

CITIZEN EMPOWERMENT AND E-GOVERNMENT APPLICATION: DIFFERENCES IN 27 EU COUNTRIES

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Abstract¹

E-government has added to the transformation of the public sector worldwide. It has complemented the reforms in the public administration, as well as the necessity for public consultation in policy-making at the beginning of the 21st century. The present study offers both an analytical framework of and empirical evidence on the key aspects of online engagement initiatives in the countries of the European Union. It focuses on top-down opportunities of online civic participation through the ministerial websites of education in the EU27 by providing a classificatory typology meant to assess the development of e-government in connection with initiatives for public engagement, based on two dimensions: interactivity and public outreach. The findings of this research, conducted in May 2009, point towards a trend of increased access to information in education-related policy-making, with 93% of the cases scoring high on this aspect. However, only 32% of the websites analyzed proved successful on the public outreach dimension. A comparison between Western and Eastern Europe e-government web-based applications reveals slightly lower standards for the post-communist countries, with the potential of fast modernization.

1. Introduction

One decade and a half have passed since the birth of electronic government in US. E-government² represents to the delivery of information and public services through internet technology twenty-four hours a day, seven days a week. In the last decade,

1 An earlier version of this paper was presented at the Fifth Graduate Conference in Social Sciences, Central European University, Budapest in June 2009. The author would like to thank two anonymous reviewers of CEU PSJ for their useful comments.

2 Throughout this paper, the term will be used interchangeably with *electronic government*, *digital government* and *online government*.

EU has made electronic government a priority, but discrepancies in online civic engagement at the level of national governments across member-states remain visible.

In recent times, e-government has been successfully applied in a wide range of activities conducted through the national public administration, from the payment of utility bills to passport application, while online platforms have facilitated the exchange of information between different departments dealing with public affairs. As different studies showed³, not only did e-government perfect the daily bureaucratic works, but also improved citizen interaction with government in general. Nevertheless, the degree to which the regular citizen is active in shaping policies that concern him directly through the means of information and communication technologies (hereafter ICT) is still limited. Concurrently, the supply side contributes extensively to creating the nowadays picture of the implementation of online government policies, as opportunities offered shape the demands raised and strengthen the support for increased participation.

While measures have been constantly taken in the European Union from 2001 onwards for the use of ICT in the public sector, much of what has been done already is restricted to providing information via web-based applications. The present study can be placed on the supply-side perspective, with its research question aiming to examine in which of the EU member states the governmental websites are offering extended opportunities for online civic participation. Whereas the specific ministries for the adoption and development of ICT are constantly monitored by different national and international-level organization, the study of other ministerial websites has remained relatively unexplored. Thus, the inquiry has concentrated around the national ministries of education, which are particularly attention-grabbing for two major reasons: the interest of the government in introducing ICT-related changes through the means of public education and the interest of the citizens in participating in educational policy-making which affects both themselves and future generations.

3 See Christopher Reddick, "Citizen Interaction with E-government: From the Streets to Servers?", *Government Information Quarterly*, 22 (2005): 38-57; Accenture, *eGovernment Leadership: High Performance, Maximum Value* (New York: Accenture, 2004).

These websites have been analyzed in May 2009 based on two dimensions of online civic engagement – interactivity and public outreach. The results have been incorporated into a classificatory typology of civic engagement of e-citizens in the framework of electronic government evolution.

The practical relevance of this study consists in offering a clear picture of e-government implementation in EU member-states in 2009 for the ministerial websites of education, which could constitute the ground for increased cooperation and best practice exchange between national governments. Further implications concern the degree of indirect communication and the increased transparency of ministries that offer electronic access to different types of documents and provide for mechanisms of online participation in the decision-making process. Having informed citizens able to question different bureaucratic departments and participate in the public debates represents a step forward in eliminating corruption and strengthening the democratic accountability of officials. The document uniformity brought about by the introduction of e-government also raises the question of data standards and recommended actions. The present empirical research offers an overview of the extent to which these procedures have been realised and allow for extensive citizenry engagement.

The meaning of e-government and the literature on online citizen participation in policy-making is scrutinized throughout the first part. The following section puts into perspective and introduces the dimensions for creating a theoretical framework of analysis. The third part describes the research design and methodology and suggests the creation of a typology based the government-led online opportunities of national ministries of education in all EU countries. The findings are discussed extensively in the fourth section and a comparison between the situation in the older and newer member states is put forward. Finally, conclusions are drawn for future research directions.

2. From Access to Information to Civic Empowerment

A variety of definitions for e-government exist⁴. A comprehensive definition is the one provided by Koh and Prybutok⁵ as e-government being "the use of information and communication technology in all facets of the operation of a government organization". Building on this, the manner in which the European Commission describes digital government includes the desirable effects as well. By "the use of information and communication technologies (ICT) in public administrations combined with organizational change and new skills in order to improve the public services and democratic processes and strengthen support to public policies"⁶, the EC adds the importance of the online public consultation as part of its description. While various international sources⁷ use their own designation in reference to e-government, what they have in common when defining electronic government is the use of information technology for the delivery of public services to citizens, businesses, and other government agencies, while enabling interaction beyond the traditional office time and space constraints. For the purpose of this article, e-government is understood particularly in connection with web-based applications for the use of citizens.

In spite of the fact that the purposes of developing e-government range from the accelerated modernization of the public administration communication services to the efficient management of the welfare state, Löfstedt⁸ argues that it is largely about "enhancing democratic processes and also about

4 See Darrell M. West, "Assessing E-Government. The Internet, Democracy and Service Delivery by State and Federal Government" (Inside Politics, 2000), available at www.insidepolitics.org/policyreports.html, on 17 August 2008; Theresa Pardo, *Realizing the Promise of Digital Government. It's More Than Building a Website*. (New York: Center for Technology in Government, 2000).

5 Chang E. Koh and Victor R Prybutok. "The Tree Ring Model and Development of an Instrument for Measuring Dimensions of e-Government Functions", *Journal of Computer Information Systems*, Vol. 43 (2003): 34.

6 COM (2003) 567. *The Role of eGovernment for Europe's Future*. Brussels, 26 September 2003, as cited in Antonio Alabau, *The European Union and its eGovernment Development Policy* (Madrid: Fundacion Vodafone, 2005).

