EUROPEAN PARLIAMENT

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WORKING PAPER

EVALUATION OF THE USE OF NEW TECHNOLOGIES IN ORDER TO FACILITATE DEMOCRACY IN EUROPE

Scientific and Technological Options Assessment Series

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EXECUTIVE SUMMARY

This report is about the one of the latest changes in the '**technology of democracy**' and how it may impact on some of our core institutions of democratic representation: parliaments and parties. As in the past, whenever something new was injected into the processes of election and representation pundits have emerged to argue that the nature of democracy would be transformed. This is no less true for one of the latest potential changes in the 'technology of democracy', namely the introduction into the democratic realm of information and communication technologies (ICT).

This report evaluates whether the introduction and diffusion of ICT is having a significant impact upon the practice of democracy in the member and candidate states of the European Union. Two research strategies have been employed: The first is a comparative website analysis of parliamentary and political parties' websites. The second is a series of case studies and country reports which focus on e-democracy initiatives across the 26 polities we survey.

The results of our core empirical analysis indicate that there is considerable variation among both parliaments and parties as far as the development of their websites is concerned. Existing member states tend to have more developed websites and, overall, the quality of parliamentary websites tends to be slightly superior to that of party websites. Most surprisingly, familiarity and use of ICT – as well as higher levels of wealth - do not inexorably lead to better website development. Differences in party systems – its fragmentation, ideological orientation, levels of turnout, distribution of major and minor parties- also do not seem to have a significant impact on website development for parliaments or parties. The variations we have observed suggest that it is political actors' strategies rather than ICT development or other institutional variables that are driving parliaments and parties' website development.

To supplement the quantitative analysis various case studies and country reports have been produced offering further insights regarding both the variety of techniques that are the subject of experimentation by political actors and the particular aspects of democracy they wish to promote. E-access is by far the most dominant e-technique being pursed while e-consultation and e-forums are noticeably lagging. This latter finding is somewhat disappointing for e-democracy advocates although on the e-voting front some notable progress has been achieved.

In sum, the process we describe is dynamic and as yet incomplete. Furthermore its connection with democracy is, at this early stage, still ambivalent. It is our view that given the uncertainties surrounding its diffusion and potential impact, policy intervention whether by national or European authorities could risk failing to produce intended results. We do believe, however, that it is important to learn by monitoring these developments in the political usage of ICTs both for the emergence of potential distortions as well as best practices.

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I. INTRODUCTION: DEMOCRACY AND E-DEMOCRACY

Democracy has proven to be an extraordinarily resilient form of government. It has changed its scale from ethnically homogeneous city-states to multi-national mega-states; it has expanded in scope from providing defense and little else to providing welfare and much else; it has re-defined its participants from a small number of male, native-born, relatively elderly, non-slave citizens to a large number of male&female, native&naturalized, young&old citizens – and managed to abolish slavery along the way. And yet during this long (if erratic) trajectory, democracy has always been rooted in a limited number of consistent principles: equality of citizens, participation in common affairs, popular consent, freedom of expression, right of assembly and accountability of rulers. Anyone concerned about the problems of democracy in today's world can profitably turn to the Funeral Oration of Pericles for reflections on the importance of citizen equality, the writings of Aristoles, Polybius and Montesquieu for the virtues of mixed government, Machiavelli's Discorsi for the advantages (and risks) of mass participation, John Locke for the centrality of rights and property, Jean-Jacques Rousseau for the social contract and popular sovereignty, the Federalist Papers for wisdom on multiple layers of government (federalism) and multiple sources of cleavage (pluralism), Thomas Paine for the notion of the common man, John Stuart Mill for the importance of representative government, Mary Wollstonecraft for the rights of women, Immanuel Kant for thoughts on why democracies do not go to war with each other, Alexis de Tocqueville for the role of associations and freedom of the press – not to mention such other past contributors as Benjamin Constant, F.A. Hayek, Abraham Lincoln, Roberto Michels, Gaetano Mosca, Joseph Schumpeter and Max Weber.

What has been much less consistent over its long history is the "**technology of democracy**". The specific mechanisms that have translated its eternal principles into everyday practices of voting, representing, deciding, implementing, and complying by citizens and their rulers have changed greatly and, seemingly, irrevocably. At its founding, citizens walked to a central place, assembled there for a lengthy period to listen to the rhetoric of fellow citizens, tried to reach a consensus and/or occasionally voted by voice or small wooden balls in order to select their leaders or courses of action. In the ensuing years, the means whereby citizens were brought together and allowed to express their choices have changed so radically that it is highly unlikely that an ancient Greek transported to the present would recognize as democratic any of the technologies that are routinely used to nominate candidates, campaign for election, vote for competing tickets, tally up the winners and announce the results to the general public. Probably, the most mystifying aspect of all these technological revolutions to him would be the extent to which so many of them involve the act of political representation, i.e. of selecting and then delegating to some person or organization the right to act in lieu of the individual citizen.

This report is about the latest of such changes in the technology of democracy, namely, the introduction of electronic information and communications technology (ICT), and the ways in which it may be affecting the core institutions of representation: parliaments and parties. What we want to learn by a comprehensive and systematic comparison of the member and candidate states of the European Union is whether the introduction and diffusion of ICT is having a significant impact upon the practice of democracy, i.e. whether ICT is transforming Liberal-Democracy (L-D) into Electronic Democracy (E-D).

In the light of the above introduction, it would seem most appropriate to begin with the so-called "**null-hypothesis**". Precisely, because democracy has changed its mechanisms so much

and so often without changing its central principles, our long-term expectation should be that ICT will **not** fundamentally alter the nature of democracy. E-D, in other words, will remain L-D. At almost every occasion in the past when something new was injected into the processes of election and representation – mass circulation newspapers, radio and, then, television broadcasting, voting machines, national party conventions, proportional representation, public-funding for parties, nomination by primaries, closed-list ballots, voting by mail, permanent voter registration, *e così via* - pundits emerged to declare that L-D would never again be the same. And they were (by-and-large) wrong, at least with regard to fundamental principles. It is almost as if – *pace* De Lampedusa – liberal democracy keeps changing in order to stay the same.

A second feature of previous speculation about changing technologies of democracy has often been ambivalence. The pundits may have all agreed that the impact was going to be substantial, but they usually disagreed about the direction of that substantial impact, i.e. on who would benefit or what policies would be different. With each new technology came contrasting assessments about whether it would intrinsically favor incumbent or challenging politicians, left- or right-wing ideologies, major or minor parties, central or peripheral regions, rich or poor persons, ethno-linguistic majorities or minorities, entrenched or reformist policies, and so forth.

So, it seems prudent that our inquiry entertain from the beginning the "**ambivalence hypothesis**", namely, that ICT – if it does make a significant difference – could momentarily benefit one side of a cleavage pattern more than another, but which side that might be is not pre-determined and could even be very difficult to discern. It could also change with the passage of time. Whatever its initially differential impact may be, in the longer run, the disfavoured actors and political groups will either learn to use the new technology or invent newer ones to countervail its effect. In the case of ICT, this hypothesis seems especially plausible because the source of innovation is itself external to the political process. Many previous changes in the technology of democracy were internal to this process and, hence, represented the victory of one political force over another. Granted that winners may miscalculate and unintended consequences are not uncommon in politics, nevertheless, there was usually good reason to suspect beforehand who would benefit and what policy changes would ensue. ICT, as was previously the case with radio and television, stands out as particularly ambivalent in its potential impact since none of the protagonists have been uniquely driving its introduction. Rather, it is the sheer inventiveness of science, the profit-seeking motive of industry and the seemingly insatiable taste of consumers that is diffusing ICT, and it is politicians who are responding belatedly to these autonomous trends.

II. GOALS, DEFINITIONS, RESEARCH STRATEGIES AND HYPOTHESES

The goal of this study is to provide an empirically grounded and theoretically focused analysis of developments in the area of e-democracy in the EU, its member states and the accession countries. But before any progress towards this goal can be made a working definition of e-democracy is in order. One notable feature of the literature on e-democracy is that there is no commonly shared understanding of what e-democracy means. For the purposes of this study the following working definition of e-Democracy has been developed:

> e-Democracy consists of all electronic means of communication that enable/empower citizens in their efforts to hold rulers/politicians accountable for their actions in the public realm. Depending on the aspect of democracy being promoted, e-democracy can employ different techniques: (1) for increasing the transparency of the political process; (2) for enhancing the direct involvement and participation of citizens; and, (3) improving the quality of opinion formation by opening new spaces of information and deliberation.

It is important to note that e-democracy is distinct from, but may overlap with the ICT techniques being used for making government operate more efficiently. The latter is commonly referred to as e-government. With these definitions and conceptual boundaries provisionally in place we can now describe the research strategy. To achieve its research goals this study has employed two distinct, but complementary, research strategies:

1) The first research strategy constitutes the empirical core of the study. It is essentially quantitative and amounts to a comparative analysis of the websites of legislatures and political parties. All legislatures (twelve bicameral and fourteen unicameral) of the EU and its 15 member states/10 accession countries were evaluated in a uniform and structured way. Furthermore, the websites of all political parties that obtained more than 3% of seats in Parliament[1] for the last national elections of the EU member/accession states and for the European Parliament elections were analysed. In sum, a total of 144 political parties' websites and 38 legislatures were analysed with a view to identifying patterns in the development of political parties' and legislatures' websites according to their e-democratic potential. The main goal was to design an instrument that not only counted features and assessed quality but also included an evaluation of interactivity. Indeed, it is precisely the latter feature –the increased scope for deliberative and participatory interactivity offered by ICTs - that has been one of the principal concerns of the literature on e-democracy. The major findings of the comparative website analysis are reported in Part III (for a detailed overview of the questionnaire and its design see the Methodological Annex).

2) The second research strategy is essentially qualitative and is based on a series of case studies and country reports. The aim of the case studies is to supplement the comparative analysis by focusing on various e-democracy initiatives by governments/public authorities and other actors, such as political parties. The cases have been selected across all levels of public authority, from the municipal through to the regional, national and supranational[2]. In addition, outcomes vary in terms of the relative success or failure of the various e-democratic initiatives pursued and the particular e-techniques used. The case studies are complemented

[1] For bicameral systems we considered the seats obtained for the Lower House.

[2] The case studies focus on Partito Radicale (Italy); Issy-les-Moulineaux (France); e-democracy in Germany at the local level; Regional initiatives in Valencia (Spain); UK e-voting; EU Convention.

by the country reports which were produced by our collaborators. In Part IV we present an overview of the findings from the qualitative analysis[3].

Both research strategies will enable us to test hypotheses that have been raised by the literature. Two initial working hypotheses have already been identified above – namely the 'null-hypothesis' (democracy will not be fundamentally altered) and the 'ambivalence hypothesis' (in the short term ICTs are likely to be exploited differently by political actors although this need not be the case over the long term). Nonetheless, the data collected for this study will also enable us to go beyond these general (and somewhat open-ended) hypotheses to probe other conjectures that appear in the literature. Below we identify some that are of special relevance for this study:

Technological diffusion and use: Is there a link between internet penetration and the online presence of both political parties and legislatures? In this report we will be able to test whether this is the case for European political parties' websites and whether internet penetration is a relevant variable for explaining any of the differences observed. The same holds true for parliamentary websites.

Level of democratisation: Is there a link between the level of democratisation and e-democratic website development in a country? This study will also examine whether levels of democratisation help explain differences in websites for legislatures and parties.

Institutions: Do institutional variables (parliamentary vs. presidential systems; federalist vs. unitary systems; unicameral vs. bicameral systems) explain differences observed in the study both for the online presence of political parties and legislatures?

Ideology: Do left/right party ideologies help to explain differences observed in the online presence of political parties? We ask whether this is the case for the 144 European political parties sampled.

Party Size: To what extent is there a difference between the online presence of small and big parties? Have smaller parties gained an equal or even superior online presence than big political parties and, by inference, does the internet provide for a more level playing field than traditional media?

[3] For the case studies and country reports see Annex I.

III. COMPARATIVE WEBSITE ANALYSIS

A) Parliaments in Europe on the Web

Thanks to our collaborators in the 15 member and 10 candidate states, we have been able to gather original and systematic data on how parliaments and parties in Europe have been making use of ICT as evidenced by the developmental characteristics of their websites. We have introduced four distinct (but possibly correlated) dimensions for describing such use: (1) information provision, (2) bilateral interactivity, (3) multilateral interactivity and (4) user-friendliness. While information provision and user-friendliness of websites are familiar terms, the remaining two dimensions require some further clarification. Bilateral and multilateral interactivity build on the fundamental distinction put forward by Andrea Römmele with regard to potential linkages using ICT between political parties and their members: "These linkages can take a bilateral form, such as email between the party and voter or member, or be multilateral, involving many actors in online chat rooms, bulletin boards or special question-and-answer sessions"[4]. We use this distinction in a similar way for both the analyses of the websites of legislatures and of political parties[5]. In the analysis below, the four dimensions have been collapsed into a single E-Legislature Index (E-LI).

This will be followed by a similar index for E-Parties (E-PI). We begin by ranking the websites of 25 national legislatures (plus the European Parliament) and we have done so by simply adding the individual scores on each of the four dimensions (information, bilateral interactivity, multilateral interactivity and user friendliness). This has been referred to above as the E-Legislature Index (ELI) and it provides a basic snapshot of the web presence in the legislatures of most European countries and that of the European Union. For those countries with bicameral systems, this first descriptive index is represented by the average of the scores for the lower and the upper chamber.

[4] Römmele, Andrea, 2003. "Political Parties, Party Communication and New Information and Communication Technologies", *Party Politics*, 9:1, p.10.
[5] See the Methodological Annex for details.

Table 1: E-legislature index (in %)

Country	E-legislature	Standard deviation	N
France	68.0	5.0	2
EU	67.0	-	1
Greece	65.0	-	1
Denmark	62.1	-	1
Sweden	58.5	-	1
Germany	58.0	21.0	2
United Kingdom	57.8	5.6	2
Finland	56.5	-	1
Lithuania	53.5	-	1
Italy	53.3	9.6	2
Czech Republic	51.0	1.9	2
Belgium	49.8	2.3	2
Portugal	46.3	-	1
Poland	46.0	10.9	2
Spain	45.9	13.4	2
Netherlands	42.8	7.0	2
Estonia	40.3	-	1
Latvia	39.2	-	1
Slovenia	38.9	5.6	2
Hungary	38.3	-	1
Austria	36.2	0.0	2
Ireland	35.8	0.0	2
Malta	34.3	-	1
Slovak Republic	34.2	-	1
Luxembourg	32.7	-	1
Cyprus	27.6	-	1
EU-15	51.3	11.0	15
AC-10	40.3	7.9	10
Mean	47.7	6.9	

Note: EU-15 is the average score among the 15 EU Member States legislatures' scores. AC-10 is the average score among the 10 Accession Countries legislatures' scores. An analysis of variance reveals that the difference between the EU-15 and AC-10 values are statistically significant (sig.>.05; eta = 0.49).

Table 1 presents the overall scores (expressed in percentage terms) of our analysis of the websites of the parliaments of the 25 member state/accession countries and the EU. It also includes averages for the current EU member states (EU-15); for the accession countries (AC-10); and, finally, an overall average.

We begin by looking at the overall average (47.7%) and find that four legislatures (those of France, the European Union, Greece and Denmark) form a distinctly impressive group with scores above 60%. In particular, the European Parliament's website scores well above all of the three averages (including the one composed by its own members) and it is the second best on the overall index. Of the accession countries, only two (Lithuania and the Czech Republic) score higher than the overall average. Lithuania, however, also scores above the EU-15

average. At the bottom of the rankings, we find Cyprus and Luxembourg. Notably low scores are obtained by EU members, Luxembourg, Ireland and Austria, all three of which were well below not only the EU-15 average, but also the AC-10 average. Despite the lackluster performance of this trio, there is still a considerable difference between the average of the EU Member States (51.3%) and the average of the Accession Countries (40.3%), a difference that is also statistically significant. Unfortunately, we do not have time series data that could tell us whether the latter are catching up or falling further behind the latter, although anecdotal evidence suggests that these Eastern countries are converging with their Western brethren.

Of the 25 EU member and candidate states, twelve have bicameral legislatures. This is significantly higher than the worldwide proportion (35%) of polities with two chambers[6], but this tells us nothing *a priori* about their probable E-LI scores. We can now examine whether there is any discernable difference between unicameral and bicameral systems in terms of their web presence. Could it be that unicameral systems with a single web platform manage to provide a more effective communication mechanism than the more complex bicameral systems? Or could the inverse be the case with bicameral systems scoring higher because they compete with each other in quality? Table 1 shows that there are six bicameral systems above the average and six beneath it. It appears, therefore, that differences in the number of chambers do not affect overall scores. However, this observation needs to be refined on two counts. Firstly for bicameral systems, Table 1 presents the average score of the lower and upper chamber which may not capture significant differences between the two chambers. Secondly, several bicameral legislatures provide a common portal (such as the UK) to access the separate sites for each chamber and, in the case of Ireland and Austria, identical sites for both houses[7]. In order to sharpen the analysis, we present in Table 2 the averages for lower and upper chambers. Austria and Ireland have been excluded for the reason noted above. The UK, which also shares a common access portal has, however, been included because differences between chambers still persist.

Table 2: Mean of E-Legislature Index by Chamber for 10 bicameral parliamentary systems (excluding Austria and Ireland)

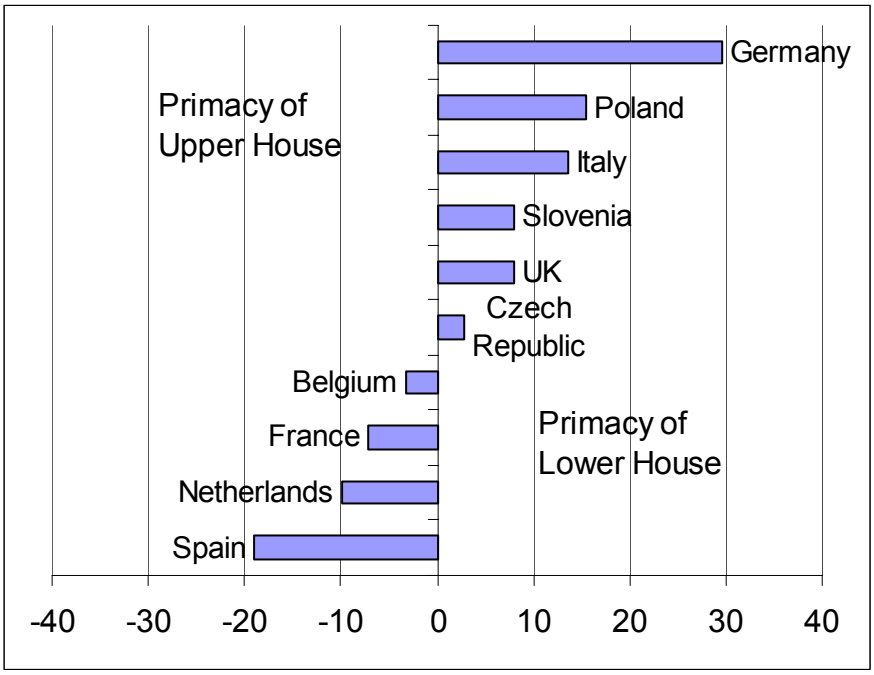
Chamber	Mean	N	Std. Deviation
Lower House	53.0	10	11.9
Upper House	49.3	10	10.2

Table 2 shows that - *on average* - Upper and Lower Houses only differ marginally and that this difference is not statistically significant. Nonetheless, there are some quite significant standard deviations. Figure 1 computes the differences between the houses for each country.

[6] Tsebelis, George & Biorn Erik Rasch, 1995. "Patterns of Bicameralism" in Herbert Döring (ed.) *Parliaments and Majority Rule in Western Europe*, Frankfurt & New York: Campus Verlag & St. Martin's Press, p. 365.

[7] Since the data for the two chambers in Ireland and in Austria are identical, the standard deviation in their ELI scores reported in Table 1 is 0.

Figure 1: Differences between Lower and Upper Houses Website development



The data plotted in Figure 1 shows the difference between lower and upper houses with regard to their respective score on the E-LI. If a country has a negative value, its upper house has a more developed website than its lower house. Conversely, a positive value indicates that the lower house has the more developed website. For the cases of the Czech Republic and Belgium, both houses' websites have more or less similar levels of web development. In Germany, however, the difference between the *Bundestag* and the *Bundesrat* is very pronounced: The score of the German *Bundestag* on the E-Legislature Index is almost 30% higher than that of the *Bundesrat*. To a lesser extent, the Polish, Italian, Slovenian and UK lower chambers are also more developed than their upper chambers. The inverse, however, is true for Spain, The Netherlands and France. For example, in the latter, the *Senat* has a higher E-LI score than the *Chambre des Deputés*. We cannot explain these differences by such institutional variables as federalist vs. unitary systems or parliamentary vs. presidential systems. Nor do we have the data to test whether it is legislative chambers with greater formal powers that have more developed websites. It seems to us more likely that the differences are due to varying organisational structures, strategies and resources of the respective parliamentary administrations. The score of the German *Bundestag*, when compared to the German *Bundesrat,* is especially noteworthy because it illustrates the interactivity potential of ICT. The lower house has opted for developing a more participatory web-forum which has significantly boosted its overall score[8]. At the time of the analysis, there were 280 registered users on the *Bundestag*'s web forum, some of whom were actively engaged in discussing issues. In the Spanish case, the *Senado* has also developed a participatory online forum that gives it a much higher score than the *Cortes*[9]. In the case of the UK, where a common portal[10] links the Parliament and the House of Lords, the difference between the scores is largely a

[8] See the Parliamentary new media e-democracy project at www.bundestag.de/gremien15/
[9] See the Foro de la comision de la informacion y del conocimiento at the Senado: http://www.senado.es/
[10] See www.parliament.uk

result of the absence of any email interactivity for the upper chamber. These differences show that web strategies and developments for national Parliaments may not only vary across countries, but also, in bicameral systems, within them.

By simply taking the average between the two chambers, there is a danger of introducing a bias in the analysis of parliamentary websites. Table 3 therefore focuses exclusively on the lower chambers given that this is generally the more representative body and the one that is presumed to be closest to the citizen. As to the construction of the E-LI, a reliability analysis is, from a statistical point of view, satisfactory[11].

Table 3: E-Legislature Index for all Unicameral Parliaments and Lower Houses

Country	E-legislature
Germany	72.8
EU	67.0
Greece	65.0
France	64.4
Denmark	62.1
United Kingdom	61.8
Italy	60.1
Sweden	58.5
Finland	56.5
Poland	53.7
Lithuania	53.5
Czech Republic	52.4
Belgium	48.1
Portugal	46.3
Slovenia	42.9
Estonia	40.3
Latvia	39.2
Hungary	38.3
Netherlands	37.9
Spain	36.4
Austria	36.2
Ireland	35.8
Malta	34.3
Slovak Republic	34.2
Luxembourg	32.7
Cyprus	27.6
EU15	51.6
AC10	41.6
Mean	48.4

Note: EU15 is the average score among the 15 EU Member States legislatures' scores. AC10 is the average score among the 10 Accession Countries legislatures' scores. An analysis of variance reveals that the difference between the EU15 and AC10 values is statistically significant (sig.>.05; eta = 0.40).

[11] When testing the reliability of our e-legislature index for the 26 houses, we get a Cronbach's Alpha of 0.78. We interpret this value as satisfactory, allowing us therefore to proceed with the overall index construction.

