eventual balance of the provided services.

So the main I-Care mission was to integrate social and health services, and to do reversing the model on which basis this kind of care is

typically provided, which means setting up a situation in which the citizens in need of care become the focal point around which revolves the entire organisational system, rather than the other way around.

A part of the work aimed at working out all the legal issues involved in setting up and running an e-Health service: of special concern in this regard was the issue of the privacy and security of medical and other personal records. A reconstruction of all the legislation, jurisprudence, and precedents bearing on the issue of the privacy of medical data made it possible to figure out the requirements that such a system had to meet. There were in particular at least three questions that needed to be addressed in this regard:

- the question of the right to privacy: here it was necessary to publish a legal notice setting out the responsibilities and obligations of those in charge of processing the data and obtaining the user's consent to go ahead with such processing;
- the question of data-processing techniques: here it was necessary to set out requirement for cryptography and digital signatures and the responsibilities of the individual whose signatures these are;
- the question of authenticating the system operators: here, we need access codes and digital signatures for all documents needing to be underwritten for administrative purposes.

This work then served as a basis for drawing up a code of conduct setting out rules for all the operations required in carrying out the online service.

One important privacy area was that of interpersonal (so called micro/micro) relationship, which concern patients in their relationship not with physicians, health practitioners, and social workers, but also with any other caregiver, including family and friends. Given this broader range of application in which privacy has a role, the caregiver have to be especially careful in processing data pertaining to the cared for, complying with all applicable law and deontological codes.

Likewise, health practitioners have to undergo training qualifying them to make sure that the patients' data is processed properly and respecting confidentiality before family and friends. And we must also take into

account the relationship between the cared for and the institutional health provider: this involved the use of medical data, a use extensively regulated by law, and data processor was therefore required to give privacy notices to the data subjects and to obtain the latter's consent. Specific forms had thus been prepared in compliance with the law, these including the privacy notices and the consent form.

A second important privacy area was that of the (micro/macro) relationship that service personnel have with service providers (hospital and field nursing staff, social co-operatives, service sector institutions) and with service managers (municipality and local health authorities). Privacy requires here that practitioners be identified or authenticated and that they go through the appropriate access authorization profiling depending on the kind of practitioner involved, on the kind of institutional function he or she is entrusted with.

There was also a third privacy area, this being the (macro/macro) relationship between agencies, and this too has been a point of legal analysis. In fact, we had to make sure that each agency was compliant with privacy law, especially as the Italian Code on Privacy¹⁹ of 2003 introduced several important innovation. The major innovation has consisted in regulating information flows among agencies, a process that has hitherto taken place in paper form and is now in digital. The reason why European and Italian legislation has focused on information exchange by way of ICTs, is that this poses a greater risk to privacy and carries a greater likelihood of data misuse, which may come to light only subsequently, when different pieces of data are cross-checked.

For the I-Care project we first classified the data to be processed and services to be provided, and then built this classification into the ICT model for interaction between citizen and service provider, and this made it possible to single out the main privacy issues involved in processing personal, sensitive and health data along with the security measures to be adopted to this end. Our focus with respect to health and social practitioner was on the obligations to provide privacy notices and obtain the citizens' consent before processing their medical data.

19 Legislative Decree n. 196, June 30, 2003.

The classification of data made it possible to process it according to appropriate rules and procedures in compliance with the law.

Data was classified into three groups: health, sensitive and personal data. Also, we had to focus on the legal status of practitioners. Indeed, Italian law requires that processing be carried out by public health providers and medical professionals, a group that does not include social workers. This made it necessary to use two different privacy standard depending on whether at-home service to the cared for is carried out by a health professional or by a social worker. Thus legislative decree no. 196/2003 section 34, and annex B, single out different authorization levels ranked according to classes of practitioners (e.g. specialized physicians, general practitioners, nurses, social workers – seventeen classes in all): accordingly, we had to work out different forms of authentication and authorization that different practitioners need in order to access different services.

Another problem was that of using personal records – as well as health and sensitive data – to see if the I-Care software modules could be used outside the control of the institutions legally competent to store and use the same data. Indeed, when a governmental institution builds a digital archive using data coming from other agencies, the data processor at this agency will have to comply with the rules established by the Privacy Authority for such communication, and will also have to offer a reason or justification based on the institutional role of the receiving agency. Personal records are subject to specific rules thus Italian law (DPR 223/1989) requires that personal records be viewed and extracted exclusively by the municipal officials specifically designated to that purpose. This requirement have been implemented into the I-Care platform by making it impossible to anyone except for the municipal records official to access the data used for the project; therefore I-Care software components filter medical records accordingly.

Thus the legal issues involved in the I-Care project brought out at three problem areas that needed to be looked at:

- the first problem was that the project, being designed for delivery of both medical and social services, accordingly made it necessary to process two types of personal data, medical and non-medical. So

here we needed to set up two standards (a double set of regulations) according as the data to be processed is classified as medical (under art. 76 of the Italian code on privacy) or otherwise;

- the same problem applies to the personnel themselves: under the above-mentioned art. 76, only medical personnel can handle medical data. So, here too, we need a double set of regulations, one for medical personnel and the other for social workers;
- the third problem was that of assigning a legal and administrative status to the document being processed and affixing a digital signature accordingly. This kind of specification made it necessary to work closely with the administrations involved, and it will also require a back-office apparatus capable of supporting the new document-management system and protocol.

3.4 Online services for education

Any e-Government project risks failure if the three traditional skills required in the information society, namely, reading, writing, and calculating, are not supplanted with computer and communications skills. This is challenge not only for the public administration but also, and in the first place, for schools and society in general. Therefore, many regional administration, e.g. the Emilia-Romagna Region, are supporting teachers throughout their territory, and recognising their central role, and are supporting, too, professional training in the creative use of the new technologies. Parallel with this, there is a strong effort to reduce to a minimum the risk of excluding of sectors of the population from the growing use of technology in the information society.

Similar problems arise outside education and training. If the objective is to systematically reach marginal social groups and areas, programs will have to be worked out and managed locally. However, local planning in this field is extremely variable.

Another problem was that there are not models and financial means with which to train teachers in ICT (EU resources have been used, but these are not always easy to locate and access).

ICT training of the staff working in the Region's public administration is fundamental for the success of all the initiatives proposed, and that problem is being addressed.

On the growth of ICT culture in schools, among teachers as well as students depends importantly the area's ability to increase the quality and development of its economic competitiveness in the future.

The other educational challenge in ICT literacy is that of continuing studies, which means training in the new technologies those who did not get enough of it (or enough quality in it) to acquire the needed skills then they were studying. This applies to young people who have left school early or whose education was non-technical; it applies also to the elderly, to those whose trade is a craft, to homemakers, and generally to everyone unfamiliar with information technology or is otherwise on fringes of society. Outreach here is much more difficult to achieve, but crucial nonetheless if we are to have social equity and to prevent marginalisation. So those are the main principles on which regional policy is based.

The initiative had the aim to provide online access to the teachers and students in the 1000 primary and secondary schools making up the region's school system.

There was not in Emilia-Romagna any homogeneous level of ICT literacy, just as there is not any uniform access to the Internet or to online public and private services. The Region therefore set up a Web site for schools, the objective being to provide a gateway where all the schools in the system, and anyone, really, can discuss their experiences and learn how the new technologies can be brought to bear in education.²⁰ The project has been coordinated by the people staffing the institutions making up the region's school system.²¹

20 <<http://www.scuolaer.it/>>.

21 There are in the Region at least three centres with a long experience in the use of online technology for education. Bologna has KIDSLINK, the biggest Italian network, connecting a few hundred schools, instituted by National Research Council and ARCI and supported by the City of Bologna and the Provincial Board of Education. Forlì and Cesena have CRIAD (a centre for research on the use of computers in education), instituted by SERINAR (Integrated Area Services) in cooperation with the City of Cesena and the University of Bologna. Parma has LTT, instituted by the University, the Province, and the Provincial Board of Education.

Regarding the training of administrative personnel for online services we start from the consideration that ICT literacy is fundamental if people have to take full advantage of the administrative online services and the opportunities for public participation. The point with public services is that we need to guarantee universal access to them. So the Region has been promoting and supporting projects increasingly more consistent with the skills and technical equipment of users, so as to minimise risk of exclusion, and this means providing ICT training where these skills are required. The Region has also been working to enable easy access to its services even without the use of any of the new technologies. This is not to downplay the advantages that come with ICT services: they are considerable. But then, for all that these services are being made simple and friendly, their use is still bound to prove unintuitive to some, and it is for this reason that it is so important to make as many people as possible ICT-literate.

The public administration works on several levels, from local to national, and there are great differences to be seen not only from one level to another but also from one government to another (such as the regional government) when it comes to the technological equipment available and the skills, including the management and organisation skills, of staff and personnel. It is worth noting here, in particular, that the investment put up to train staff for back-office and front-office work does not usually pay off, even when the skills being taught are non technical. These differences reflect on the quality of the online services provided.

There is not much analysis devoted to the user understood as the person around which and ICT-based service should revolve. Most of the analysis seems to focus, instead, on existing services and on the causes that prevent access to them.

ICT service providers generally invest more in technology than in training. This probably explains the difficulty involved in making these services widely available across all strata of society once a core set of users has been 'acquired', the users who, owing to their age, background, and circumstances, respond more quickly and with fewer problems to the opportunities offered by technological innovation.

Information hubs and community networks need ICT technology and equipment to provide services of cooperation and community-building. The idea is to develop networks capable of linking together enterprises and public institutions, such as schools and public-relations offices, so as to encourage the formation of an online community where people can train in their professions. It is this kind of professional training, rather than ICT-literacy programs implemented on a mass scale, that most often results in online projects and services being launched.²²

Other initiatives have been launched with the aim of bridging generational gaps and promoting community-building. These initiatives can be sorted into two main groups according to the kind of training they provide:

- ICT literacy programs for resident communities, animated and run by students, who either volunteer or work in exchange for credits for Internet access and Web-hosting services;
- emergency task-force programs for families, small enterprises, associations, etc., run by youths (students or otherwise) with skills in ICT.

Not only education and the school system are the focus of the initiatives to provide ICT training, but also to provide access (or equal access) to public online services for marginal groups; the aim here is to minimise this risk of exclusion, however unintentional its causes, since a lot depends on the features specific to the territory.

To achieve this result, we must in the first place raise a political awareness about this problem, which is more and more recognised and felt. Secondly, a series of agreements has been made with the organisations working in the interested areas, in order to:

- prepare internal trainers capable of acting from within the organisation and the communities;

²² Initiatives in Milan, Bologna, and Turin have shown how such active communities encourage citizens to use computers for many tasks and to familiarise with the Web and online services. The training provided sets in motion a process that develops and grows by inherent force.

- identify the people in need of training, and working out the contents of such training on the basis of their individual characteristics;
- work in coordination with business associations to bring ICT literacy to businesses, and with trade unions, community cooperatives, and volunteer associations²³ elsewhere;
- provide the training and information necessary to access and use online services; this will help citizens get involved and will encourage administrations and other organisations to make a commitment to online service;
- support the effort to set up – at libraries, schools, recreational centres, and other public venues – free points of uninterrupted access to the Internet;
- promote awareness campaigns.

Finally, the Region has been promoting and supporting programs to train the trainers, and professionals providing recreational entertainment.

4 Enabling public services through technology

ICT helps promote citizen participation in public life, and it plays a role, too, in the way we go about organising our affairs and setting up processes in the world of business and manufacturing. New forms of e-Participation stem from the ways the public administration uses ICT and makes it widely available in providing services.

The four projects outlined all rely on advanced digital technologies, and they were aimed at growing the potential that technology can bring to the public sector.

They were intended for a general public in People and Partecipa.Net and for sector-specific practitioners in I-Care and Fourth Generation. Here is how interaction was set up in each of these four projects:

²³ Non-profit associations, and volunteer associations in particular, represent a social base whose composition and numbers make these associations an important vehicle of ICT literacy programs, and the benefit works for them, too.

- in People, interaction is based on multi-channel access to more than 200 services provided by the city administrations; passwords and smart cards are used to authenticate users and to sign the documents required for the legislative process;
- in Partecipa.Net, it is based on the e-Democracy Toolkit, a sophisticated suite of software programs designed to support cooperation and group decision; the programs are user-friendly and present a unified interface;
- in I-Care, it is designed for health practitioners and provides a responsive set of health and welfare services to citizens; users are provided with new tools such as cooperative interfaces and wireless palm pilots;
- in Forth Knowledge, it is mostly based on Web portals designed for a smooth and pleasant exchange of contents in an e-Learning and e-Teaching setting in line with high standards of usability.

The projects and initiatives described here are the result of a joint and coordinated effort among local, regional, and national government bodies and were preceded by long negotiations undertaken to reach formal definitions and agreements.

It was felt that the systems should be designed and implemented only upon establishing a common willingness to jointly give shape to the projects according to user expectations; serving as a guarantee was the existence of wide-area plans, such as the European initiatives for the information society and the national e-Government plans; legislative bodies and financial institutions offered set of innovative and open-ended solutions to the problem of drawing up rules and regulations and the problem of cofinancing.

Public administrations are establishing best practices, and the idea of software reuse in the public sector is looking increasingly interesting to them, not only because it saves money, but also, and chiefly, because they share the idea that we need to rely on the teamwork of politicians, managers, lawyers, and technicians if we are to identify local problems and interests and integrate them in an inter-regional and European context, so that local public administrations may improve their operation.

From this perspective, we may notice the following:

- People was one of more than 400 projects presented in Phase One of a public notice issued by the Italian government. Public administrations at different levels took part in the initiative; the vision driving the project was that of achieving balance and integration among local systems;
- Partecipa.Net was presented for a government program specifically intended for e-Democracy; again, different public administrations shared a vision where the political agenda may stand to gain by informed decisions taken through the teamwork of decision-makers and stakeholders;
- I-Care presents the joint work of a group of public administrations and organisations coordinated by a regional administration and operating within a limited geographic area; the focus was on knowledge-building among groups of people having a common interest in welfare and health care; the point, beyond that of providing a service, was to build a practice and a set of transferable, reusable tools that different public institutions can share;
- Fourth Knowledge involves all the educational institutions of a large region; cooperation is among administrations that have similar educational contents and purposes; parallel with this, the project encourages establishing wide public access to ICT and to specific learning opportunities, this to avoid the risk of newly excluding sectors of the population in a growing technological society.

The last two projects explicitly identify social inclusion as a prerequisite for effective e-Democracy. But even the first two stress the importance of providing access to digital services for as many citizens as they can. The multi-channel mode of operation is not a secondary issue: the success of the systems depends crucially of consistent ICT tools that are easy to use and provide services in ways that accord with users habits and preferences.