7 For example World Bank, UN or Global Business Dialogue on Electronic Commerce.

8 Ulrica Löfstedt, "E-government – Assessment of current research and proposal for future directions" (2006), available at wwwold.hia.no/iris28/Docs/IRIS2028-1008.pdf on 20 March 2009: 4.

using new ideas to make lives easier for the citizen by, for example, transforming government processes, enabling economic development and renewing the role of government, itself, in society".

In Europe, the main concern in the recent years has concentrated around the lack of consistency in the strategy defined for the genuine definition and real implementation of the electronic government policy. Alabau⁹ points to the fact that there are many opportunities to improve this field of action and their carrying out is urgent in the member states of the European Union. As mentioned in the 2000 Lisbon strategy, "the promotion of the Information Society appeared as one of the keys to achieving the economic development goals that were set there for the time horizon of 2010. To this, one should add the undeniable interest for promoting public procurement of ICT equipment and applications at a time when the sector is in difficulty"¹⁰. Notwithstanding these substantial implications, it has become necessary to establish a strategy for the implementation of ICT in public administration throughout Europe. Dating back to 2001, the White Paper on European Governance includes broad guidelines meant to help the member states to reach a "more open, inclusive and productive public sector, in line with good governance"¹¹. Eight years later, major discrepancies still exist, though, between different EU member-states in terms of web-based e-government implementation.

Concomitantly with the positive changes envisioned by the European Commission for the effective introduction of the ICT in the public sector, the ability of the government to control the activities in which the citizens engage is being reduced. In terms of public affairs, it prevails the need for citizens to become involved in a type of cooperation to secure that governmental decisions do not override the public interest. For this reason, access to information supports an increased citizen demand for a mode of consultation that is not mediated only by

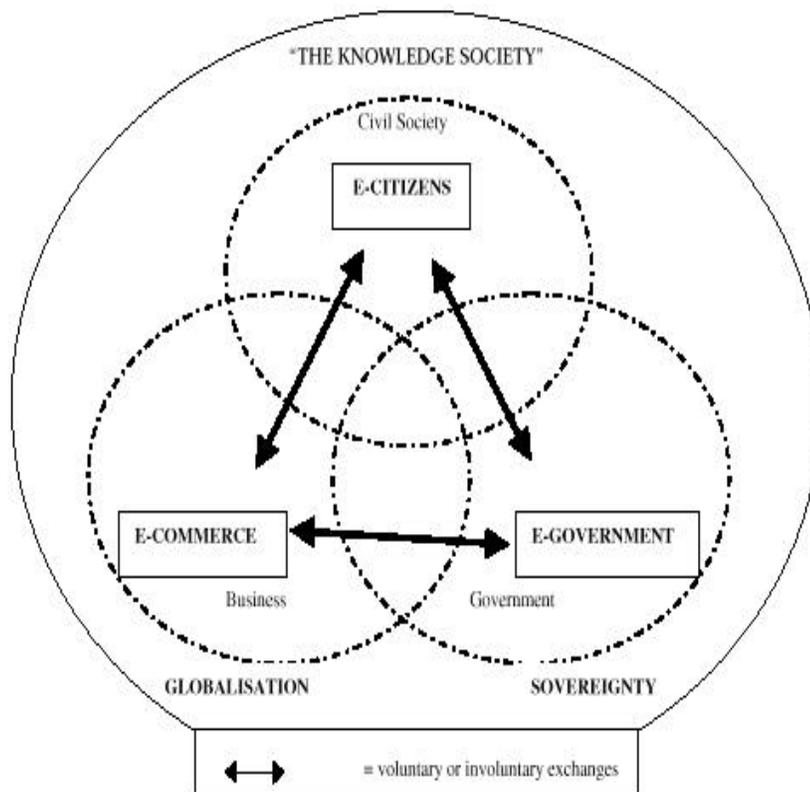
9 Antonio Alabau, *The European Union and Its eGovernment Development Policy* (Madrid: Fundacion Vodafone, 2005), available at www.epractice.eu/idabc/en/document/3822/5671.

10 Alabau, *The European Union*, 32.

11 COM (2003) 567. *The Role of eGovernment*, 8.

representatives, but rather by the people themselves. Throughout this process, groups rarely play a role, as the government-led opportunities of participation are mainly created for individual engagement. At the same time, every citizen is able to choose which source of authority to trust in and to what extent to become involved, whereas the governments adopting the electronic technologies as means of reaching out the citizenry are constantly challenged by the competitive exchange of information. In this environment, according to a definition of e-government by Chief Executives Group on Information Management and Technology¹², a three-sided relationship emerges: civil society, business entities and government.

Figure 1. "The Knowledge Society" – a three-sided relationship



Source: Chief Executives Group on Information Management and Technology, 1999.

12 As reproduced in Zhiyuan Fang, "E-Government in Digital Era: Concept, Practice, and Development", *International Journal of the Computer, the Internet and Management*, Vol. 10, no. 2 (2002): 6.

Presenting from a broader perspective the intermingling of extensive processes with short, medium and long-term results on every stakeholder in the knowledge society development, this chart points to the importance of treating actors as communities continually interacting. E-citizens are defined as "citizens that access government websites"¹³, but at the same time they are representatives of a type of societal interest aggregation working in the public benefit. As part of this study, the relationship between e-government and e-citizens becomes particularly interesting, given that the aim of reaching individuals in the virtual world presupposes major changes with physical consequences on both sides: on the one hand, the role of the bureaucracy changes in a wired world as compared to traditional workload and daily tasks; on the other hand, the individual impact of being e-government engaged goes beyond the wired environment and materialized in the day-to-day activities.

The possibility of creating an active citizenry depends on the provision of information in a top-down manner, as well as of the existence of a public channel of communication for citizens to reach the decision-makers with a real influence on policy – shaping. Standing out in the online interactions as two main attributes, access to information and civic consultation procedures have become the focus of citizen empowerment studies¹⁴. In the "democracy of civic engagement" envisioned by James Fishkin¹⁵, two more prerequisites for an extensive participation of the citizenry are added: political equality and non-tyranny, which comprises the tyranny of the majority as well.