This revised index shows important shifts in the ranking of some countries. The most important is in Germany's E-LI score that now emerges at the top of the country rankings (72.8%). At the same time, we now have seven countries, instead of the four in Table 1, with scores above 60%. The European Parliament's website retains its second place ranking, while the relative position of Italy and the UK is significantly enhanced. Of the accession countries, Poland, Lithuania and the Czech Republic score above the overall average and also above the EU average. In fact, Poland now occupies first place among the accession countries. At the other end of the scale, five EU member states, instead of the earlier three (Luxembourg, Ireland, Austria) now score below the EU and the AC averages. The two additions to this bottom-ranking trio are Spain and The Netherlands, both of which have relatively underdeveloped websites for their lower chambers.

Having assessed the overall development of European legislatures' websites and their relative ranking, we are now in a position to push the analysis further. As we noted, the E-LI is a composite-additive index based on four dimensions that measure respectively: information provision, bilateral interactivity, multilateral interactivity and user friendliness. By breaking down the E-Legislature Index into each of its components, it becomes possible to gain further insights into the specific emphasis that is placed on each of the four dimensions by the respective parliaments as they develop their websites.

Figure 2 clearly shows that national parliaments and the European Parliament use their websites principally for providing information and offering access via email to their members (MPs) and personnel (administrators, webmasters). Both functions are important and we shall examine them below in greater detail.

Figure 2: Dimensions of Website Development by Legislatures in Europe

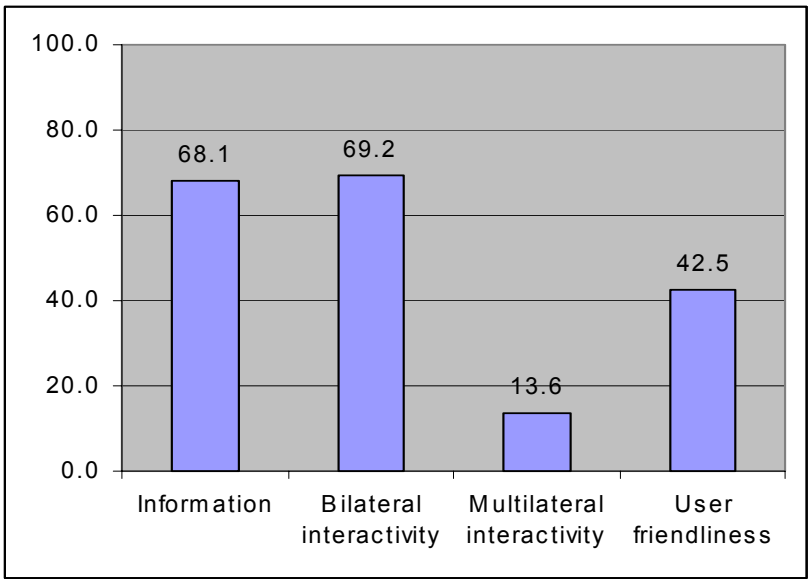


Table 4: E-Legislature Index broken down into its components country by country

Information		Bilateral interactivity		Multilateral interactivity		User-friendliness	
United Kingdom	89.9	European Union	100.0	Germany	72.7	France	81.3
Italy	89.4	Greece	100.0	Denmark	45.5	European Union	62.5
Germany	89.1	Belgium	85.7	European Union	27.3	Greece	62.5
Denmark	81.6	Czech Republic	85.7	France	27.3	United Kingdom	62.5
Greece	79.3	Finland	85.7	Poland	27.3	Finland	56.3
Poland	78.7	Germany	85.7	Finland	18.2	Italy	56.3
European Union	78.3	Italy	85.7	Greece	18.2	Sweden	56.3
France	77.8	Lithuania	85.7	Lithuania	18.2	Denmark	50.0
Sweden	73.7	Sweden	85.7	Malta	18.2	Estonia	50.0
Lithuania	72.4	United Kingdom	85.7	Sweden	18.2	Portugal	50.0
Spain	71.5	Denmark	71.4	Czech Republic	9.1	Czech Republic	43.8
Czech Republic	70.9	France	71.4	Italy	9.1	Germany	43.8
Hungary	69.5	Hungary	71.4	Luxembourg	9.1	Belgium	37.5
Belgium	69.3	Latvia	71.4	Netherlands	9.1	Latvia	37.5
Slovenia	67.7	Netherlands	71.4	Slovak Republic	9.1	Lithuania	37.5
Finland	66.0	Poland	71.4	Slovenia	9.1	Malta	37.5
Portugal	63.7	Portugal	71.4	United Kingdom	9.1	Poland	37.5
Netherlands	58.4	Austria	57.1	Austria	0.0	Slovenia	37.5
Austria	56.5	Estonia	57.1	Belgium	0.0	Austria	31.3
Ireland	54.7	Ireland	57.1	Cyprus	0.0	Cyprus	31.3
Luxembourg	54.0	Slovenia	57.1	Estonia	0.0	Ireland	31.3
Estonia	54.0	Luxembourg	42.9	Hungary	0.0	Slovak Republic	31.3
Slovak Republic	53.6	Slovak Republic	42.9	Ireland	0.0	Spain	31.3
Malta	53.0	Spain	42.9	Latvia	0.0	Luxembourg	25.0
Cyprus	50.4	Cyprus	28.6	Portugal	0.0	Hungary	12.5
Latvia	47.9	Malta	28.6	Spain	0.0	Netherlands	12.5
Mean	68.1	Mean	69.2	Mean	13.6	Mean	42.5

In Figure 2 and Table 4, the provision of **information** appears as one of the most important website activities by most European legislatures, although with a substantial degree of variation. Its average score is 68.1, exceeded only by a narrow margin by bilateral interactivity in Table 3. In fact, there seems to be a rough correlation between the two activities. Most of those countries scoring high on information provision also do relatively well on bilateral interactivity, e.g. the UK, Italy, Germany, Greece, Sweden, Lithuania, and the EU, but Belgium, Finland and France seem to have thought the latter more important than the former. Spain, however, ranks 11th in information provision, but 23rd in bilateral interactivity!

While the provision of information on a given website is, in theory, unlimited, we have sought to measure the variety rather than the volume of information available. Accordingly, this activity has been broken down into five components. We begin by focusing on the aggregate scores and find that the UK, Italy, Germany and Denmark all score above 80 and they are joined by Poland and the European Union whose scores are also well above the average. At the bottom end, we find Latvia and Cyprus where they are joined by the low scoring EU trio of Luxembourg, Ireland and Austria.

Further insights concerning the type of information that is provided can be gained from the five-fold break down below (for details refer to the description in the annex): (1) General information on the Chamber (overview, news, panorama etc.); (2) Information on MPs (list of members, their political groups, the issues they stand for etc.); (3) Information on Parliamentary committees (list of committees, their members, proceedings etc.); (4) Information on legislation (ongoing legislation, passed legislation, legislation search facilities etc.); (5) Information on debates (schedule of debates, text access to debates, archives, etc.).

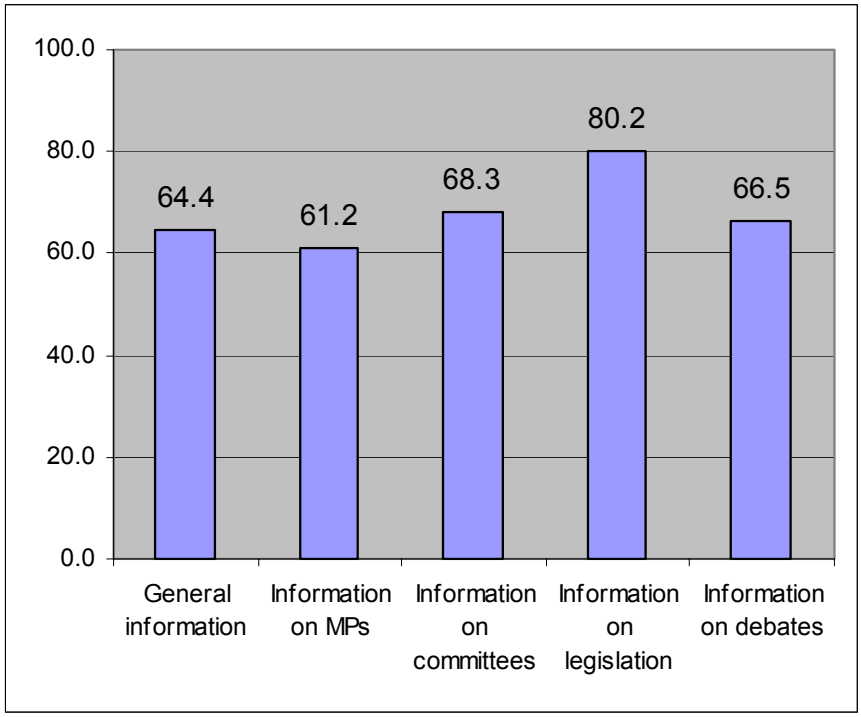


Figure 3: Dimensions of (Potential) Information Provision

Figure 3 displays the average values for each sub-component of the provision of information. Better said, it displays the potential for that provision built into each of the respective websites, since at this point we have no data on frequency of usage. Information on legislation (80.2%) constitutes the most developed type of information provided by legislatures, followed by information on parliamentary committees (68.3%), debates (66.5%), general information (64.4%) and, lastly, information on individual MPs (61.2%). This last finding is somewhat surprising since it seems that parliamentary administrations tend to favour the dissemination of impersonal information rather than allowing the legislatures' websites to serve as a platform for individual members to present themselves. At the same time, however, this

finding should not be overstated given that the differences between the five dimensions' scores are not very large. This suggests that, as far as information is concerned the components involved seem to have converged on a relatively homogenous common standard of content.

Bilateral interactivity in Table 4 measures the extent to which users are provided with general contact information, as well as the email addresses of webmasters/content managers, members of parliament, Ombudsmen (or equivalent) and parliamentary staff dealing with general inquiries. This index also includes a measure of the proportion of MPs with an email address compared to their total number. Email addresses are relatively easy to put on a website, while the other dimensions tend to demand more resources both in terms of technology and staff. It is even possible to argue that the cost of responding to emails is merely transferred to the parliamentary representatives receiving them, thereby, lessening the load on website administrators. Finally, email addresses, unlike parliamentary debates or updates of legislative drafts, are generally more static and do not require constant data management or regular updating.

Table 4 shows that both the European Parliament and the Greek Parliament obtain the maximum score of 100% - the only such scores in the entire survey. Another cluster of high-scorers consists of Belgium, the Czech Republic, Finland, Germany, Italy, Lithuania, Sweden and the United Kingdom. The presence of the Czech Republic and Lithuania (85.7%) in this *tête de peleton* is especially noteworthy, since two of the accession states, Cyprus and Malta, score lowest with only 28.6% and several others, Estonia, Slovenia and Slovakia, also do poorly.

In this case, we have generated some very interesting (if still incomplete) data that does permit us to go beyond formal provision of the opportunity to interact with a test for actual inter-activity. For this test, our collaborators have sent out an e-mail to all MEPs and MPs in the member states and accession countries that have an e-mail address provided in the respective websites of the legislatures. The content of the message was identical in each country and translated by our collaborators into the corresponding national languages (for details on the text see the Methodological Appendix).

Table 5 shows the proportion of MPs and MEPs whose e-mail address is provided by their Parliaments' websites as well as the response rate of the test.

Table 5: Interactive test results for MPs (for bicameral systems the figures refer to the response rate of the Members of the Lower House)

Country	Response rate	n	% of MPs with email address	n	N MPs
Estonia	44.6	45	100.0	101	101
Denmark	42.3	71	93.9	168	179
Slovenia	42.2	38	100.0	90	90
Finland	40.0	80	100.0	200	200
Netherlands	30.2	13	57.3	43	75
Luxembourg	28.6	8	46.7	28	60
United Kingdom	27.7	133	73.0	481	659
Slovakia	26.7	40	100.0	150	150
Austria	26.6	42	86.3	158	183
Portugal	23.5	54	100.0	230	230
Lithuania	22.6	31	100.0	137	137
Latvia	16.0	13	81.0	81	100
Germany	14.4	87	100.0	603	603
France	11.9	67	97.9	565	577
Sweden	9.7	34	100.0	349	349
Spain	9.7	22	64.6	226	350
Greece	9.6	16	55.3	166	300
Hungary	9.3	36	100.0	386	386
Italy	7.1	45	100.0	630	630
EU	5.1	21	65.4	409	625
Poland	2.0	9	100.0	460	460
Mean	21.4	43.1	86.7	267	307

Here we discover some surprises. Some of the most impressive response rates came in countries that did not score highly in Table 4. Estonia and Slovenia that were just mentioned as laggards in formal bilateral inter-activity have among the highest responsiveness levels. The European Union and Greece that were the champions in Table 4 have among the lowest levels, along with others such as Italy and Lithuania. The old adage, "You can take a horse to water, but you cannot make him drink," seems to apply to ICT and legislatures, at least with regard to bilateral interactivity.

The third most important dimension in Figure 2 and Table 4 measures the **user friendliness of legislative websites**. It shows the extent to which such websites propose "Frequently Asked Question" sections, have general and specific search facilities, site maps, content indexes, A-Z indexes, lengthy scrolls, text versions of the site. It also measures the proportion of deadlinks that one comes across when surfing the legislatures' websites. National parliaments and the EP, on average, do not seem to consider user friendliness a high priority. Compared to the potential top score, there is considerable room for improvement. A notable exception is the website of the French *Assemblée Nationale*. It received a score of 81.3%, almost double the overall average (42.5%) and nearly 20 percentage points above the European, Greek and UK Parliaments. However, in terms of responsiveness, the French lower house ranked quite low! This case suggests that user friendliness is no guarantee of user

responsiveness. At the very bottom of the scale, we find Hungary and The Netherlands, both with a score of 12.5%.

The final component of our E-Legislature Index is **multilateral interactivity**. This is arguably the most important variable from the theoretical perspective of e-democracy since it alone is potentially capable of strengthening the deliberative aspects of citizen participation. Figure 2 and Table 4 both reveal that legislatures at the national and supra-national level attribute minimal attention to such a potentiality. Theory may be correct, but the practice is not. The overall average is extremely low (13.6%). There are nine legislatures (five EU Member States and four Accession Countries) that receive a score of 0[12]. In other words, they neither provide their citizens with an on-line forum, nor any other form of consultation or feedback procedures (other than the possibility of sending email). The clear outlier on this variable is the German *Bundestag* and, to a lesser extent, the Danish *Folketinget,* both of which provide opportunities for citizen participation in online forums. We remind our reader, however, that the use of ICT by legislative bodies is still in its infancy and changing relatively rapidly. Perhaps, what we are seeing in Figure 2 and Table 4 is a process of diffusion, both over time and from one country to another. It may take some prior experience with the "lesser" forms of e-democracy before national parliaments agree to take the greater risk of opening up their practices to multilateral interactivity. Also, the data on bilateral interactivity provides a useful warning that simply making a mechanism available does not mean that it will be used. It may also take a while before citizens, long accustomed to more traditional and mediated forms of interaction with their representatives in parliament, will become inclined to make direct use of ICT interactivity for this purpose.

B) Political Parties in Europe on the Web

The abstract theory of democracy, as well as its concrete practice, tells us little about whether parliaments or parties "should" play a leading role in the diffusion of new technologies. In the specific case of ICT, the former usually have impressive financial resources and staff members who are accustomed to using this technology on a daily basis for internal purposes and this familiarity could spillover into its application to relations with the general public. Parties are probably less well equipped internally with ICT, but they are locked into a externally competitive struggle for influence and votes that should induce them to respond quickly by adopting whatever technologies seem to give their opponents an advantage.

Let us now turn to the data that we have collected on the 144 political parties that have gained more than 3% of seats at the last general election in all the member and accession states, as well as the party groups that exist within the European Parliament. In addition to the four dimensions used for the construction or our E-LI, we have added a further two for our measurements of party websites. The first relates to networking possibilities provided for by political parties on their respective websites. The second additional dimension relates to political parties' mobilisation potential on the web[13].

[12] These are Austria, Cyprus, Ireland, Slovak Republic, Spain, Luxembourg, Hungary, Netherlands.
[13] For details see the Methodological Annex.

Table 6 presents the results of the E-Party Index (E-PI) when the scores on all six dimensions are simply added together (and given equal weight) in order to produce a single aggregate indicator of the development of their respective websites.

Table 6: E-Party Index

Country	E-party	Standard deviation	N
Germany	62.3	5.4	5
Spain	52.8	6.8	3
Austria	52.4	12.5	4
Sweden	52.3	6.9	7
Czech Republic	50.5	3.6	5
Italy	49.9	11.6	6
United Kingdom	49.6	7.8	3
Greece	48.1	7.5	4
Poland	47.6	6.1	6
Netherlands	47.0	13.5	7
Belgium	46.0	8.7	10
Malta	45.9	3.9	2
Finland	45.9	7.8	7
Luxembourg	41.4	10.5	5
EU	40.7	21.4	6
France	39.9	4.1	3
Denmark	39.8	7.4	6
Hungary	35.8	14.5	4
Lithuania	34.9	7.1	5
Latvia	31.9	10.0	9
Portugal	30.6	20.4	4
Ireland	30.3	9.9	6
Slovak Rep.	30.1	7.5	8
Estonia	28.6	15.0	6
Slovenia	27.5	13.8	8
Cyprus	13.0	5.1	5
EU-15	45.8	12.1	80
AC-10	33.3	13.6	58
Mean/Total	41.3	9.6	144

Note: EU-15 is the average score among the 15 EU Member States legislatures' scores. AC-10 is the average score among the 10 Accession Countries legislatures' scores.

The E-PI provides a basic snapshot of the presence of political parties' websites by country. As we did previously with the E-LI, we have also calculated the average scores for EU-15; the ten accession countries (AC-10) and the whole 26 polities. Germany comes out at the top of the rankings with a score of 62.3%. This is almost 20% higher than the next four countries (Spain, Austria, Sweden and the Czech Republic) which all obtain scores above 50%. Moreover, Germany was also the highest scoring country on the E-Legislature Index. It is worth noting that the Czech Republic forms part of this upper tier, scoring well above all three averages as the highest placed accession country. It is also joined by Poland and Malta, both of which score above the EU average. At the bottom of the country rankings, we again find Cyprus with a very low score of 13%, followed at a distance by Slovenia (27.5) and Estonia (28.6). Of the EU member countries in this lower tier, Ireland and Portugal score considerably

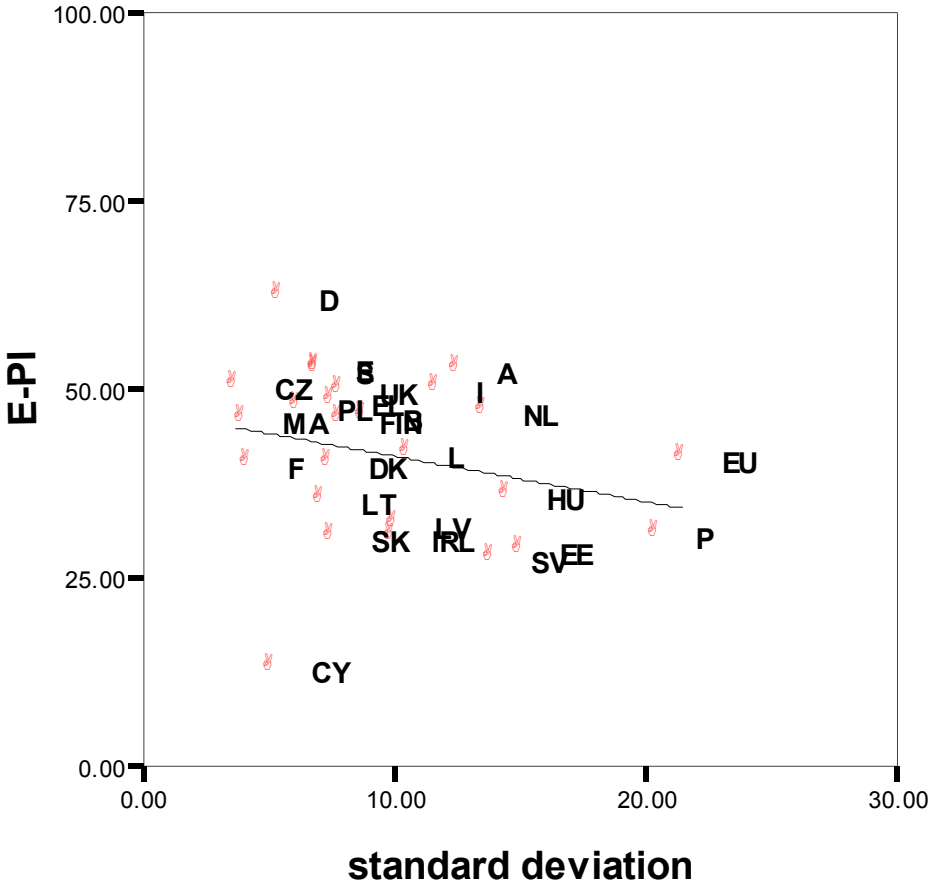
below not only the overall average, but also the AC-10 average. The websites of the parties in the European Parliament also fare relatively badly and score below the EU-15 average – despite the fact that the EP itself had one of the highest E-LI scores.

Table 6 also plots the standard deviations and the number of parties for each polity. Here, we potentially have a test for the hypothesis discussed above, namely, that what we are observing with ICT is an evolutionary process driven by diffusion from early innovators to late adopters. The standard deviation indicates the extent to which the scores for political parties are converging within the national and supra-national contexts. The closer the standard deviation is to 0, the less individual e-party scores deviate from the national mean. Or, in other words, the lower the standard deviation the more homogeneous are parties with regard to their website development. Conversely, a large standard deviation indicates that parties within the national context diverge with regard to their E-PI scores. A first glance at Table 5 suggests that the level of website development that political parties attain is not independent from the respective standard deviation, i.e. the lower the E-PI score, the higher the standard deviation. In order to test this hypothesis more thoroughly, we produce a scatterplot diagram of the two variables.

Figure 4 shows a generally negative relationship between the two variables: the higher the E-Party Index, the lower the standard deviation. Statistically, this relationship is, however, not significant[14]. Nevertheless, the data do suggest that the more that particular parties develop their websites in a specific country, the more likely it is that competitors will do the same and the result tends to be a more even distribution of characteristics. If true, this would mean that, whatever political force – left or right, incumbent or challenger, major or minor – gains some initial advantage by innovating with ICT, this advantage will be ephemeral since its competitors will follow suite.