Enabling citizens to control public policy seems to be a more difficult proposition: e-Rulemaking is still in its infancy,²⁴ and the problem is

24 Noveck (2004).

addressed only by the Web portals of Partecipa.Net and Fourth Knowledge, so the decision-making process needs to be handled through knowledge-management techniques (in Partecipa.Net and People) that, starting from interaction and information gathering, make it possible to share, select, verify, transform, and disseminate information.

The multi-channel tools and the feasibility of participation in the decision-making process both help users and citizens place greater trust in e-Democracy,²⁵ especially when they see positive responses and participation on the part of the public administration and its institutions.

More generally, that citizens have a right to be fully informed, and to find that information easily, is a fact recognising which public institutions commit themselves to enabling wide access to data, thereby promoting a virtuous cycle of information exchange. It follows from this recognition that online resources need to be reorganised and online services reengineered.

Public institutions are therefore coming to appreciate that e-Democracy and e-Participation need a new perception of citizens as holders of an inalienable right to digital citizenship rather than only as users of ICT and online services. This new perception, when acted upon, will help to widen the democratic process and to empower people.

References

- Beamish, A. (1995), *Communities on-line: a Study of Communities-based Computer Networks*, Department of Urban Studies and Planning, MIT.
- CapGemini (2006), *Online availability of public services: how is Europe processing?*
- Castells, M. (1996), *The rise of Network Society*, Blackwell.

²⁵ Creative Research, *e-Democracy. Report of Research Findings*, Creative Research, December 2002.

- CRC (2004), *Linee guida per la promozione della cittadinanza digitale: e-Democracy*, Formez, Project CRC, Suprema srl, February.
- Dawes, S. and L. Prefontaine (2003), *Delivering government services*, Communications of the ACM, v. 46, n. 1.
- European Commission (2003), *The role of e-Government for Europe's future*, SEC 1038.
- European Commission (2005), *Top of the Web. User satisfaction and usage survey of e-Government services*, <http://www.innovazione.gov.it/ita/news/2005/gennaio/05_1_17.shtml>, January.
- European Commission (2006), *i2010 e-Government action plan: accelerating e-Government in Europe for the benefit of all*, COM2006/173.
- Finger, M., and G. Pecoud (2003), *From e-Government to e-Governance? Toward a model of e-Governance*, MCIL Conference Proceedings, <<http://www.ejeg.com>>.
- Fountain, J. E. (2003), *Prospects for improving the regulatory process using e-Rulemaking*, Communications of the ACM, v. 46, n. 1.
- Galindo, F., and S. Quirchmayr (2001), *Advances in electronic government*, Proceedings IFIP w. g. 8.5 Conference, Zarazoga University Press.
- Gronlund, A. (2001), *Democracy in an IT-framed society*, Communications of the ACM, v. 44, n. 1.
- Holmes, D. (2001), *E-Gov, e-Business strategies for electronic government*, Breatly, London.
- IDC (2004), *A comparative analysis and market forecast of e-Government services in Europe*, <<http://www.idc.com/research/reshome.jsp>>, January.
- Lenk, K., R. Traunmuller and M. Wimmer (2002), 'The significance of law and knowledge for electronic government', in A. Gronlund (ed.), *Electronic Government: Design, Applications and Management*, Idea Group Publishing.
- Macintosh, A. (2002), 'Characterising e-Participation in policy-making', in K. Lenk and R. Traunmuller (eds.), *Electronic Government*, Springer.
- Maioli, C. (1999), *Guidelines for the online development of Emilia-Romagna Region*, RER, Bologna.

- Maioli, C. (2001), *A regional e-Governance plan and implementation, Proceedings Innovations for an e-Society*, Berlin, October.
- Maioli, C. (2002a), 'e-Governance for local systems', in K. Lenk and R. Traunmuller (eds.), *Electronic Government*, Springer.
- Maioli, C. (2002b), *e-Government ed e-Governance*, Clueb, Bologna.
- Maioli, C., and C. Rabbito (2006), 'Promoting e-Participation to qualify territorial e-Government policies', in S. Flogaitis, U. Karpen and A. Mattiucci (eds.), *e-Government and e-Democracy*, European Public Law Series, Volume LXXX.
- Marchionini, G., L. Brand and H. Samet (2003), *Digital government: introduction*, Communications of the ACM, v. 46, n. 1.
- Noveck, B. S. (2004), 'The electronic revolution in rulemaking', *Emory Law Journal*, v. 53, n. 433.
- Orita, A., et al. (2004), *Tell, Know, and Act: A Case Study in e-Participation representative of Citizen Interaction*, 4th Euro Conf. on e-Government, ACI, Dublin.
- Pacifici, G., P. Pozzi and A. Rovinetti (2006), *Reiventing governance through ICT and public communication*, FrancoAngeli.
- Rur-Censis (2004), *e-Democracy: un'opportunità per tutti?*, Rur-Censis, Rome, June.
- Rur-Censis (2006), *Le città digitali in Italia*, Ninth Report, Rome, September.
- United Nations (2003), *World Public Sector Report 2003: e-Government at the Crossroads*, UN.

e-INCLUSION IN LITHUANIA: STATE POLICY APPROACH

Rimantas Petrauskas*, Auste Kiskiėne*, Tatjana Bileviciėne*

1 Introduction

The European Commission's strategic policy framework i2010 – A European Information Society for growth and employment¹ – announces a European initiative on e-Inclusion in 2008. One of the three main priorities of i2010 framework is to foster inclusion, better public services and quality of life through the use of ICT (information and communication technologies). e-Inclusion is one of the issue areas addressed under this priority. The 2006 Riga Ministerial Conference on ICT for an Inclusive Society² provides strategic guidance and is a major step towards this initiative. Future work in the field of e-Inclusion shall build on national, regional and local initiatives, and link with European policies³ already in place. All relevant authorities, industries, users and civil society representatives are invited to jointly contribute. In line with i2010, e-Inclusion policy addresses issues in the fields of active ageing,

* Mykolas Romeris University, Faculty of Economics and Finance Management, Department of Informatics and Statistics.

1 Reed, *i2010 – A European Information Society for growth and employment*. Communication from the Commission to the Council, the European Parliament, the European Economic and Social committee and the Committee of the Regions. COM(2005) 229 final.

2 More about conference <http://ec.europa.eu/information_society/events/ict_riga_2006/index_en.htm> (visited 30-08-2007).

3 *Common Actions for Growth and Employment: The Community Lisbon Programme*. Communication from the Commission to the Council and the European Parliament. COM(2005) 330 final.

geographical digital divide, accessibility, digital literacy and competences, cultural diversity and inclusive e-Government.

e-Inclusion is about using ICT to remove obstacles which limit or prevent people from participation in the economy and wider society. It also seeks to overcome barriers to ICT products and services that exclude people and create a new form of exclusion, i.e. digital exclusion. e-Inclusion also seeks to find new digital opportunities for traditionally excluded social groups to become equal participants of the modern information society. e-Inclusion is an important aspect in building an inclusive Europe with greater social cohesion and mobility, highly participative democracies, better quality of life, and enhanced opportunities for employment and education.⁴

Everyone benefits from e-Inclusion initiatives, which impact on all society by creating more opportunities, access and equality. Such initiatives play a significant role in our daily lives with products and services designed to meet our changing needs. In particular, however, they benefit those at risk of exclusion. In other words, e-Inclusion helps people overcome barriers so they can participate more fully in society, regardless of disabilities, age, gender, ethnicity, and educational achievements, financial and technological resources. e-Inclusion shall reach out to everyone no matter where they live in Europe, including rural, remote or economically disadvantaged regions.

e-Inclusion is just one aspect of the broader range of policies designed to promote social inclusion and cohesion. While exclusion from the Information Society does not by itself necessarily lead to social exclusion, it is broadly true that the socially excluded tend to have limited access to ICT. Policies to promote e-Inclusion can form part of a wider mix of policies to promote social inclusion and can be a first gateway to inclusion for certain groups. Lithuanian e-Inclusion policy and other public and private initiatives are aimed at strengthening information society and fighting digital divide, which most of all affects socially disadvantaged people, such as disabled, elderly, minorities, etc.

4 *e-Europe 2005: An information society for all*. COM(2002) 263 final.

This article aims to analyse Lithuanian e-Inclusion policy and describe public and private initiatives to fight digital divide, which are examples of good practice and innovative projects. In the first part of the article authors describe overall e-Inclusion issues and main aspects of e-Inclusion related policy. The second part is dedicated for Lithuanian e-Inclusion issues. Authors analyse e-Inclusion policy in Lithuania and main related conceptual and legal documents, discuss Lithuanian state Web sites adaptation for disabled persons and present good practice and innovative e-Inclusion projects examples. The article concludes with the statement that despite existing efforts to correspond to the needs of those who are affected by the digital divide, it is still important first of all to work with the attitude and priorities of responsible institutions, i.e. organisations of disabled persons, as e-Inclusion issues usually are not placed in the first row of their priorities.

2 ICT and inclusion processes

e-Inclusion refers to the interactions between ICT and social inclusion processes.⁵ These interactions may have few different forms and outcomes:

- Replication and/or reinforcement of existing disadvantage. If traditionally disadvantaged groups are also disadvantaged in relation to their access to ICT and in relation to the opportunities/benefits that such access can offer for their social, economic and other spheres of life, such situation creates even wider gap between them and the rest of society;
- Emergence of new forms of exclusion for other groups. If lack of access to ICT and their benefits affects opportunities and outcomes in social, economic and other spheres of life, for example, for older or disabled people, such situation results in the creation of new form of exclusion, i.e. digital divide;

⁵ *e-Accessibility of public sector services in the European Union. Executive briefing.* <<http://www.cabinetoffice.gov.uk/e-government/resources/eaccessibility/>> (visited 10-08-2007).

- Positive opportunities for reducing exclusion for at-risk groups. If access to and utilization of ICT is facilitated and promoted in ways that can result in positive outcomes/benefits, i.e. better access to services, increased employment opportunities, or increased engagement of communities of interest, such situation enables ICT to fight the existing social exclusion.

Digital inclusion is a crosscutting issue, involving a number of interrelated social inclusion agenda, as well as the ever-developing ICT. Digital inclusion is, therefore, social inclusion with an ICT stream.

Individuals and communities can use ICT to enhance their quality of life, overcome difficulties and fulfil their potential. ICT is an important route to the equality of access to information – the essential aspect of creating social equality. ICT social and communication applications have been shown to promote social cohesion and identity. People need information and support to optimize their use of ICT including communal access and structures to facilitate home use, appropriate technology, adapting ICT and accessing special equipment, ICT skills development in line with technological developments, relevant content and user-friendly Web searching tools, participation as a citizen and creating content.

ICT can be used as a tool to promote social inclusion, i.e. projects for single parents could focus on work at home support using ICT or projects for homeless people might include publishing creative writing on the Web. Another project might tackle crime, isolation and community cohesion through wiring up a housing estate. If ICT is introduced to a community from the perspective of addressing a community need it is more likely to inspire individual interest and to reach sustainability. Initiatives that attempt to provide ICT for its own sake are less likely to succeed.

3 Description of overall policy approaches addressing e-Inclusion in Lithuania

Mykolas Romeris University participated as a national correspondent for Lithuania in eInclusion@EU project, which was launched under the

European Union's Information Society Technology (IST) program in 2004. Under this project there were designed three information gathering tools to be used by the national correspondents for the data and information gathering processes in their own countries. National correspondents had to address issues of e-Inclusion and e-Accessibility, ICT and their contribution to active ageing and equal opportunities in work and employment and selected aspects of the national situation in relation to research and policy activities in the field of e-Inclusion and activities directed towards monitoring and benchmarking e-Inclusion. All project work and analysis was carried in the three waves of information gathering in 2004–2006. Results of the analysis which was carried under the eInclusion@EU project can be the background for deriving main aspects of e-Inclusion policy in Lithuania.⁶

3.1 Main aspects of e-Inclusion related policy

e-Inclusion related policy and research activities can take many different forms: from full-fledged policy programs or policy statements to grassroots initiatives, from basic research projects and technology development to market implementation studies. They are likely to be found in many different areas of the wider field of e-Inclusion. It can be distinguished few types of e-Inclusion related public policy activities: inclusive online services, independent living, e-Services for social inclusion.⁷

Inclusive online services. Along with the spread of ICT into all corners of everyday life comes an increasing pervasiveness of online services: e-Government, e-Health, e-Learning, e-Commerce, etc. The emergence of these services lends a new urgency to the question of access and the digital divide as described above. If such vital services are increasingly provided by means of online media it needs to be ensured that

6 eInclusion@EU National Information Gathering Template: Wave III on Selected aspects of the national situation in relation to research and policy activities in the field of e-Inclusion and activities directed towards monitoring and benchmarking e-Inclusion in Lithuania.

7 Reed, *e-Inclusion revisited: The Local Dimension of the Information Society*. Staff working document of Commission of the European communities SEC(2005) 206.

inequitable access and/or utilization of online media does not result in a medical, educational or any other structural divide counteracting the goal of a cohesive society. Ways must be found, both through research and through political activities, to ensure that this threat is avoided and that online services are accessible by all people, particularly those that are of public interest such as e-Government, e-Health and educational online services.

Independent living. The concept of independent living seems, at first glance, to be rather self-explanatory. In general terms it describes all measures, technologies or activities helping older people and people with disabilities to live as self-determined or independent as possible.⁸ From a technology point of view, this encompasses four key application domains: assistive technology (i.e. devices compensating in some way for motor, sensory or cognitive difficulties, screen-readers for a computer, text-to-speech relay services for telephone), smart homes (i.e. networked dwellings responding to specific needs threatening the independence of older people, providing facilities ranging from simply detection and action – turning lights off or on, locking doors and providing alarms – up to fully automated electrical systems and networking components within the home environment), remote social and medical care (i.e. solutions that allow some medical services to be provided to the home, communication with a care centre via voice, transmission of biomedical data or, linked to smart home technology, dwelling based monitoring) and so called ambient intelligence solutions (i.e. the creation of a living environment where humans interact in a natural and non-invasive manner with computational services that help them in their everyday tasks, a concept similar to that of ‘ubiquitous computing’).⁹

e-Services for social inclusion. The understanding nowadays is that the information society is not all risks, but also offers a number of opportunities or even clear-cut benefits for societal at-risk groups. This

8 Reed, *Law on social integration of disabled persons*. No. I-2044, 28-11-1991.

9 *Influence of modern technologies on quality of life of disabled persons*. Report of European Council Committee of Rehabilitation and Integration of Disabled Persons (CD-P-PER). <<http://cm.coe.int/Ap/rehab/ntn/rd/2001/p-SG.35.6e>> (visited 30-08-2007).

means that ICT in general but even more specific applications and services can help those people to increasingly participate in societal life. The focus for this sub-issue is on e-Services facilitating the inclusion of disadvantaged people. The concrete type of such a service depends largely on its target group or groups, which can range from older and disabled people to the illiterate, immigrants and people with a low level of educational attainment. Examples are, for instance, online learning platforms for illiterate people lowering the barriers to participate by means of their anonymity or online services offered to low-income households via alternative platforms like digital television.