13 Christopher Reddick, "Citizen Interaction with E-government: From the Streets to Servers?", *Government Information Quarterly*, 22 (2005): 39.

14 See Roza Tsagarousianou, Damian Tambini and Cathy Bryan, ed., *Cyberdemocracy: Technology, cities and civic networks* (London: Routledge, 1998); Agnes Hubert and Benedicte Caremier, ed., *Democracy and the information society in Europe* (London: Hogan Page, 2000); OECD, *Citizens as Partners. Information, Consultations and Public Participation in Policy-Making*, 2001, available at www.soros.org/mn/files/pblsh/pblsh_citizensaspartners.pdf on 12 December 2008.

15 James Fishkin, *The Voice of the People* (New Haven and London: Yale University Press, 1995): 34–41.

Based on the degree of participation required from the citizens, West¹⁶ identified four stages in the development of e-government: (1) the billboard stage, in which governmental websites display information without requiring any type of interaction; (2) partial-service delivery stage, with limited services available online and more diverse mechanisms of retrieving information; (3) portal stage, in which fully executable online services and security protection are a must, but advancements are only efficiency-oriented and (4) interactive democracy, focused on public outreach and accountability via web personalization and automatic email updates customized to the needs and interests of different types of users.

The latter stage has been regarded as problematic in the framework of modern representative democracy, which is nowadays facing the voter apathy problem¹⁷ by falling short of enhancing political participation, with low turnout rates in countries where voting is not compulsory raising critical legitimacy questions. While different authors put forward different justifications for this phenomenon, they “share a general premise that existing social infrastructure for the support and encouragement of public debate and political action has been severely eroded and undermined”¹⁸.

Held’s participatory model of democracy, while remaining an ideal type, provides the insight for the basic features that can enhance, but also undermine this political regime: “Democracy has been championed as a mechanism that bestows legitimacy on political decisions when they adhere to proper principles, rules and mechanisms of participation, representation and accountability”¹⁹. Informed and active citizens are needed in order to avoid the

16 Darrell M. West, *Digital Government: Technology and Public Sector Performance* (Princeton: Princeton University Press, 2005): 9-10.

17 John H. Aldrich, “When Is It Rational to Vote?” in *Perspectives on Public Choice*, ed: D. C. Mueller (Cambridge: Cambridge University Press, 1997), 373-390.

18 Roza Tsagarousianou, Cathy Bryan, and Damian Tambini, eds. “Electronic Democracy and the Civic Networking Movement in Context”, in *Cyberdemocracy: Technology, Cities and Civic Networks* (London: Routledge, 1998): 5.

19 David Held, *Models of Democracy* (Cambridge: Polity, 1996): 297.

state of “pseudo-participation”²⁰, which is based not on creating the opportunity for participation, but rather on creating the feeling that participation is possible. This has long been deemed to undermine the e-government policy by the use of a controlled framework of action in which interest groups, rather than individual citizens, are more likely to make their opinion known.

Pateman²¹ distinguished between partial and full participation. While the latter represents “a process where each individual member of a decision-making body has equal power to determine the outcome of decisions”, the definition of partial participation applies accurately to the objective of online engagement as “a process in which two or more parties influence each other in the making of decisions, but the final power to decide rests with one party only”. Nonetheless, such an interaction represents a step forward in the mode of participation; an individual-based model of consultation, as opposed to the representative-based one, advances a different role of the government, that of remaining in permanent contact with the people. Further implications concern transparency and accountability, as the possibility of citizens’ control over governmental processes cannot be thoroughly restricted to a number of delegates.

By complementing traditional functions of government through online service delivery and by encouraging interactivity, e-government has the potential to reduce the gap between the representatives and their electorate in modern politics²². Oppositely, Putman²³ argued that only face-to-face communication and interaction could help citizens acquire the necessary skills for democratic participation and negotiation, by increasing the social capital. However, his study neglected any in-depth consideration of the power of information and communication technology to transform the public service delivery into a two-way interaction.

20 Sydney Verba, *Small Groups and Political Behavior* (Princeton: Princeton University Press, 1961): 220.

21 Carole Pateman, *Participation and Democratic Theory* (Cambridge: Cambridge University Press, 1972): 70-71.

22 West, *Digital Government*, 8.

23 Robert Putnam, *Bowling Alone, the Collapse and Revival of American Community* (New York: Simon and Schuster, 2000).

In this sense, Macintosh *et al.*²⁴ explored the emergence of citizens as producers, not just consumers of policies and information, with an important role in setting the agenda for policy formulation. Different case studies have described accurately the mechanisms for civic empowerment in small communities or in working with targeted groups²⁵. Nevertheless, large - scale studies evaluating e-government policies, such as UN 2008 E-government Report or EU User Satisfaction Report 2008 tend to focus more on technical issues and digital divide, rather than interactivity and transparency features. West²⁶ also assessed that e-government research has mainly been bifurcated between in-depth case studies (mainly concentrated on specific local projects rather than focusing on national level) and highly theoretical conceptualisations, with little empirical relevance. This is consistent with what Norris and Lloyd²⁷ concluded: e-government is a young and growing field to further develop in coming decades.

3. Creating a Typology for Government-led Initiatives of Online Engagement

The information technology supports three types of participation: information provision for passive users, consultation - a two-way relation between government and citizens and active participation, based on a civic partnership with the government²⁸. These types correspond to enabling, engaging and empowering citizens to get involved in policy formulation. Roza Tsagarousianou identified obtaining information, engaging in deliberation and participating in decision making as dimensions of

24 Angus Whyte and Ann Macintosh, "Analysis and Evaluation of E-Consultations", *E-Service Journal*, Vol. 2 (Fall 2002): 9-34.

25 See Leda Guidi "E-citizens Are Not Born, They Are Made", in *Democracy and the Information Society in Europe*, ed. Agnes Hubert and Benedicte Caremier (London: Hogan Page, 2000).

26 West, *Digital Government*, 2.

27 Donald Norris and Benjamin Lloyd, "The Scholarly Literature on E-government. Characterizing a Nascent Field" in *E-government research. Policy and management*, ed. Donald Norris (North Carolina: Idea Group Inc., 2007).