[14] Pearsons' r = -0.26, sig. ≤ 0.20, n = 26

Figure 4: Scatterplot of Political Parties' Website Development in Europe and Their Standard Deviations



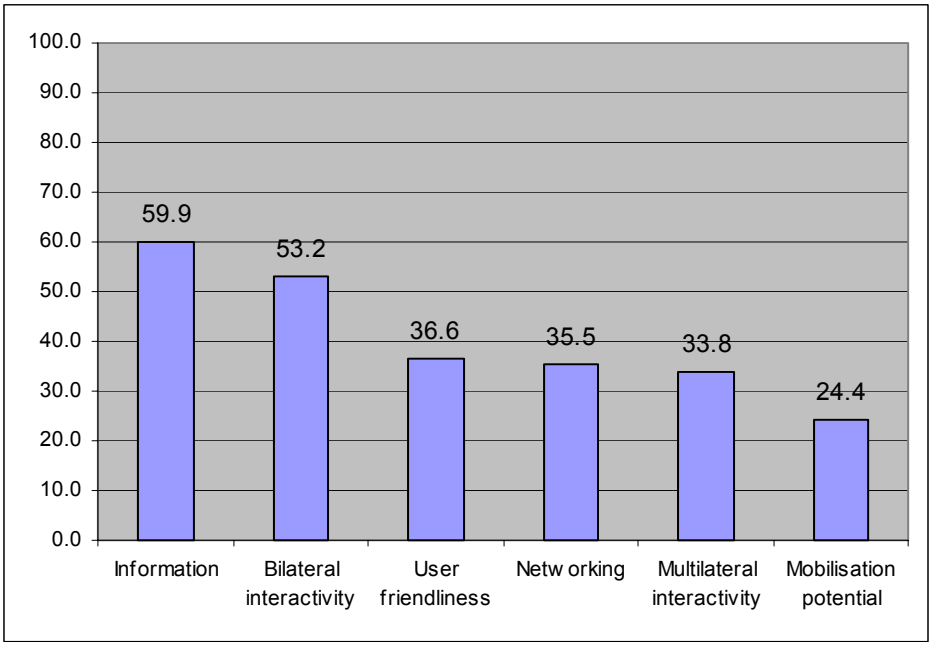
To probe this finding a bit more closely, we decided to take a closer look at the data. Since Cyprus clearly occupies an outlier position - both its E-PI party score and its standard deviation are very low – we excluded this case from the analysis. When we do this, the relationship between the two variables becomes much stronger and statistically significant[15]. This probably means that, due to a "bandwagon effect," once a certain threshold of website development level has been reached, the competitive effect kicks in and parties tend to imitate each other and converge toward a higher national average. Another example of "bandwagoning" seems to be language availability on party websites. Fifty-four per cent of the 144 political parties websites analysed are monolingual; twenty-two per cent are bilingual. A large majority of the former (90%) have English as their one additional language. By itself, this is hardly surprising -- given the predominance of the English language on the internet in general. What is astonishing, however, is the case of Sweden. While very few party websites

[15] Pearsons' r = -0.44, sig. ≤ 0.03, n = 25. Although one could argue that this negative relationship is dependent on the number of cases per country. However, a linear multiple regression analysis reveals that - while still excluding the case of Cyprus – the two variables are intrinsically and significantly linked.

(only 13%) have three or even four additional languages, Swedish political parties – in a country of relative linguistic homogeneity – have a staggering average of 12.6 additional languages. Five out of seven of the Swedish political parties in the sample have included ten or more languages, while the lowest scoring party has six. These include such 'rare and exotic' languages as North and South Kurdish. There can be no explanation of this other than the "bandwagon effect" – unless Swedish parties are somehow compelled to behave like this by law.

As we did previously in the analysis of parliamentary websites, we have broken down the E-Party Index into its constituent parts. Again, our purpose is to assess the strategies national and European political parties choose when developing their websites. This time, however, we have six dimensions to analyze.

Figure 5: Dimensions of political parties' website development in Europe



The histograms in Figure 5 shows a familiar pattern, almost identically to that which we discovered with the four variables in the E-LI analysis. The most important features of ICT for national and European political parties are information provision and bilateral interactivity, just as they were for national and the European parliament. Considerably less importance seems to be attached to the features of user friendliness, networking and multilateral interactivity dimensions. This striking similarity is rather unexpected from a theoretical point of view, since political parties as intermediaries between citizens and rulers "should" have made more of an effort at setting up networks and interacting on a multilateral basis.

Parties in some countries, however, did manage to achieve noteworthy scores, as demonstrated in Table 6. For multilateral interactivity, the five German parties and, from the accession countries, the two Maltese parties have the most developed online forums. At the opposite extreme, the three parties from the UK and the five from Cyprus do not offer any online participatory forums. With regard to the potential for mobilisation, the average is quite a bit lower (26%, as opposed to 37% for networking). The conclusion is inescapable (and

disappointing) that national and European political parties tend to favour the provision of information, i.e. merely displaying their stance on issues or circulating a newsletter, rather than using their websites for the purposes of mobilization. This clearly differs from the United States where websites are used extensively and frequently as platforms for mobilising their followers and, especially, as a means for raising campaign funds. In Europe, a more traditional pattern prevails in which parties provide information more than they attempt to increase their organisational resources over the internet. This, however, does not apply across the board with the two largest countries, the UK and Germany, scoring well above the rest in mobilisation potential.

Table 7: E-Party Index Broken Down into its Six Component Variables

Information		Bilateral interactivity		User friendliness		Networking		Multilateral interactivity		Mobilisation potential	
Czech Republic	78.8	Austria	81.3	Poland	56.0	Greece	71.9	Malta	71.4	Germany	66.2
Greece	76.6	Belgium	77.5	Spain	52.4	Finland	58.9	Germany	68.6	United Kingdom	61.5
United Kingdom	75.0	Czech Republic	77.5	Italy	50.0	United Kingdom	58.3	Hungary	64.3	Netherlands	45.1
Germany	72.5	Sweden	75.0	Sweden	50.0	Austria	57.8	France	57.1	Sweden	42.9
Luxembourg	72.5	Finland	71.4	Germany	48.6	Spain	56.3	Czech Republic	51.4	Austria	38.5
Poland	71.9	Spain	70.8	Malta	46.4	Germany	50.6	Poland	47.6	France	38.5
Spain	70.8	Denmark	68.8	Luxembourg	44.3	Italy	50.0	Estonia	45.2	Italy	35.9
Italy	69.8	Greece	68.8	Czech Republic	41.4	Sweden	49.6	Netherlands	44.9	Spain	33.3
Belgium	68.1	Germany	67.5	Austria	41.1	Luxembourg	47.5	Austria	42.9	Czech Republic	26.2
France	66.7	Poland	64.6	Greece	41.1	Belgium	43.4	European Union	40.5	Greece	23.1
Sweden	66.1	Italy	62.5	United Kingdom	40.5	Netherlands	41.1	Latvia	39.7	Portugal	23.1
Lithuania	62.5	United Kingdom	62.5	Belgium	37.9	European Union	40.6	Slovenia	39.3	Denmark	23.1
Netherlands	62.5	Ireland	58.3	Finland	37.8	Denmark	38.5	Slovak Rep.	37.5	Malta	23.1
Finland	60.7	European Union	56.3	Denmark	36.9	Malta	34.4	Spain	33.3	Belgium	23.1
Denmark	57.3	Netherlands	53.6	Portugal	35.7	Hungary	32.8	Italy	31.0	Finland	22.0
European Union	54.2	Lithuania	50.0	Latvia	35.7	Lithuania	30.0	Sweden	30.6	Hungary	19.2
Austria	53.1	Malta	50.0	Netherlands	34.7	Czech Republic	27.5	Luxembourg	28.6	Poland	19.2
Ireland	53.1	Luxembourg	40.0	European Union	34.5	Poland	26.6	Belgium	25.7	European Union	17.9
Slovak Rep.	53.1	Portugal	34.4	Estonia	33.3	Portugal	26.6	Finland	24.5	Lithuania	16.9
Latvia	52.1	Estonia	33.3	Slovak Rep.	33.0	Slovak Rep.	20.3	Portugal	21.4	Ireland	16.7
Hungary	50.0	France	33.3	Lithuania	32.9	Latvia	18.1	Lithuania	17.1	Luxembourg	15.4
Malta	50.0	Latvia	33.3	France	26.2	France	17.7	Denmark	14.3	Latvia	12.8
Slovenia	48.4	Slovenia	28.1	Hungary	23.2	Ireland	17.7	Ireland	14.3	Slovak Rep.	11.5
Cyprus	42.5	Hungary	25.0	Slovenia	22.3	Slovenia	15.2	Greece	7.1	Slovenia	11.5
Portugal	42.2	Slovak Rep.	25.0	Ireland	21.4	Estonia	14.6	Cyprus	0.0	Estonia	6.4
Estonia	38.5	Cyprus	17.5	Cyprus	4.3	Cyprus	10.6	United Kingdom	0.0	Cyprus	3.1
Mean	60.3	Mean	53.3	Mean	37.0	Mean	36.8	Mean	34.6	Mean	26.0

Table 7 shows that inter-country variance is high for each of the six components in the E-PI, suggesting (but not proving) that strategies differ a great deal and that they may not be fixed. Our guess is that political parties at both the national and the EU levels do not know yet what to do with ICT and are trying a large number of combinations in order to find out. Take, for example, the party groups in the European Parliament. They are just under the mean in information provision and user friendliness, but slightly over it in bilateral interactivity and networking. In multilateral interactivity, they do quite well, but equally poorly in mobilisation potential. Malta is the bantamweight champion, scoring at or above the average in almost every component; Germany is by far the heavy weight champion, followed by the United Kingdom. But what about the Czech Republic in the middle weight category: strong on information (where it is the best in the sample), bilateral interactivity, user friendliness and multilateral interactivity, but only average in potential mobilisation and quite weak in networking.

C) Correlating Variables and Explaining Variation in E-Democratic Potential

So far, we have been describing the potential utility embedded in the websites of parliaments and parties, based on the extensive dataset produced by our collaborators. Occasionally, we have been able to advance some tentative findings concerning the many unknown characteristics of how these institutions are adapting to ICT, but we have paid little to no attention to what causes (or, better, correlates with) the differences we have been observing. We know that the 26 parliaments and 144 parties do vary a great deal in website potential and we have found some consistent patterns, e.g. parliaments and parties in existing member states are better equipped than those in candidate states – although there is considerable overlap and reason to suspect that the Central and Eastern countries are catching up rapidly. We have also discovered that parliamentary use at the national and supra-national levels is more similar than that of parties, suggesting that partisan strategies with regard to E-Democracy are more in flux.

Now it is time to analyze the correlations of these distributions and, where possible, to infer the probable and significant existence of causal factors. The first and most obvious question is whether those countries whose parliaments score high on E-LI also do better on the E-PI scores. Needless to say, this will prove nothing about the specifics of causality. Only detailed and time-dependent case studies will be able to tell us whether parliaments or parties innovated first in the development of their respective websites and whether such early developments served as "models" that the others subsequently imitated. Or, as we shall examine further in this section of the report, whether or not such external factors as economic development, wealth, size of country, use of ICT by the general public, and so forth are correlated with both parliamentary and partisan website potential, making whatever correlation that exists between them spurious, i.e. conjointly produced by a prior factor.

Our hypothesis is that the better developed the websites of national and European parliaments, the better developed will be the websites of their political parties – and *vice versa*.

Figure 6: Scatterplot of E-Legislature Index (E-LI)' and E-Party Index (E-PI): Website Development in Europe

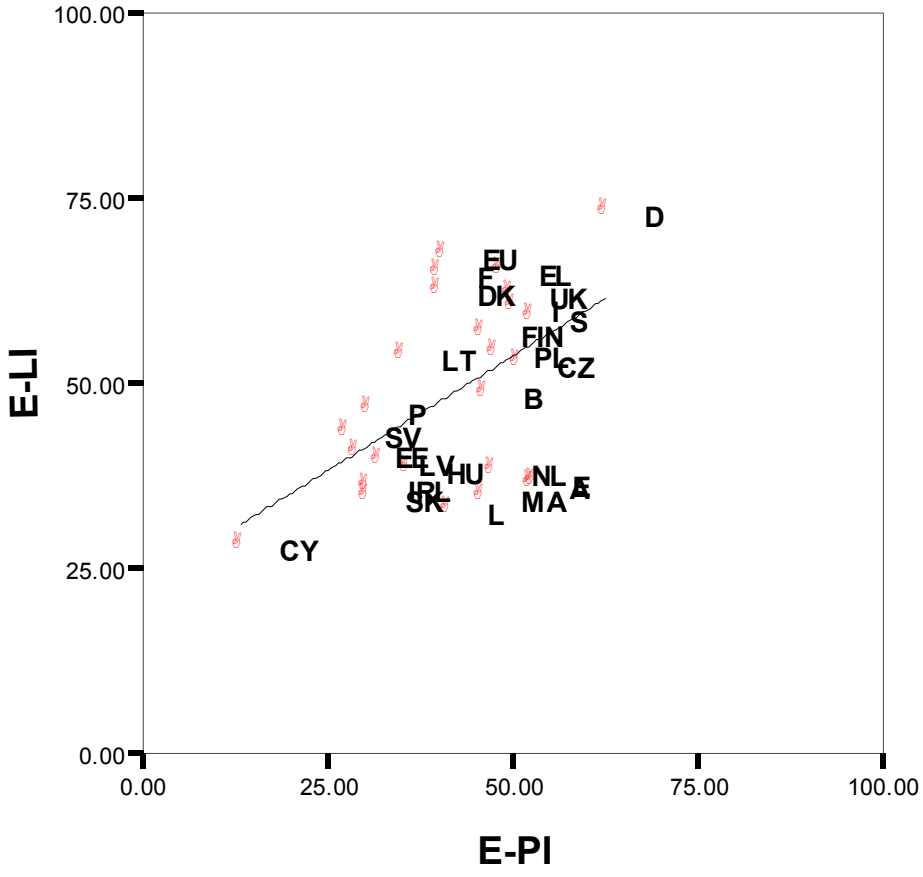
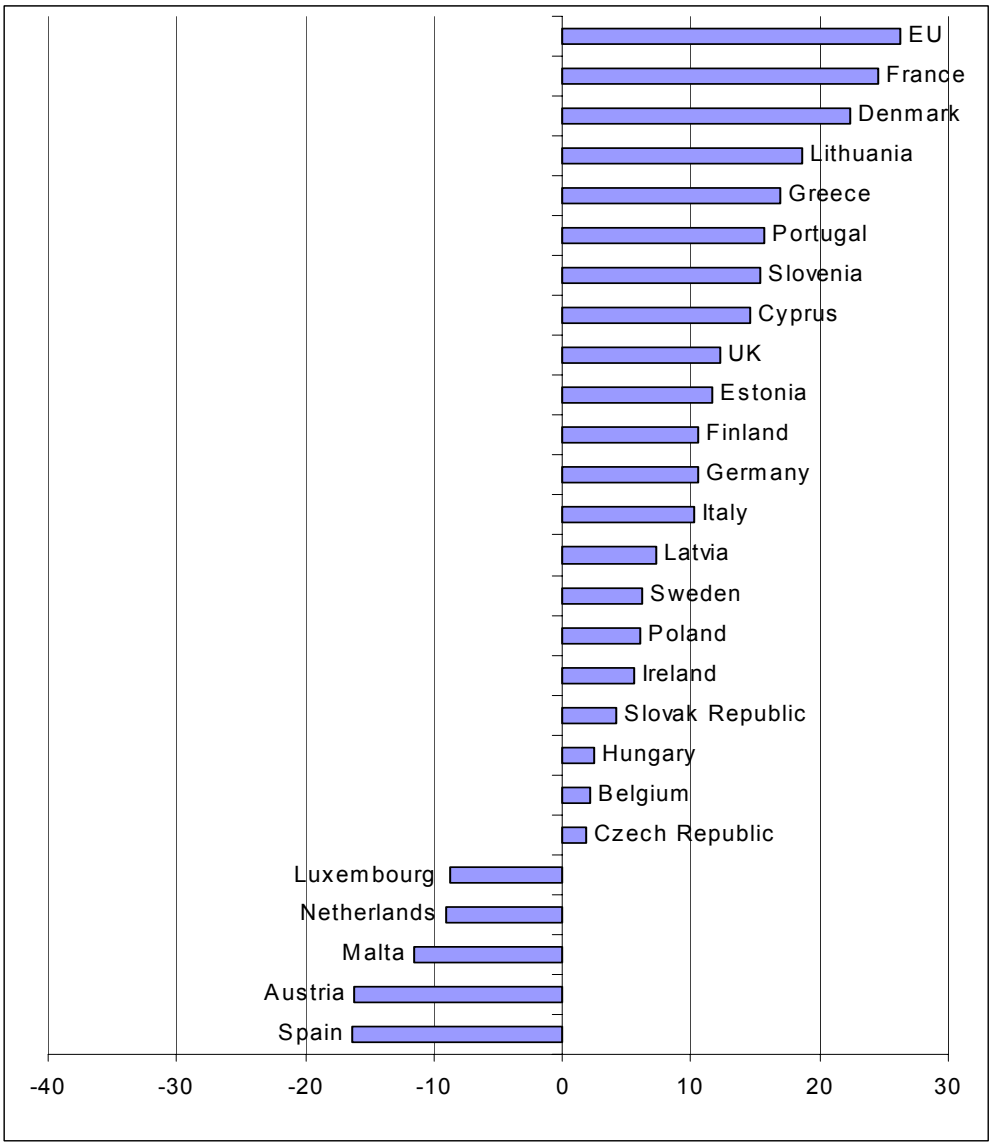


Figure 6 shows that our two compound indexes do co-vary. Knowing the score of one of them does significantly help to predict the score of the other. The higher a given country is on the E-LI, the higher it is likely to be on the E-PI. The correlation coefficient is 0.52 and its statistical significance is ≤ 0.01. In other words, there is less than one chance in one hundred that the distribution in the scatterplot of Figure 6 could be randomly generated. Even if we exclude Cyprus, the negative outlier, the relation remains quite significant[16]. However, if we suppress the data on Germany, the positive outlier, the correlation coefficient is still positive, but it falls to 0.31 and its significance is considerably less than it was (≤ 0.15 vs. <0.01). We remain convinced that website development in the two institutions of representation are somehow positively linked, but we hesitate to suggest that they are causally related in the absence of historical case studies that could prove which of the two was the initiator of ICT use and what mechanisms of learning or imitation were involved. Moreover, the correlation is by no means perfect and some countries are more advanced in E-LI than E-PI – and *vice versa.*

[16] Pearsons' r = 0.43, sig. ≤ 0.04, n = 25

In Figure 7 we have plotted these divergent paths. A positive value at the top of the chart indicates a stronger development of the parliamentary website. A negative value indicates that, on average, political party websites are more developed – compared to the national e-party average – and, inversely, a negative value indicating a more developed political party index. The dominant pattern is quite clear: Legislatures tend to have relatively more developed websites than parties. In twenty-one of the 26 cases, the E-LI had a larger residual value than the E-PI, with the European Parliament far ahead of the pack, followed by France and Denmark. It may just be a coincidence, but the EP is notorious for the weakness of "its" party system. France and Denmark have recently experienced considerable volatility in the electoral fortunes of existing parties and the mobilisation of new ones. However, Italy has had a veritable breakdown of its entire party system and its legislature is only marginally ahead in website development. Also, we hasten to note that in the cases of Latvia, Sweden, Poland, Ireland, Slovak Republic, Hungary, Belgium and the Czech Republic the "superiority" of parliament is only marginal (<10%). The inverse cases, where parties seem to be leading parliaments in E-Democracy potential, are Luxembourg, The Netherlands, Malta, Austria and Spain – all polities known for their relatively well-organised (and publicly well-funded) political parties. We repeat, however, that this significant correlation and pattern of residuals does not prove that the two developments are causally linked, even less that it is the parliament that brings about changes in its respective parties.

Figure 7: Residual Differences between E-LI and E-PI



As mentioned above, no matter how convincing the correlation may be between EL-I and E-PI, it may prove to be spurious, i.e. caused by some general social, economic or political characteristic that affects them both. The literature on the so-called "Cyber-Revolution" has proposed many candidates for the job. Wealth and economic development are the most obvious suspects. Size of the country involved is another. One might also suspect that certain characteristics of the country's party politics might have an effect on website development[17].

[17] For a description of the independent variables used in the subsequent analyses see Methodological Annex.

Table 8: Bivariate Correlations between E-LI & E-PI and Socio-Economic & Political Variables

	E-LI			E-PI		
Independent variables	r	sig.	n	r	sig.	n
Socio-Economic:						
Population						
- including the EU	0.46	*	26	0.16	n.s.	26
- excluding the EU	0.61	**	25	0.56	*	25
GDP per capita in PPS	0.05	n.s.	25	0.32	n.s.	25
Political:						
Fragmentation of party system	-0.06	n.s.	26	-0.21	n.s.	26
Change in turnout between the last two general elections	-0.20	n.s.	26	-0.25	n.s.	26
Size of Party						
- 3 to 9.9% vs. >10% of seats	-	-	-	Eta=0.17	*	144
- 3 to 19.9% vs. >20% of seats	-	-	-	Eta=0.18	*	144
- 3 to 9.9% vs. >20% of seats	-	-	-	Eta=0.21	*	112
Ideological Orientation of Party	-	-	-	Eta=0.23	n.s.	144

* = significant at the 0.05 level; ** = significant at the 0.01 level; n.s. = not significant

Let us take at quick look at some of the most obvious suspects. As Table 8 demonstrates only one thing is strongly correlated, namely, the population of the country. The larger is the political unit (and that includes the mammoth EU), the more developed is its parliamentary website likely to be. If we exclude the EU outlier, the effect becomes even stronger. Presumably, this might be due to some threshold in the sheer size of the legislative staff or to some economy of scale in website development – although as we noted above a small parliament like Denmark's can have a remarkable website with lots of information, interactivity and user-friendliness. There does not, however, seem to be a complimentary effect upon party websites in large countries, unless we exclude the EU. Wealth and economic development, as measured by per capita GNP, has no significant correlation at all with either indicator. Member and candidate states may differ, as we have seen, but not along the line of cleavage between rich and poor countries. Even more surprising in Table 8 is the complete irrelevance of all of the variables intended to measure levels of political participation (electoral turnout), extent of partisan competition (party fragmentation) and ideological orientation (left-right). Only size of party (major-minor) has a statistically significant impact on the E-PI. However, the difference between major and minor parties' E-PI is very small. Depending on the method used, the E-PI of major parties exceeds by no more than 6.5% the score of minor parties. Apart from this minor difference, this finding is quite important. It means that ICT in its early stage of introduction is not being differentially exploited by left-wing or right-wing parties and only marginally more so by major parties. It even does not seem to be affected by

how close the margin of votes is between parties. This is a resounding confirmation of our "ambivalent" hypothesis – surprising only if one presumed that during the initiation of a new political technology some parties might have gained an early advantage and then lost it subsequently due to the bandwagon effect.

Having eliminated most (but not all) of the usual socio-economic-political "background" suspects, we can now turn to some "foreground" factors. The literature on the "Cyber-Revolution" tends to stress the comprehensive and intrusive nature of the process of introducing ICT. According to this vision, the diffusion of computers to home and office, the intensity of their use by a population that is becoming increasingly e-literate, and the filling of the so-called "digital divide" between generations and socio-economic categories will inexorably lead to E-democracy, and the development of websites for parliaments and parties is an obvious intervening step in this process. A noted-authority, Pippa Norris[18], has argued to the effect that "The strongest and most significant indicator of the presence of all parties online is the technological diffusion, measured by proportion of the population online".