3.2. e-Inclusion policy in Lithuania

There is a certain interest from the government bodies to promote e-Inclusion in Lithuania. That indicates the specific body of Government of the Republic of Lithuania – Information Society Development Committee. This Committee continues the work of earlier existed Ministry of Telecommunications and Informatics. The main function of this Committee is regulation of information technologies and telecommunication and coordination of development of information society. In Seimas of the Republic of Lithuania (Parliament) a special committee on development of information society exists. In 2001 Seimas passed a resolution on priority work on knowledge society and knowledge economy in Lithuania.¹⁰ This resolution was a complex of suggestions for the Government to develop knowledge and information society. It covers education (computer literacy requirement in schools, increased number of students in the field of informational technologies), e-Government, e-Business, and knowledge economy fields.

Information Society Development Committee takes part in formation process of comprehensive state policy on information technologies and telecommunication. In 2001 Government of the Republic of Lithuania has passed resolution on 'National concept of development of

¹⁰ Reed, *Resolution of Lithuanian Republic Government concerning confirmation of Lithuanian national conception of development of information society*. No. 229, 28-02-2001.

information society' and in 2005 'Strategy on the Development of Information Society in Lithuania'.¹¹ It is acknowledged in 'National concept of development of information society' that many people in Lithuania do not know how to use and cannot use information technologies, especially in rural localities (in 2001 only 8% of population used Internet, in rural areas, only 1%). However the situation as regards Internet and computer usage is rapidly improving in Lithuania: in 2004 29% of all population used Internet and in 2006, 42% of population did the same. The 'Strategy on the Development of Information Society in Lithuania' is focused not only on improving computer literacy and Internet penetration but is also oriented towards development of public infrastructure of electronic services. It is planned to achieve that by 2010 40% of inhabitants will be using public electronic services and 70% of public services will be provided according to 'one window' principle.

With reference to the main documents on information society mentioned above, the main policy areas can be distinguished: people, public administration, e-Business, Lithuanian language and culture. e-Inclusion covers programs related to people training and education. The main goal is to ensure, that people could use information technologies and telecommunication, be more flexible and adjust to changing circumstances. Programs of people training include computerisation of schools and libraries, creation of public Internet access spots, digital community project, development of qualification of educators on information technologies, use of open code, promotion of remote studies, development of qualification of unemployed people through the use of ICT. Ministry of Education and Science, Ministry of Culture, Ministry of Social Security and Labour, Ministry of Interior, Ministry of Agriculture and Information Society Development Committee take part in e-Inclusion programs related to people. Public administration area¹² also includes several e-Inclusion oriented

11 Reed, *Resolution of Lithuanian Republic Government concerning Confirmation of Strategy on the Development of Information Society in Lithuania*. No. 625, 08-06-2005.

12 Reed, *Resolution of Lithuanian Republic Government concerning confirmation of strategy of public administration development till 2010*. No. 488, 28-04-2004.

programs: development of computer literacy of civil servants, integration of disabled persons in information society. The main target of the latter program is fulfilment of Web Accessibility Initiative. Almost all Web pages of government institutions are ready for the use of disabled persons (<www.lrv.lt>, <www.smm.lt>, <www.ivpk.lt>).

There are several practical Governmental initiatives to stimulate e-Inclusion in Lithuania. For example, in 2000 Government of the Republic of Lithuania passed the concept of e-Government¹³ and introduced program 'Vartai'. It aims to develop e-Government, e-Education, and e-Business and enable people to get all public information and actively participate in state's life. This program encourages wide Internet usage in schools and libraries, creates public Internet spots, where using Internet is for free.

In February 2004 Ministry of Social Security and Labour signed Cooperation treaty with telecommunication enterprise 'Lietuvos telekomas' (currently 'TEO LT'). Additional protocol on project 'Voice and Internet services for disabled persons and organizations of disabled persons' was also signed. This treaty and project provide cheaper Internet and telephone services for disabled persons. The aim of such project is to create an opportunity for disabled persons and organizations of disabled persons to use contemporary communication, help them to integrate into society and promote their employment. In July 2004 Ministry of Social Security and Labour with telecommunication enterprise 'Lietuvos telekomas' started a project called 'Wider way to the World'. The main purpose of this project was to integrate disabled persons to society. There were donated 46 computers to 25 day centers for disabled persons during this project.¹⁴

In 2000 Ministry of Education and Science passed 'Strategy on information and communication technologies in education'. In 2001

13 Reed, *Resolution of Lithuanian Republic Government concerning confirmation of conception e-Government*. No. 2115, 31-12-2002.

14 *Social Integration of Disabled Persons (2005)*. Report of Statistical Department of Lithuanian Republic Government. <http://www.ndt.lt/files/File/statistika/statistika_2005.doc> (visited 30-08-2007).

program 'Education for information society' was prepared. This program includes Web page <www.emokykla.lt>, computer net in comprehensive schools, public Internet spots in schools, promotion of computer literacy in schools. The main aims of computer net are: to use information technologies for improvement of education process, to encourage wide usage of information technologies in after class activities, to modernize management of schools and to improve functioning of schools' libraries.

e-Inclusion and e-Accessibility is also very important when ensuring equal opportunities for all people to employment and general social integration. In the Republic of Lithuania the European directive 2000/78/EC of 27 November 2000 is implemented with reference to the appendix of the Law on Equal Opportunities.¹⁵ This Law determines implementation of European Directive 2000/78/EC and of European Directive 2000/43/EC of June 29 2000 implementing the principle of equal treatment between persons irrespective of racial and ethnic origin.

National Program for Social Integration of Disabled Persons for the year 2003–2012¹⁶ has a provision related to e-Accessibility. 10.2 clause deals with accessibility of information for disabled persons. This clause determines the necessity to adapt public information to the needs of disabled persons. National Program refers to the Concept of Adaptation of Information Environment to the Needs of Disabled Persons. This Concept is created to fulfil the aim of adaptation of public information to the needs of disabled persons and creation of special supporting equipment for disabled persons.

The Association of Environment Adaptation for Disabled of Lithuania was recently established under the support of Open Society Fund-Lithuania (OSFL – one of the network of foundations established since 1985 in Central and Eastern Europe, Asia, Africa and Haiti). The main objectives of the organization:

15 Reed, *Law on Equal Opportunities*. No. IX – 1826.

16 Reed, *Lithuanian government resolution regarding confirmation of national programme of 2003–2012 years of social integration of disabled*, Nr. 850, 07-06-2002.

- to monitor projections and the building of new buildings processes;
- to participate in the expert groups accepting the exploitation of newly built or renovated buildings with the evaluation of their correspondence to the needs of the disabled;
- to initiate and implement different programs on adaptation of city environment as well as the public institutions (schools, universities, etc.) and nongovernmental organizations to the needs of disabled people;
- to provide an assistant on adaptation of the accommodation owned by a disabled person to his needs;
- to provide training and information to the public officials on the needs of disabled people and the friendly environment in general.

Although the objectives of the Association cover wide range of issues, the activities are limited by the financial possibilities and are mainly based on the monitoring the fulfilment of the requirements for public buildings and areas and not to the adaptation issues of private accommodations owned by the disabled. Innovative initiatives like ‘smart house’ are not affordable yet.

4 Main public policy documents related to e-Inclusion issues

Positive development in state policy is reflected in ‘Conceptual framework for adapting the information environment to the needs of people with disabilities’ (hereinafter ‘Conceptual framework’), which was adopted by the decision No T-5 of Director of Information Society Development Committee under the Government of the Republic of Lithuania in January 21, 2005. This document needs special attention as it is the main conceptual document in the sphere of e-Inclusion issues in Lithuania. ‘Conceptual framework for adapting the information environment to the needs of people with disabilities’ is a part of ‘National program for disabled people social integration for 2003–2012’.

This conceptual framework set a list of requirements for the creators of information environment (content creators, designers, programmers), which have to be fulfilled in order to adapt information environment to the needs of disabled people. Common requirements embrace provisions that all content must be accessible to people with visibility and hearing disabilities, all functions must be accessible with keyboard (without mouse), etc. However conceptual framework is rather consultative and provides creators of digital content with methodical guidelines how to make content more accessible for visually impaired.

There are several other legal acts which are important legal documents regulating technical aids for disabled people guaranteed or supported by the state. It is worth to mention ‘Catalogue of means of technical aids for disabled people’¹⁷ (hereinafter ‘Catalogue’) and ‘Description of supply with means of technical aids for disabled people and the order of compensation of their purchase expenses’ (hereinafter ‘Description’). As it is stated, technical aids for disabled people enhance human activity; provide opportunity to move freely and independently.

The Catalogue contains a list of means set by the International Standard LST EN ISO 9999:2001 ‘Technical Aids for Disabled People. The Classification’. The Description specifies the order of supply and compensation of purchase expenses of technical aids.

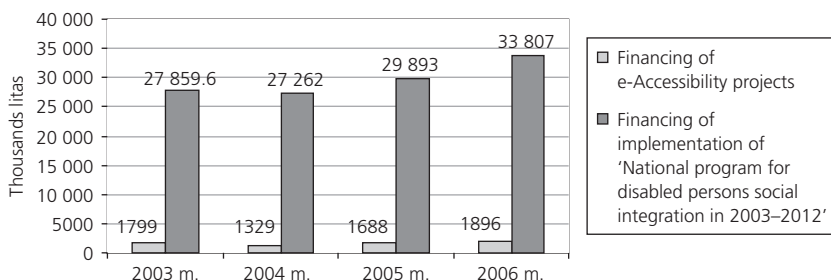
State position towards the disadvantaged groups of the population specified in its legal acts is very important in the field of e-Inclusion. Sometimes it might be one of the main driving forces for innovation, an adviser for nongovernmental organizations or an efficient listener to the needs of disabled or elderly people.

The main instruments presently offered or available for the above mentioned target groups might be called a very basic ones in order to improve quality of life in general and lowering their dependence on other people in particular, i.e. an improvement of medical, social and

17 Reed, *Web Content Accessibility Guidelines 1.0*. W3C Recommendation 05-05-1999. <<http://www.w3.org/TR/WAI-WEBCONTENT>>.

professional rehabilitation of disabled people by means of provision with technical aids, such as wheelchairs, walkers, crutches, anti-bedsore mattresses, sticks, etc. New possibilities opened by a very fast developments of ICT and other technologies (i.e. smart house solutions) are not into consideration yet.

As it is indicated in the Picture 1 below only a small amount of all financial means allocated for the implementation of ‘National program for disabled people social integration for 2003–2012’ are devoted for the e-Accessibility projects. Such projects aim at enhancing possibilities of disabled persons to get equal access to information and other benefits of information society. This situation shows that e-Inclusion issues are not among the priorities of ‘National program for disabled people social integration for 2003–2012’ and reveals weakness of e-Inclusion public policy implementation.



(Source: *Report on Creation of Universal System of Integration of Disabled Persons* (2006). VITI, Vilnius.)

Picture 1. Sponsorship of projects of access of information environment of disabled.

5 Lithuanian state Web sites adaptation for the disabled persons

Another aspect of e-Inclusion public policy is adaptation of state institutions’ Web sites for the disabled persons. This aspect clearly shows how are implemented declarative statements of conceptual and programming documents, related to e-Inclusion issues.

Decision No 480 by the Lithuanian Government on ‘Common requirements for Internet pages of government institutions’¹⁸ set several principles for the governmental Internet pages, which have to be implemented in order to create more opportunities for all citizens to use services of information society. According to this Decision all governmental Internet pages have to be adapted to the needs of disabled persons.¹⁹ This Decision is implemented in practice, and now almost all Internet pages of government institutions are adapted to visually impaired people, for example, <www.ivpk.lt>, <www.lrv.lt>.

During the research Web sites of main Lithuanian state institutions’ were analyzed:

- Seimas (Parliament of the Republic of Lithuania) and its administration;
- President of the Republic of Lithuania and his administration;
- Government of the Republic of Lithuania;
- Ministries and other state institutions.

Links to these institutions are presented on Government’s Web site in point ‘Links’. Purpose of this analysis was to establish how these Web sites are adapted for disabled persons. Authors didn’t analyze particular technical solutions used on certain Web sites. If Web site is adapted for disabled persons it was decided by particular link. During the research 120 objects were analysed.

Analysis revealed that only one Web site of the three main state Web sites has link ‘adapted for disabled’ – Government’s Web site (<www.lrv.lt>). Parliament’s Web site only has link ‘text version’.

Only nine Web sites of ministries’ Web sites have such link, it means only 69.2% of all state institutions’ Web sites. If we analyse both Web sites of ministries and its institutions this amount markedly increases. Eleven of 13 groups (85%) – or ministry’s Web site or its institution’s Web sites

18 Reed, *Lithuanian government resolution regarding common demands for Internet sites of governmental institutions*, Nr. 480, 18-04-2003.

19 Reed, *Instructions from the director of the Information Society Development Committee*, No. T-40, 31-03-2004.

are adapted for disabled persons (but from all 74 Web sites only 21 are adapted – 29%). Only three Web sites (13.6%) of 22 Parliament institutions are adapted for disabled – it is Office of Parliament Controller and Investigation Centre of Genocide and Resistance, Lithuanian national radio and TV. 33 Web sites (28%) of all 120 analyzed institutions are adapted for disabled persons.

It is interesting to analyze what particular Web sites have such links. Sites of Environment Ministry (<www.am.lt>) – both Web site of Ministry and of Agency of Environment Protection, of Environment Protection Inspections; Treasury Ministry (<www.finmin.lt>) – Web site of Taxes Inspection is adapted. Social Protection and Labour Ministry's Web site (<www.socmin.lt>) isn't adapted for disabled persons, but sites of Service of Labour Market Education and Invalid Affairs Service are adapted. But the site of Social Insurance Fond isn't adapted. Sites of Roads Direction and State Transport Inspection of Communication ministry (<www.transp.lt>) are adapted; site of State Patient Till of Health Protection Ministry (<www.sam.lt>) is adapted. Web sites of Education and Science Ministry (<www.smm.lt>), Economy Ministry (<www.ukmin.lt>), Ministry of Foreign Affairs (<www.urm.lt>), Justice Ministry (<www.tm.lt>) are adapted for disabled persons. But portal of Legal Information Centre (<www.infolex.lt>) isn't adapted to disabled persons.

Web sites of environment protection, cultural and education institutions are adapted for disabled persons in the best way. Web sites of such important institutions as State Tax Inspectorate, State Patient Fund, and Department of Statistics are also adapted for disabled person. However, some very important institutions such as Social Protection and Labour Ministry, Social Insurance Fond, Labour Market do not have adapted versions of their Web sites for the disabled persons. And portal 'Government Electronic Gates' hasn't link 'adapted for disabled persons'. Internet site of Lithuanian Republic Prosecute Office (<www.lrgp.lt>) is adapted for disabled persons.