28 OECD. *Citizens as Partners. Information, Consultations and Public Participation in Policy-Making* (2001), available at www.soros.org/mn/files/pblsh/pblsh_citizensaspartners.pdf on 12 December 2008: 23.

civic involvement. To her study, Jankowski and van Selm²⁹ offer a critical perspective, consisting of the limitations imposed by the control and procedural mechanisms in place in the virtual space.

In what concerns the components of civil empowerment in online government, Wilhelm³⁰ makes reference to four aspects: first, the importance of skills necessary for access, mainly consisting in computer literacy and broadband internet connection; second, inclusiveness, pointing to the need to ensure that those affected by certain policies can influence the outcome by expressing their preferences; third, deliberation, including extensive justification of the position adopted and the ability to act collectively and fourth, design, or the technological framework for interactivity being ensured in a secured, but at the same time uncensored space.

Different online platforms created for ground-up empowerment (such as webcasts, vlogs, blogs etc.), are however, hardly an integral part of e-government. Moreover, the political culture of the country is indicative of the type of engagement citizens are ready for and this may partially account for the discrepancies registered in making use of the opportunities provided through e-government. Top-down initiatives, on the other hand, are the necessary tools for assessing the extent to which opportunities for online engagement are present on specific websites of public interest with the decision-makers' willingness to have them present there; thus, they appear more likely to integrate them in policy formulation.

Macintosh³¹ analyses ten key criteria for assessing the government-led initiatives for citizen participation: (1) level of participation; (2) stage in decision-making; (3) actors; (4) technologies used; (5) rules of engagement; (6) duration and

29 Martine Van Selm and Nicholas W. Jankowski, "The Promise and Practice of Public Debate in Cyberspace", in *Digital Democracy: Issues of Theory and Practice*, ed. Kenneth L. Hacker and Jan van Dijk (London: Sage, 2000): 162.

30 Anthony G. Wilhelm, *Democracy in the Digital Age. Challenges to political life in cyberspace* (London: Routledge, 2000): 33-34.

31 Ann Macintosh, "Characterizing E-Participation in Policy-Making", Proceedings of the 37th Hawaii International Conference on System Sciences (2004), available at csdl.computer.org/comp/proceedings/hicss/2004/2056/05/205650117a.pdf on 21 March 2009.

sustainability; (7) accessibility; (8) resources and promotion; (9) evaluation and outcomes and (10) critical factors for success. Apart from the framework and level of activity for the specific website, the main characteristics these dimensions revolve around pertain to accessibility and transparency, two of the features to be retained (under different labels) in the present analysis for the aim of creating a typology to explain the differences in the 27 EU member states.

By creating a typology³² of the degree of online engagement opportunities in EU countries according to their position on the scale of education-related advancements in what concerns e-government implementation, the existent differences will be pictured clearly and a trend in the development of e-government can be identified. In accordance with Elman³³, the function of the classificatory typology is to assign cases to specific categories with the purpose of mapping or comparing their attributes. The underlying dimensions that will constitute the foundations of the typology are interactivity and public outreach, in order to reach the outcome of placing national ministerial websites in categories following the score they obtain.

In operationalizing these measurements, I will rely on Demchak *et al.*³⁴ criteria for interactivity – ownership, reachability and responses –, all of these testing for the means to have access to public officers and to information on internal organization and citizen consequences. Transparency features are included in the second and third criteria of interactivity, by allowing for identifying the attributes and the responsibilities of different persons inside the minister and providing for means of integrating the opinions of the citizens. West³⁵ adds a series of website

32 For the distinction between classification, typology and taxonomy, see Alberto Marradi, "Classification, Typology, Taxonomy", *Quality and Quantity* XXIV, 2 (1990): 129-157.

33 Colin Elman, "Explanatory Typologies in Qualitative Studies of International Politics", *International Organization*, vol. 59 (2005): 293-326.

34 Chris Demchak, Christian Friis and Todd M. La Porte, "Webbing Governance: National Differences in Constructing the Face of Public Organizations", in *Handbook of Public Information Systems*, ed. David Garson (New York: Marcel Dekker Publishers, 2000).

35 Darrell M. West, "Improving Technology Utilization in Electronic Government Around the World", *Brookings Governance Studies* (2008), available at

attributes connected to transaction services (services fully executable online), facilitated interaction (foreign language translation and specific programs for disabled citizens), public outreach (via search engines, automatic updates and customized services) and the existence of privacy and security policies, as a reassuring mechanism for unrestrained communication. The last three of these are considered useful for the purpose of this research (though operationalized differently) as they contribute to assessing the degree of civic empowerment for the domain of interest for this study: education.

The country typology to be created represents a unique attempt to compare national ministerial websites of education by the level of citizen interaction they enable. The analysis will include a total of 31 websites (25 national ministries plus 6 regional-level ones) and it is expected that the dimensions employed would be indicative of the extent to which interactivity is easier to achieve, as opposed to public outreach. It is not expected that the profile of users influences to a large extent the use of e-government services, therefore the unwillingness of internet users to engage in policy-making cannot be consistently accounted for by the characteristics of the communities they belong to.

4. Case Selection

The units of analysis for the present research are the 25 EU national governments (Austria, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Spain, Sweden, Slovakia, Slovenia) and the two countries which provide regional-level ministerial websites based on language divisions: Belgium (French, Flemish and German-speaking communities) and United Kingdom (Northern Ireland, Scotland and England and Wales). According to the federal divisions existent in the two latter countries, there is no ministry of education at the national level. While choosing one specific regional ministry of education from these countries might

have introduced the risk of selection bias, by studying separately each regional-level ministerial website, clear conclusions regarding similarities or differences in the online civic participation opportunities can be drawn at the national level for the United Kingdom and Belgium, respectively.

All the 27 countries included in the study have been selected based on their membership to the European Union, which provides the framework for the development of the information and communication technology advancement through structural funds. Thus, the problems typically associated with e-government implementation and the levels of economic development, such as funding shortages or lack of expert staff, are avoided. The choice for websites of the ministries of education is motivated by a number of reasons: (a) the high interest on the part of government in having the newest technologies introduced to the largest public through the works of the ministry of education; (b) the substantial importance of public consultations on issues which concern the education of future generations; (c) the relevance of the will-driven engagement of the regular citizen for his personal benefit, as well as for the educational purposes of his community; (d) the need to get updated information on policies and regulations results into a frequent use of the webpages of the ministries of education, therefore encompassing an important part of the e-citizens.