Table 9: Bivariate Correlations between E-LI & E-PI and ICT Variables

	E-LI			E-PI		
Independent variables	r	sig.	n	r	sig.	n
Proportion of internet users	0.15	n.s.	23	0.29	n.s.	23
Intensity of internet use	0.25	n.s.	23	0.25	n.s.	23
Index of e-literacy	0.15	n.s.	23	0.33	n.s.	23
Index of digital divide	0.04	n.s.	23	0.34	n.s.	23
Proportion of e-commerce Users among internet users	0.31	n.s.	23	0.38	n.s.	23

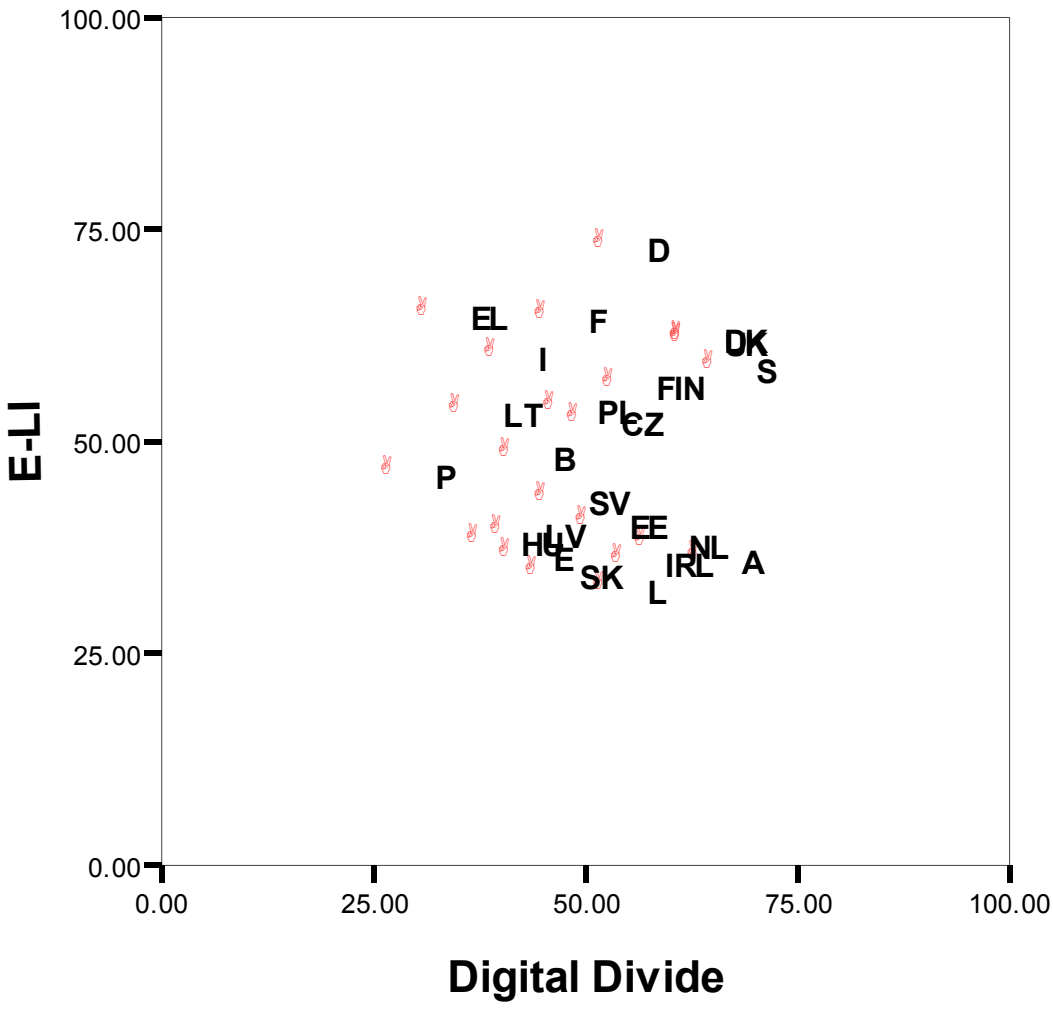
* = significant at the 0.05 level; ** = significant at the 0.01 level; n.s. = not significant

In Table 9, we have assembled a battery of "Cyber-Revolutionary" indicators and examined their bilateral correlations with our indicators for the quality – and not just presence - of the 26 parliamentary and 144 party websites. And we have found **nothing**! Not a single one of these often-used variables – proportion of internet users, intensity of internet use, extent of e-literacy, index of digital divide and proportional use of e-commerce – is capable of predicting either E-LI or P-LI. This constitutes another "non-finding" of potentially great importance. If sustained by other indicators and over an extended period, it implies that there is nothing inexorable or unavoidable about E-Democracy. Individual consumers can buy more ICT and use it more frequently and extensively – even create a "cyber-culture" – without necessarily compelling their representatives in parliament or candidates in elections to make use of the technology of cyber-democracy. Now, we admit that this is a process in its initial stages and that there may be good reasons why politicians do not yet know what to make of ICT; nevertheless, our data call into question one of the most prominent assertions of cyber-enthusiasts. E-Democracy, it would seem, will have to be chosen. It will not evolve as a side-product of other trends in technological innovation.

[18] Norris, Pippa, 2001. "Digital Parties: Civic Engagement and Online Democracy". Paper presented at the ECPR Joint Sessions of Workshops, Grenoble, France, p. 10.

Why this relation seems so indeterminant can be seen more graphically in Figure 8. Here, we find the E-LI scores plotted against the European Commission's indicator of the extent to which the population is "digitally divided" between those who have and do not have access to computer technology. What we find is a completely random "ball" in the middle of the plot with countries that have advanced furthest across the divide, e.g. Sweden, Denmark, Austria, The Netherlands and Finland, not having parliamentary websites as developed as those in countries where the gap between computer "haves and have nots" is much wider, e.g. Germany, France, Italy, Spain and Luxembourg.

Figure 8: Scatterplot between E-LI Scores and the Index for the Digital Divide



The conclusion is inescapable: almost nothing goes. The interesting non-finding is the fact that the digital divide does not appear to have an impact whatsoever. ICT development does not seem to have any effect on e-legislature or e-party indexes. What matters more than ICT development or other institutional variables are the **strategies of political actors**.

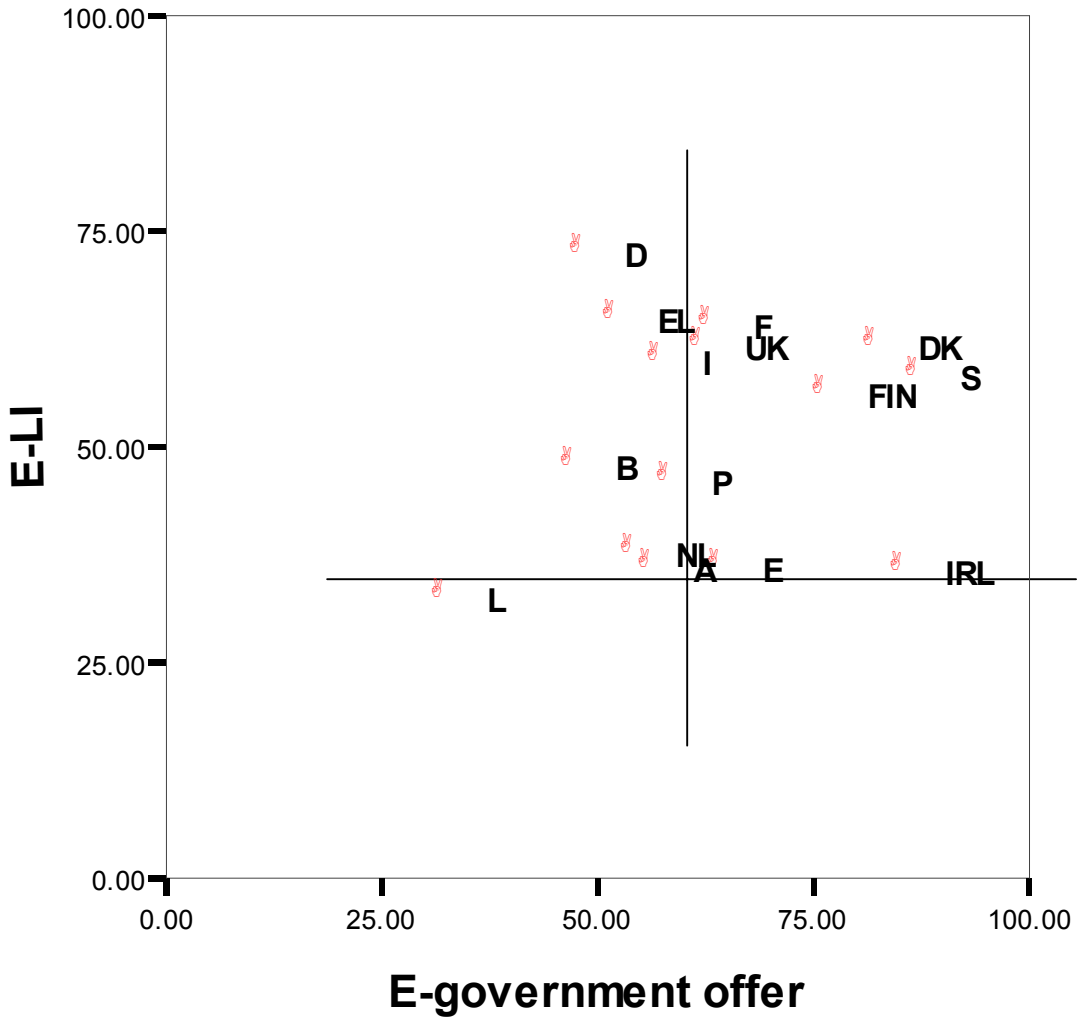
In Table 10, we have examined another such "intra-cybernetic" connection – this one of central political importance – namely, that between E-Government (E-G) and E-Democracy. Is it the case that in those countries in which government services are more available online and used by their residents, the websites of parliaments and parties are more likely to be highly developed? The answer is a resounding (and quite significant) no! It seems that the two are independent developments of the Cyber-revolution, at least, in Europe.

Table 10: Bivariate Correlations between E-LI & E-PI and E- Government Variables

	E-LI			E-PI		
Independent variables	r	sig.	n	r	sig.	n
Proportion of e-government users	0.19	n.s.	15	0.15	n.s.	15
Proportion of basic government services online	0.15	n.s.	15	-0.24	n.s.	15

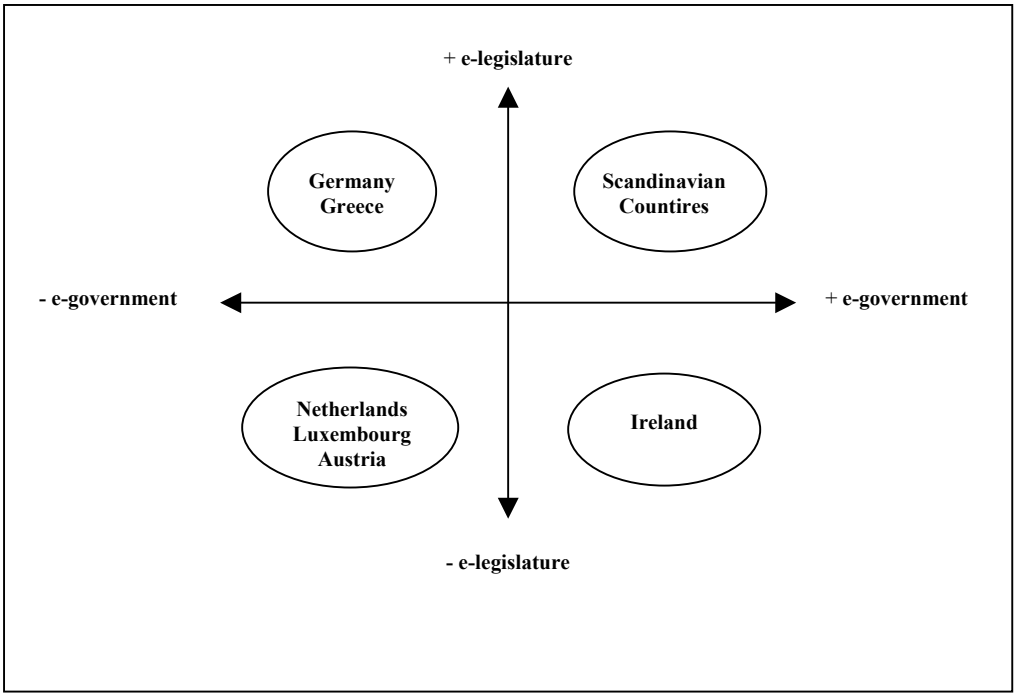
* = significant at the 0.05 level; ** = significant at the 0.01 level; n.s. = not significant

Figure 9: Scatterplot between E-Government Offer of Services and E-LI:EU-15 only



This rather counter-intuitive finding (but one which is quite consistent with our previous "non-finding" with regard to "cyber-variables" in general) allows us to generate a new typology of the ways in which European polities are adapting and adopting ICT in the political realm. By drawing approximate lines through the average scores on the two variables in Figure 9, E-government offer and E-LI, we can observe four distinct clusters among the 15 current member states. These are displayed in Figure 10 below.

Figure 10: Four Clusters of Response to E-Legislature and E-government



In the upper-right hand corner are the Scandinavian countries, relatively far ahead in both E-LI and E-G. Diametrically opposite, we find those who are lagging behind in both dimensions: The Netherlands, Luxembourg and Austria. Germany and Greece are among the leaders in E-LI, but not in E-G. Ireland stands alone in the lower-right hand corner with a relatively high E-G score and a relatively low E-LI score. The remaining polities tend to cluster around the centre, i.e. seem not yet to have defined their national strategies for exploiting politically the opportunities that ICT offers to them. Only detailed and focused case studies could help us explain this unexpected dispersion within Europe. Our aggregate variables of economic wealth, size, and cyber-characteristics have not been of much help, which leads us to suspect that these divergent (if perhaps temporary) outcomes are being driven by specific public policies and political pressures in each of the countries. What these are and whether they will persist in generating such distinctive patterns remains to be discovered.

IV. QUALITATIVE ASPECTS

Our principal aim in this section is to supplement the *quantitative* results of the comparative website analysis by presenting a brief survey of the *qualitative* terrain explored by our collaborators. The e-democratic terrain is uneven and, as revealed by the country reports, conspicuously barren in some patches. To further complicate matters it seems to be enveloped by a conceptual mist that obscures its contours, most vividly with regard to the boundary between e-government and e-democracy. This much is to be expected given the embryonic stage at which we find ourselves. In this section we focus on the contours of the e-democratic terrain surveyed by our collaborators. Copious amounts of data have been collected and assembled, six in-depth case studies and 26 country reports amounting to over 350 pages of text, all of which provide us with a rich qualitative data base to further explore the findings presented in Part III. To aid us in the exploration we return to the working definition of e-democracy provided in Part II:

> e-Democracy consists of all electronic means of communication that enable/empower citizens in their efforts to hold rulers/politicians accountable for their actions in the public realm. Depending on the aspect of democracy being promoted, e-democracy can employ different techniques: (1) for increasing the transparency of the political process; (2) for enhancing the direct involvement and participation of citizens; and (3) improving the quality of opinion formation by opening new spaces of information and deliberation.

As stated in Part II there is a somewhat hazy boundary between the e-democratic terrain and that of e-government. The two may be linked (although the clusters of countries identified in Part III show that this need not be the case), furthermore, they may even share similar techniques. Nonetheless, they are conceptually distinct. E-government refers to the use of information and communication technologies for making government operate more efficiently. The working definition above is, amongst other things, our attempt at making this conceptual distinction clearer. The country reports reveal that the e-government/e-democracy distinction is blurred and that this may be so for some very good reasons. This last point warrants further explication. It is summed up most succinctly in the Lithuanian report where the government plans to use the principles (and technology) of e-government as a gateway to e-democracy. This point is expanded by the UK report which documents how the large and expanding e-government infrastructure provides a potentially rewarding technological platform for further e-democratic experimentation. In the UK the commitment to e-government has been substantial and the same can be said for most of the accession states. Here we come across some interesting findings with the country reports revealing a prioritisation of e-government initiatives, especially in the cases of Estonia, Latvia, Lithuania, Malta, Slovakia, Slovenia. Although this is not always explicitly stated in the country reports, part of the (indirect) push behind the flurry of e-government initiatives can be traced to a very conscious effort, on the part of the European Commission, to promote the technology and especially the infrastructure of e-government in the accession countries.

The push to bring public administrations closer to the citizen using ICTs forms an integral component of the eEurope + Action Plan[19]. The Action Plan argues that "electronic public administration can make a major contribution to accelerating the transition to the knowledge-based economy in the Candidate Countries by stimulating access to and use of basic on-line government services"[20]. Although the eEurope + Action Plan was prepared by the candidate countries themselves the "assistance of the European Commission" is noted in the title. It is essentially a carbon copy of the e-Europe Action Plan (note the missing plus sign) for the EU-15. The plus sign (presumably) draws attention to the extra or specific needs of the candidate countries. In sum, this brings to the fore the proactive push by the Commission to encourage member states and the accession countries to advance the roll out of online government services. The so-called "open method of co-ordination" with its emphasis on learning through monitoring was the preferred means by which to bring about this policy goal. Although it is not possible to infer that the Commission has been the principal driver of initiatives in the domain of e-government it has obliged national governments to focus on a common issue and, perhaps even more importantly, exposed their performance to peer review and public scrutiny. The country reports reflect this prioritisation of e-government which may ultimately, as the Lithuanian and UK reports suggest, offer a gateway to e-democracy.

We now return to our working definition of e-democracy and attempt to identify and provide some real case examples of the techniques of e-democracy and how these are being used to varying results in the European countries we survey. The matrix below conceptually organises five e-techniques we survey according to the particular aspects of democracy they are intending to promote.

[19] See the European Commission's 2001 eEurope + Action Plan available at http://europa.eu.int/information_society/topics/international/regulatory/eeuropeplus/doc/eEurope_june2001.pdf

[20] see ibid pp20

Figure 11: Matrix of e-techniques and aspects of democracy promoted

	ASPECTS OF DEMOCRACY PROMOTED			
		Increasing transparency	**Increasing participation**	**Increasing deliberation**
E-TECHNIQUES	**e-access**	**X**		
	e-consultation		**X**	
	e-petition		**X**	
	e-voting		**X**	
	e-forums			**X**

(1) e-Techniques for increasing transparency
In this section we focus on e-access, which is broadly defined as the use of the internet to improve electronic access to official documents and to political information. The hope of e-democracy advocates is that improved facilities to access official documents and political information will enhance the transparency of the political process and the quality of opinion formation leading to a greater political involvement of citizens.

Our case studies and country reports find that, not surprisingly, e-access seems to be the predominant e-technique for most political actors (Parliaments, political parties, NGOs and intermediary organisations, candidate's website etc.) and at all the levels (local, national, European). This confirms the findings of the comparative website analysis which found that information provision tends to feature as the most important priority for both parliaments and political parties. The accession countries do not seem to be an exception to this rule and offer some interesting examples of e-access. At the local level Slovakia has developed the ISOMI (information systems of town and municipalities) that aims to link each town and municipality, co-ordinating webpage structures and content. The emphasis is clearly on e-access with limited e-consultation initiatives like that of the town of Bratislava[21]. What is perhaps most revealing from the case studies are the variety of forms that e-access can acquire. Indeed, e-access may not even incorporate political information. This is the case for the websites of Greek local authorities that tend to focus disproportionately on offering information about local history, culture, geography and for promoting tourist sites. We cannot generalise from this specific example since Greece is heavily

[21] See www.bratislava.sk.

dependent on its tourist industry. The Italian country report too reveals that political information may not be a top priority. Although the site of the current Prime Minister was well structured and contained plenty of information, further analysis suggests that over time there has been a diminishing provision of political information.

Another important distinction is that political information can also be of a *partisan* or a *plural* nature. The former tends to be the dominant type of information provided by political parties' websites. But, as the case study on Partito Radicale shows, exceptions do exist. Partito Radicale provides an extensive amount of institutional, non mediated and plural information. The question has been raised whether we can expect other parties to follow such an example. This is unlikely since parties do not necessarily have the political incentives to provide a plurality of information to their sympathisers. This is reiterated by the Irish country report which argues that political parties seem to use their website presence as a complementary broadcast opportunity.

Although political parties may not provide a plural/civic information space some country reports suggest that such spaces can be found via other political actors such as NGOs and other intermediary organisations, including the media. In The Netherlands an NGO website[22] offers a comparative presentation of political party programs arranged according to topic, candidate or party and based on demographics such as age, sex and residence of the candidate. A more elaborate information site[23] was developed in Germany for the national election of 2002. The latter not only allowed prominent politicians the opportunity to make their views known but also offered the possibility to contact them and provided political discussion forums.

The Dutch and Finnish country reports identified a particularly interesting form of e-democratic experimentation – a tool which matches website visitor's preferences with the stated political stance of candidates or political parties. This is an interactive technique whereby website visitors answer a series of multiple-choice questions on current affairs issues which are subsequently compared with the information provided by the candidates and political parties. The e-technique identifies the candidates and parties that are closest and furthest from the visitor's political preferences. Such a system has been developed with great success in The Netherlands for the parliamentary elections held in January 2003. For further information on the *StemWijzer*[24], which was consulted over two million times see The Netherlands country report. A similar tool has been used in Finland during the election of 2003[25]. Again, participation was high with several hundred thousand hits during electoral campaigns.

(2) e-Techniques for increasing participation
In this section we focus on three e-techniques: e-consultation, e-petition and e-voting.

We begin with E-consultation which refers to the use of the internet to disseminate to the wider public, experts and interest groups developments in a policy field and invite them to respond. The e-democratic hope behind the promotion of e-consultation

[22] See www.allesoverdeverkiezingen.nl
[23] See www.politik-digital.de/
[24] See www.stemwijzer.nl
[25] A similar initiative is currently developed in Switzerland for the October 2003 Federal elections. See www.smartvote.ch/

techniques is to encourage the general public, interest groups and experts to participate in the decision-making process.

The country reports provide some interesting examples of e-consultation experimentation at different levels and by different actors. At the local level e-consultation experiments have been implemented in various Slovenian municipalities. In France the cities of Issy-les-Moulineaux (see the case study for further details), Vandoeuvre-lès-Nancy and Brest have provided such e-techniques, as has the city of Esslingen in Germany. At the regional level e-consultation has been developed by the regional government of La Rioja (AGORA) in Spain and at the national level there is the example of "Today I Decide" in Estonia. Finally, at the EU level, e-consultation techniques have been adopted for the EU Convention on the Future of Europe. The Convention had a duty to "involve all citizens" as called for by the December 2001 Laeken Declaration. The latter also called for "initiatives to develop a European public area" with the internet as potentially a key factor. In many respects the Convention was an ideal test-case for e-democracy: it combined an opportunity for strong public focus on a high-profile debate and Europe's special need for transparent, transnational, and multilingual connections with citizens. Notably, during most of the Convention process watchers had few other sources of information than the internet. Nonetheless, the forum element (the Futurum website) was not a convincing hub of discussion and the EU Convention President's web-chat was a rare example of interactivity.

The country reports show that e-consultation can take a variety of technological formats (forums, invitation to send e-mails, chat with political leader) and that they can focus on very different topics: from questions related to urban planning to e-consultation on prospective bills ("Today I decide" in Estonia) or on ongoing debates during the Municipal Council meetings (see the case study on Issy-les-Moulineaux). Concerning outcomes, however, the general trend seems to be towards relatively low levels of participation. Moreover, it has been observed that participation is generally dominated by males and opinion leaders (see Issy-les-Moulineaux case study and the German country report on Esslingen).

Different reasons have been put forward for explaining low levels of participation. One common reason is that many citizens feel that their participation will not have any impact on the final decision itself. For example a participant in the Futurum website (on the EU Convention) asked "who reads what we write?". Nonetheless in cases such as Issy-les-Moulineaux, where local representatives respond comprehensively and with attention to detail, participation still tends to be low and elitist.

A second potentially useful participatory e-democratic technique is the so-called e-petition. This tool uses the internet to enable citizens to initiate a petition on a public issue, invite others to signal their support and finally submit their petition. Various initiatives have been identified by the country reports and case studies. Partito Radicale[26] has offered its website visitors the possibility to not only sign petitions online but to also leave personal comments. Moreover, it has also promoted international level petitions by linking up with the Transnational Radical Party. In the

[26] See the case study on Partito Radicale

UK it is possible to send an e-petition directly to the Prime Minister. 10 Downing Street (the Prime Minister's website) accepts and responds online to e-petitions. Organisers are invited to set up a website, to explain the purpose of the petition and to collect signatures electronically. The website contained 14 e-petitions[27] on a variety of topics ranging from the closure of a local school[28] (360 signatures), opposition to a bill on live music[29] (83440 signatures) to an anti-Iraq war e-petition[30] (14479 signatures). While the UK offers a top-down approach the Portuguese country report singles out a relatively successful bottom-up e-petition. The Portuguese GUIA/PASIG (Portuguese Accessibility Special Interest Group), an association promoting the rights of disabled peopled, was able to develop an effective awareness campaign using ICTs. This social movement used online tools to develop mailing lists and online discussion groups to mobilise support. It culminated in the first Portuguese e-petition and legislators have subsequently revised the rules and regulations on popular petitions to accept signatures collected and validated electronically. Other bottom-up e-petitions by civil society organisations were noted in the Slovak country report. The group "Internet for all"[31] began a protest campaign against the increase of internet access prices and "Changenet"[32], another civil society group, initiates e-petitions on issues involving civil society. Although the examples cited above offer some innovative experiments with e-petition, there is no reason to believe – as noted by the Irish report - that e-petitions will become popular in countries which do not have a tradition of such political practices.