Analysis of state institutions' Web sites shows that there is no systematic and crosscutting policy of adaptation of such Web sites for the needs of disabled persons. Moreover, among three main political institutions

(Parliament, Government and President) only Government has a version of its Web site for the disabled. Thus there could be observed a wide gap between declarative statements in political documents and practical intentions to fight digital divide problems.

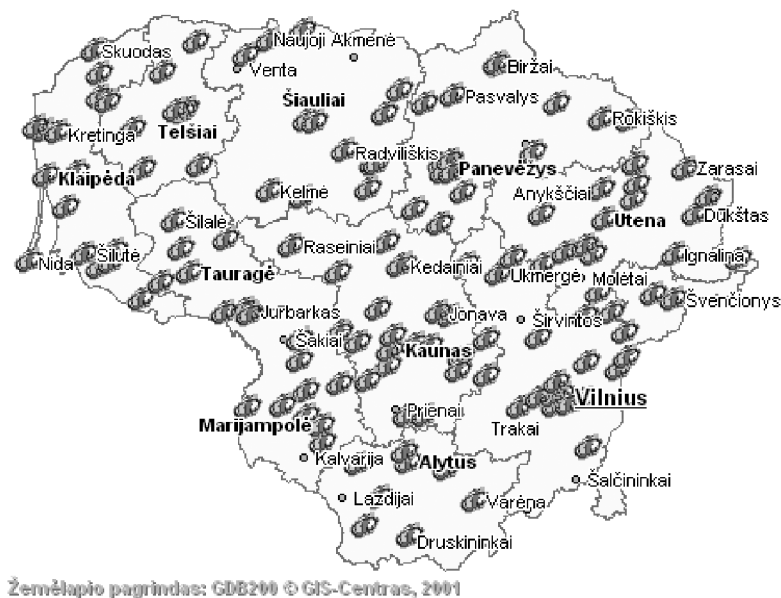
6 Examples of good practice and innovative projects

There could be observed private initiatives aimed at enhancing positive outcomes of interaction between ICT and social inclusion processes in Lithuania. Such examples of good practice usually fight accessibility and computer literacy problems. Several good practice examples are described below. Success of such projects lies in public-private partnership, bottom-up initiative and down to earth solutions of e-Inclusion problems.

Window to the Future. In 2003 alliance 'Window to the Future',²⁰ formed by leading mobile and fixed telecommunication and IT companies, largest commercial banks and Vilnius City Municipality, implemented project 'IT Training for Society'. The aim of this project was to provide 20 000 Lithuanian residents with opportunity to participant in basic Internet usage courses for free. The project was intended to emphasize positive features of Internet usage, encourage people to use computers and e-Services at home, and invite to adapt knowledge obtained in courses in Internet centers. Courses began in spring 2003. In December 2003 there were 20 000 Lithuanian residents, who have taken part in these courses. 60% of participants were people of age 35–60, 35.37% of participants were people of age 18–35, the rest participants were more than 60 years old. Average age of participants was 40 years. 80% of participants were women. The smallest group of participants were retired persons (2.45%). The results of the courses are evaluated as positive. 89.84% of participants declared that these courses had encouraged them to further improve their computer literacy. 65.2% of participants evaluated courses as very good, 17.95% as good.

20 Window to the Future Web site <www.langasiateiti.lt>.

Another ‘Window to the Future’ project is focused on the establishment of public Internet access points. ‘Window to the Future’ together with the Ministry of Interior established around 200 public Internet access points in Lithuania during 2002. Ministry of Interior and ‘Window to the Future’ cooperate in developing unified strategy for the establishment of public Internet access points and in coordinating activity of such points. This initiative was followed by the project ‘Establishment of Public Internet Access Points in Rural Areas’ implemented by the Ministry of the Interior and sponsored from Phare social-economical cohesion programme, supported by the EU. 300 more public Internet access points were established during this project. Currently ‘Window to the Future’ together with partners implements project financed by EU Structural Funds during which 400 more public Internet access points are going to be established in Lithuania. Picture 2 shows how already running public Internet access points are spread across Lithuania.



(Source: Alliance ‘Window to the Future’, <<http://www.langasiateiti.lt>>.)

Picture 2. Public Internet access points in Lithuania.

RAIN. Project 'Rural area information technology broadband network RAIN'²¹ aims to provide broadband access for all rural public sector administration institutions, hospitals, laboratories, schools, museums, libraries, public Internet access points and also for rural residents and business companies. This project is supported by the EU Structural Funds and implemented by Institute of Informatics and Mathematics together with Ministry of Transport and Communications and Ministry of Education and Science. Project started in 2005 and it is planned to provide broadband access to 80% of all rural education institutions, 75% of all rural public sector administration institutions, 75% of all rural health institutions, 75% of all rural public Internet access points. Currently project managers announce that they are already in a halfway of building broadband infrastructure. A feasibility study for the second stage of this project – RAIN II – has been already approved by supervisory committee of project implementation. In the second stage it is planned to create infrastructure which enables already existing and newly established communication operators to provide broadband Internet services in not less than 98% of the territory of Lithuania.

WWW-GOLDEN-AGE (SOCRATES/GRUNDTVIG 2 project²²). Aim of this project is to introduce IT to older people, educate them to work with Internet, check and improve teaching methods, create network of organizations, engaged in older people education, create positive image of older people in communities, help to solve social problems, encourage cooperation of older people from different countries. Organizers are going to hold seminars for older people. IT courses shall provide older people with opportunities to earn for a living, integrate them to society and cooperate with other people from the EU countries. Project started in July, 2004 and is going to proceed for 3 years.

Screen phones. TEO LT (formerly known as Lithuanian Telecom) company has recently introduced a new product of telephonic devices a so called 'screen phone'. Among the other advantages of the product,

21 More about project <<http://www.rain.lt>>.

22 More about this project <<http://www.pmvc.ktu.lt/>>.

the company has emphasized the most important of it – a possibility to see a person you are talking with at a real time. As one of the beneficiary groups or a group for which the new product could open a completely new communication possibilities, were the people with hearing disabilities named by the company as well. The possibility to see a person you are talking with and the technical abilities of free hands' equipment of the product would open new possibilities to communicate in gestural language between the members of the target group as well as with public institutions intended or mostly used by the people with deaf disability. Despite the potential benefits for specific disadvantaged groups, no projects are initiated yet. Though on the request of the State Board of the Deaf Association and with a special offer of the company, four pairs of the telephone devices were recently (May 2006) installed in the premises of nongovernmental organizations of deaf people (at the National Rehabilitation Centre of Deaf People, Vilnius Rehabilitation Centre of Deaf People, Lithuanian Federation of Sport of Deaf People and at the Kaunas Rehabilitation Centre of Deaf People).

7 Conclusions

It is widely accepted that ICT have a potential to play a major role in creating a more inclusive society. ICT products and services with measurable benefits can enrich people's lives. Especially people at risk of social, economic or digital exclusion may benefit from purposefully created digital services and equipment. ICT can improve the quality, efficiency and effectiveness of public services offered by national, regional and local administrations by meeting the needs of all citizens and businesses. However there are still differences in possibilities to use ICT among various social groups and these differences form a new form of social exclusion – digital divide. There are few signs that digital divide is narrowing between different social groups. Especially disadvantaged are traditionally excluded social groups, such as disabled persons, people with low level of income and education, elderly.

Process of information society development is directly connected to state institutions' activities. These institutions tend to use different ICT

applications for modernising public administration. ICT open new opportunities to extend public administration functions into the cyber space and provide residents with better services. ICT ensure cheaper and simpler process of information acceptance, process, keeping and transmitting. All kinds of institutions and enterprises more and more of its activity and information relations extend to electronic communication space.

Seeking to provide an equal rights and opportunities for disadvantaged social groups to be socially and economically integrated into society it is important to reduce digital divide they are confronting. e-Inclusion programs are very important tools for combining ICT and social integration processes and seeking positive outcomes for disadvantaged people. Reduction of digital divide may take different forms and require different means. For example, one of the most important grounds for reduction of digital divide for disabled persons is adaptability of Internet information environment for their special needs. Information networks and e-mail can become one of the most important mean of education, communication, social integration for disabled persons. The other very important issue is to provide disabled and other disadvantaged people with special adapted electronic equipment which could help them to be equal participants in information society.

Currently e-Inclusion issues are getting more and more attention in Lithuania not only from state institutions but also from private sector. Success of some e-Inclusion projects which can be used as good practice examples from Lithuania usually lies in public–private partnership, bottom-up initiative and down to earth solutions of e-Inclusion problems. However governmental initiatives are still more in the form of conceptual and declarative documents than in real actions. This clearly shows analysis of state institutions' Web sites adaptability to the needs of disabled persons. Moreover, only a small amount of state financial sponsorship is allocated for the implementation of e-Inclusion projects.

Not only shortage of financial sources influences the hard access of information environment for disabled persons. Average 25–30 millions litas are distinguished for implementation of programs of disabled

persons' organizations. But such organizations often choose others priorities of projects because shortage of knowledge, specialists and competence. Projects which aim to increase access of information environment compose only the small part of supporting measures of governmental program of social integration of disabled. Although the sponsorship of social integration projects for disabled persons from 2003 till 2006 remotely increased, financing of e-Inclusion projects decreased from 6.5% in 2003 till 5.6% in 2006.

References

1. *i2010 – A European Information Society for growth and employment*. Communication from the Commission to the Council, the European Parliament, the European Economic and Social committee and the Committee of the Regions. COM(2005) 229 final.
2. Ministerial Declaration Approved Unanimously on 11 June 2006, Riga, Latvia. <http://ec.europa.eu/information_society/events/ict_riga_2006/index_en.htm> (visited 30-08-2007).
3. *Common Actions for Growth and Employment: The Community Lisbon Programme*. Communication from the Commission to the Council and the European Parliament. COM(2005) 330 final.
4. *e-Europe 2005: An information society for all*. COM(2002) 263 final.
5. *e-Accessibility of public sector services in the European Union. Executive briefing*. <<http://www.cabinetoffice.gov.uk/e-government/resources/eaccessibility/>> (visited 10-08-2007).
6. eInclusion@EU National Information Gathering Template: Wave III on Selected aspects of the national situation in relation to research and policy activities in the field of e-Inclusion and activities directed towards monitoring and benchmarking e-Inclusion in Lithuania.
7. *e-Inclusion revisited: The Local Dimension of the Information Society*. Commission of the European communities. Staff working document. SEC(2005) 206.
8. *Lithuanian Law on social integration of disabled persons*. No. I-2044, 28-11-1991.

9. *Influence of modern technologies on quality of life of disabled persons.* Report of European Council Committee of Rehabilitation and Integration of Disabled Persons (CD-P-PER). <<http://cm.coe.int/ Ap/rehab/ntn/rd/2001/p-SG.35.6e>> (visited 30-08-2007).
10. *Resolution of Lithuanian Republic Government concerning confirmation of Lithuanian national conception of development of information society.* No. 229, 28-02-2001.
11. *Resolution of Lithuanian Republic Government concerning Confirmation of Strategy on the Development of Information Society in Lithuania.* No. 625, 08-06-2005.
12. *Resolution of Lithuanian Republic Government concerning confirmation of strategy of public administration development till 2010.* No. 488, 28-04-2004.
13. *Resolution of Lithuanian Republic Government concerning confirmation of conception e-Government.* No. 2115, 31-12-2002.
14. *Social Integration of Disabled Persons (2005).* Report of Statistical Department of Lithuanian Republic Government. <http://www.ndt.lt/files/File/statistika/statistika_2005.doc> (visited 30-08-2007).
15. *Lithuanian Law on Equal Opportunities.* No. IX – 1826.
16. *Lithuanian government resolution regarding confirmation of national programme of 2003–2012 years of social integration of disabled,* Nr. 850, 07-06-2002.
17. *Web Content Accessibility Guidelines 1.0.* W3C Recommendation 05-05-1999. <<http://www.w3.org/TR/WAI-WEBCONTENT>>.
18. *Resolution of Lithuanian Republic Government concerning common demands of state Web sites.* No. 480, 18-04-2003.
19. *Order of Director of Committee of Information Society Development.* No. T-40, 31-03-2004.

THE DEVELOPMENT OF e-GOVERNANCE AND THE ISSUE OF DIGITAL INCLUSION IN GREECE WITH PARTICULAR REGARD TO THE CONSTITUTIONAL RIGHT OF e-PARTICIPATION

Ioannis Iglezakis*

Abstract

The roll-out of e-Government services is currently advancing well in Greece, which is a slow starter in the field of e-Government, but moves now with fast steps ahead. The development of e-Governance presents many chances and also risks for the society. One issue deserving attention is the issue of the digital gap between ‘information haves’ and ‘information have nots’. Bridging the digital divide would need a great amount of financial resources and a strategic plan aiming at increasing access to information and building knowledge infrastructure. Although there is presently no specific programme to promote digital inclusion in Greece, the Government seems to take into account the need to address this issue.

The imperative to promote digital inclusion is enshrined in the Greek Constitution, which provides for a right to e-Participation. However, this right is not directly actionable, and therefore, it does not provide the means to judicial recourse. Policies with regard to digital inclusion could be included in the definition of the Universal Service, and also in legislative programmes having this objective.

* University of Thessaloniki, <iingleza@law.auth.gr>.

1 General Introduction

e-Government in the information age shows the way towards the transformation of public administration to an efficient and citizen-friendly service provider. In more specifically, if implemented properly, it can improve government services, increase accountability, result in more accurate and efficient delivery of services, reduce administrative costs and time spent, facilitate transparency in the administration of government, allowing thereby greater access to services due to the openness and constant availability of the Internet.¹

Furthermore, ICTs can be implemented to enhance political processes and promote participation of citizens. Governments are able to provide interactive services involving liaisons of citizens with government institutions, such as information provision, e-mail communication, online meetings and forums for voicing opinions, participation of citizens in consultation and planning procedures and electronic voting.² The many ways in which ICTs are employed in this direction fall within the particular field of e-Democracy, which is a novel concept, aiming at refreshing the interest of citizens in the democratic processes.³ e-Democracy is treated as a particular subject matter that falls under the heading of e-Government for many reasons, but mainly because it is another facet of the application of ICT to public sector.

The development of e-Government on national level is dependent on state funds and maybe hindered by lack of financial resources, legal

1 P. T. Jaeger, 'The endless wire: e-Government as global phenomenon', *Government Information Quarterly* 20 (2003), 324; P. Sendes, *e-Government und Demokratieverständnis*, 2006, 33 et seq.; R. Asghari, 'Digitale Evolution im Staat', in: R. Asghari (Hrsg.), *e-Government in der Praxis*, 2005, 17–33.

2 See, e.g., P. T. Jaeger, op. cit.; B. Holznagel/A. Hanssmann, 'Möglichkeiten von Wahlen und Bürgerbeteiligung per Internet', in: Holznagel/Grünwald/Hanßmann, *Elektronische Demokratie*, 2001, 55–72.