However, for the present moment, there is no systematic account of the digital divide in the European Union. The available data on households connected to internet in 2008 show that over 30% of the population of EU 27 enjoys broadband access³⁶. In 2006, only 24% of the individuals aged 16-74 used the internet for interacting with public authorities³⁷. Due to the lack of data, the present research only concerns the users of internet and is not representative for the entire population living in a country.

36 Eurostat Report, "Europe in Figures. The 2008 Yearbook of the European Union" (2008), available at epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-CD-07-001/EN/KS-CD-07-001-EN.PDF on 1 June 2009, 489.

37 Ibid, 490.

The unit of observation is the national ministerial website for educational policies. This specialized field is the one that affects directly the segment of the population that is more likely to become interested in participating in policy-making. Moreover, for a considerable part of the internet users, it produces visible effects in daily interactions. Starting from the premise that online government should not only provide for access to information, but also stimulate civic participation, the educational field of action selected represents the ground for comparing government – to - citizen interaction in a primarily will-driven instance (learning purposes). The claim of targeted niche among internet users for education sector will not be considered an important limitation for this study, as the general policies should address citizens regardless of their age or educational background.

The empirical research was conducted in May 2009, therefore the year of reference allows for the available data sources to be complemented with alternative information coming from 2008 case studies, with comparable indicators for newer member states. At the moment the study is realized, more than 12 years have passed since national ministries started to adopt e-government across Europe and 8 years since the issuing of the White Paper on Governance at the EU level.

5. Operationalization

For the present analysis of websites, I searched for material that would help an average citizen log onto a ministerial site dealing with national education programmes. This included: contact information for knowing exactly whom to address from a governmental agency in order to solve a problem, material on information, services, features that would facilitate e-government access by non-native language speakers and specifications about privacy and security over the Internet. The same type of criteria will be employed for every website for cross-country comparison purposes. The original language version of the website has been

the starting point of the research³⁸, complemented by the foreign translation.

Interactivity³⁹ measurement is formed of the following variables: (1) ownership, which tests whether the agency has provided clickable email addresses; (2) reachability, an assessment of the extent to which the agency allows citizens to reach deeply inside the agency to different staff members – can citizens click on links to a number of different staff members, or participate in chat rooms, forums or discussion lists?; (3) responses, which tests for the interactive means to access information on citizen consequences, such as the possibility of clicking on a hot-linked organization chart, of downloading instructions on complying with the law, downloading forms, completing forms online or connecting to appeal processes.

Public outreach, on the other hand, is a newly created measure⁴⁰ concentrating on the availability of information for different language groups and for diverse purposes. It comprises: (1) foreign language translation - whether the website is translated in at least one language; (2) the existence of search engines, focusing on whether citizens can search for the information of their interest or can only read what the officials want them to; (3) the existence of privacy and security policies, so that citizens are reassured their personal data is protected while using these services; and (4) availability of e-petitioning, consisting in being provided with the format for sending an official request to a higher authority on behalf of one or more citizens.

Each of these variables is assigned either to group "0" (absence of a certain feature) or "1" (presence of a specific feature). After checking the reliability and the validity of these measures, 4 categories have been created (see Table 1): (a) high interactivity- low public outreach, (b) high interactivity- extended public outreach; (c) low interactivity- low public outreach, (d) low interactivity- extended public outreach.

38 For websites that did not provide English/ French/ Romanian/ Italian translation (for most of the sections) I made use of foreign language translation software available online through babelfish.altavista.com.

39 Consistent with Demchak et al., "Webbing Governance", 179-196.

40 Combining different website features identified by West, *Digital Government*, 25.

The method of indexing is used for attributing cases to categories. The criterion for placement in a specific category is reached by adding up the score obtained for each of the above-mentioned feature for every dimension separately. Obtaining a score equal to or bigger than 2/3 of the highest possible score for each dimension places the specific website in the “high interactivity” or “extended public reach” category, respectively, while a score below 2/3 on each dimension is associated with “low interactivity” or “low public reach”.

Table 1. Framework for the dimensions of online citizen participation

Dimension		INTERACTIVITY	
PUBLIC OUTREACH	Level	Low	High
	Low	Low interactivity – Low public outreach	High interactivity- Low public outreach
	Extended	Low interactivity – Extended public outreach	High interactivity- Extended public outreach

6. Findings

After conducting the research, several general observations must be brought to the forefront. With the exception of Cyprus and Portugal, the remaining 29 cases included in the study clustered in the categories pertaining to high interactivity, as shown in Table 3. By and large, the expectations concerning the availability of transparency in ministerial websites were confirmed: 96% of the websites analyzed contained information about the ownership, whereas 93% provided detailed materials on citizen consequences by primarily offering forms for download or the possibility to fill in online documents. The average score registered for the dimension of interactivity when all cases were considered reached 2,32 on a 3-point scale, whereas the average for the dimension of public outreach was 2,29 on a 4-point scale.

In terms of features for direct contact and feedback, the percentages fall drastically: only 41% of the total number of websites displayed the characteristic of reachability, only 35% had a section dedicated to security and privacy policies and 38% offered a special format for e-petitioning. Progress has been registered especially in the e-government forerunning countries, such as Finland, Germany, United Kingdom, but the current typology places three of the newer EU member states - Malta, Poland and Romania - in the category with the most advanced opportunities for online civic engagement. The other eight post-communist countries that became member-states in 2004 or afterwards clustered in the "High Interactivity – Low Public Outreach" quadrant of the typology.

Yet, compared to previous studies stressing the accessibility problems⁴¹, more than 2/3 of all of the websites analyzed were translated in at least one foreign language⁴², which affected positively the score for public outreach. However, where a foreign language version of the website existed, no daily update of the content was provided. Most of the time, the last material translated dated back to as far as three months behind. On the other hand, it is worth mentioning that a high percentage of the ministerial websites included a search engine (90%), which points to understanding the need for providing access to information in a timely manner.