The last participatory e-democratic techniques we focus on is one that has probably achieved the greatest degree of media exposure, e-voting. For many countries to offer e-voting is an item of significant controversy and this is especially the case for the United States. Furthermore there is still considerable ambiguity with regard to the precise meaning of the term e-voting. Two e-voting models that markedly differ, in terms of their security implications and the convenience they offer, can be identified. The first model represents less of a departure from existing electoral practices and simply replaces existing paper ballots with a machine that records votes locally then transfers those votes via the internet to election headquarters. The e-democratic implications of model 1 are minor. In the second model voters are offered the possibility of voting from any terminal or computer connected to the internet to cast their vote. The e-democratic implications of model 2 are significant. Both models are the subject of the case study on the Spanish Region of Valencia, with a particular emphasis on the former. We can further distinguish between two types of e-voting:

1) In the first, citizens are offered the possibility to vote online on a specific public issue to be adopted. We refer to this as an *e-referendum* and depending on the national rules, the outcome may be binding or non-binding and initiated by citizens and/or government. An example of this is the binding e-referendum that took place in January 2003 in the commune of Anières (Canton of Geneva, Switzerland). Turnout

[27] Website visited on 1/10/03 see http://www.number-10.gov.uk/output/page297.asp
[28] Petition against the proposed closure of Aycliffe Village Primary School, Submitted on 18 July 2003
[29] Licensing bill effects on live music, submitted on 25 June 2003
[30] No to war on Iraq, Submitted on 11 March 2003
[31] See www.bystro.sk
[32] See www.changenet.sk

was unusually high at over 65 per cent, with almost half of the actual votes cast via the internet[33].

2) The second type can be referred to as an *e-election*. It relates to the use of the internet for casting a ballot that is transmitted to electoral officials via the Internet. It may also include supplementary mechanisms for the online registration of voters. The aim of its promoters is to facilitate greater participation in the electoral process by enhancing voter convenience. In the case of e-elections within parties, e.g. for primaries or for electing party leaders, the vote is transmitted via the internet to party officials.

Apart from the Geneva experience our case studies and country reports do not report any major e-referendum initiatives[34], although, given the proliferation of e-election pilots there is no *a priori* reason to expect that these will not become more prevalent in polities where referendums are feature of the political landscape. Our case studies and country reports do, however, reveal important e-election initiatives. No e-enabled general/national election has yet taken place although much e-democratic experimentation has occurred at the local level. With regard to the former the UK e-envoy envisages a general election after 2006[35] while Estonian plans to hold an e-enabled national election in 2003 have been postponed. The Estonian country report details how this initiative was pursued by a political elite in the absence of political discussion by the media, or academia, and how it was postponed, most likely, because a coalition partner (the Rural Party) feared an erosion of its vote. Concerning the local level the case study on the e-voting pilots in the UK documents how legislative modifications[36] paved the way for e-voting experimentation, which has put the UK in the e-election pole position. However, from a democratic theory perspective a much more promising e-election initiative has been implemented by the Partito Radicale, with its emphasis on the deliberative dimension (online forums) and the extended plurality of online information provided via its website[37].

(3) e-Techniques for promoting new spaces of deliberation

In this section we focus on the development of e-forums. This latter e-technique provides citizens with an online tool that allows them to exchange and share respective political opinions among themselves. The aspiration of e-democracy advocates is that e-forums will enhance the process of citizen's opinion formation through their deliberative engagement.

We saw in the Part III of the report that e-forums were not widely used by European political parties and Parliaments. An overview of the country reports and case studies suggests that with the exception of media sites, e-forums tend not to be widely developed by national, regional or local authorities nor are they widely used by NGOs. With regard to media and other intermediary organisations the accession countries provide some interesting examples. In Slovenia the Union of Engineers (ZSIS) has a developed an online forum for its members while the Slovenian E-Forum

[33] See www.ge.ch

[34] The Latvian report notes, however, that e-referendums are an item on the agenda although no concrete initiative has yet been taken.

[35] See the case study on the e-voting pilots in the UK

[36] The Representation of the People Act 2000

[37] For further information see the Partito Radical case study

(SEF) has developed a communication portal that allows for online participation, e-petition and e-forums concerning environmental issues. Poland's NGOs as well as certain religious groups, have also been experimenting with the interactivity opportunities offered by the internet. However, it is the Polish media sites that are the most advanced and have the necessary resources to develop online interactivity. The major Polish newspaper *Rzeczpospolita*[38], in particular, has lively discussion forums which are moderated. A similar trend occurs in Hungary where one of the biggest players in the Hungarian media sector has an online news portal[39] that regularly provides discussion forums and interviews with politicians in real time and has circa 150,000 users. It appears that minor media players lack the resources, economic and human, to offer such interactivity. Some Hungarian environmental NGOs are also using the internet to mobilise, offer lively forums and provide access to newsletters.

It seems that public authorities are lagging behind in the development of online forums. There are, however, some notable exceptions. The Netherlands country report provides an example of a local level initiative, the Hoogeveen Digital city[40]. It offers three forms of online discussion: the *digital consultation hour* during which a local government representative answers questions posed by local residents related to a particular policy issue. The *digital debate* which was organised as part of the 2002 municipal election campaign. In addition it has a 24-hour *online discussion platform* that resembles conventional internet-based discussion lists. At the regional level in Spain various initiatives have been implemented by a coalition of left and green parties offering the possibility to debate regional issues ("I tu que opinas"). Another example of a regional initiative is the county government in Northern Denmark that has organised a website[41] for the regional elections in 2001, with a focus on creating forums where young people are invited to interact with politicians. The project was quite successful both from the point of view of the quantity and quality of participation.

Generally, however, it has been observed that online forums tend to be rather low in terms of participation and quality. Suggestions have been put forward in some of the country reports on how to deal with this problem. The German country report suggests that in order to promote higher participation in political forums a greater media exposure (especially TV and newspapers) is required while the Danish country report suggests that the quality of the debate can be enhanced through a limited moderation and by clearly structuring debates with a small number of pre-defined debate topics. Finally, the case study of Partito Radicale indicates that the high participation of its forum is rooted in its participatory political culture.

[38] www.rzeczpospolita.pl
[39] www.origo.hu
[40] See www.hoogeveen.nl
[41] See www.nordpol.dk

This qualitative foray into the e-democratic terrain has revealed some notable findings regarding the variety of e-techniques that are being implemented by political actors and the particular aspects of democracy they aim to promote. Much of the experimentation has been undertaken by public authorities at the local/regional levels and, concerning the all important e-forum dimension, by intermediary organisations with significant resources. Of the e-techniques being experimented with, e-access is undoubtedly the most widespread. This much is to be expected given its potential role as a precursor to further e-democratic experimentation. The danger, however, of a *vitrine* phenomenon whereby websites are merely used for displaying political stances on issues or circulating newsletters is ever present. With regard to e-consultation and e-forums, apart from a few notable examples, results have been rather disappointing. At the same time e-voting pilot projects are certainly becoming a more common feature of the European political landscape although, for the time being, the jury is still out on its benefits. One important point must be noted, the e-techniques we have presented above **are not in any way mutually exclusive**. On the contrary, one can imagine - and our survey suggests - that overlapping and mutually reinforcing e-democratic combinations are possible.

V. INSTEAD OF CONCLUSIONS

A study of this nature cannot arrive at conclusions – at least, not in the sense of scientifically established "truths." The subject matter it deals with is simply evolving too fast. Even if our collaborators were diligent, accurate and conscientious in their collection of data (and we believe that they were), the data that they collected some months ago is probably already out of date. The correlations that we have observed (or, better, **not** observed) within and across each unit may not be stable, due to powerful forces of diffusion from one unit to another. We have intervened in the early stages of a process of fundamental change in the technology of democracy and it is much too early to predict how far it is going or how much it will transform the ways in which parliaments and parties operate. Moreover, the time limits imposed upon us mean that we are still far from exploiting all the data that are available to us – something we hope to do in an eventual book-length manuscript in the near future.

All these caveats aside, we have produced some findings. They may prove to be ephemeral, but we are convinced that they are important. And they are unique, in the sense that both the volume of data we have compiled and the variety of methods we have applied to analyze them has not and can not be duplicated anywhere. For the moment and until refuted by subsequent research, we believe that the following observations are valid summaries of the relation between ICT and the development of parliamentary and party websites. Putatively speaking, they are also significant for the evolving relation between ICT and E-Democracy:

There is considerable variation in the use of ICT by both parliaments and parties at the national and supra-national level. We take this as an indirect indicator of uncertainty and experimentation by those involved with regard to the efficacy/efficiency of the multiple applications of ICT to politics. No one yet knows what works best and there is not yet a standard "model" – European or American – for others to copy.

Existing Member states of the European Union have more highly developed parliamentary and party websites than do candidate states. Nevertheless, there is a considerable overlap in this regard and anecdotal evidence suggests that the latter are catching up very fast to the former.

The quality of website development for parliaments and parties are strongly correlated at the national level. We presume that this is most likely due to differences in the quality of ICT expertise (and, perhaps, to the political clout of hardware and software producers) in each country, but have no proof of this.

The quality of parliamentary websites tends to be slightly superior to that of party websites. We interpret this to be due to superior financial resources and to greater staff familiarity with ICT, rather than to a diffusion mechanism whereby parliaments are "teaching" parties how to make use of ICT.

Large countries (with larger and, presumably, more resourceful) parliaments tend to have more developed websites and, by inference, to be further along the route to eventual E-Democracy. This is not true, however, of their political parties. These do no better than those in smaller countries.

Higher levels of wealth and economic development do not automatically produce better websites either for parliaments or for parties. Our interpretation of this finding is that all European countries have crossed the threshold of sufficient development (and sufficient expertise in ICT) and are, therefore, more or less equally capable of experimenting with E-Democracy.

The nature of the party system – its fragmentation, ideological orientation, level of electoral turnout and, to a lesser degree the distribution of major and minor parties – does not seem to have a significant effect upon parliamentary or party website development and, by inference, on the potential for E-Democracy. This is definitely a counter-intuitive finding considering the emphasis placed on these variables when it comes to other aspects of the technology of democracy where innovations by one party tend to force imitation by others. Perhaps, this is an indirect indication that ICT use is still in its infancy and has yet to demonstrate its comparative advantage.

The level of ICT use and access in the general public does not seem to have a corresponding impact upon its use by parliaments or parties, at least not in their development of websites. This may be the most surprising finding of all, since the literature insists that ICT is at the core of a comprehensive Cyber-revolution that is invading and transforming all aspects of our economic, social and political existence. Our interpretation is that movement in the direction of E-Democracy is very much dependent upon political strategy and public policy. It is in other words a discretionary, not an imperative matter. Politicians have to understand what are its advantages and disadvantages and they must decide whether or not to accept its risks. Otherwise, they will ignore or oppose it and continue with their legislative or partisan business as usual.

Our initial "null-hypothesis," namely, that the introduction of ICT would not radically transform the nature of liberal democracy seems, so far, to be confirmed. There is nothing in our correlations that suggests that those units further advanced in their website development have entered into large-scale and irrevocable changes in the way that they practice liberal democracy at either the national or the supra-national level. However, the code word is "so far." We have caught this process at a relatively early stage and it would definitely be premature to assess its eventual impact on the basis of what we have discovered. No one (certainly, not the authors of this report) believes that the impact of ICT will end with the proliferation of better designed websites!

Our "ambivalence" hypothesis, namely, that ICT would not necessarily benefit one party or political force over another, has also stood up rather well. The absence of any correlation between various characteristics of the political process and the level of website development by either parliaments or parties adds some compellingness to our initial argument. However, this finding seems to us to be counter-intuitive since we might have expected some "first-mover" advantages to accrue to those parties – whether major or minor, whether of the Left or the Right – that adopted ICT before the others. Probably, the reason for this is that, having a more developed website, may not yet generate a significant enough advantage over one's political opponents. If and when it does, our assumption would be that this technology

of democracy will be imitated by late-comers and the advantage will eventually be nullified. We accept the laconic conclusion of Joseph S. Nye Jr., a leading American expert on E-Democracy, "One can imagine both a better and a worse political world resulting from the impact of the third information revolution"[42].

Finally, we have anticipated a few critical reactions to our findings. They do not so much invalidate them as qualify their import. Our reader should consider them as "potentially extenuating factors".

Our E-LI and E-PI indicators may not be completely valid indicators of website development by parliaments or parties or both. This is a perennial problem with the social sciences. One is almost always measuring properties of something that is a "theoretical construct" and never measuring the construct itself. There may indeed be other characteristics of websites that might be more significant, even specific to these peculiar political institutions. If so, we have neither found them nor measured them.

Website development may not be as significant a measure of relative progress toward E-Democracy as we have asserted. Since we do not yet know what E-Democracy will be, we cannot know what will precede and lead to it. It is conceivable that a polity (especially at the local level) may move quite dramatically toward, say, E-Voting in elections or referendums without any prior website development at all by its parliament and parties. We doubt this, but could be proven wrong – somewhere.

The analysis of website development pays almost exclusive attention to the supply of ICT-provided information and interactive potentiality and tends to ignore the demand for it. In our one effort to combine the two, i.e. when we tested for the interactivity of parliamentary websites, we came up with a paradox: some of those with the most information, highest user-friendliness and greatest potential for interactivity generated the lowest level of response. This is definitely an aspect of the evolving use of ICT for political purposes that deserves more empirical attention and we hope to provide it in our eventual book manuscript.

[42] "Information Technology and Democratic Governance," in Elaine C. Kamarack & Joseph S. Nye, Jr (eds.), Governance.Com: Democracy in the Information Age (Washington, DC: Brooking Institution Press, 2002), p.11.

VI. RECOMMENDATIONS

We have no recommendations with regard to the promotion or regulation of the use of ICT by parliaments and parties. This is a process that is dynamic and incomplete, and whose connection with eventual e-democracy is, as yet, unclear. Policy intervention whether by national or European authorities could risk not only failing to produce intended results, but also produce unintended and possibly unwanted ones. Our hunch is that, once it is clearly demonstrated that the use of ICT in general and the development of better websites in particular are politically advantageous, this will diffuse itself throughout the respective polities at all levels of aggregation. Competition for votes or for influence will generate a tendency toward saturation in the use of these practices and this outcome should be self-policing. Probably at different rates and times, we infer that these innovations in website development will extend to other technologies of e-democracy.

Our only recommendation is that this report in its entirety be circulated as widely as possible among politicians in parliaments and parties at all levels of Europe's "multi-level system of governance." Thanks to its appendices, every parliament and party will be able to assess its relative position with regard to E-LI and E-PI, and draw their own conclusions about possible improvements. Thanks to its analyses, both politicians and citizens can be reasonably assured that the diffusion of ICT and its use for political purposes in websites has not yet produced major distortions in the conditions under which parties compete for support and parliaments seek legitimacy. We do believe, however, that it is important to monitor these developments for the emergence of potential distortions and suggest that the European Parliament appoint a working group of academics to periodically review its data and results. In a similar vein the European Commission should consider incorporating an e-democracy focus to its future eEurope Action Plans.

* * *

We have taken a long journey into previously un-explored political territory. At best, we have identified some of its emerging characteristics, but there is still a lot more to learn about the magnitude and impact of applying new information and communications technologies to the well-established (but malleable) institutions of liberal democracy. We may eventually arrive at something that could be recognised as electronic democracy, but we are still a long way from it. Moreover, we Europeans do not seem to be following the same trails – especially with regard to the combination of e-government and e-democracy. Whether these different paths to the future will prove to be convergent (as we are inclined to believe) or divergent remains to be discovered.

ANNEX I - CASE STUDIES

Italian Case Study:
The E-Democracy Strategy of
PARTITO RADICALE Online

(By Raphael Kies)

Introduction

Why study Partito Radicale in the context of e-democracy? Why analyze the online strategy of a minor party that is not represented in the Italian legislatures and that has only a few representatives at the European Parliament? We believe there are two main reasons for doing this.

First, from a descriptive point of view, Partito Radicale has implemented some very innovative and interesting e-democratic tools: it is by far the champion in Italy, and probably also in Europe, especially with regard to the possibilities it offers for acquiring political information, online interaction and political involvement. It is, for instance, the only party worldwide to have implemented a system of both online petition and online voting. The object of this paper will be to analyse the e-democratic strategy of this *avant guardiste* party and evaluate its potential practical contribution to broader democratic values, such as the participative and deliberative ideals of democratic theory.

Second, Partito Radicale provides a very lucid example of the equalization potential of the Internet for party competition. Pippa Norris summarizes this potential as follows: "party competition will be maximized through the Internet, given the lower financial barriers smaller parties face when contemplating creating, hosting and maintaining a website compared with the substantial costs necessary to reach the public via television, radio or newspaper advertising, or even the less onerous costs of the mass distribution of conventional printed materials like pamphlets, bumber-sticks and posters"[43]. The additional aim of this paper will be to define the reasons why Partito Radicale is one of the few parties to have taken advantage of this equalization potential and whether we can expect other minor and fringe parties to follow such an example.

Online presence of partito radicale

There are three major web sites that need to be considered in order to analyse and evaluate the e-democratic presence of Partito Radicale: the Italian site of the party (www.radicali.it), the party's radio website (www.radioradicale.it) and the international website of the party, the so-called transnational radical party[44] (RadicalParty.org). The websites will be analysed in terms of three strategic domains: 1) The information strategy, 2) The interactive strategy and 3) The political involvement strategy. Where possible these results will be compared with the scores of the Italian parties presented in the comparative analysis section of this study[45]. This

[43] Norris P. (2001), Digital Parties: Civic Engagement and Online Democracy, ECPR Joint Sessions, Grenoble, www.pippanorris.com.

[44] The transnational radical party is a non-governmental Organization in General Consultative status with the United Nations that defines itself as: "an association of citizens, parliamentarians and members of government of various national and political backgrounds who intend to achieve, through non-violent Gandhian methods, a number of concrete objectives aimed at creating an effective body of international law with respect for individuals and the affirmation of democracy and freedom throughout the world" (http://www.radicalparty.org/welcome2.html)

[45] The Italian parties analysed for STOA are the one that receive more than 3% of the seats in the lower house during the last legislative elections. They comprehend: Forza Italia; Alleanza Nazionale; Democratici di Sinistra; Margherita; Lega Nord; Rifondazione Commuista; Christiano Democratici.

should provide an avenue for making fruitful comparisons regarding the e-democratic achievements of the party.

1) Information strategy

Online information is provided, more or less, by all parties. It constitutes the minimal e-democratic requirement. However, its realization can take two diverging courses: it can be essentially *partisan* in the sense that the party in question uses the website to exclusively reflect its own story, ideas, opinions, projects. Alternatively, it can also be *plural* and even educational by introducing divergent information and conflicting opinions in order to provide citizens with a general and more critical picture of the national and international political issues.

This educational exercise was traditionally fulfilled by parties through meetings and party newspapers but this function has progressively disappeared as a consequence of the *media logic*. The latter, especially television, has progressively transformed - through a 'spectularization' and individualization of politics - the relation between politicians and citizens into more simplified, propagandistic and hierarchical relations[46].

The Internet, some optimists argue, could invert this video logic by giving party leaders the opportunity to provide more comprehensive, plural and non-mediated political information. It could, in other words, contribute to (re)construct the missing links between the party and its sympathizers. But, as this study shows, this not happen: most parties are not willing to sacrifice their limited financial and temporal resources with a view to stimulating critical reflection on the part of its sympathizers through their website. They consider such a strategy to be ineffective or even negative for their electoral ambitions and prefer, as they did for TV, focusing on the propagandistic potential of the Internet.

What about Partito Radicale? Is it more propagandistic or civic oriented?

As to internal information, i.e. information regarding the party's composition and internal activities and projects, Partito Radicale and the Transnational radical party, provide, like most of political parties, information about its history, members, activities, congresses and local sections. More innovatively, they also provide links to issue oriented websites that offer in-depth analyses of the particular subject areas that are deemed to be politically salient[47]. In this vein the cultural/ideological links that the party offers in its different sites should also be noted. During the period in which the analysis was conducted an important matter for the party was the promotion of the Party Secretary's latest book, which appeared as an icon on the screen[48].
As to external information, like many other parties, Partito Radicale offers access to updated and archived national and international *News* sections that focus essentially on the public activities of the party. This 'partisan' information is also complemented in the website of the Transnational Radical Party, which contains an impressive

[46] The most convincing critique of the impact of television of politics is the one of Sartori. See Sartori G. Homo Videns: Televisione e post-pensiero. Roma : Laterza; 2000.
[47] For instance they have developed sites for the promotion of esperanto (Esperanto Radikala Associo), for the reform of the pension (Riformiamo le pensioni), the freedom of research (LucaCoscioni.it), the anti-prohibitionism league (Legha Internationale Antiproibitionista) etc.
[48] The book can be translated as follows: *A Radical Shock for the 21st century*.

amount of updated and archived information (international press release, news section, online campaign and initiatives) concerning global issues in which values of freedom and democracy have been harmed.

However, what constitutes the most relevant e-democratic informative contribution of the party is the vast amount of official, "non mediated" and plural information it provides through the website of its radio (www.radioradicale.it). It has been estimated that more than 220,000 hours of audio and video recordings are archived on the website. Content-wise it includes the main national and international events in the institutional, political, economic, trades union, and judicial spheres[49]. In an interview conducted with the Secretary General of the Radical Party, the latter explained that the aim of the party has always been: "to use the (new) technologies for improving the citizens' knowledge about the political institutions".

To sum up, if the information strategy of Partito Radicale had to be briefly categorized, we could fairly say that it offers a unique online information strategy that combines three types of information: i) the 'normal' partisan information through the website of partito radicale, ii) an NGOs type information through the website of the Transnational Radical Party and iii) a public service's information through the website of radio radicale. In other words, it represents a balanced compromise between partisan and civic information.

A well known argument against the implementation of 'super informative' and non-mediated website such as the one of Radio Radicale, is to argue that it could reinforce the informative advantages of a political elite that is already very well informed and politically involved. Such an evolution, it is argued, would be 'bad' for democracy since it would increase the gap between the information rich and information poor. Nonetheless, one should be careful with this line of reasoning since it presents the risk of preserving even more the informative advantages of the political elite by not leaving possibilities to simple citizens to access non mediated and plural information online.

[49] The non mediated audio-video information provided by the website of Radioradicale are the following:
All the sessions of the Chamber of Deputies since July 1998
All the sessions of the Senate since November 1998
All the main events of the Institutions of the European Union from the Euro age onwards
All the main government press conferences since the beginning of 1999
All the main trials in progress since the beginning of 1999
All the sessions and disciplinary sections of the Magistrates' Governing Council since the second half of 1999
All the public speeches of the leading figures in the political and institutional life of Italy since the beginning of 1999
The most important conferences on the Media and the Information Society since the beginning of 1999
The most important events in the political world since 1999
The most important conferences in the debate on the judicial system
The most important conferences in the economic and trades union debate since 1999
The congresses, press conferences, demonstrations and electoral rallies of all the parties since 1999
Press review of the Italian dailies since June 1998
The main Radio Radicale programmes

A more interesting question is whether we can expect other parties to follow, at least partially, the information strategy of Partito Radicale. As prior suggested, I think other parties will not follow this path since they don't have the incentives and, above all, the political culture for fulfilling this task. Partito Radicale is therefore likely to remain an exception. An exception that finds its roots in its ideological values (transparency, plurality, legality, freedom of expression) and in its long experience of free and plural "real radio". One can nevertheless hope that in the long run a social pressure in the sense of a more plural and alternative information within the political parties' websites will grow.