3 See A. Smith, 'e-Participation and the Future of Democracy', available online at <<http://www.dialoguebydesign.com>> (visited 20-07-2007); L. Damodaran, 'e-Democracy: challenges for social inclusion', ITNOW, July 2005; H. Kleinsteuber, 'Das Internet in der Demokratie', in: *Elektronische Demokratie*, op. cit., 7–27; O. Winkel, 'The Democratic Potentials of Interactive Information Technologies under Discussion', in: *Elektronische Demokratie*, op. cit., 28–43.

obstacles, technical and security issues, and the slow adaptation of bureaucratic mechanisms. Nevertheless, initiatives to promote the introduction of ICTs in the public sector are getting more intense with the coordination of international and supranational organizations, such as the EU, which is actively promoting initiatives in this area.⁴

However, not everybody is able to benefit from e-Government and e-Democracy and this is particularly manifested in south-European countries like Greece, where a large part of the population makes no use of ICT and has no Internet access. More specifically, according to recent statistics, 27.4% of the population has an Internet access, where 42% have a desktop computer and 16% a notebook. Moreover, ADSL connections reach up to 7% of the population, lagging behind the average percentage in the EU countries.⁵ The divide between those people who make use of ICT and have Internet access, that is, between the 'information haves' and 'information have nots', is the so-called 'digital divide',⁶ and this is quite acute in Greece. The digital divide touches upon particular population groups, such as the elderly, people living in rural areas, disabled persons and those with low-income and low level of education, and represents a big obstacle in the implementation of e-Government projects.⁷

The Greek Government is currently implementing a strategy for e-Government in the context of the overall strategy for the development of the information society in the country, i.e. the so-called digital strategy (2006–2013) that follows the new European policy for the Information Society 'i2010' and the action plan 'Jobs & Growth'. e-Government is also a component of the project 'Politeia 2005–2007' for the 're-establishment of Public Administration'. In this context and in the context of previous programmes and projects, certain

4 See G. Strejcek/M. Theil, 'Technology push, legislation pull? e-Government in the European Union', *Decision Support Systems* 34 (2002), 305–13.

5 See Annual Indexes of the projects e-Europe and i2010 for the year 2006, available online at <www.observatory.gr> (visited 03-08-2007).

6 See J. C. Bertot, 'The Multiple Dimensions of the Digital Divide: More than the Technology "Haves" and "Have Nots"', *Government Information Quarterly* 20 (2003), 185–91.

7 See, in more general, P. Sendes, op. cit., 45 et seq.; Jaeger, op. cit, 323.

e-Government services have been implemented and others are in preparation.⁸

Digital inclusion policies, which are essential to the advancement of e-Government, are addressed by the EU in the framework of the 'e-Inclusion' initiative.⁹ Greece has not developed a particular strategy for digital inclusion, but it introduced specific projects having this objective, mainly in telemedicine, homecare, etc.¹⁰ Furthermore, it launched initiatives concerning the development of ADSL and Wi-Fi networks and co-financing of purchase of ICT equipment for businesses, professionals and students (see *infra*, 3). It is also noteworthy that one suggestion of the digital strategy 2006–2013 is the familiarisation of all citizens including disadvantaged groups with e-Services.

In more general, it could be mentioned that although there is no strategic approach towards digital inclusion in Greece, the Government takes into account the need to introduce e-Services for all citizens and achieve participation in e-Governance. It is questionable, however, in which degree is the current development of e-Government empowering the stakeholders to become informed users of the technology and of the e-Services offered.

2 The national e-Government Infrastructure

2.1 e-Government Strategy

The national strategy for the development of e-Government was initially defined in the White Paper 'Greece in the Information Society: Strategies and Actions', which was published in 1999 and updated in 2002.¹¹ The White Paper stressed out the need to enhance the quality

8 See also I. Iglezakis, 'Greece: Forum e-Government', *Computer Law Review International* 3 (2007), 92–3.

9 See <www.eInclusion-EU.org>.

10 <<http://www.einclusion-eu.org/ShowCase.asp?CaseTitleID=1657>>.

11 See e-Government Fact sheet – Greece – Actors, p. 10, available online at <<http://www.eupractice.eu>> (visited 03-08-2007).

of public services in order to ensure social cohesion and raise living standards. Furthermore, a lot of attention was drawn in the development of electronic services that should present characteristics of broad availability, accessibility through one single point of reference ('one stop-shop'), quality and cost-effectiveness.

A noteworthy big-scale project implementing the Information Society strategy was the Operational Programme for the Information Society (OPIS), which was adopted in 2000 and covered the period 2000–2006. This programme was supported by the EU as part of the Community Support Framework and had a horizontal character, comprising various activities falling under the responsibility of different government bodies. Subsequently, the OPIS was followed by a new strategic plan, i.e., the 'Digital Strategy 2006–2013', which follows the principles of the EC 'i2010' Information Society Plan.¹² The aim of this strategy is to promote ICT in order to achieve higher productivity in the economy sector and improve citizens' quality of life, realizing thus a 'digital leap'. The objectives of the Digital Strategy are implemented through the OPIS and the operational programmes of the period 2007–2013, in particular the project 'Digital Convergence'.

2.2 Institutions responsible for e-Government

Policy making and strategic planning in the area of e-Government in Greece fall mainly within the responsibility of the Information Technology Committee and the Ministry of Interior, Public Administration.¹³ The latter has recently instituted a specific department for e-Government, whereas sector specific e-Government projects are implemented by individual government bodies.

The Information Technology Committee was established in 2004 by the Ministerial Council and is operating as a common platform for planning and development of Information Technology. Its task is to

¹² See <<http://www.infosoc.gr/NR/rdonlyres/41CB3A72-8C7A-47D6-B21C-5FC8786DEA6F/3070/DIGITALSTRATEGY.pdf>> (visited 08-08-2007).

¹³ See e-Government Fact sheet, op. cit., 16; Iglezakis, op. cit., 92.

coordinate and monitor the initiatives of public institutions aiming to promote the use of new technologies and e-Government. While it was responsible initially for strategy planning and IT development, it became the common platform for political planning, coordination, monitoring and developing of the Information Technology and in more particular, for the monitoring of the implementation of the ‘digital strategy 2006–2013’ by public institutions.

The Ministry of the Interior, Public Administration and Decentralization is formally assigned with the responsibility for the development of e-Government in Greece. The ministry has a long experience in managing e-Government projects in the past and manages national and European funds within the Operational Programme for the Information Society (OPIS). Within the Ministry, the General Secretariat for Public Administration and e-Government¹⁴ was established, with main responsibility to tackle e-Government issues. The role of this body is central for the development of e-Government in Greece.

In more general, the responsibility for the development of the Information Society lies with the Special Secretariat of Digital Planning in the Ministry of Economy and Finance.

Since there is a clear need for the coordination of e-Government policies, this task is assigned to the General Secretariat for Public Administration and e-Government and to the Special Secretariat of Digital Planning of the Ministry of Economy and Finance¹⁵ (renamed from the former Special Secretariat for the Information Society). Another institution which has been recently established by the Ministry of the Interior, Public Administration and Decentralization, is the e-Government Forum. The role of the forum is clearly consultative. The forum aims at establishing links with the business community, at submitting proposals for the use of ICT in the public sector, and also at fruitfully exploit theoretical knowledge and experience in

14 <www.gspa.gr>.

15 See <http://www.infosoc.gr/infosoc/en-UK/sthnellada/operators/Special_secretariat/default.htm> (visited 03-08-2007).

e-Government. The forum could evidently promote coordinated action between the public sector bodies offering e-Government services.

The implementation of e-Government projects is carried out by the Information Society S.A. and by individual government bodies, as well as regional and local government bodies. The former was established in 2001 and is a state-owned company, which has as a task to support the implementation of the OPIS. To achieve this goal, the company implements and utilizes the national e-Government infrastructure, e.g. the Syzefxis network.

The national bodies implementing e-Government actions are supported by a number of institutions, i.e., i) the General Secretariat for Public Administration and e-Government, ii) the Managing Authority of the OPIS, iii) the Information Society S.A. and iv) the Observatory for the Greek Information Society,¹⁶ which is an independent Private Law Body Corporate.¹⁷

Furthermore, auditing of e-Government projects and activities is carried out by the Hellenic Court of Audit. This court is generally responsible for auditing expenditure and monitoring the revenue of the state, of local administrative bodies and other public corporate bodies. In addition, control of personal data processing from national administrative bodies is exercised by the Hellenic Data Protection Authority, which is an independent administrative body, established by Law Nr. 2472 of 1997 (transposing Directive 95/46/EC).¹⁸

2.3 Specific e-Government Services

The development of e-Government services is currently characterized by the multitude of services provided, while not long ago only the

16 <www.observatory.gr>.

17 The Observatory for the Information Society was founded by Law 3059/2002 (Government Gazette A 241/11-10-2002) and is supervised by the Ministers of National Economy and Finance, of Internal Affairs, Public Administration and Decentralization. See <<http://www.infosoc.gr/infosoc/en-UK/sthnellada/operators/observation/>> (visited 03-08-2007).

18 <www.dpa.gr>.

services of the tax authorities were accessible online.¹⁹ This concerns only electronic services of governmental bodies, whereas at local level efficient e-Services are lacking.²⁰ It is also irrefutable that no initiative towards the introduction of e-Democracy schemes has been undertaken so far. This runs in contradiction with the civil society, for there is already a participative spirit developed among cybercitizens, as it is evident from the increased number of Greek bloggers presenting their views on current social and political issues and the emergence of sites hosting NGOs and other political organisations.

It follows a brief description of the e-Government services offered by the central administration, which are fully interactive, and of those under development.

2.3.1 *Government-to-Government*

The Syzefxis Project

The Syzefxis network is a very significant project aiming at establishing an electronic communications infrastructure in the public sector. In more particular, this would establish a network infrastructure that will be used for e-Government and electronic signatures (PKI) in the Greek public sector.²¹ It extends over the entire country, connecting over 2000 public sector bodies through four virtual private networks. The advantages of the introduction of this network are the simplification of procedures, better cooperation and coordination, and the saving of financial resources.

The Syzefxis project provides data exchange and voice over IP services, broadband and e-mail services, offers an e-Learning platform that

19 However, Greece still holds a low ranking compared with other countries; in particular, it ranks 91th in the Seventh Global e-Government Study of the Brown University, as regards the overall e-Government performance; <http://www.brown.edu/Administration/News_Bureau/2007-08/07-011.html>.

20 See P. Hahamis/J. Iles/M. Healy, 'e-Government in Greece: Bridging the gap Between Need and Reality', *The Electronic Journal of e-Government*, vol. 3, issue 4 (2005), 185–92, where it is stated that: 'a content study of Greek government Web sites reveals that local level e-Government has generally not progressed beyond the information presentation stage'.

21 See <www.syzefxis.gr>.

would be used to provide guided instruction to civil servants, and operates an Internet portal²² that offers value-added services, e.g. directory, telecooperation, teleconference and helpdesk services. It also provides PKI infrastructure services, i.e. electronic signatures and digital certificates that will be used for cross-agency transactions, introducing thus an electronic identity management scheme. In particular, 50 000 smart cards and 10 000 pertinent card readers will be distributed to civil servants. These smart cards contain two digital certificates employed for electronic signing and ciphering of documents.

Regarding the management of the digital certificates it should be noted that a Root Certification Authority has been established in 2006, with responsibility to define certification policy and standards, and coordinate other public services offering certification services. This Authority issued consequently a Certification Practices Statement (Government Gazette 1654/B/10-11-2006). The PKI system of the Syzefxis Project is further based upon five certification authorities (CAs), which will be established once the relevant ministerial decisions are signed: i) Ministry of Interior, Public Administration and Decentralization CA, ii) Ministry of National Economy and Finance CA, iii) Ministry of Health and Social Solidarity CA, iv) Ministry of Public Order CA and v) Ministry of National Defence CA.

In May 2007, the Minister of the Interior, Public Administration and Decentralization signed a circular for the initiation of the distribution of digital signatures to civil servants. The first certificates will be provided to high-level officials employed in the various Ministries. Thus, the PKI infrastructure is about to become operational, while other parts of the project, such as the training module, are also functioning.

The Hermes Project

The Hermes project is planned to publicly diffuse electronic signatures and digital certificates through a government portal ('Hermes portal'). It aims to provide 300 000 smart cards to citizens and businesses for

22 <www.syzefxis.gr>.

their transactions with public sector. However, there is no progress with this project, so far.

2.3.2 Government-to-Citizen

TAXISnet

The TAXISnet system (<<http://www.taxisnet.gr>> – see Figure 1) is one of the first e-Government applications – it was introduced in May 2000 as a Web-based extension of an existing internal information system – and one with high acceptance by users.²³ It provides services to individual and corporate taxpayers, including electronic submission of income tax forms, personalised electronic notification of the results of the tax return clearance process, electronic issuing of certificates by fax, electronic submission of VAT forms, and payment via banking system services. Notably, a number of these services are also offered via a telephone call centre.

TAXISnet services are available to Internet users that follow the registration procedure and receive electronic credentials (user name, password), which enable them then to have access to the full range of these services. Users of TAXISnet are (a) individual citizens, (b) professional accountants and (c) private businesses, with emphasis on SMEs. TAXISnet offers round-the-clock availability and real-time response for all transactions, online FAQ and email-based help desk services.

23 See P. Tsiavos/S. Smithson/S. Kotyvos, 'A Path of Discontinuity: The TAXIS Case as a Transition from e-Government to e-Regulation' in T. J. M. Bench-Capon, A. Daskalopulu and R. G. F. Winkels (eds.), *Legal Knowledge and Information Systems*. Jurix 2002: The Fifteenth Annual Conference. Amsterdam: IOS Press, 2002, pp. 53–62; D. Stamoulis/D. Gouscos/P. Georgiadis/D. Martakos, 'Revisiting public information management for effective e-Government services', *Information Management & Computer Security* 9/4, 2001, 146–53; D. Gouscos/G. Mentzas/P. Georgiadis, 'Planning and Implementing e-Government Service Delivery: Achievements and Learnings from On-line Taxation in Greece', *Workshop on e-Government – 8th Panhellenic Conference on Informatics*, Nicosia, Cyprus, November 8–10, 2001, available at: <<http://imu.epd.ece.ntua.gr/Papers/C51-EPY-e-Gov.pdf>>; K. Metaxiotis/J. Psarras, 'e-Government: new concept, big challenge, success stories', *Electronic Government*, vol. 1, 2/2004, 141–51.



Fig. 1. The TAXISnet portal.

While in the past, the system has experienced technical difficulties, it has become more efficient and gained acceptance. The effects of its introduction are mainly the elimination of paper work and direct availability. All in all, it can be regarded as a success, for its use is constantly expanding among taxpayers, who recognise its efficacy.