The placement of the countries in the mentioned categories illustrates the evolution of e-government implementation with less and less cases of low interactivity and increased concern for providing participation opportunities, which characterized 93% of the total cases analyzed. Thus, following the typology, most of the EU countries are still struggling to effectively engage more citizens through top-down initiatives 12 years after the introduction of e-government. This trend of providing for formal

41 Darrell M. West, "Improving Technology Utilization in Electronic Government Around the World", Brookings Governance Studies (2008), available at www.brookings.edu/~media/Files/rc/reports/2008/0817_egovernment_west/0817_egovernment_west.pdf on 28 March 2009, 8.

42 This percentage excludes the 6 language-based regional ministries in Belgium and UK, out of which only 33% provided for a foreign language version of the website.

online consultation increased from the forerunning nine EU member states identified last year⁴³ (Belgium, Denmark, Estonia, France, Lithuania, Malta, UK, Italy, Sweden) to 25 national ministerial websites for education policies in the present study.

Table 2. A classificatory typology of the national educational ministries according to the opportunities for online civic engagement

		Interactivity	
		Low	High
Public outreach	Low	Cyprus	Austria, Bulgaria, Czech Republic, Denmark, Estonia, France, Greece, Hungary, Lithuania, Luxembourg, Italy, Latvia, Netherlands, Slovakia, Slovenia, Sweden, French Community (Belgium), Flemish Community (Belgium), German Community (Belgium)
	Extended	Portugal	Germany, Finland, Ireland, Malta, Poland, Romania, Spain, Scotland (UK), Wales (UK), Northern Ireland (UK)

While the trend in the evolution of the two-way interactive government is confirmed by the clustering of countries in this typology, Cyprus and Portugal describe each an interesting case from the point of view of their placement in two different quadrants; by meeting the basic requirements of e-government, the website of the ministry of education from Cyprus lacks both interactivity and public outreach attributes. Although it shares the same characteristic of low interactivity, the ministerial website of education from Portugal provides for extended public outreach features, receiving the maximum score for the latter. Figure 4 illustrates the extreme distance recorded on the second dimension by comparing the average scores obtained for the

43 United Nations, *E-government Survey. From E-government to connected governance (2008)*, available at unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf on 15 March 2009, 51.

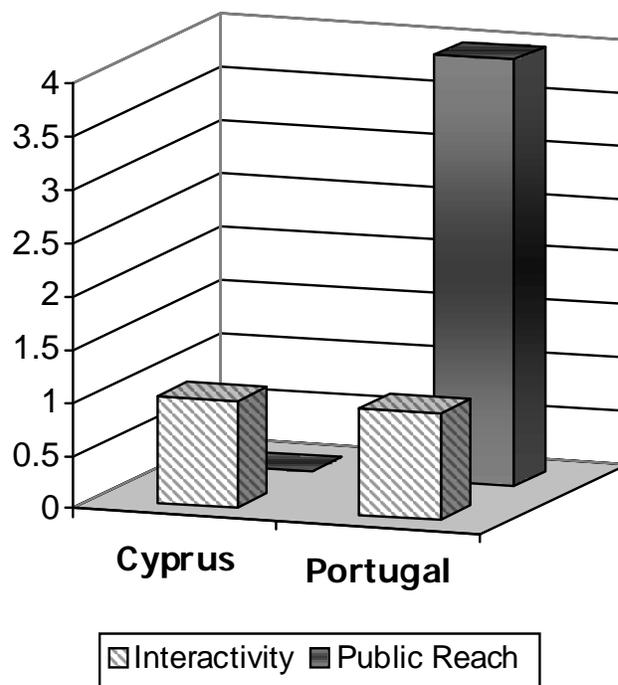
displayed features pertaining to interactivity and to public outreach in the case of Cyprus and Portugal.

The case of Cyprus is, however, challenging, given the rapid progress it has achieved in the last years. In 2007, it scored lower than the EU average on most of the relevant aspects to the implementation of e-government: the percentage of households connected to broadband internet reached only 20%, whereas out of those using the internet for interacting with public authorities, 18.4% did it for obtaining information, 13% for downloading forms and 9.6% for returning filled forms⁴⁴. As of 2009, several ongoing projects in different remote geographical areas provide technical assistance and support for internet accessibility. With most of the efforts concentrated on reducing the digital gap in schools, the Cypriot Ministry of Education and Culture developed a portal dealing with the specific needs of teachers, students and parents - the DIAS Project. Nevertheless, at the larger scale, most of the citizens are still unable to participate in public debates or obtain information in a different language at the present state of e-government initiatives.

In what concerns Portugal and its placement in the "Low Interactivity – Extended Public Reach" category, attention should be paid to the fast modernization and the burning of stages. The ministerial website of education scored highest on the second dimension analyzed, whereas the possibilities for interaction were quite reduced. The atypical situation of Portugal, compared to the other EU countries, illustrates the desire to communicate and receive feedback from those concerned by the decisions taken at the ministry level, with the caveat of less transparency and less accountability possibilities displayed. It is also indicative of the pressures governments face when attempting to perfect their work by allowing the input of e-citizens in policy-making and of the multiple interests affected by the e-government policies.

44 Epractice. "Cyprus – country report" (2009), available at www.epractice.eu/files/Cyprus_e-Inclusion%202008.pdf on 27 May 2009.