2) Interaction

Interaction can take a variety of different formats. It can vary in terms of development (e-mail, opinion polls, chat rooms, e-consultation, forums etc.), levels of control/censure (moderator, censure, filters etc.) and can focus on different actors (citizens/citizens, citizens/politicians, politicians/politicians). As with information, the choice of interactive tools and the way they it is implemented will depend, to a large extent, on the parties' political beliefs, experiences and aims. To simplify, we can say that parties can have four non-exclusive ideal types of interactive strategies:

1) No or minimal interaction: It does not develop interactive tools at all or just a very limited version through, for example, e-mails.

2) Propagandistic interaction: Party implements interactive techniques for serving its electoral interest. The techniques will be designed and controlled in such a way that the public outcome of the interaction will always be positive for the party.

3) Feedback interaction: Interactive techniques are developed for getting feedback from its users on specific issues.

4) Community interaction: The interactive tools are implemented to (re)create deliberative community within the party. The aim is to openly discuss political matters and to strengthen the vertical and horizontal links within the members of the party.

Within the Italian context how can we evaluate the interactivity of Partito Radicale? Which types of interactions are promoted: Are these more feedback, propagandistic or community oriented? A way to deal with this question is to see systematically how Partito Radicale has implemented its interactive techniques: e-mail, chat rooms, forums.

E-mail

Like many parties, though not all[50], Partito Radicale offers the possibility to enter into private contact with its members by providing the e-mail addresses of many of them. Users also have the possibility to enter in contact publicly with some political leaders through a system called "direct line" (*linea diretta*). It is the same as sending e-mail, with the difference that the message becomes public once the party representative/official has responded.. With regard to our categorization the "direct line" experience constitutes a limited step towards community interaction since it contributes to the sharing of opinions and ideas with all the 'radical' community. This is not the case with traditional e-mail, which constitutes a more private interaction.

[50] According to the data of STOA for Italy, some major parties in the governmental coalition (Forza Italia; Lega nord) and in opposition (Democratici di Sinistra) do not provide any e-mail of the party leader. According to these same data Forza Italia does not provide any e-mail at all, not even a general e-mail or the one of the webmaster.

Chat room

With regard to chat room, Partito Radicale is the only party, alongside the *Alleanza Nazionale,* to provide for this form of interaction. It is striking, however, to notice that participation is very low, at least this was the case when the analysis was conducted in the chat room of the two parties. This is indicative of the fact that such a system of interaction is not adapted for the interactive needs of a party. Chat rooms fit better for meeting new people, having friendly, provocative or 'light' discussions but certainly not for discussing political issues: they are too fast, too informal, too anonymous and, in sum, too chaotic for politics. For these reasons their use in party's website serve none of the interactive strategies defined above.

Forums

Forums constitute the cardinal indicator for evaluating how community oriented the online strategy of the party is. Given that this is a key question for this study describing how Partito Radicale has developed its forums, how successful they have been in comparison to other political parties in Italy and whether we can expect other political parties to follow the example of Partito Radicale is an instructive exercise.

Partito radicale is, with the two major parties in Italy (Forza Italia and Democratici di Sinistra), one of the few parties to provide discussion forums. Its forums are divided into two categories: the registered forums and the free forums. The former is composed of 15 forums that address issues essentially related to the internal organization of the party and the debates surrounding the online elections (see below). The free forum, on the other hand, is composed of just one forum to which everybody can participate without any formal procedures. When we compare these forums with the ones of other parties, it is striking to notice how active and vibrant they are. This impression is confirmed by the fact that three times more people are registered to the forum of Partito Radicale than Forza Italia's[51] and, on the other, that the rate of participation within the free forum of Partito Radicale is much more important than that of Democratici di Sinistra. An average of 30 daily messages[52] appear for the former while only an average of 18 messages a day[53] for the latter. This difference is all the more significant if we bear in mind that Forza Italia is the most important party in the governmental coalition while Democratici di Sinistra is the most important party of opposition. Even more revealing, is the fact that the two major parties offer just one forum while Partito Radicale provides both a free forum and numerous registered forums.

The forums of Partito Radicale are not only unique in terms of their high rates of participation, they also tend to be more dynamic, plural, transparent and non hierarchical[54]. When interviewed on this issue, the Secretary General, explained that

[51] There are 19036 people registered while Forza Italia had only 6228 registered people (data of Monday 18 August 2003). I could not compare the rate of participation in the two forums since the forum of *Forza Italia* was closed for holidays when I visited it.

[52] In order to measure the participation in the free forum I have taken the messages sent during the last six days starting from August 18, 2003. (18/08: 26; 17/08: 27; 16/08: 37; 15/08: 17; 14/08: 44; 13/08: 30)

[53] Same method. Messages sent during the last six days starting from August 18, 2003. (18/08: 18; 17/08: 23; 16/08: 15; 15/08: 8; 14/08: 26; 13/08: 20)

[54] With regards to transparency, I found particularly revealing that the party published and discussed the letter of resignation of Olivier Dupuis, who was the former president of the Transnational Radical

this is by and large a result of a strategy to encourage a plural participation and an interaction not subject to control and/or intermediaries. This is the case for the radio and, to a greater extent for its website. As the Secretary General puts it: "the philosophy of Partito Radicale is to go on the net without any net".

To come back to our interactive categorization, Partito Radicale has strong community orientation and successfully uses interactive techniques to develop and strengthen horizontal and vertical interactions within the party. Nonetheless, there is still room for improvements such as the development e-consultation measures and a more frequent updating of some services, such as "linea diretta"[55]. On the other, one can appreciate the fact that it has not introduced any opinion polls that have proven to be an e-democratic gadget more than a serious tool[56].

Partito radicale is a small party with scare resources but which has, nonetheless, developed forums of discussion at a much broader scale than major parties. In an interview Emma Bonino, one of the party's charismatic leaders, made clear that for Partito Radicale: "the essence of the Internet is, differently from other instruments, the interaction"[57]. This conviction, shared by the party's members and sympathizers, is what explains both why interactive techniques have been broadly implemented and why they are so intensively used.

3) Political Involvement Strategy

Partito Radicale offers, like many parties in Italy and Europe, the possibility to subscribe online to the party, to make online donation, to take part in demonstrations and to download campaign material. This is not very original or unique. A more interesting indicator of the use of the Internet for promoting political involvement online is the possibility to sign petitions online. Most of the time these possibilities are complemented by a free space where one can leave personal comments[58]. During the period of analysis there were more or less ten national and international petitions between the websites of Partito Radicale and the Transnational Radical Party. In Italy only Democratici di Sinistra offers a similar possibility, but the amount of petitions is much lower and it is not possible to leave comments.

Partito Radicale is also at the forefront of Internet voting. It has conducted two binding online elections (December 2000 and July 2002) for electing one third of its executive board (25 members). These elections where characterized, from the organisational point of view, by the following features: a) they were held exclusively online, b) anyone could participate in the election, either by voting or presenting themselves as a candidate, c) the entire campaign was conducted online, d) forums were organised around the elections.

Party. In this letter Olivier Dupuis presents crudely its divergences with the historical and charismatic leader of the party, Marco Panella. I don't think that many parties would have done the same.

[55] Some leaders did not reply for more than six months. If leaders do not have time to reply in a reasonable period of time they should not provide such a service. It reflects a negative image to the citizens.

[56] A major problem concerning e-petition is that people are auto-elected and can vote as many times they want on a same issue.

[57] Interview for the online news site MediaMente.it: http://www.mediamente.rai.it?mm_it/001122/intebonino.asp

[58] See for example the appeal for the anti-prohibitionist Reform of Drug Laws: http://www.radicalparty.org/lia_paa_appeal_new/form.php?lang=it

From the point view of outcomes, the results of these elections were mixed. They were a success in terms of the possibilities for interaction they provided but a failure from the point of view of turnout. A large drop in turnout has been experienced from the first to the second election. While in December 2000, 10.215 persons voted, in July 2002 only 1.401 persons voted!

Why such a decrease? How can we explain that an election that was so well organised and successful at the start witnessed such a decline with their second trial? Before discussing this drop it is instructive to see how well these online elections were indeed organized. The best way for doing this is to compare then to the other existing I-voting experiences.

I-voting campaign

The comparative analysis of the i-voting campaign is relevant not only for descriptive purposes or for its possible links with the decrease in turnout, but because it is revealing, once again, of the importance that the party gives to community oriented values. Essentially there can be two widely diverging methods for introducing i-voting. On one side of the spectrum i-voting can be introduced without any possibilities of information and interaction. The aim in this case, is to simplify the act of voting and to hope that this will contribute to increase the turnout. At the other end of the spectrum i-voting can be introduced not only for increasing the turnout but also as a way to enhance opinion formation and deliberation between citizens. If so, i-voting will be introduced with what has been elsewhere coined as a 'pre-voting sphere'. The latter refers the information and possibilities of interactions concerning the election that would be implemented in the voting site itself[59]. We can now assess how Partito Radicale has implemented its i-voting experience in comparison with other experiences.

At one extreme there is the simple i-voting system. This is the case of the much quoted *Arizona democratic primaries* online election that took place on March 11, 2000 and of the online local elections organized in the UK in 2002. An official of *election.com*, the company that organized the online elections in Arizona, explained that the experience had a significant "Get out the Vote" component which means that its aim was to encourage people to participate in the election process and not, necessarily, to foster an improvement in the quality of participation.

A more developed version of the 'pre-voting sphere' took place in the commune of Anières (canton of Geneva) in January 2003 and concerned an online referendum. It offered, as a supplementary mode of voting, the possibility of voting via the Internet from the home for a local referendum. The voting website contained links to a PDF

[59] The concept of pre-voting sphere applied to the Internet has been developed for the first time in a report on Internet voting for the canton of Geneva: (Kies R. & A. H. Trechsel, 2001, "Le contexte socio-politique" in A. Auer & A. H. Trechsel (eds.) *Voter par Internet? Le projet e-voting dans le canton the Genève dans une perspective socio-politique et juridique*. Geneva, Basel, Munich: Helbing & Lichtenhahn. http://www.ge.ch/chancellerie/e-government/doc/Voter_par_Internet.pdf). The democratic potentials of the pre-voting sphere, in particular for opinion formation, are further developed in a forthcoming article (Kies R., H. P. Kriesi (2003) "Potential for an European Public Sphere and its Possible Design", Forthcoming publication by Routledge).

version of the official information and spaces for political parties to express their opinions.

A step further in the hierarchy of democratic design of the pre-voting sphere has been reached by ICANN (Internet Corporation for Assigned Names and Numbers) online election that took place over a 10-day voting in October 2000. The aim was to elect five directors for the ICANN Board, one from each of the five geographic regions (Africa, Asia/Australia/Pacific, Europe, Latin America/Caribbean, and North America). Not only did the site offer each candidate the opportunity to present his CV and political program but it also proposed some interesting, though limited, possibilities of interaction between the citizen and the candidate. In fact, people who registered for the election could raise questions to the candidates. These questions were published only if the candidate replied to them[60].

Finally, higher up in the scale, there is the i-election of Partito Radicale which is, arguably, the most advanced trial for informing and involving the citizens. As to the information, the candidates had an equal space at their disposal where they were free to present not only their program but also a personalized picture of themselves. As to interaction, there were open forums of discussion where candidates and electors were invited to deliberate. Moreover, through the system "Questions to the candidate", candidates were asked to reply to the 10 most raised questions by the electors.

The online voting experience of Partito Radicale is once again indicative of the community oriented spirit of the party. In this case the aim was not so much to improve turnout but rather to also strengthen the deliberative dimension. It should be a benchmark for future i-voting experiences.

Turnout failure?

If we return to our question: if election were so well organized why did turnout decrease so markedly? It is an important matter for one could analyse this result as a sign of the ineffectiveness of i-voting for increasing turnout once the novelty effect has vanished[61]. But this would be too simplistic an explanation. Many other factors can explain this drop and it would be hasty to deduce from this particular example that the introduction of i-voting is not effective for boosting electoral participation. Further research is needed.

[60] For further information see data archives of ICAAN I-elections: http://members.icann.org/

[61] This would go in the sense of the argumentation of Pippa Norris. See Norris, P. E-Voting as the Magic Ballot? The impact of Internet voting on turnout in European Parliamentary elections; EUI Conference. Florence; 2002 May, www.pippanorris.com). For a critical summary of arguments concerning possible impact of I-voting on turnout see Trechsel A., F. Mendez, R. Kies (2003), "The European Parliament and the challenge of internet voting", Robert Schuman Center policy paper.

Some final comments

From this brief study we have discovered that not only has Partito Radicale implemented more developed e-democratic tools than other political party Italy but that it has also achieved this with civic/plural/educative ideals in mind:

- As to information it has implemented a very informative and plural website: Radio Radicale.
- With regard to interaction it has created a plurality of successful forums.
- Regarding political involvement measures, Partito Radicale has introduced online petitions and online voting techniques by exploiting the informative and interactive potentialities of the Internet.

To the question whether we can expect other parties, in particular small parties, to follow this example we have suggested it is unlikely essentially because most parties, motivated by short term electoral ambitions, do not have the political culture and the political willingness to develop informative and interactive tools on their website. Could this happen one day? Perhaps, but for now the trend seems much more in the direction of top-down, "vitrine type", partisan information than any increase in the real e-democratic potential of the Internet.

Case Study
e-Voting pilots in the UK

(By Lawrence Pratchett)

Introduction

This case study summarises and analyses the programme of electronic voting (e-voting) pilots that have taken place in UK local government elections since 2000. The programme has covered a range of technologies, varying from touch screen voting within polling stations through to remote voting by mobile (portable) telephone, the Internet or, even, interactive digital television. While the pilots have encountered the occasional technical difficulty, the formal evaluations of them nevertheless indicate that all pilots have successfully achieved their objectives and none have identified any cases of electoral fraud or corruption (Electoral Commission, 2002, 2003). In operational terms, e-voting is deemed a success.

The range of experiments has been wide over the three years that they have taken place (no experiments took place in 2001). Furthermore the scope and scale of e-voting has expanded over this period. In the local elections that took place on 1st May 2003 more than 160,000 citizens cast their votes electronically. There is a significant body of knowledge and experience developing around e-voting within both the public sector and the commercial organisations that have partnered them. In this respect, the prospects for further e-voting experiments in subsequent years and, indeed, the possibility of an e-enabled General Election some time after 2006 (Office of the e-Envoy, 2002), appear to be promising.

On the other hand, it is also worth noting that the overwhelming commitment to e-voting that all central bodies have shown in recent years may just be starting to diminish. Research sponsored by a range of central bodies has demonstrated that while there is no great public opposition to e-voting in the UK it is also evident that there is no great demand for it (Pratchett *et al*, 2002). The results of the 2003 pilots reflect this argument: in the 14 areas that allowed remote e-voting, more than two-thirds of those voting still chose to attend polling stations rather than to cast their vote electronically. More significantly, however, the Electoral Commission have, for the first time, given a much stronger emphasis to postal voting. Their review of the 2003 elections makes a clear case for extending the use of postal voting in local government elections, including a proposal that 'there should be a statutory presumption that all local elections be run as all-postal ballots unless there are compelling reasons why an all-postal ballot would be inappropriate or disadvantageous for a group or group of electors' (Electoral Commission, 2003, p.6). Their view of e-voting is more circumspect, noting simply that 'we are clearly some way from the prospect of an e-enabled general election' (p.7). While they continue to support further development of e-voting, the Electoral Commission has clearly placed its support in favour of all-postal ballots as the future for local elections in the UK.

Background to e-voting in the UK

The Government's commitment to e-voting stems from its wider commitment to place the UK in the vanguard of developments in e-government. Like most European countries, the UK has experienced significant declines in voter turnout in recent decades. In the 2001 General Election only 59 per cent of registered voters went to the polls (the lowest since 1918). Turnout at local elections is even lower, averaging less than 36 per cent in recent years. Experiments with different forms of voting, including e-voting, are seen as one way of addressing citizen disaffection with the democratic

process (DETR, 1998). Local government is seen as a good test bed for innovation in voting practice.

The Representation of the People Act 2000 introduced the opportunity for local authorities to apply to the Secretary of State for approval to vary the way in which they organised and ran local elections, including the innovative use of new technologies. Importantly, all voting experiments have to receive central approval before they can go ahead. The Act also extended the right for all citizens to apply for a postal ballot without having to make a special case for having one. In the 2001 General Election, some 1.4 million voters exercised this right (Electoral Commission 2001).

The Government's commitment to electoral reform and, particularly to e-voting, is well documented. The Office of the e-Envoy (an office based within the Cabinet Office which is charged, among other things, with promoting e-government in the UK) issued a consultation paper on e-democracy in 2002 which spelled out the Government's commitment to hold an e-enabled General Election some time after 2006 (Office of the e-Envoy, 2002). Indeed, it devotes a considerable amount of space to e-voting, including making recommendations on the necessary technical and data standards that would support such a move. While it recognises that e-voting will not greatly increase turnout, at least not on its own, it does justify e-voting in terms of offering voters greater choice and convenience in how they cast their vote. To achieve the target of an e-enabled General Election some time after 2006[62] the implementation programme anticipates and incremental roll-out through an ever-expanding set of pilots, supported by a programme of research. Recent comments from the Electoral Commission notwithstanding, there is a clear and explicit commitment to move the UK to e-enabled elections as soon as possible.

The pilot programme

Since the Representation of the People Act 2000 there have been three sets of voting experiments, in each case including some form of e-voting. May 2000, May 2002 and May 2003: no experiments were allowed in the 2001 local elections because they coincided with voting in a General Election. The details of these elections are briefly discussed below and are summarised in Tables 1 and 2.

May 2000

In the May 2000 local elections the emphasis was upon piloting a range of different voting innovations, including all-postal ballots (7 authorities), advance or early voting (15 authorities), extended polling hours (2 authorities), weekend polling (1 authority)[63], electronic counting of paper ballots (2 authorities) and electronic voting within polling stations (3 authorities)[64]. Much of the costs associated with these experiments were met by central government. However, there was no remote e-voting

[62] The presumption is that an e-enabled General election will take place sometime around 2010 – the General Election after next. There is no fixed cycle of elections to Parliament in the UK but the Prime Minister must call a General Election within five years of that Parliament first sitting. It is expected that there will be General Elections sometime in 2005/6 and 2009/10.

[63] Traditionally, voting in local elections occurs on the first Thursday in May.

[64] In addition, the votes for the newly created Mayor and Assembly for London were also counted electronically on the same day – with some notable problems (see: Independent Commission on Alternative Voting Methods, 2002).

piloted in this first round. The conclusion from these pilots was that only remote voting through postal ballots had successfully increased turnout (Local Government Association, 2000).

May 2002
The May 2002 local elections were the first public elections in the UK to allow remote e-voting. While some areas also experimented with postal ballots and other innovations, only those that included an electronic component received financial support from central government. The key feature of these experiments was the different forms of remote e-voting that were piloted. Out of 17 local authorities that received funding for their experiments, only five allowed remote e-voting to take place: the others concentrated upon kiosk voting within polling stations or other nominated sites and electronic counting methods. Remote e-voting involved a number of different channels. All five of the pilot authorities allowed Internet voting, four allowed telephone voting and two allowed SMS text messaging as a means of casting a vote. Three also included kiosk voting to complement this process.

The experiments were limited, however, in two important respects. First, in four out of five of the local authorities remote e-voting was only allowed in a narrowly selected number of wards, limiting the number of eligible voters to a few thousand in each instance. Only in Swindon were all eligible voters allowed to cast an electronic vote if they preferred. Second, remote e-voting took place in 'real time' in only two of the five areas (Liverpool and Sheffield). In the remaining three, voters were allowed to cast remote electronic votes in advance of the election but were prevented from doing so on election day – those who had not voted remotely had to attend the polling station to vote on the day. The reason for this was that these authorities did not have the technical capacity to maintain an up to date on-line record of those who had voted that could be linked in to the traditional polling stations. By closing remote e-voting before polling day these authorities were then able to produce a log of people still eligible to vote.

The 2002 pilots were operationally successful in as far as they did not encounter any significant problems. Across the five remote e-voting pilots, 9,479 people voted by Internet (14.6 per cent of all voters), 3,934 voted by telephone (6.1 per cent) and 1,772 voted by SMS text (2.7 per cent). No evidence of electoral fraud was identified and all pilots passed off smoothly. Furthermore, the pilots provided some important learning experiences not only in relation to the technical aspects of e-voting but also in terms of voter behaviour. Swindon, for example, tracked the times when people voted to analyse the peaks and troughs of voting behaviour and arranged an exit poll to ask Internet voters to provide demographic information. However, the remote e-voting pilots did little to boost turnout in their respective areas. Although turnout increased by some 3 per cent in this year, in most areas that used remote e-voting the recorded increase in turnout was lower than the overall average. Once again, the Electoral Commission found that postal voting had a far greater impact on voter turnout than e-voting.

May 2003
The most recent local elections in May 2003 saw the e-voting programme expanded. Overall there were 14 remote e-voting pilots: all 14 allowed Internet voting, 13 allowed telephone voting, four allowed text voting and eight provided kiosks for

voters without access to these other facilities. In addition, for the first time in the UK, three areas experimented with voting via interactive digital TV. The other feature of these pilots was that the area covered was significantly bigger: all eligible voters in each local authority had the opportunity to participate in the e-voting pilot and not simply those in selected wards. In total, more than 160,000 people voted by electronic means in the 2003 pilots.

Once again, these pilots were held to be an operational success. However, although the opportunity for e-voting was greatly extended, its take-up was similar to the previous year (see Table 2). In those areas where each form of voting was available, 12.6 per cent used the Internet, 7.1 per cent used the telephone, 3.8 per cent used text messaging and 1.2 per cent used digital TV. Voting at the polling station or by post still remains overwhelmingly popular among UK voters, even where they are offered a variety of hi-tech 21st century possibilities.

Security was given a much higher profile at these elections. Since the 2002 pilots the Government's Communications Electronics Security Group (CESG) has published its technical 'solution' to e-voting security and the Electoral Commission evaluated each of the 2003 pilots against this benchmark. It concluded that 'there are a number of areas where security can be improved' (2003, p58), especially if the scale of e-voting is to increase in subsequent pilots. However, once again, no significant fraud was detected.

Organisation and costs

In all cases, the e-voting pilots in the UK have been locally initiated and organised but with central co-ordination. This is very different from the development of e-voting in other countries such as the Netherlands, where central government is directly involved in the specification and procurement of e-voting. Central government is responsible for the pilots in so far as it funds aspects of their development and is responsible for the oversight of the scheme. However, each local authority remains responsible for the implementation of e-voting and its consequences.

The process for the pilots in each of the years has been as follows:

- Central government enters into a framework agreement with a range of commercial suppliers of e-voting solutions. This framework agreement fixes the cost of supplying particular resources. Only companies that enter into the framework agreement can take part in the e-voting pilots.
- Separately, central government invites local authorities to consider schemes that they would like to run and accepts proposals from them. At this stage local authorities do not enter into any commercial arrangement with suppliers, although they may have had discussions with suppliers and will indicate this in their proposal.
- Central government approves pilots by matching commercial suppliers to local authority proposals. In 2003 particular emphasis was given to the security arrangements in place and the quality assurance and project management systems that would be used.
- The detail of each pilot is negotiated and implemented between the local authority and the commercial supplier, based on the costs agreed within the framework agreement.