The Social Insurance Institution's Web site

The Social Insurance Institution's (<<http://www.ika.gr>>) Web site provides employers the possibility to submit online declarations of social security contributions. Furthermore, it offers certificates for the compliance of employers with obligations under social law and the possibility to confirm online those electronic certificates. The Web site of the institution also provides information and FAQ on issues regarding the declaration of social contributions.

Recently, the IT Centre of Social Security Services has been transformed into a public share company, i.e. 'e-Government for Social Security S.A.', which aim at providing e-Government Services to citizens. The operation of this company will contribute significantly to the growth of e-Government services in the area of social security.

Citizen Service Centres

The Citizen Service Centres have been established in 2002 in order to provide access to citizens to public sector information and carry out a great number of administrative procedures (over 1000). They function as one-stop shops, in which citizens can address to, and they facilitate access to administrative procedures, which are time-consuming and complicated. Their services include a call centre (1502) and a telephone application system (1564) providing various certificates to citizens and enterprises.

The Web site of Citizen Service Centres (<<http://www.kep.gov.gr>> – see Figure 2) provides online availability to the services of the Centres. The Web site offers the possibility to registered users of submitting applications online, which are dealt with by individual centres. There are currently 1036 Centres spread around the country. The Citizen Service Centres use a specific network and software ('e-kep' platform), which supports the use of certified digital signature and enables real time on-line transactions between Citizens and Public Administration.

The screenshot shows the homepage of the Citizen Service Centres website. At the top, there is a navigation bar with links for Home Page, Mozila Firefox, and various services. Below this is a search bar and a navigation menu. The main content area is divided into several sections:

- KEP Logo:** The logo for the Citizen Service Centres (KEP) is prominently displayed.
- Did you call KEE? 1564 CITIZEN SERVICE CALL CENTRE:** A banner for the call center service.
- The citizen's handbook:** A link to the handbook, with a sub-link for "News and announcements".
- in cooperation with the Piraeus Bank:** A section detailing the partnership with the Piraeus Bank for electronic services.
- Home Page:** A section with a "Home Page" link.
- You have entered KEFI:** A welcome message for users who have accessed the website, mentioning that it is updated daily with the latest information.
- Life Events:** A section for life events, with a sub-link for "Life Events".
- We take care of your everyday business with the public Sector:** A section for everyday business, with a sub-link for "We take care of your everyday business with the public Sector".
- The citizen's handbook:** A section for the handbook, with a sub-link for "The Complete Citizen's Handbook".
- 1. A. Entry, stay and social integration of third country nationals in the Greek State:** A list of services, including Provisions of latest Law 2388/2005, How to obtain a Place of Permanent Residence, National Residence Certification, and Right of entrance in isolated Municipalities.

At the bottom of the page, there is a footer with the text "Μεταφορά δεδομένων από www.kep.gov.gr..."

Fig. 2. The Citizens Service Centre's Website.

The Internet portal has recently become operational and can be already characterized as a success, for it provides a wide range of services, and has already become recognized, since it receives over 9 million visits each month. The single drawback of the portal is that the delivery of certificates requires physical presence of the applicant before one of the Centres.

Courts of Athens, Piraeus and Thessaloniki

The three major Courts of First Instance, i.e. Athens (<<http://www.protodikeio-ath.gr>>), Piraeus (<<http://www.protodikeio-pir.gr>>) and Thessaloniki (<<http://www.protodikeio-thes.gr>>), have created an information system for the electronic filing of lawsuits, provision of information on lawsuits and filing of applications for the issuance of certificates from Courts. Access is granted mainly to lawyers of the corresponding Bar Association, but also other persons could register and gain access to certain services.

Other e-Services

A great number of information is offered to citizens by various Web sites. Notably, the Web site of the Labour Organization (<www.oaed.gr>) provides a job search online service, and also, information and forms for downloading concerning unemployment benefits and family allowances. The Web site of the Ministry of Health and Social Solidarity (<<http://www.mohaw.gr>>) provides information on medical costs and also interactive advice on the availability of services in different hospitals and appointments for hospitals. Information on student grants are provided by the State scholarship Foundation (<<http://www.iky.gr>>). Information on passport is provided by the national passport centre (<<http://www.passport.gov.gr>>) and information on driving license is offered by the Citizen Service Centres Web site. Furthermore, information and online registration of new, used and imported cars is provided by the General Secretariat for Information Systems of the Ministry of Economy and Finance (<<http://www.e-oikonomia.gr>>). Information and forms for building and planning permission are provided by the Citizen Service Centres Web site, while information concerning declarations to the police are provided by the Web site of the

Ministry of Public Order (<<http://www.ydt.gr>>), and information concerning enrolment in higher education are provided by the Web site of the Ministry of Education and Religious Affairs (<<http://www.ypepth.gr>>).

2.3.3 *Government-to-Business*

e-Procurement

Currently, there is no e-Procurement platform developed in Greece. Nevertheless, information and public procurement forms are provided by the Web site of the General Secretariat for Commerce of the Ministry of Development.²⁴

It is notable that the Procurement Directives 2004/17 and 2004/18 have been recently transposed into national law with two Presidential Decrees, i.e., P.D. 59/2007 and P.D. 60/2007. With these acts the provisions of the Procurement Directives are almost verbatim transposed and therefore, the legal framework is in full compliance with the EU-Directives on electronic procurement.

In practice, the electronic procurement will be fully operable once the National System for Electronic Procurement (NSEP) is created. The project for its implementation has been awarded, but its award has not yet been finalised.

The main goals to be achieved through this system are the following:

- Computerization of procurement procedures in order to accelerate and simplify the whole, but also part of the procedures;
- Introduction of new practices, such as framework agreements and electronic auctions;
- Interconnection of contracting authorities and private businesses (suppliers) with the central offices of the General Secretary of Commerce (GSC);
- Upgrade of IT infrastructure of the GSC;

²⁴ <<http://www.gge.gr>>.

- Establishment of an open system accessible by employees of the GSC, public authorities and suppliers;
- Provision of improved information and advanced electronic services; and
- Provision of training of main actors (public institutions and suppliers).

The NSEP will be installed centrally in the General Secretary of Commerce and the Procurement Directorates of contracting authorities, and it will support local access. Actors of public procurement will have access through a Web portal, which will be structured so that different users could gain access to specific functions. It will support all the main procedures applicable in public procurement, including the preparation and execution of the annual programme for procurement, publication and award of procedures, submission of requests to participation (in restricted procedures) and submission of tenders, evaluation of tenders and selection of tenderers, award and execution of procurement contracts and finally, review of the APP. The broad objectives of the creation of the NSEP is to save funds from the state budget and principally, to speed up procurement procedures and establish transparency.

Other electronic services available to businesses

There are many Web sites offering information to businesses with variable level of interactivity. In more particular, the Web site of the General Secretariat for Commerce (<<http://www.gge.gr>>) offers information concerning the registration of a new company and forms to download. Furthermore, the General Secretariat of National Statistical Service (<<http://www.statistics.gr>>) provides the possibility of online submission of Intrastat declarations. Through the TAXISnet portal it is possible to submit customs declarations online and also, the Web site of the Ministry of Environment (<<http://www.minenv.gr>>) provides information and forms to download concerning environment-related permits (including reporting).

2.3.4 Further electronic services under development

National Population Register

Today each municipality and commune maintains population registers, which are locally held. The creation of an integrated National Register will unite all the relevant information and integrate it in a single database.

Specific Population Register

An information system that will include birth information of Greek citizens leaving abroad is to be created. This system will facilitate the issuance of certificates and increase the functionality of public services.

Electronic Information System for the Advocate of the Citizen

An information system will be introduced for the communication between the Advocate of the Citizen with other public sectors.

Information System for the Council for Appointing to the Public Sector

An information system will be established in the Council for Appointing to the Public Sector, which will contribute to fully computerization of internal procedures and the communication with the public interface.

Information systems for Regions, Prefectures and Local Administration

Information systems will be introduced in Regions, Prefectures and most notably, in local administrative bodies (municipalities and communes). Particularly, local administration will benefit from funds in order to introduce electronic services and portals for diffusion of information and provision of services to citizens.

3 Policies with regard to digital inclusion

It is a common belief that bridging the digital divide constitutes a major problem for the society as a whole, and this concerns also the

development of e-Government in Greece. Indeed, information campaigns for the familiarization of Greek citizens with ICT and the promotion of its use have been largely introduced by the Government, the latest one being the 'Digital Greece' campaign, which was launched in 2007.

As Internet penetration remains low, in order to overcome the digital divide it is essential to promote the introduction of Internet connections and, what is more important, to develop a broadband infrastructure. It is noteworthy that there has been an increased introduction of broadband connections recently, but this was followed by the incentive of profit for Access Providers. ADSL connections reach up to 760 000, but still this number is relatively low.

It has been announced that funding will be targeted at the development of Metropolitan Area Broadband Networks in 75 cities, the creation of Wi-Fi connections in more than 120 Municipalities and 20 local Unions of Municipalities, the deployment of more than 700 wireless access points in 400 companies, and also at the national School network. Broadband connections will also be established in first and second grade education, as well as in Cultural and Sport centres, health centres, etc. This activity is included in the digital strategy 2006–2013 and complements other projects for the creation of Wi-Fi Hotspots and Optical Fibre Networks in 68 Municipalities.

Another notable initiative was the initiative 'See your life, digitally!' that offered first year University students, which were candidates of the 2006 National School Examinations and were included in the 20% of students achieving the highest entrance scores, the possibility to purchase a new laptop, by providing them a coupon of up to € 500. In the next year, it is planned to introduce the project 'one-notebook-per-kid', which was aimed initially for third world countries, but its implementation in Greece will also promote ICT adoption.

Funding by the Government has helped to develop an e-Government infrastructure and a variety of e-Services, which have been described above. However, at local level, with few exceptions, e-Government has not been developed beyond the information presentation stage,

although this might change in the future with the implementation of EU-funded projects in this area.²⁵ At present, this represents an obstacle in the procedure of bridging the digital divide, since digital inclusion can be attained more efficiently at local and community level.²⁶

It is notable that where electronic services become mandatory, for instance in the case of annual declaration of fiscal elements which can only be submitted online, taxpayers without Internet access can choose to submit manually their declarations to a Citizens Service Centre, which will consequently forward them via the Internet. This is an effective approach towards the fact that not all citizens and enterprises²⁷ have an Internet access, but does not solve the digital divide issue.

In addition, it should be mentioned that there are no Community Centres providing free Internet access, as this is the case in other countries that have adopted policies to promote digital inclusion, and no broad ICT-education and training programme have been introduced, besides specific projects targeting professionals and businesses. It is questionable, therefore, whether the creation of Wi-Fi networks in municipalities and communes alone will have any result at all in promoting digital inclusion, even if wireless networks would make available free access to Internet for large parts of the population in regions and rural areas.

Consequently, it should be explored how the existing legal framework on e-Government copes with the issue of digital inclusion and, in more particular, whether this issue can be dealt with effectively by legal norms.

25 See P. Hahamis/J. Iles/M. Healy, 'e-Government in Greece', op. cit.

26 See, e.g., J. C. Sipior/B. T. Ward, 'Bridging the Digital Divide for e-Government inclusion: A United States Case Study', *The Electronic Journal of e-Government*, Vol. 3 Issue (2005), 137–46, available online at: <<http://www.ejeg.com>> (visited 03-08-2007); G. Kuk, 'The digital divide and the quality of electronic service delivery in local government in the United Kingdom', *Government Information Quarterly* 20 (2002), 353–63.

27 ICT and Internet penetration depends upon the size of enterprises. In more particular, SMEs in rural areas are the ones with low penetration, while big and medium-sized enterprises make extensively use of ICT; see Iglezakis, 'The Information and Communications Technology Market', in: D. Maniotis/M.-T. Marinos/A. Anthimos/I. Iglezakis/G. Nouskalis, *Cyberlaw* (Hellas), 2005, 23.

4 The legal framework on e-Government and digital inclusion

4.1 The general legal framework

Although there is no specific legislation for e-Government in Greece, the principles underlying e-Government, i.e. accessibility, transparency, security, data protection, cooperation and sustainability, derive from general principles of administrative law and legal regulations in specific acts.

The transparency of administrative action is a general legal principle of administrative law, which is specified through the right of access to public documents (Article 5 of Administrative Procedure Code). This provision stipulates that every interested person has the right to access administrative documents, i.e. documents produced by public authorities such as reports, studies, minutes, statistics, administrative circulars, responses opinions and decisions. This right is, however, without prejudice of data protection and protection of secrecy provided for by specific laws, as well as of intellectual property rights. It is also noteworthy that the right of access to public information is enshrined in the Constitution²⁸ and, therefore, the relevant provision cannot be abolished or its protection diminished.

Re-use of public sector information is foreseen by Law 3448/2006, which transposed the provisions of Directive 3448/2006.²⁹ This act establishes the conditions and the means of facilitating the re-use of documents held by public sector bodies. The principal obligation of public sector bodies is to ensure that documents held by them can be re-used for commercial or non-commercial purposes, in accordance with the conditions set in law 3448/2006, and where possible to make

28 According to Article 5A (1) of the Greek Constitution, 'all persons are entitled to information, as specified by law. Restrictions to this right may be imposed by law only insofar as they are absolutely necessary and justified for reasons of national security, of combating crime or of protecting rights and interests of third parties'.

29 See I. Iglezakis, 'Re-Use of Public sector Information', *Computer Law Review International* 6 (2006), 191–2.

them available through electronic means (Art. 2). This law also provides safeguards for privacy, national security and intellectual rights.

Furthermore, the use of means of electronic communication is legally recognised and, therefore, there are no legal barriers to the use of e-Government services. Notably, Directive 1999/93 ('e-Signature Directive') was transposed through the P.D. 150/2001 of 2001, which establishes the legal recognition of electronic signatures and defines the legal consequences of advanced and simple electronic signatures.³⁰ In the public sector, Law 2672/1998 provides for the exchange of documents through facsimile and e-mail between public services, legal persons of public law and organisations of local administration and between them and private persons, etc. It is also foreseen by Decree 342/2002 that administrative decisions and certificates can be communicated through e-mail, provided that they bear a digital signature, i.e. an advanced electronic signature as defined in the act transposing the e-Signature Directive. Furthermore, Law 3242/2004 (Article 8) provides that administrative procedures concerning the issuance of an individual administrative act from the public sector can be concluded by electronic means, and in particular by advanced information systems providing interconnectivity.

Privacy protection is afforded by Law 2472/1997, which transposed the legal rules and principles of the Data Protection Directive (45/96/EEC) into national law.³¹ This act establishes the terms and conditions under which the processing of personal data is to be carried out so as to protect the fundamental rights and freedoms of natural persons and in particular their right to privacy. It also provides regulations on data security and establishes the right of the data subject to have access to its personal information. The control and supervision of personal data processing is entrusted with the Data Protection Authority, which is an independent administrative authority.³²

30 See I. Iglezakis, 'The Effect of Electronic Signatures', in: *Cyberlaw* (Hellas), op. cit., 176–84.

31 See I. Iglezakis, 'Privacy Protection', in: *Cyberlaw* (Hellas), op. cit., 229–48.

32 <<http://www.dpa.gr>>.