Figure 2. Comparison of average scores for interactivity and public outreach features for the websites of national ministries of education in Cyprus and Portugal⁴⁵



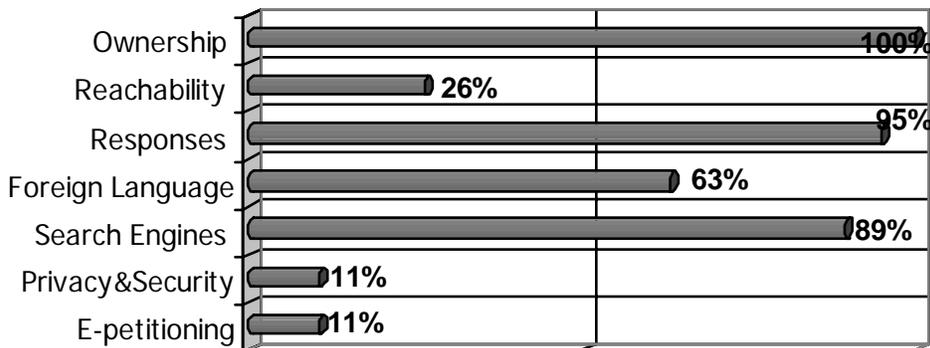
High Interactivity – Low Public Outreach

This category concentrates the highest number of cases included in this study. It allows for features that further top-down communication rather than encouraging the bottom-up channels, all of the 19 cases displaying ownership information and 18 of them presenting interactive means to access information on citizen consequences, the exception being the French-speaking department for education in Belgium. Interestingly enough, the latter is one of the cases placed best in terms of reachability,

⁴⁵ The category labeled “Low Interactivity – Low Public Reach” represents the basis for the evolution of the interactivity and public outreach features and has been the attribute of initial ministerial websites after the movement from the traditional government to the electronic government started. Its main characteristic is the extremely limited provision of public services through the means of ICT; in terms of citizenry participation in the online environment, it emphasizes the orientation towards improving access to information rather than interactive communication. While being a stage of development for the majority of public administration websites at the beginning of 2000s, it points to a laggard position in 2009.

together with the national ministerial websites for education in Denmark, France, Luxembourg and Lithuania.

Figure 3. Percentages of average scores for interactivity and public outreach features in the “High interactivity – Low Public Outreach” category



Allowing citizens to get in contact with different staff members with diverse functions inside the ministry by interactive means was uncommon for 74% of the cases in this category, whereas foreign language translation was not available for 37% of the websites, as shown in Figure 5. Although the percentages for the privacy and security policies displayed and the e-petitioning opportunities are equal in this category, the websites presenting these features were in each case different: on the one hand, France and the French Community (Belgium); on the other, Lithuania and Luxembourg. Search engines have been used in proportion of 89% in the creation of national ministerial websites for education.

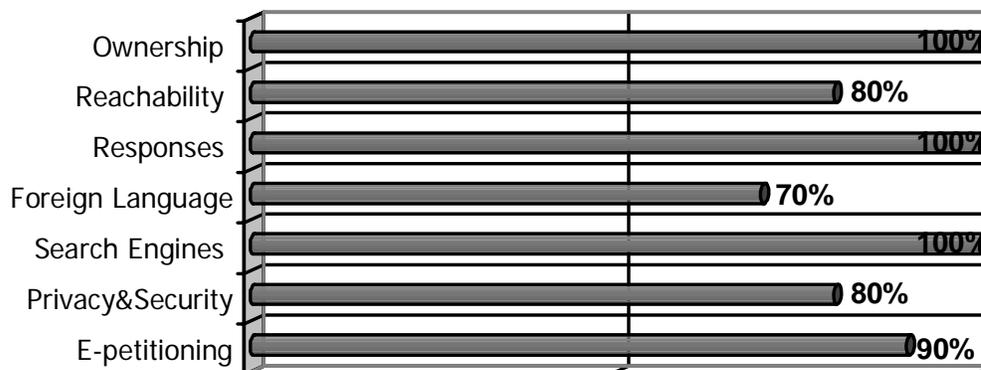
Generally, the former communist countries obtained medium scores in this quadrant by offering web-based applications concerning educational issues that allowed for increased transparency and open access to information; among these, Lithuania obtained the maximum score on the interactivity dimension. These facts can be perceived as a blurring of the boundaries between Western and Eastern Europe in the implementation of ICT in public administration, which is supported not only by a major redirection of the funds for this sector towards newer member states to meet the EU accession and membership requirements, but also as a sign of increased

interest in the adoption of e-government in the national context, bearing the legacy of time-consuming bureaucratic procedures and corruption threats.

7. High Interactivity – Extended Public Outreach

The fourth category of the two-dimensional typology presented gives equal importance to voluntary exchanges of information between the main actors involved. Figure 6 offers a comprehensive picture of the move towards achieving the highest standards on each of the dimensions examined. Ten cases were included: Germany, Finland, Ireland, Malta, Poland, Romania, Spain, Scotland (UK), Wales (UK), and Northern Ireland (UK). Each of these websites made available information in terms of ownership and provided technical means for responses on citizen consequences and search engines. As the result of a gradual process of enhancing opportunities for online citizenry engagement in education-oriented policy-making, the average percentages for the features displayed did not fall below 80% (reachability) on the first dimension; on the second dimension, the lowest average score was obtained for foreign language translation (70%), mainly due to the presence of regional departments of education in the United Kingdom.

Figure 4. Percentages of average scores for interactivity and public outreach features in the “High interactivity – Extended Public Outreach” category



Despite the fact that it does not guarantee an equal participation in policy-making, the advanced opportunities for civic involvement in shaping education-related debates represent a sign of political awareness in directly engaging those concerned. By offering the possibility of e-petitioning, all national ministries in this category - with the exception of Ireland – acknowledge the importance of inputs and feedback for their decisions. Complemented by the display of privacy and security policies to a great extent, these opportunities act as a means of increasing trust not only in the use of new technology, but also in decision-makers themselves.

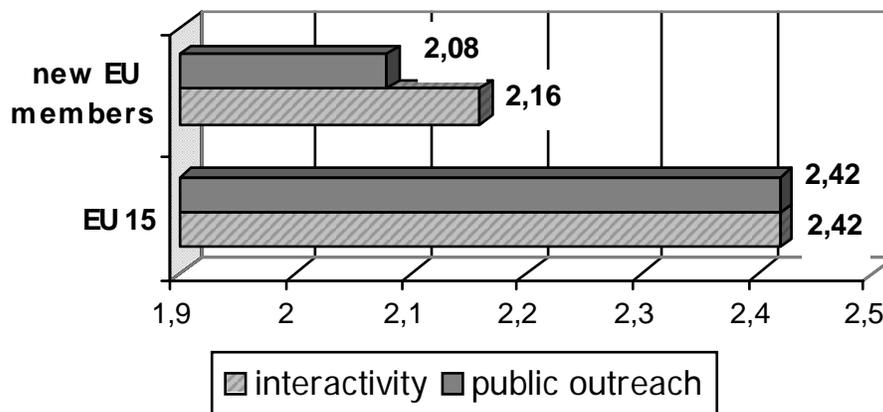
In this category, the ministerial websites of Germany, Malta, Spain and Wales obtained the maximum score. Considering the newer member states from Central and Eastern Europe, Romania and Poland moved towards extended public outreach after controversial educational packages have been heatedly debated during the transition and pre-accession periods. In the Romanian case, increased transparency has been demanded concerning the ministerial expenditures and the frequent changes in the educational system. Consequently, public consultation via online means has emerged rather as a solution to the pressures for constructive discussions in the benefit of those affected by the policies decided on.