- Central government pays the costs of the commercial suppliers direct to the appropriate organisations. Local authorities meet their own operational costs (although there is some provision for additional costs incurred by local authorities to be claimed from central government).
- After the election the Electoral Commission evaluates each pilot and produces a strategic review of them.

The consequence of this process is that each pilot is independent from all others and is the responsibility of those implementing it. Learning across areas occurs through established networks (such as the Association of Electoral Administrators) or through the commercial suppliers, who are normally working with more than one authority at any time. While central government does fund and have oversight of the pilots, their operation is highly devolved. The types of project that come forward are also dependent upon what local authorities decide they would like to experiment with.

The costs of e-voting pilots are, for the time being at least, much higher than the costs of traditional elections. The combined costs for the five remote e-voting experiments in 2002, in which a total of 15,200 people used the remote e-voting channels was £2,254,000 (approximately €3,156,000): an average cost per remote e-vote of £148 (€207). In 2003 the overall cost was in excess of £18 million (€25 million), although this did include some e-counting as well. With 160,000 remote e-votes, the overall cost per vote was lower, at £112 (€157) but still considerably more expensive than traditional voting. In addition, it must also be remembered that all of these pilots also maintained traditional voting channels, either through polling stations or postal ballots. The costs of these pilots were in addition to the normal election costs.

Given that the vast majority of these costs relate to infrastructure rather than use there is a clear relationship between increased take-up of e-voting and reducing costs per vote. The more people that use e-voting the more economical it will be, especially if traditional channels are withdrawn. However, as the generally low take-up of these channels in the 2002 and 2003 pilots has shown, the UK is probably a long way from being able to do so without having a damaging effect upon turnout.

Lessons for e-democracy

There is not a consensus over the need for e-voting in the UK. Significant doubts over the security of e-voting remain. Furthermore, there are grave concerns over the loss of privacy that e-voting may allow and the subsequent disenfranchisement that this may lead to in many social contexts. In particular, there are concerns that 'family voting' and other corrupt practices will become a feature of UK voting behaviour. There is also a body of work that argues that e-voting is illegal not only in UK law but also in international law, precisely because it breaches the individual's right to privacy when voting (Watt, 2002). These important issues aside, there are still problems over who has access to the technology and is willing to use it for democratic participation. Nevertheless, the UK continues to push ahead with e-voting pilots.

It seems likely that the UK will continue to develop its experience and expertise in different forms of remote e-voting. However, some of the impetus that existed for e-voting appears to be being lost as voters opt for postal voting rather than e-voting. The UK is still interested in implementing e-voting but, perhaps, with slightly less haste than it was suggesting a few years ago.

References

Electoral Commission (2001) *Election 2001: The Official Results* London: Electoral Commission.

Electoral Commission (2002) *Modernising Elections: A Strategic Evaluation of the 2002 Electoral Pilot Schemes* London: Electoral Commission.

Electoral Commission (2003) *The Shape of Elections to Come: A Strategic Evaluation of the 2003 Electoral Pilot Schemes* London: Electoral Commission.

Independent Commission on Alternative Voting Methods (2002) *Elections in the 21st Century: From Paper Ballot to e-Voting* London: Electoral Reform Society.

Local Government Association (2000) *Elections –the 21st Century Model: An Evaluation of the May 2000 Local Electoral Pilots* London: Local Government Association.

Office of the e-Envoy (2002) *In the service of democracy: a consultation paper on a policy for electronic democracy* http://www.edemocracy.gov.uk

Pratchett, L., Birch, S., Candy, S., Fairweather, N., Rogerson, S., Stone, V., Watt, B., and Wingfield, M. (2002) *The Implementation of Electronic Voting in the UK* London: Local Government Association.

Watt, R. (2002) *The Implementation of Electronic Voting: Legal Issues* www.odpm.gov.uk

Table 1 – summary of e-voting pilots May 2000 - 2003

	May 2000	May 2002	May 2003
Electronic counting of paper ballots	2	8	3
Electronic voting within polling stations	3	2	2
Remote voting by Internet	-	5	14
Remote voting by touch tone telephone	-	3	13
Remote voting by SMS text	-	2	4
Remote voting by digital TV	-	-	3

Table 2 – summary of usage of remote e-voting channels where they have been made available

	May 2002	May 2003
Remote voting by Internet	14.6%	12.6%
Remote voting by touch tone telephone	6.1%	7.1%
Remote voting by SMS text	2.7%	3.8%
Remote voting by digital TV	-	1.2%

Case Study

Implementation of e-voting procedures in the Region of Valencia (Grupo de Política de Telecomunicaciones y Sociedad de la Información)

Abstract
This case study is focused on the regional level. It leverages on the experiences carried out and planned by the Government of the Region of Valencia in electronic voting.

Specifically, it addresses the deployment of electronic ballot boxes in the elections to the regional legislature as well as the prospective study of the Internet voting. The case study builds on the results of several seminars and interviews with Public Administration officials involved in the elections operation and in the electronic ballot box project, termed Infovot.

The case study will describe the project from the technical and economical viewpoints, and it will analyse the normative implications on the current Spanish electoral legislation.

This report has been written in the framework of the Jean Monnet Chair in Telecommunications and Information Society Policy at the Universidad Politécnica de Valencia, in close collaboration with the Directorate-General of Telecommunications and Modernisation in the Valencian Regional Government – responsible for the organisation of the technological aspects of the regional elections and the process of modernising the public administration as well as supporting the development of information society in the Region of Valencia.

Context
The Valencian Regional Government has been responsible for organising elections to the Valencian Parliament since the approval of the Statute of Autonomy in 1983. The task of collecting and counting the results of these elections has been the continuous responsibility of an administrative Unit that currently forms part of the Directorate-General of Telecommunications and Regional Government Modernisation, hereafter DGT.

The Valencian government has just finished its fifth term (1999-2003) and has been developing a second regional modernisation plan called "moderniza.com"[65], for the last three years. The Plan includes nearly 100 projects for encouraging and developing regional growth of the information society in its various areas of activity and responsibility. The plan has been allocated a budget of 240 million € for the 2000-2003 period. This context demonstrates that the activities of the Valencian government regarding the electronic voting form part of a long tradition of regional responsibility and experience in applying information technology solutions. The task of planning and executing "moderniza.com" has been the responsibility of the DGT.

The first electronic voting trials took place during the 1999 regional elections and activities since then have been part of the Infovot project – inside the moderniza.com project. The Infovot project consists of the implementation of a voting and counting system for regional elections based on new information technologies. To achieve the effective implementation of this system, a wide-ranging study of the viability of Internet voting and the integration of new technologies in the electoral process was

[65] See http://www.moderniza.com (in Spanish and Catalan).

undertaken; furthermore, the economic, social, and political impacts arising from this change in the voting system was assessed.

The Infovot project was undertaken by the Valencian Information Society Office Foundation (OVSI)[66], which conducted the procurement process and acted as a supervisor, on behalf of the DGT. The Infovot project spanned for the period 2000–2001, and was allocated a budget of around 300,000 €.

The Infovot Project has focused on two activities: voting with electronic ballot boxes; and voting by Internet. As part of the project, a prototype model of an electronic ballot box has been developed and tested. On November, 29th, 2001, the elections for students representatives for the University Senate at the University of Valencia took place. Nearly 50,000 students had the right to vote. What was really new this time was the use of electronic ballot boxes developed by the Infovot project. The use of the electronic ballot boxes made feasible to gather the provisional counting results within minutes of the polling table closing and to access the information through the Infovot web site. Through this pilot, the social and political analysis that were conducted proved that the vote is kept secret and that it does not change the traditional voting procedures. On the other hand, it was demonstrated that the time and effort needed for the counting is significantly reduced, which allowed an instant communication of the electoral results to the public.

The case study

Operation: Electronic ballot box
The Infovot electronic ballot box is a device for electronic counting which is placed on the upper part of a traditional ballot box (Fig. 1). This device can read and count the ballot papers as they are introduced in the ballot box. This reading and counting is made by an infrared reader, which decodes the different pseudo-bar codes printed in each one of the ballot papers (Fig. 3). As usual, the ballot papers are enclosed in an envelope and are stored in the ballot box, if manual counting were requested by any representative.

The development of the electronic ballot box was awarded to "Abacus, Software de Gestión, S.L.", following a public procurement process.

The traditional voting procedure does not suffer any significant change when the Infovot device is used. The only differences are the following: the ballot paper may not be folded; the envelope is slightly larger for holding the unfolded ballot paper; and the ballot box has the Infovot device placed on its upper face.

On the election day, the president of the polling table "opens" the electronic ballot box using a coded paper for initialisation (Fig. 4). After the initialisation, voters may vote.

The voters will attend the voting centre as usual. They may carry their ballot paper from home, as usual, since ballot paper mailing is allowed, or they may collect them

[66] The OVSI Foundation is commissioned by the Valencian Government for information society projects coordination, such as Infovot, or Infoville. See http://www.ovsi.com (in Spanish).

at the polling station. The pseudo-bar codes of each candidature may be checked against the information panels. The only difference is that the ballot paper should not be folded; otherwise, the infrared reader will not be able to accurately read the code through the envelope.

Once the voter is at his/her voting centre, he/she should prove his/her identity and then he may hand the envelope over. The envelope will cross the Infovot device and will finally go into the ballot box (Fig. 2).

When the election day comes to an end, the president "closes" the electronic ballot box using a coded paper for closing. Then, the device prints out the counting results for record keeping at the polling table and sends the results through GSM/SMS for provisional results gathering at the computing centre. At the request of any representative, the results may be checked through manual counting.

The procedure finalizes when the results are received at the computing centre, and the provisional results are made public. The definitive results are gathered following the traditional procedures.

Fig.1: The Infovot device

Fig. 2: Infovot operation

Fig. 3: Infovot ballot paper

Fig. 4: Infovot table opening paper

Internet voting

The Valencian Government has carried out a prospective study of the introduction of Internet voting in the elections to the Valencian Parliament. The study has focused on the process management and cost estimation issues[67].

The most general scenario for Internet voting comprises the possibility that any voter that is accredited to vote by Internet may vote at his/her polling station. In some ways, it resembles the traditional procedure for voting by mail, insofar as requesting to vote by mail does not prevent the voter from voting at the polling station instead. Double voting is currently avoided by rejecting any mail vote from a voter that has actually voted at the polling station. Internet voting should also prevent double voting.

Internet voting adds new functional requirements. Firstly, a Certification Authority is required for providing each Internet voters with a digital certificate. Once Internet voters are accredited by means of the issuing of a certificate, voting by Internet should be enabled. Thus, a system for Internet voting management must be implemented, which authenticates voters and receives ballots. And finally, double voting should be avoided: a system for voter control is needed, which stores the list of Internet voters, and register whether each Internet voter has already voted, either by Internet or at the polling station. Nevertheless, the whole technical and human infrastructure needed for traditional voting is still required.

As regards the Certification Authority, many Administrations have already set up such service for e-government deployment, either by its own or through outsourcing. On the other hand, both the Internet voting management system and the voter control system must be developed and deployed. The Internet voting management system is a Internet-connected system that authenticates voters by means of his/her digital certificate, secures the session during the voting and stores votes until the counting. The whole voting process must ensure secrecy –the vote content should not be disclosed, integrity –the vote content should no be modified, and non repudiation –the voter should not be able to refuse having cast the vote. The voter control system is an Internet-connected system which registers whether an Internet voter has voted by Internet or at his/her polling station; and requires permanent availability during the election day for queries coming from the Internet voting management system and from each polling station where Internet voters may eventually attend for voting.

Both systems are easy to develop, but deployment should face the issue of reliability. The systems should be configured in mirror mode, with redundant processor and security back-up systems. Additionally, the voter control system is crucial for the Internet voting success. Failure or performance degradation would not only prevent Internet voters from voting by Internet, but also from voting at the polling station, since information about his/her voting completion could not then be obtained.

Cost estimation

The key figures for the 1999 Valencian Parliament elections are the following. The population at the Region of Valencia was 4,023,000 inhabitants; the number of

[67] Alabau, A. & Benedito, J., An engineering approach to Internet voting systems. Reflections from an European Region, *in Proc. International Working Conference on introducing Internet-voting mechanisms for European Parliamentary Elections*, Florence, 2002.

registered voters was 3,362,000 and the participation reached 67.97 %. The number of polling tables was 5,100, and the average number of voters per polling table was 660.

The election management cost using the traditional procedures, according to the 1999 regional elections data, was 2.7 million €. The cost of computing and communication infrastructure deployed for result collection amounted to 450,000€, which is the 16.7%.

The cost of electronic ballot box deployment is due exclusively to the ballot boxes. The estimated cost of each electronic ballot box is 600€. The estimated cost of renting each box is 15% of its cost, that is, 90€. Therefore, the estimated cost of renting the 5,100 ballot boxes is 459,000€, which should be added to the 1999 election cost figures.

On the other hand, the cost of Internet voting deployment should be allocated to the following items:

- The cost of the digital certificate generation infrastructure is 6,000€, plus 3€ per digital certificate on CD.
- The cost of the Internet voting management system is 400,000€ for the computing elements, 156,000€ for ISP connections[68], and 30,000€ for the generation of the digital certificates of each polling table. This amounts to 586,000€.
- The cost of the voter control system is 500,000€ for the computing elements, and 156,000€ for ISP connections[68], which amounts to 856,000€.
- The polling station conditioning for Internet voting amounts to 1.53 million € for PC renting at each polling table[69], and 51,000€ for Internet access provision at each polling station, which amounts to 2.04 million €.

The total amount is around 3.5 million €, which should be added to the 1999 election cost figures. Surprisingly, the largest cost associated with Internet voting deployment is the polling station conditioning.

Process Management

As regards the vote cast, in the traditional voting process, the steps involved are the following:

- The voter identifies him/herself by means of the national ID card
- The polling table officials check that he/she is included in the electoral census, which should have been provided by the electoral management body before the election day
- Once authorised, the voter may cast his/her vote in the ballot box

When Internet voting is enabled, the steps involved in the vote cast at the polling station are slightly modified:

[68] One twelfth of annual service cost of a 34 Mbps link and 2Mbps backup link.
[69] Renting cost is estimated as the 10% of the price of a PC, 1,500€, and one PC and one backup PC is needed for each polling table.

- The voter identifies him/herself by means of the national ID card
- The polling table officials check whether he/she is included in the electoral census, and whether he/she has voted by Internet before. This checking is conducted through the terminal at the polling table by means of a query sent through Internet to the voter control system
- Once authorised, the voter may cast his/her vote in the ballot box
- The polling table officials updates the voting status of the Internet voter by means of a query to the voter control system.

Therefore, the process management complexity is increased by the introduction of the Internet voting.

On the other hand, as regards the vote counting, in the traditional voting process, the steps involved are the following:

- Manual counting of the ballots at each polling table
- Telephone communication of the results by the president of each polling table
- Manual registration of the communicated results at the call centre
- Incidences resolution due to misspelling in the communication of the results
- Input of each paper record at the data terminals, which are collected at a computing centre

When the Infovot electronic ballot boxes are used, the human intervention is eliminated, and the number steps is therefore reduced:

- Electronic counting of the ballot papers during the election day
- Printing and GSM communication of the results by the Infovot device
- Reception of the communication at the SMS reception centre which are instantly forwarded to the computing centre

Therefore, the process management is improved in two ways:

- The counting of the ballots is performed faster and error-free
- The results are delivered faster, digitally, and error-free to the result information system

Conclusion

Outcomes of the Infovot project have been obtained for both the electronic ballot box experience and the Internet voting prospective study. As regards the electronic ballot box, measurable results have been obtained for the social acceptance, and the impact on the current legislative framework have been analysed. As regards the Internet voting deployment, initial cost estimations, presented above, and the lack of political support at the national level has ruled it out in the short term.

Social acceptance

On November, 29th, 2001, the elections for students representatives for the University Senate at the University of Valencia took place. 49472 students had the right to vote. What was really new this time was the use of electronic ballot boxes developed by the Infovot project. In this pilot, 32 electronic ballot boxes were installed in the polling stations, more than 800,000 ballot papers were printed, and more than 70,000 ballot envelopes were distributed. The pilot aimed at testing the technical and managing performance of the Infovot system, and at evaluating the voter attitude towards the Infovot system.

These are the key figures of the elections. There were 7,230 votes, 6,677 of which were valid votes, and only 67 were null votes. The study consisted of interviews to 600 voters by means of a questionnaire in the polling stations at the three campuses of the University of Valencia. The questionnaire was designed for evaluating the degree of acceptance of the voting and counting process under test.

The voter profile showed that the voter was female (62.3%) and young (average: 21.13 years old). The main findings of the study were the following:

- The 51.6% of the interviewees were already aware that the Infovot system allowed the manual counting of the votes. Furthermore, the interviewers perceived that the voters were confident due to this fact.
- The 70.9% of the interviewees had never intended to fold the ballot paper. Therefore, the signs were effective, and it allows to conclude that this requirement will not hinder the implementation of the Infovot system.
- The 29.1% of the interviewees, on the other hand, had been tempted to fold the ballot paper, but only the 10.9% of the interviewees were suspicious about the lack of secrecy of the vote due to this requirement.
- The 70.2% of the interviewees regarded the ballot paper codes as appropriate, whereas the 11.7% regarded them as confusing, and the 9.7% did not know their purpose. Once the interviewers proceeded to briefly explain the purpose of the ballot paper codes, the 83.3% regarded the codes as appropriate. On the other hand, only the 11.9% of the interviewees that initially regarded the codes as appropriate did check the code of their ballot papers against the information panels
- The 93.1% of the interviewees regarded positively the use of new voting systems by the University.
- Most important, the 76% of the interviewees regarded positively the use of the electronic voting system under test in political elections. This results showed the high degree of confidence towards the Infovot system.

Legal and normative impact

The Valencian government commissioned a study of the legal reforms needed for electronic counting implantation in the regional elections[70]. The main finding was that the National Electoral Act should be reformed in the articles that regulates three issues:

[70] See Annex A for a brief description of Spanish electoral legislation.

- The vote counting (LOREG Art. 95.4, 103)
- The null votes (LOREG, Art. 96)
- The contents of the ballot papers (LOREG, Art. 172)

Otherwise, the electronic ballot boxes developed in the Infovot project could not fit in the current legislation.

Dissemination, collaboration and future directions

There are some initiatives in the field of electronic voting at national and at regional levels, which are related to Infovot.

At the national level, there is an initiative led by the Senate for studying the deployment of electronic voting and counting systems. On the 6th of March, 2001, the Senate agreed to create a joint Commission between the Committee on Information Society and the Committee on Constitution for the study of the opportunity, the requirements, the warranties and the eventual steps for the deployment of electronic systems for the voting and counting, and the reform of the necessary legislation. This Commission was established on the 25th of June, 2002, but unfortunately it has not met again.

Besides, at the national level, the Ministry of Interior, which is in charge of the operational management of the general elections, has not set up any initiative in the field of electronic and Internet voting.

At the regional level, Demotek has been set up in the Basque Country. Demotek is a system of electronic voting which, while respecting the current voting method, eases the counting of the votes and the transmission and communication of the electoral results. The Demotek device is similar to the Infovot electronic ballot box. The only difference is the use of ultra violet light device for verification of the authenticity of the ballot paper and its validation.

Additionally, during the initial stages of Infovot, several comparative analysis were carried out, and input from the electronic voting experiences in Venezuela was taken into account, where the technical partner was Spain-based IT company Indra.

Once the Infovot project has finished, the follow-up is focused on collaboration with the national IT industry in order to enable the market introduction of the electronic ballot box. The OVSI Foundation and Abacus, which hold the Infovot patent, have conducted negotiations with IT companies in order to evaluate the business case of the Infovot device. Its cost-effective production requires that most of the Spanish regions, and also the national government, will embody the electronic counting system in their electoral processes. The adoption in South-American countries is envisioned as the optimum business case.

ANNEX: Spanish Electoral Legislation

Legislative framework
The Constitution indicates that certain issues such as fundamental rights, the Statutes of the regions or the electoral law, among others, might be regulated by an Organic Law which requires an absolute majority in Congress, which is the higher Chamber of the Spanish Parliament.

The National Electoral Law covers: national elections, regional elections, local election, and elections for the European Parliament. However, regional elections are covered partly by the national electoral law because the Autonomous Communities can promulgate electoral laws for elections held in their territories. That is the case of the elections to the Valencian Parliament, where Infovot project has been executed.

The last version of the national electoral act is from June 16, 1985 ("Ley Orgánica de Régimen Electoral General–LOREG, 5/1985"). The last amendment is "Ley Orgánica 6/2002" from June 27, 2002. The only bodies which can initiate a reform of the Organic Law are the government and/or the Congress and Senate. As regards the regional elections for the Valencian Parliament, the electoral act is from March 31, 1987 ("Ley 1/1987, Electoral Valenciana").

Electoral Management
The national electoral management body is the "Dirección General de Politica Interior, Ministerio del Interior". This national electoral body has the responsibility for elections at national level, local level and for the elections for European Parliament. Concerning the highest electoral authority, in charge of the electoral results and the completion of the electoral law, the institution is the National Electoral Body ("Junta Electoral Central"). There are central, provincial and area councils, and electoral councils of the autonomous communities. However, the National Electoral Body has the overall responsibility and is in charge of regional elections. The National Electoral Body reports to the legislature.

Vote Counting
Following the close of the voting the votes are first sorted and counted at the polling stations. In national and local elections, following the sorting and counting the results are first transmitted for consolidation by phone to the Ministry of the Interior and they are then gathered by a Nation Wide Centre from where they are transmitted to media and citizens. In regional elections, the equivalent ministry at the regional government holds the responsibility of this task.

There is a procedure to follow for the final results collection. It starts at the polling table. Once the voting act is completed and signed, the polling table officials prepare three copies of it. The first two are delivered by the polling officials themselves, helped by the armed forces and national police, to the Court of the correspondent constituency. In the following 10 days, the Judge will personally deliver one copy of the electoral act to the Electoral Council in charge of the tally, keeping the second copy in the Court's records. The third copy is postal delivered to the Central Electoral Council. The scrutiny or tally takes place within the decentralized Electoral Councils. Not later than 6 days after the beginning of the tally, the results are communicated to the Central Electoral Committee. There is a legal requirement for the declaration of

the officially certified results. After the close of polls the certified results are publicly announced within approximately 8 to 10 days maximum.

French Case Study:
"ISSY-LES-MOULINEAUX"

(By Laurence Monnoyer-Smith)

Introduction

Issy-les-Moulineaux is a small-sized town in the outskirts of Paris that has, over the last decade, adopted numerous initiatives to promote e-democracy at the local level. Issy-les-Moulineaux is an illuminating case study because of its active role in developing tools for promoting e-democracy (in the liberal sense of the term). It has displayed a commitment to electronic voting and citizen participation through the Internet, both of which are closely linked to a local economic strategy focusing on new technologies of Information and Communication (ICT). This report focuses on the main participative e-tool that has been developed in Issy-les-Moulineaux, Interactive Television (T2i) which transmits live, via cable TV and internet, the meetings of the Municipal Council. We begin by addressing some of the contextual elements which are crucial for considering the e-democracy initiatives.

1- Issy-les-Moulineaux: from industry to information society

André Santini, a member of the French centrist party (UDF), was elected mayor of Issy-les-Moulineaux in 1983. Since then he has devoted considerable attention to the renewal of the city's image among the public and in the private sector. The holder of a PHD in Law and a specialist in media, André Santini has been Vice-President of the French Parliament (Assemblée Nationale) in 1997, Minister in charge of Communication in 1987, and is still President of the very influential Syndicate of the Ile-de-France water companies. As a very charismatic he is often invited to participate in popular TV talk -shows even if there is no political content in them- and is regularly awarded the political humour prize of the year. Although politically marginalized for choosing not to join the right-wing union he is still capable of mobilising friends in the highest political spheres which provides him with a great political advantage over his local rivals.