In the electronic communication sector the law 3471/2006 transposing Directive 2002/58 applies, providing specific rules to protect privacy from risks inherent to modern communication technology.

4.2 The Greek legislation pertaining to digital inclusion

Regarding the issue of the digital divide, since there is no specific law on e-Government, there is no specific rule referring to digital inclusion. However, on constitutional level, the ‘right to e-Participation’ includes the aspect of digital inclusion. In more particular, Article 5A (2) of the Constitution states that: ‘All persons are entitled to participate in the Information Society. Facilitation of access to electronically handled information, as well as of the production, exchange and diffusion thereof constitutes an obligation of the State’.

This provision establishes, at first sight, an individual right to participation in the Information Society. In case restrictions of this right are imposed by legal or administrative acts, which violate it, the right holder can bring a claim against such restrictions. Furthermore, Article 5A (2) establishes a social right, which lays down the obligation of the Greek State to take positive action in order to make equal and active access to the Information Society possible for all.³³ In this sense, it constitutes a legal basis for policies of digital inclusion, such as funding of purchase of equipment provided to low-income social groups, establishing of community centres providing free use of ICT and access to the Internet and implementing ICT education programmes. Generally speaking, this right is not actionable, for it does not provide the individual with a legal claim against the State, in case the latter fails to introduce digital inclusion policies. This lack of enforceability, however, is not a particular drawback of the right to e-Participation, but a common characteristic of all social rights.³⁴

33 See L. Mitrou, ‘The right of participation in the Information Society’, in: Papachristou/Vidalis/Mitrou/Takis, *The right of participation in the Information Society*, ed. Sakkoulas 2006, 35–56 (in Greek); Ap. Papakonstantinou, ‘The constitutional right of participation in the Information Society’, *Revue of Public and Administrative Law*, 2/2006, 233–42 (in Greek); X. Kontiadis, *The new constitutionalism and fundamental rights after the Constitutional Revision of 2001*, ed. Ant. Sakkoulas 2002 (in Greek), 206.

34 See I. Iglezakis, *Social State of Law*, Sakkoulas ed. 2005 (in Greek), 118–23.

Nevertheless, the right to e-Participation has certain aspects of actionability. In particular, in case certain social groups are legally excluded from e-Participation for reasons pertaining to geographical, age or racial factors, then a legal claim is recognized. And also, in case this right is legally recognized through a legal act laying down specific measures, i.e. benefits, such benefits cannot be later totally abolished or unjustifiable diminished (theory of co-called ‘social acquis’).

Beyond the implementation of specific projects aiming at the promotion of digital inclusion, the institutionalization of the right to e-Participation raises many questions. The basic commitment of the State is to offer e-Government services and this means that it has to make available online public sector information and further, implement e-Government projects in order to cover all or a major part of administrative procedures. But what is more important, access to the Internet should be made generally affordable to all citizens. This could be made possible with the inclusion of Internet in the universal service in the sense of Directive 2002/22/EC, i.e. the provision of a defined minimum set of services to all end-users at an affordable price.

It is noteworthy that a Legislative Draft titled ‘Participation in the Information Society’³⁵ drafted by a group of researchers under the aegis of the Hellenic European Constitutional Centre, includes a provision for access in public electronic communications networks (Article 9).³⁶ Under this act, the services and characteristics of the universal service as well as the cost principles are to be defined by the competent state authority. Particularly, Internet access for the elderly, low-income, unemployed and disable persons is to be made affordable in low prices, and the relevant charges are to be funded by the State.

35 This Draft Law has not been submitted to the Hellenic Parliament.

36 Papachristou/Vidalis/Mitrou/Takis, *The right of participation in the Information Society*, op. cit., 90.

5 Conclusion

The existence of a constitutional norm referring to digital inclusion is very positive, but this norm remains still unenforceable, as no legal act specifying it has been adopted yet. The value of this constitutional norm, however, should not be underestimated for this reason. On the contrary, the recognition on constitutional level of a right to participation in the Information Society is essential for the formulation of governmental policies with regard to digital inclusion.

The roll out of e-Government services in Greece is currently advancing well, but policies of digital inclusion should play an advanced role in this development, in order to encourage the bridging of the 'digital divide'. There are particular deficits in current policies, which should be taken into consideration, such as the lack of specific programmes for ICT education and the establishing of Centres providing Internet access at no cost for underprivileged citizens. A concise strategy towards digital inclusion should include the adoption of legislative programmes with this objective and also the facilitation of Internet access through its inclusion in the universal service.

THE AGENCY FOR THE PROMOTION OF e-GOVERNMENT, THE INFORMATION AND KNOWLEDGE SOCIETY IN URUGUAY

Andrés Saravia*

1 Introduction

December 17th, 1999. The vice president of the United States of America, Mr. Al Gore was giving a speech to the nation, talking about the new aims of the government agencies regarding the better effort to use the new Information and Communication Technologies, in order to make online access for the citizens and to improve its services. This project was called the *Electronic Government Directive*,¹ and it was the first time, the phrase was mentioned in public.

This study will make develop a research into the new development of the Agency for the promotion of the electronic government in Uruguay. As some countries from the region (Brazil, Chile, Mexico) began to improve its bet on the Information Society at the beginnings of the new century, others like Uruguay didn't realize the importance of a new living era, and delayed their commitment with the new Information and Communication Technologies until they discovered that, waiting any longer could live the nation apart, including from its neighbors.

* Lawyer, contender to the Legal Informatics Professorship, Faculty of Laws, University of 'La República' (Uruguay). Member of the Legal Informatics Institute, Uruguay. Doing Ph.D. at University of Zaragoza, Spain, 2007.

1 <<http://www.useu.be/ISSUES/gore1217.html>> (visited 12-05-2006).

The work will describe the first steps regarding the Information Society, the beginnings of the Agency in Uruguay and the projections to the future.

1.1 Uruguay. Statistics

The original name for the country is *República Oriental del Uruguay*, situated in Latin America, between Argentina and Brazil. With coasts to River Plate and Atlantic Ocean.

Its currency is the *Peso*, with an equivalency of \$ 35 per € 1. It is a Parliamentary Republic with its own Constitution since 1830, and a Mercosur member since 1995, from the beginnings.

With a population of 3 million people, its capital is Montevideo, where the community offices are also installed.

For the latest statistics studies, the Internet access per week is about 53% of the total population.²

1.2 Uruguay Previous Changes to the Next Information Society Steps

Some actions are related to others, despite their different topics, and that's exactly what it is now happening with the new tax system development, and the new promotion for the Information Society inclusion.

When the new government authorities started their period (March 1st 2005), the President of Uruguay made two big announcements that were supposed to change the actual situation: The first one, is to restructure the tax system, in order to eliminate ones and to install a Rent Tax for all citizens. The second announcement was directly related with the inclusion of Uruguay into the Information Society; at least, at the same level of the others neighbor countries. Looking to both

² <<http://www.gruporadar.com.uy/info/EI%20perfil%20del%20Internauta%20uruguayo-2006.pdf>> (visited 22-07-2007).

proposals at a first sight, people can say that one has nothing to do with the other, but that's not correct. To change the entire tax system, and to offer the new one, the implementation of technology is needed in order to obtain a complete success. Furthermore, the use of e-Gov services for treasure purposes will improve the citizenship interrelation with the State. And moreover, as it will be explained on the following phrases, the first stage for the development of a *One Stop* e-Gov Web page, is to work together, the Treasure site with the Social Security pair, and in relation, answer all requests made by citizens.

So, firstly, the two Web pages began to work related one with the other by the end of 2006, and afterwards, on July 1st, 2007, the new restructured tax system was launched.

Before the actual treasure tax system began to operate, the old one had the following characteristics:

- A central tax to be overcharged in any product, and to be paid by the final consumer. The percentage is the 23% of the final price. Name: IVA.
- A camouflaged IVA with same characteristics to the first one, which amount is dumped to Social Security. Percentage 3%. Name: COFIS. IVA plus COFIS: 26% to be paid by every consumer, over a product, every time the buying operation is completed.
- A tax to be overcharged in any imported product, and also to a declared list of national products (cigars, alcohol, etc.). Percentage: 50% of the original price or cost. Name: IMESI.
- PAT. Tax applied to the owner's patrimony and to companies' in its commercial operations. The percentage depends on the product and the operation, and it is established every year by the Government.
- A tax overcharged to every commercial operation, called IRIC. Its percentage is applied every year by the Government.

The IVA is the only tax to be returned justifying receipts and bills that shows its payment.

On July 1st 2007, the new Tax system was launched with radical changes from its structure. This restructuration is part of the new developments

for the citizens, which complied with the creation of the Agency for the Promotion of the Electronic Government, Information and Knowledge Society. The idea is that the user can request, access and pay the new taxes directly from the treasure Web page and/or mobile access, being redirected from the One Stop e-Gov Site to be fully functional in future stages.

On December 27th 2006, the Law number 18 083 was published on the Official Bulletin.³ This rule contains the main changes to the old system and also all the new regulations to be applied from July 1st 2007. The same Law⁴ makes express reference to the other rule number 17 930, which established the bases for the installation of the Agency for the Promotion of the Electronic Government, and further Administration Acts related to the topic.

This Law specifies the new Rent Tax to be charged to every citizen living in Uruguay and other taxes to non residents, deleting older ones and creating others. The following is a list of actual operational taxes regarding the new treasure system:

- IVA. This main tax is still available, but now, instead of being about the 23% of the final product price, its percentage overcharges on the 22% (1% is decreased from the old system).
- Rent Tax. Its code name is IRPF and is the new and most important change to this specter. It is applied to every person that has an income. There are two special characteristics to be applied with this new tax. The first one is that, returned amounts for this toll are not allowed; and on the other hand, also retired workers must pay the percentage every month, which is taken from their original incomes.
- COFIS. This tax is not available anymore.
- IRIC and PAT are not available anymore, what is logical if the IRPF system is now being applied.
- IRAE. Also a new rent tax applied to commercial activities is applied since July 2007.

3 <<http://www.dgi.gub.uy/6/12/632/643/index.html>> (visited 18-08-2007)

4 <<http://www.dgi.gub.uy/Detailed/4043.html>> (visited 18-08-2007)

2 The Information Society First Steps

Since the overcrowding of the Internet, by middle of the 90's, the country showed a special interest in applying the Law to the new technologies, in order to be at the vanguard, but then, during the following years, this began to lose intensity till 2005, when the situation deserved a radical change (and point of view) for governance. In 1995, the first mass Web pages saw the lights. One year later, Uruguay was worried to develop real security communications between Public Administration Offices, regarding special attention on Digital Signatures to ensure that the electronic document was real. At that time, it really seemed to be standing at the edge of the vanguard. Information and Communication Technologies were common themes to be treated by jurists and developers. Two years later, Montevideo (Uruguay) was the headquarters of the International and Iberoamerican Informatics Laws Congress. And also, to celebrate the good 'technological' moment to be breathed in the region, two developers from Uruguay, created a revolutionary language called 'GeneXus',⁵ which later their rights were bought by an important computer company.

At that time, the next step seemed to be, the development of a specific Electronic Government Platform.

In 1996, the Law 16 736 about 'Use of Electronic Document between Public Administrations' was published. From that moment, all digital documents, communications and requests between different state offices, had the same binding effects to the traditional and personal one. Moreover, these communications were presumed to be authentic and legal, if they were processed under a digital signature system. For Uruguay (and the region), this was a revolutionary change, taking in mind that, it was 1996, when the Internet began to be accessed by masses all around the world (1995 was the year for the overcrowding of World Wide Web).

⁵ <<http://www2.gxtechnical.com/portal/hgxpp001.aspx?15,9,65,O,S,0>> (visited 18-08-2007).

Afterwards, by the year 2000, the Government published the 225/2000 Information Society Committee Act, which objective was to create an Institution to develop the best services on Electronic Governance for the people, knowing that the strong interest in ICT services, began slowly to lose power by the last and following years. In direct comparisons with the neighbor countries like Argentina and Brazil, Uruguay denoted a progressive abandon in the area, from the government and also coming from the same people. With this Committee, the State tried to revert the situation, with specific aims like the modernization of Public Administrations and the promotion of Internet public activities in order to stop the increasing of the *Digital Divide*. Unfortunately, the country wasn't yet prepared, or the lack of interest was too big that, the institution never worked, taking the process to a failed operation.

Finally, 2004 was the time for the Data Protection and Habeas Data regulation. This became a reality with the publication of the Law number 17 838 on September.⁶ With this law, Uruguay had at last, its own Data Protection regulation. This one didn't follow the specifications of the 95/46/CE Directive (as the 25 326 Argentinean Law does), and it's more focused on commercial activities or causes.⁷ Since 2004, all the members of MERCOSUR had their own Data Protection regulations, but only the Argentinean Law complied almost in all the terms with Europe. This is important, because, the main Directive was taken as a base to develop Latin-American data laws, but for different reasons, neither Brazil, Paraguay nor Uruguay followed the same terms.

By the end of 2004, the e-Government situation in the region was improving for countries like Argentina, Brazil, Chile and Mexico, but not for others. As the first ones had its own e-Government regulations, cases like Uruguay were particular incompetents. Each Administration Office had its own e-Gov service, with its own criteria and without

6 <<http://www.parlamento.gub.uy/leyes/ AccesoTextoLey.asp?Ley=17838&AncAnc=>> (visited 17-08-2007).

7 Delpiazzo, Saravia and others, *Protección de Datos Personales en Uruguay y el Mercosur* (Fundación de Cultura Universitaria: Montevideo 2005).

following a program or project. As a result, some Web sites like the public telecommunications service,⁸ had more and better online services for the citizens, than others like the public Electric Company,⁹ for example.

A study in eight countries in Caribbean and in Latin America, revealed that Uruguay is not yet in the mood of giving real e-Gov services to its citizens. The experts Katherine Reilly and Raúl Echeberría, say that

It was found that Brazil and Chile have advanced to the third stage. The agendas of these countries reflect the advanced state of their programs. The Brazilian program, for example, shows strong technical developments, while the Chilean program has advanced in concrete initiatives such as digital signature and online money transfer. Mexico and Venezuela are both in the second stage. In the case of Mexico, efforts are perhaps oriented more towards bending existing (human) networks to the agenda of the 'transitional government' of President Fox. In the case of Venezuela, Chávez wiped the slate clean and started from scratch with a new constitution and the transformation of the structure of the government. This, along with his highly popular government (at the beginning of his administration) allowed e-Government institutions to be rapidly established. But the radical transformations experienced by the country may have undermined the rapid advances that they permitted.