8. Old EU, New EU

When comparing the national ministries of education as providers of digital content and opportunities for engagement according to the older-newer member states division, slight differences occur. The cases making up the EU-15 group score higher than the newer member states group, formed of the twelve cases corresponding to the national ministries of education belonging to the 2004 and 2007 EU accession (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia plus Bulgaria and Romania). Measured on a 3-point scale, the average difference between the two groups on the interactivity dimension is of 0.26, indicating that the older member states provide for extended opportunities for access to information and transparency. Though scoring the same on both

dimensions, given that they were measured on different scales, the EU-15 group is placed lower on the public outreach dimension, with an average of 2,42 out of 4. The difference of 0.34 when compared to the newer member states average on this dimension can be explained by the clustering of the majority of cases in the “High Interactivity- Low Public Reach” quadrant, while the Cypriot ministerial website acted as an outlier.

Figure 5. Comparison of average scores of interactivity and public outreach features for EU-15 and newer member states



In spite of these slight differences, the larger picture does not indicate a tremendous gap between Western and Eastern Europe. West found a 37% difference between Eastern and Western Europe, when he included non-EU countries⁴⁶ in his analysis of government websites offering online services (from online registration and booking services to library access and possibility of ordering publications). For the EU member states, such a division does not seem to reflect accurately the empirical situation, with most of the newer and older member states clustering in the same cell. Multiple reasons account for this situation, especially as governments started concentrating efforts towards issuing new legislation and strengthening “market liberalization, in order to catch-up with technology trends and provide up-to-date opportunities to their citizens and

46 Darrell M. West, “Improving Technology Utilization”, 5.

enterprises"⁴⁷. Cumulated with the pre-accession and membership pressures for developing the sector of ICT, the drive towards moving online appeared as a necessity in newer member states at the time when older member states were just beginning to efficiently implement e-government themselves. In these conditions, it may have been a "fast catch-up" process for learning and exchanging of information, as well as good practices, mainly with the Central and Eastern European countries.

9. Conclusions

In meeting the participative demand of modern democracies, current governments transferred to the online environment a large part of the opportunities for civic engagement in policy-making. The implementation of e-government via web-based applications has therefore brought to the surface the need for substantial assessment of the top-down initiatives of citizen participation. The present study created an analytical framework based on two dimensions – interactivity and public outreach – on which to classify the government-led initiatives displayed on the websites of the national ministries of education across the 27 EU member states. The findings underlined a clustering of countries by the level of citizen participation they enable, pointing towards an evolution in the e-government implementation sensitive to public engagement from "Low Interactivity – Low Public Reach" towards "High Interactivity – Extended Public Reach". Moreover, interactivity appears as the prevailing feature across national ministerial websites in the EU in the first half of 2009, whereas many of the websites examined are presenting at least one of the public outreach features.

By assigning cases to the categories of the typology, the differences between older and newer member states lessened as all countries from the latter group – with the exception of Cyprus – scored high on the interactivity dimension. The bulk of the cases analysed clustered in the "High Interactivity – Low Public Reach" quadrant and the Portuguese ministerial website provided

47 Elissaveta Gourova and Alben Antonova, "Bridging the Digital Gap" (2008), IV International Bulgarian-Greek Scientific Conference "Computer Science'2008" (18-19 September 2008), 2.

an example for the burning of stages, displaying reduced access to information and transparency features, but extended two-way interaction means. At another extreme, the Cypriot Ministry of Education illustrated one of the initial stages in the e-government implementation. The opposite conditions of development were found in Germany, Finland, Ireland, Malta, Poland, Romania, Spain and the United Kingdom, which approached the highest standards in available opportunities for civic consultation and participation within the EU.

In analysing the results, it is important to keep in mind the limitations of this research. Firstly, this initial effort to focus on ministerial websites dealing with educational issues offers some preliminary insights to the development of this sector. However, more research is needed for measuring the consistency of the finding in this sector with the rest of the e-government initiatives across Europe. Besides, it corresponds to a specific point in time and it is liable to undergo major changes in the years to come, therefore opportunities for comparative research both over time and cross regional are envisioned. Secondly, in assessing civic engagement in top-down online opportunities throughout the European Union, it is important not to disregard the shortcomings usually associated with the online environment: expert teams, security and privacy obstacles, real-time service delivery and lack of support from elected officials. Jan van Dijk⁴⁸ adds to these four other important hurdles resulting in access inequalities: computer literacy, unequal access to computers and networks, insufficient user-friendliness and insufficient and unevenly distributed usage opportunities. These are all elements to be considered when any generalization from the expected findings is attempted, as this research only concerns the opportunities of civic empowerment by means of top-down e-government policies; it does not assess the impact of user experience and satisfaction with online services on the process of policy-making.

As a growing field, e-government literature can benefit more from studies that combine theoretical and empirical approaches. This

48 Jan van Dijk, "Widening Information Gaps and Policies of Prevention". In: *Digital Democracy: Issues of Theory and Practice*, ed. Kenneth L. Hacker and Jan van Dijk (London: Sage Publications, 2000): 166-183.

extended study contributes to understanding the implications of creating opportunities for participation by the use of ICT in the shift from traditional to electronic government. Based on the analytical framework developed above, monitoring outcomes and learning processes might represent a potentially fruitful avenue for further research. An assessment of the way in which the decision-making mechanism changes in the online environment would represent an interesting direction for study, as it would shed more light on the impact of e-government for the present society.

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