Costa Rica, Peru and Uruguay have all attempted to establish e-Government institutions but have encountered obstacles. In the case of Costa Rica, just before the recent Presidential elections, efforts were made to establish a National Digitalization Agency (Agencia de Digitalización Nacional (ADN)) but to no avail, and newly elected President Pacheco has not prioritized the theme. Peru is currently establishing a national coordination for its e-Government program, but to date it has not been able to overcome a series of obstacles. With a new IDB project, efforts have been renewed. In the case of Uruguay, the program 'Uruguay en Red' has not established an e-Government agenda, nor has it promoted e-Government sufficiently at the national level, a situation which has been aggravated by the current economic situation in the country. Finally, in the Dominican Republic, the Dominican Digital Unit (Unidad

8 <<http://www.antel.com.uy>> (visited 20-07-2007).

9 <<http://www.ute.com.uy>> (visited 20-07-2007).

Dominicana Digital (UDD)) has chosen to work on isolated projects. It is felt that greater advances can be achieved through targeted initiatives than through the formation of larger institutions due to the highly politicized environment of the country.¹⁰

The history of the programs revealed that Chile and Brazil have the longest standing and most consolidated possibilities. Mexico and Venezuela have presented e-Government strategies as part of their global information society strategies. Costa Rica, Peru, the Dominican Republic and Uruguay have not yet produced clear e-Government strategies.¹¹

3 Creation of the Agency for the Promotion of the Electronic Government

As part of the new state restructuring, commented supra (in compliance with the new tax system), the Government announced in 2005, the creation of an Agency for the promotion of the Electronic Government and the Information Society. This was made official with the publication of the National Budget Law¹² for the Next Five Years governance (2005–2010), number 17 930. Indeed, the article 72 creates de AGDGE, the Agency for the Development of the Electronic Government. The main objective was to improve the e-Gov services for the citizens entirely based on ICT. But it wasn't until February 2006, when the regulation Act from the Government (225/2006), described the functions and changed the name of the new institution to *Agency for the Promotion of the Electronic Government, Information and Knowledge Society – AGESIC*.

The following action was to create the AGESIC Web site,¹³ done during 2006. The contents of this site, explain the main objectives, where the

10 <<http://katherine.reilly.net/docs/EGOV&CSOSinLAC.pdf>> (visited 17-08-2007).

11 <<http://katherine.reilly.net/docs/EGOV&CSOSinLAC.pdf>> (visited 10-08-2007).

12 <<http://www.parlamento.gub.uy/leyes/AccesoTextoLey.asp?Ley=17930&AncAnc=>>> (visited 17-08-2007).

13 <<http://www.agesic.gub.uy>> (visited 22-08-2007)

different steps are defined according to progressive deadlines, depending on each stage.

3.1 The AGESIC Digital Agenda

The AGESIC officially started its functions on July 24th 2007 establishing different deadlines for each step to be concreted every year. These are some of the first aims to be done at the end of the first Digital Agenda:

- To make a strict quality control of each public office e-Gov service. This includes a standard model as a reference to be followed by the different sectors.
- To create an unique Logo and Design for all the online services, in order to be easy and friendly for the citizen to identify and interact with them.
- The implementation of a *One Stop* e-Government Web page. This will make easier ways of communications between the government and citizens. All main services can be visited from the same one stop site.¹⁴
- More e-Commerce controls. These actions are divided in two parts: One of them, to make public purchases, more transparent, publishing all the steps of each request and actions to be done. On the other hand, to control the b2b relations in order to avoid fraud.
- The implementation of biometric identification system in all the public offices to access and live the buildings and other areas.
- Installation of a larger number of computers per each Municipality, especially in local government offices. Uruguay is divided in 19 states. This means the same number of local state offices.

One of the main troubles to be solved at first time (this is up to the time of develop the mentioned steps), is to respect in all terms, the data protection rights. For that, a new government Act is being done at this time, to regulate the actual Law, including special terms for the correct function of the Agency.

14 Ibidem.

The situation for the other 18 states (different from the main state, Montevideo and its capital, Montevideo City) is a little bit more complicated. Indeed, there are some differences between central government developments on technology, and every local state and city council. Also, there are too many differences between each state. Some of them are richer than others, and that is reflexed in final services for the citizens. Places like Artigas (the most north state, near Brazil) have less or none computers or ICT structures to afford citizens' requests. Also their official Web pages are considered far away from a real e-Government standard service. So, the real challenge for the AGESIC, comes more in relation to installing hardware and equipment to fulfill the main online requests from each user.

3.2 The AGESIC Agenda for the Citizens

The main objective of an institution in charge of giving right e-Gov services, is to do it in a friendly and simple way, to fight against the digital divide, and to increase the total percentage of citizen's requests. Conscious of that, the AGESIC, has elaborated a detailed plan to be accomplished in the following years, in order to increase the inclusion of Uruguay inside the Information Society era. The objective is that government offices serve citizens efficiently. For example, when Electronic Government is fully functional, contributors will be able to fill in their tax forms and pay taxes electronically, as well as any other government transactions, both requesting and sending of documents.

As follows, these are the main objectives to be done:

- Answering every citizen request, at least 48 hours after it has been processed. This means that, it's needed to develop the necessary technology for that, and to prepare the personnel in charge. 48 hours is the deadline for any public office to answer any request made by a citizen. Answering citizens' requests and questions within the next five or seven days after, is not bad at all for a Web site that is intended to be the main entrance of all the online data traffic between government and users. Despite of that, the challenge is to bring excellence to the Uruguayan society, being friendly and effective with the solutions, answering at least, 48 hours later.

- To increase the public Internet services, to be available one per one hundred habitants. An example of this is the accessibility to public Internet services for the citizens, from public buildings, libraries and public booths. Public libraries are good examples of big access buildings where citizens concur daily to make their researches. In this case, offering free online services with efficient ICT equipment, especially for those who cannot access the Internet from their homes or works, is a goal against Digital Divide.
- *One Family One Pc* plan. This is a Personal Computer Distribution Plan for needed families, based on the famous *One Child One Laptop*¹⁵ policy. The intention is to bring one PC to each family, specially those who cannot afford one for themselves, in order to increase the inclusion of all the population inside the Information Society.
- To increase the number of Data Centers per 100 000 habitants. The intention is to cover all the requests for all the people. A data center is more than just a call center, because includes other services and is controlled almost in total by a computer system. This can include also emergency calls, just as 911 and to be correctly solved by the organism.
- e-Government sites to be prepared not only for online requests but also for online payments, just as cases of Treasure (Tax) Offices Web sites.

From all the mentioned points supra, the most important for the agency to be developed as soon as possible, is the *One Stop* e-Government Web site.

4 The One Stop Web page by the AGESIC

The main idea from the AGESIC is that the same agency can bring all the public services for the citizens starting from only one Web page. Only this site is needed to be connected with the user. In any case, once

15 <<http://laptop.media.mit.edu/>> (visited 17-08-2007).

made the request, the system can solve the problem by itself, or redirect the request to the specialized public office, depending on the difficulty of each request. The intention is to make a One Stop service, to be brought directly from the AGESIC Web page or other.

For the case, as an example, citizens can access directly to the One Stop Web page, and make requests for Presidency, Social Security, Taxes and others without having to access to these different pages. All is controlled and redirected by the same site.

The implementation of a One Stop Web page, improves trust from the user to the Government and makes easy and friendly the intercommunication between each other.

To ensure the correct development of all services regarding the One Stop e-Gov Web page, the process will be separated in two main stages. For the first one, and coinciding with the master plan of Tax restructuring, two sites had unified their access for the citizens. Indeed, the Treasure Office (Taxes) and the Social Security sites are working together, answering and redirecting the requests belonging to each other. To sum up, from each Web page, any user can access and make the request, either regarding taxes issued or social security. To comply with this, each site is connected with the other and can share the requests in order to answer the questions and more. This combination is possible, thanks to the Unified Contributor Number,¹⁶ being used from now on to identify in both cases, the same citizen: As a contributor, or as a beneficiary from treasure or social security. This is the first step, previously to the second one, to be completed on 2008, as it appears on the AGESIC Web page, and means to bring all the government services under one site.

5 First Report from the AGESIC Activities

By the way, and having in mind that the agency has at least one year fully operable, some early results can be picked from the first stage

16 RUC, Registro Único de Contribuyentes.

(making the AGESIC to work from zero). There are three challenges that have been started as part of the first Digital Agenda. On one side, the implementation of Biometric access for workers in all Public Administration buildings. This system is fully operable and the last office to close the project was developed at the beginnings of 2007. Secondly, the creation (as already mentioned) of a One Stop Web page. And last, the implementation of a request/pay online system, working actually for citizens from the Treasure (Taxes) Webpage, as part of the restructuration and development of the new tax system, operable since July 1st 2007.

5.1 Working in Cooperation with the Agency

In order to arrive to conclusions with consensus, the AGESIC receives the opinions of different specialized committees in the area of technology. Furthermore, the public and private sectors are cooperating doing briefs, depending on the area to be developed. It is important to emphasize that one cooperation side, directly involves the academic sector. Certainly, the Faculty of Laws, from the University of 'La República', is working together in the Electronic Government area, with the Agency. For the case, the institution in charge is the Legal Informatics Institute.

6 The Base Project for the AGESIC

The development of the e-Government Agency is not an invention made from zero. It is based in one of the most successful e-Gov programs of the region: Chile's Digital Agenda.¹⁷ The actual e-Gov program raised this nation up to chart number 13 in all the world, and position number one in Latin America at the Electronic Government Ranking 2005, elaborated by the Brown University.¹⁸ Conscious of this,

17 Pryme, *Gobierno Electrónico en Chile. 2000–2005. Estado del Arte II* (Pryme: 2005).

18 <http://www.brown.edu/Administration/News_Bureau/2005-06/05-024.html> (visited 22-07-2007).

the Agency is convinced that the key is to keep an eye on Chile's Digital Agenda. At the same time, this ranking puts Uruguay in position number 141 in all the world, and position number 12 for Latin America purposes. According to Brown, many different sites from 198 countries were analyzed, including executive offices, legislative offices, judicial offices, cabinet office, and major agencies serving crucial functions of government, such as health, human services, taxation, education, interior, economic development, administration, natural resources, foreign affairs, foreign investment, transportation, military, tourism and business regulation.

The Chilean Electronic Government Program is divided in three main projects applied up to date, which will be briefly described on the following lines:

- The *Management Improvement Program*. This project defines a schedule and a minimum of objectives to be done by each public administration, every year. If this minimum is not done, sanctions are been applied. On the opposite, if the minimum is raised, the office that makes the goal is awarded with an amount of money.
- The *Chile's Web Award*.¹⁹ This is an annual competition between each Public Administration Office. Every year, the bases are described on the Official Web site. The office that reaches all the regulations, is the winner and takes the annual award plus an amount of money.
- The *EasyProcedure Web*.²⁰ This is an effective One Stop Web page. In fact, this is the main e-Government page from Chile. With more than three hundred online services, the site solves around 5000 requests per month.

In conclusion to this part, the Agency for the Promotion of the Electronic Government, the Information and Knowledge Society in Uruguay, can base its structure and development on these three Chilean e-Gov programs already described.

19 <www.guiaweb.gov.cl> (visited 22-07-2007).

20 <www.tramitefacil.cl> (visited 22-07-2007).

7 The Future of the Information Society in Uruguay

Making technology transfer successful between the Mercosur countries and other regions has become a crucial point. For this goal, the different agencies and ICT institutions have become a pivotal platform. The urgency of building good e-Government solutions is obvious; it is a demand coming from the citizens, from businesses as well as from South America, where e-Government is seen as a major vehicle for integration. Thus, a logical consequence is having a communication platform, where best practice is exchanged.

e-Government is an important development for citizens and civil society organizations to consider because it is changing the form of government, and the way that citizens and civil society organizations relate to their governments. In many ways, the value of information technology to citizens is dependent on the type and quality of public information and communication mechanisms that can be accessed online. As such, the role of citizens and civil society organizations in e-Government agendas and programs has strong implications for the social impact of the Internet.

With this main program to be accomplished by the government and the AGESIC, the insertion of the country definitely will be a success in the next years, respecting the digital agenda timetables and deadlines auto enforced to reach the level on digital inclusion for all the citizens. More things are needed to be done, and so is it, that the Digital Agenda 2010 for the AGESIC has its aims already defined. For the case, the *One Stop e-Gov* Web page must be fully operable at the end of this first period. Other objectives as giving an efficient feedback in G2C relations are part of this project.

Furthermore, as in other countries, the development of a *Mobile Government* platform is taken in mind as part of the following agenda, the main idea is to bring full e-Gov services, such as requests and online payments.

But one of the main problems to be solved in the future, has a strict relation with the Law. As it has been shown before, the e-Gov rules in

Uruguay seem to be very general but no specific for each area. Those points must change if the AGESIC wants to offer real efficient ICT services for the citizens and reach down the *Digital Divide*, known as the big gap generated with the increase of use of technology, specially with that part from the society that does not access to it. As Kemly Kamacho²¹ says,

The digital divide is probably one of the first concepts considered when reflecting on the theme of the social impact caused by Information and Communication Technologies (ICTs). From there on, one perceives that these technologies are going to produce differences in the development opportunities of people, and that a distance will be established between those with access to these technologies and those without.

8 Conclusions

Our world is highly connected, but not nearly as interconnected as it will become in the next few years. There are vast numbers of separate networks today, using many types of technology and many types of access terminals. Still, these do not connect all the people or all the devices or even support all the systems and processes that would benefit mightily from connection. Connecting these networks will decrease the lines between them and between the technologies and the technological devices they use. The infrastructure that connects government to people, and people to devices, systems or processes will soon become almost invisible to the user; the networks of today will die as a worldwide seamless network comes of age. The new generation of networks, built upon the old, will not only be more intensely interconnected, it will also connect us at home and at work – in barely imaginable ways – to each other, to devices, to services and to processes.

After a good start in the middle of the 90's when the country seemed to begin into the development of the new technologies, with the right foot, the intensity decreased almost to zero by the initial stages of 2000.

21 <<http://www.vecam.org/article549.html>> (visited 17-08-2007).

Despite some remote assets to the Information Society, nothing else was done to give citizens, efficient electronic government services, until 2005, when the new authorities announced two important changes for the next five years: The full tax system restructuration, and on the other hand (but in total relation with the first one), the creation of an agency to promote the e-Gov and the digital inclusion for the Uruguayan society.

Starting its work in 2006, the objectives for the first Digital Agenda are defined and some stages are in the middle of its development. Taking a look on the neighbors like Chile, it is good to know that there is at last a strong interest in getting involved with the Information Society.

Some things to be done immediately are related with the development of the *One Stop e-Gov Web page* to deliver the total amount of online services and to receive the citizen's requests and/or payments.

Basically, with the Agency for the promotion of the Electronic Government, the Information and Knowledge Society, the country will improve the services and digital inclusion, if the different challenges and stages for the first Digital Agenda, are completed into their original deadlines.