When André Santini was first elected, Issy-les-Moulineaux had become an old suburban town, affected by successive economic crises especially in its industrial sector. The wrking class majority had seen their key industries relocate or simply close down for economic reasons. This specific context has lead Mr Santini to adopt a very aggressive strategy including local planning and urban renovation and, most of all, local economical development. As he said himself, he "wanted to get rid of the city's rubbish dump reputation". In order to attract new companies and new jobs, he invested significant amounts of money in creating favourable conditions for their arrival: new buildings, various financial and administrative help for their implantation, and most of all, technological infrastructures such as cable and ahead of time, broad-band connection to the Internet. In 1995-1996, the Local Information Plan was adopted within the Municipal Council to serve that purpose. The main strategy was to attract locally companies in the media and communication sector, SMEs and start-ups using new communication tools and to transform Issy-les-Moulineaux into a technological pole close to Paris without all the drawbacks of being in the centre of Paris. This policy has achieved its goals: by the end of the year 2001, the rate of companies installed in Issy working in the media and communication sector overtook 50% of the total. From then on, the urban planning of Issy has targeted junior and senior executives with families: crèches, schools, bigger flats and houses and shopping malls have been built. In less than 10 years, the population has changed as much as the town itself: houses prices has risen and forced the previous working class population to move further away in the suburban area.

Since 1995, the town has equipped itself within its administration and its public services and has worked its PR using ICT: cyber-crèches, cyber-weddings, cyber-art, cyber-coffee and tea houses for the elderly, a multimedia library and so on, have contributed to the celebrity of the town. The down-side of this policy has been that some real e-democracy initiatives have immediately been perceived as PR stunts with no genuine will to promote participation. This has been confirmed with the mayor's attitude which has always been torn between an interventionist economical strategy and liberal populism.

In 1997, the mayor's assistant in charge of communication launched one of the first French city web sites, first conceived as an advertisement display for companies and SMEs willing to move to Issy. Nevertheless, André Santini quickly understood the potential of the tool to promote a new way of communication with his constituency. After having equipped the Municipal Council room with multimedia (cameras, internet connections, personal TVs for members of the council, etc.), he decided to launch the first Interactive Municipal Council, which can no longer be considered as an experiment as it has been running for over 6 years now. In june 2000, the local television which has been dedicated until this date to the retransmission of the Municipal Council goes on-line and gives the opportunity to citizens to see local news programs. Divided in 6 different rubrics (living in Issy, Issy International, our favourites, Digital City, Working in Issy, Time out) they are all linked to forums where internet users can react and give their opinion on the program. One has to recognise though that these forums are not widely used. The whole web-TV is run by an isséen start up specialised in media production.

With a more liberal than communitarian approach to e-democracy, André Santini has involved Issy-les-Moulineaux in alternative voting method experiments and has started a reflection about its feasibility in France through the *Worldwide Forum on Electronic Democracy* which has taken place in Issy in 2000, 2001 and 2002 (the next one is scheduled in September 2003). The town has thus participated to the European Program *Cybervote* (within the DG IST in the fifth framework program) which allowed the city to experiment e-voting in October 2001 (non-binding election) for the school elections and in December 2002 for the binding election of the newly created district committees.

Following the same idea, one of the first participative tools to be implemented is the citizen's panel: in November 2001, a 600 people panel was selected to be regularly interrogated via Internet on various topics concerning the city: modification of the local safety program, local public services, district committees and so on. They are commented during Municipal Council and without being at the source of new decisions, they contribute to the argumentations during municipal debates.

A marked improvement towards more deliberative participation is visible through the actual geographical information system program which was launched last year. The idea is to give the citizen the opportunity to comment and criticise, with appropriate tools, the municipal planning programs which remain barely understandable when debates occur within the council. This will therefore not be working before 2005.

With this context in mind, one can scrutinise in detail the Issy-les-Moulineaux main e-democracy tool.

2- The interactive Municipal Council (IMC)[71]

In January 1997, the interactive municipal council experiment started in an electric atmosphere: to the very technicist rhetoric of André Santini for whom the use of ICT will help to resolve the legitimation crises of modern societies (the TV transmission and the Internet were about to recreate locally the ancient democratic agora and will allow citizens to participate in political debates). Political opponents were replying, denouncing a tactical manipulation from a very charismatic mayor familiar with TV reality shows.

Many researchers (Blondiaux, 2002, Tzagarrousianou, 1998, Arterton 1987, 2001) have rightly stressed the limited impact of technology in a non-participative environment and the inherent danger of a misleading technicist rhetoric. Nevertheless, the field analysis done two years after the start and the second analysis done six years later is more finely shaded. One has to admit that the Municipal Council's new format has found its public and its legitimacy despite the violent critics and lawsuits against the mayor. In 6 years, the use of Internet has exponentially climbed, and the on-line/off line questions to the council ratio has also taken off.

The IMC has certainly evolved during the first two years and then stabilised its organisation until now. A 20 minute cable TV/Internet program presents the council agenda and the various decisions to be taken. Then the ICM generally starts at 6 p.m. as a traditional council with its own agenda where municipal council members in charge present their file in a very pedagogic way, using data projectors, images, XL charts etc., then a discussion follows with the main party opponents. Two hours after the start, the IMC is formally interrupted –for legal reasons- and citizens who have sent questions via e-mail, snail mail, phone or minitel are represented by an independent person (a well-known citizen, i.e. successively a doctor, a veterinary) who is neither a member of the council nor a civil servant. This person summarises the questions one by one then members of the council take all the necessary time to give detailed answers. When questions have been fully exploited, the IMC starts again for another couple of hours. The whole process usually takes 5 to 6 hours, which keeps perseverant citizens in front of their TV/internet until midnight.

To produce the IMC, 3 partners are involved: the *SEM Issy Media* which is a hybrid public/private organisation in charge of the municipal communication, *NC Numéricable*, a private company in charge of the local cable management and *France Telecom*. The SEM in charge of the main infrastructure (calls, reception, photos, charts and the 20 mn programs which explains the main questions to be discussed during the IMC), NC Numericable deals with the local diffusion of the program (Issy has to receive a selected program on a specific channel) and the technical production (material, filming and realisation) is done by VT Com a France Telecom subsidiary. The total cost is unknown as it as partly financed by France Telecom and the SEM Issy Media. For the city itself, each IMC approximately cost 3000 €, which is not expensive for a wealthy town such as Issy-les-Moulineaux.

[71] See Monnoyer-Smith L. & Maigret E. (dir.), *Www.démocratie locale*, Hermès, n° 26-27, 2000.

2.1 Methodology

The first phase of our study has been financed by the Municipal Council itself to evaluate the impact of the TV retransmission on the council and its perception by Issy-les-Moulineaux citizens.

A content analysis of the press has given us contextual analysis of pro and con arguments during the launching phase (October 1996 - October 1998). A semiotic analysis of the program and its background internal organisation and production system has given us precious information on the symbolic repartition of power as it is filmed. Nevertheless, the most important part of the study has been about 40 long qualitative interviews: we applied in a local political communication case the reception sociology methodology used in media studies but very rarely in a local political context (Jensen, 1995).

2.2 Main results of the study

Two salient aspects of the media coverage of the Municipal Council can be detailed: the first one concerns the evolution of the IMC due to the presence of the TV cameras and the second one is focused on the perception by citizens of the IMC.

2.2.1 The consequences of media coverage

After a short period of learning, how to behave in front of the cameras, how to overcome natural shyness, one can notice today that the presence of TV cameras are totally accepted by everyone and doesn't embarrass anyone. Both local politicians and researchers have noticed that arguing in public was not a problem anymore, and that the Municipal Council was working like a non-televised one, with its own agenda, argument exchange and vote.

A very positive effect of the presence of the cameras has been the progressive transformation of very technical debates into very pedagogic, well explained controversial positions. We have noticed the high quality of the debates, due to and thanks to very deep divergences between members of the council. Pedagogic sides of the debate have, most of the time, prevailed on mediatic sterile arguments. Important discussions on the evolution of the city, civil services, the creation of a group of similar cities, have given the opportunity to each political group to share its view with a great level of precision and coherence.

Contrary to what was expected by many researchers, the television has pacified quite notably internal discussions during the council. Many politicians, especially from the opposition have explained how rude the mayor use to be when the cameras were not witnesses: insults, fits of anger, public humiliation were reported to us during interviews. Although we have not been able to witness it ourselves, we have enough testimonies to acknowledge it. In the most recent councils, one can still notice the patriarchal attitude of the mayor who congratulates a young female council member for her brilliant exposé, tells off another one for not being clear enough and makes fun of everyone, including his own majority members with great sarcasm.

The main side effect of media coverage has been to polarise discussion between the mayor who always defends the majority policy and the socialist/communist opposition (4 people who defend their own position). As the communist leader states it: "TV does not democratise the debate, it makes me a prominent citizen". The main

losers are the mayor's assistants, effectively in charge of most dossiers, but not really allowed to voice their opinion.

To conclude, it is interesting to notice that many arguments against the TV diffusion of the council (it harms the dignity of the institution, favours theatrical manoeuvres, increases the majority's power and manipulative potential) cannot be validated. The IMC has not become a TV show, it has not become populist and demagogic, it has not erased the political minority (their speaking time is actually a lot higher that their strict proportional representation in seats) but it lasts a lot longer!

2.2.2 The use of ICT and the perception by viewers.

Although we have no audience ratings[72], one can take the number of questions asked during the council to evaluate its level. After the 300 questions asked during the first council, two years later, the average number of questions dropped to 30/40 and has now stabilised around 20 to 25, 4 years later. It is Interesting to notice the way people are asking these questions: in 6 years, the e-mail /phone ratio has climbed from ¼ to more than ½! Citizens do use the Internet, watch the agenda, and ask questions. The nature of the questions has also evolved from general comments on the IMC to extremely precise and informed questions, although quite often very personal ones (how do I get a crèche for my child, young people are making noise in my street etc.). These informed questions are mostly asked by already socially engaged citizens (members of trade unions, local associations, sports clubs etc.), with an educated background and are mostly women.

According to the citizens we interviewed, what captures their interest most is to discover how a local assembly actually works. Its pedagogic function is well perceived, especially because subjects treated within the council are extremely technical and complex. The work behind the debate is also appreciated: many citizens did not previously realise the enormous amount of work necessary to be a good local politician who knows his dossiers and deals with everyday problems. Transparency, even if not total because it would be too complex, is the central benefit of the televised municipal council. The originality of this experiment is its live formula: some other cities (Trento in Italy, Rennes in France for ex.) have tried to broadcast their Municipal Council but only highlights and none of them have lasted.

In this context, the interactivity via e-mail or phone doesn't appeal as much: questions have first to fit into the agenda, be selected, and are summarised. They are nevertheless given long answers, often technical and precise, and they receive a written answer from the mayor himself who does not divulge these addresses to the opposition. Live phone calls with the council has been tried and then abandoned: citizens didn't like to be publicly exposed (Mansbridge, 1980) ,they would rather speak to a intermediary person, who will help to formulate their question, than directly in public. As Goffman has shown is his work, people very much fear to be embarrassed by their inaptitude to communicate well and therefore adapt their communication strategy to avoid that. One can then conclude from the interviews that the IMC has stabilised its organisation with an interesting compromise: citizens don't

[72] Only one survey has been done: for the first council, 50% of the 5000 households with cable have been watching the IMC. But this is certainly a result of the strong publicity organised for the first one and does not reflect its current audience.

expose themselves too much, they can ask questions and politicians cannot be destabilised by tricky questions, but can still claim democratic discussion.

3- Conclusion

To conclude the Issy-les-Moulineaux case study, one has to notice that participation to the decision making-process as a goal has not been achieved, and many of the mayor's initial arguments have proven to be part of a mere technicist discourse. As a legitimation discourse, the electronic participation argument as a solution to the modern society legitimacy crisis strictly follows political science research on the subject: it has shown its inaccuracy in many cases (see Arterton 2001, Toulouse and Luke, 1998, Bimber 2001). The recent creation and election (December, 11th 2002) of district committees acknowledges this and might have more impact in terms of participation in the decision making process.

Nevertheless the very existence of this program for more than six years shows that it fulfils other goals and has found its public. The citizen's demand for precise information on municipal decisions and the discovery of the complex functioning of the council are the two main benefits of this original interactive program. Going through this "information" phase is probably necessary for the citizen to get use to the city's portal, its information system, the municipal council's web site and web TV. In six years, the use of internet to ask questions and get information has more than doubled which indicates that before participating through the internet one has first to master the tool.

Because the IMC is a result of many compromises (in a Latourian way) between citizens, political actors, and private partners, it has been able to evolve in its internal organisation to correspond to a political demand. Any further participative tools will have to follow the same pattern in order to be perennial. In my view the ability for all partners to directly intervene on the technical system, to transform itself and to make it evolve in order to reach compromises between actors (Latour, 1997, 1999; Callon, Lascoumes et Barthes, 2001) remains the only way to implement participative tools in a democratic context.

References

Arterton (C.), 1987, *Can technology protect democracy ?*, London, Sage.

Arterton (C.), 2001, « La technologie est-elle au service de la démocratie », trad. partielle, *Hermès 26-27*, pp.115-128.

Bimber (B.), 2001, « Information and Political Engagement in America : The search for effects of Information technology at the individual level », *Political Research Quarterly*, Vol.54 n°1.

Blondiaux (L.), 2002, "L'impératif délibératif", *Politix*, Vol.15 N° 57, pp.17-35.

Callon (M.), Lascoumes (P.) and Barthes (Y), 2001, *Agir dans un monde incertain*, Paris, Seuil.

Jensen (K. B.), 1995, *The social semiotics of mass communication*, London, Sage.

Latour (B.),1997, *Nous n'avons jamais été modernes*, Paris, La découverte.

Latour (B.),1999, *Politiques de la* nature, Paris, La découverte.

Mansbridge (J), 1980, *Beyond adversary democracy*, New York, Basic books.

Monnoyer-Smith L. & Maigret E. (dir.), 2000, *Www.démocratie locale*, Hermès, n° 26-27, pp.141-158.

Toulouse (C.) and Luke (T.W.), (eds), 1998, *The politics of cyberspace*, London, Routledge.

Tzagarrousianou (R.), Tambini (D.) and Bryan (C.), (eds), 1998, *Cyberdemocracy. Technology, cities and civic networks*, London, Routledge.

Case Study
Local political parties and E-democracy in Germany

(By Norbert Kersting)

1. Introduction

In the 1980s, political analysts saw the possibility to use the Internet to reinvigorate the democracies and to enhance participation in the representative system directed to the parliament as well as engagement within the parties (Barber 1984, 1999). The ongoing penetration of the Internet in private households since the 1990s led to high expectations in using this instrument towards strengthening democracy. The Internet should enable greater transparency in politics and new ways of political communication (Coleman 2001; Gibson 2002). So the new information and communication technologies (ICT) could strengthen democratic indicators as the level of political inclusion (voter turnout) and political effectiveness and furthermore help to achieve other more qualitative principles as transparency, deliberative discourses etc. and more indirect goals as political identity and legitimacy (see Elster 1998; Schiller 1999).

In the following some research questions and preliminary research results are presented. The presentation ends with some ideas on a possible further research agenda.

Lack of local participation

Since the 1980s voter turnout in some countries has been decreasing dramatically and low voter turnout is becoming more than a marginal phenomena. Although voter turnout seems to be a problem at all levels in the political systems analysed, turnout is extremely low in local elections (see Kersting 2003). It could be argued that with low voter turnout at the local level there must be a high pressure on the administration and parties to implement new instruments for political participation and mobilization. Here local level is often used as a playing field to test new instruments.

The new tendencies show that marginalized lower income groups with a low level of education no longer compose the main group of the non-voters. With the educational revolution and the reduction of marginal groups in a lot of countries, voter turnout should have increased. But in a democratization process, the normative element of political participation (e.g. the sense of an obligation to vote) seems to decline. This is also caused by a higher level of individuality and the independence of the citizens. Although there is a middle class bias regarding political participation, now e.g. a big group among the non-voters belongs to the better educated new middle class strata. Voters and non-voters are becoming more similar in relation to their social background. Furthermore, and this is relevant regarding the introduction of new participatory instruments the younger age group show up a political apathy and the phase of political integration is lacking. So, eg. the number of non voters in the age group (18-25) is increasing dramatically (Kersting 2003).

2. Local parties and ICT

In Germany, especially in the Northern parts (North Rhine-Westphalia, Hessen) local politics are dominated by political parties. Because political participation is decreasing, the political parties are seen as “abandoned piazzas“ (Giacomo Marramao), where political debates are lacking (see Kersting 2002). New electoral laws try to diminish the role of the parties (direct elections, referenda, personalized vote etc.) and to enhance participation without the massive influence of political parties.

At the local level political parties are seen as amateur associations of idealists (Eldersveld 1982). Despite the iron law of oligarchy (Michels 1910) for a long time local parties have not been characterized as political machine and candidate centred aggregation. At the local level “cleavage or milieu parties” were strongly related to the social milieu. Since the 1960s,

together with the development of the “catch all parties” (CDU, SPD) at the national level a party de-alignment became obvious and also a middle class bias, a dominance of the active party factions, party cartels and a professional political class developed. Because of a dissolutions of the milieus, rising expectations, individualizations etc. this lead to a higher political apathy, cynicism, distrust against parties and a low level of legitimacy in parties at the national but also at the local level (“empty railway station”, Tourraine). Party membership is decreasing. New highly discussed strategies by the national headquarters' representatives of some parties try to react and propose to build up "support organisation" without relevant membership (“parties without members”). This evoked strong reactions from the local branches. Because the local branches have the direct contact to the voters they seem to be important in the electoral campaigns and not only party headquarters want to bring the parties back in local politics.

The main party functions are (a) Organisation, articulations/formulation of interests and programs; (b) Orientation and political socialisation; (c) Recruiting candidates and selection of incumbents. Within the party organization the “Janus faced” charter of local parties (Lehmbruch 1975). Local Parties try to connect link ordinary citizen’s link to national level. So party contacts to members and to citizen or other actors at the local level (intra local party relations) have to be analysed but also the local party branches with the central headquarter (centre-local party relations).

Furthermore, analysing local parties three perspectives are relevant (a) party as an organisation; (b) party in elections; (c) party in government (Duverger 1951).
Here the Internet functions and instruments (a) Information (web pages); (b) communication (web forum, chats, newsgroups); (c) participation (e-polls, e-voting) become relevant.

Intra -party Local relations and ICT
At the local level all politicians and candidates recognize the growing importance of the new information and communication technologies. Nevertheless Internet presentations is often characterized by amateurism where local volunteers develop the web pages. Although most parties provide support to enhance the corporate identity the design varies. The SPD uses party networks "virtual local branch" (virtueller Ortsverein) to enhance the quality and coherency of the Internet presentations.

The new technologies are used in time of electoral campaigns. Because a lack of financial resources and staff the parties concentrate on electoral campaigning. E-mail is used, but, because of the netiquette (“political spam”), not as a push medium. In this time Internet web pages are re-launched or developed. The parties focus on the information about party programs etc. Because the maintenance of interactive instruments is expensive newsgroups chats etc. are normally not used. In the local political discourse the parties’ web forums often compete with the local administrations which, because of customer orientation try to contact the citizen directly. Because these are seen as neutral institutions they present the platform for a discourse and the parties are user.

At the local level a lot of divergent Internet activities by local administration can be found (some were co-ordinated by media@komm an initiative by the federal Ministry of economics and the Initiative D21). To strengthen political participation one preliminary goal was to enhance the use of the media as well as the ICTs competence. As an example of Internet activity at the local level, the following initiatives in Esslingen will be described briefly.

In Esslingen, the widespread use of different Internet instruments has been implemented. All these belong to the Initiative D21. In this programme, public terminals with standardised access to the Internet were supplied. In networks of mentors people were taught to use the Internet. In web-forums there was a transparent discussion on town planning, which was supported by different media. Furthermore, an Internet election for the youth parliament was initiated. This Internet election used high technical standards but could not prevent low voter turnout. The forums on town planning also had a low level of participation and failed to motivate new "actors" (citizen) to join the political arena. Participants were mostly affected by the planning process. There was a strong male bias and a bias on academics. 40% of the comments came from four dominant opinion leaders. Nevertheless, this kind of instrument was seen as a success as well by the organisers in the public administration and the citizens involved.

Centre- local party relations and ICT
New information and communication technologies are used intensively in the relation between local party branches and national headquarters. Party headquarters campaigning for national elections deliver all sort of information via an Intranet, but also use interactive instruments. This can be a bottom up process with web-forums, newsgroups etc. But it is predominantly a top down information about new party strategies, assistance in argumentation about the party program etc. to enhance the coherence of electoral campaigning

3. Conclusions and research agenda
Local political parties mainly use the Internet for information than for communication and transactions (e.g. inner party referenda etc.). The parties try to give political orientation via the Internet. The new technologies are less used for the organisation and aggregation of interests and the formulations of programs. Web-pages of parties and politicians are including interactive elements as for example chat rooms and e-polls, which could contribute to this party functions. But, at the local level, these predominantly have a more symbolic character (political vitrine).

Public political forums must have multi-medial re-enforcement, if they want to be recognised in the public sphere. Other media, for example the local newspapers or television must take the political topic and advertise the possibility of participation in the Internet.

In Germany political parties are characterized by a crisis of legitimacy. So, in Germany web-forums and polls should not be organised by the political parties, if it want to be successful. Local web-forums are often characterised by a communication, which does not seem to be interactive but is more a monologue or a dialogue between friends. Similar to the phenomenon of non reflected "junk vote" in e-polls, there seem to be "junk debates" within the web forums organized by political parties or media. The quality of a discussion in forums organised by the public administration or the parliaments seems to be much higher. This could be explained by political culture in Germany, which is oriented on statism and where e-democracy is seen as more a matter of the public administration than of the NGOs and the parties. Party and NGO forums often concentrate on their own members and affiliates. Because public administration at the local level is close to political decision making, e-democracy and e-government is often congruent and overlapping. Until now web forums organized by the local administration reflect a higher quality of discourse and a broader spectrum of opinion than local parties‘ web forums but display up a lack of participants. Here a stronger co-operation between the public sector and the media or a special marketing and advertisement for this kind of political participation in Internet forums is needed.

Even when because of new technologies, public Internet access points etc. the digital divide could become a minor problem, there may be still the question, if the Internet could be better used as an pool of information and a memory of organisation or communities than an interactive instrument for participation.

There is still only little research on the Internet and the future of Party communication and campaigning at the local level. Is ICT relevant for intra-party decision making process? Is it used in a kind of bottom up communication between citizen and party or between local branch and central headquarter? Or, is the intra- party communication more a kind of top down between the party headquarter and the local branches?

Research should focus on the acceptance of interactive tools (polls, forum, guest books) by users. Is the personalisation of local politics, strengthened by new electoral instruments (preferential vote etc.). reflected by a personalization of individual websites.

In a most different system research design, case studies in four German states could be implemented (East-West, party oriented mot party oriented political culture: Hessen, Baden Württemberg, Sachsen-Anhalt, Thüringen). In each of this states a metropolitan area, a smaller city and a municipality in a rural area should be analysed.
Besides the analyses of the context (party structure, local media, etc.) and the party websites interviews with party representatives, online surveys in local party groups, interviews of the webmasters (e.g. virtual local party branches) could be implemented.

References

Barber, Benjamin 1984: Strong Democracy. Berkeley: Berkeley Press.

Barber, Benjamin 1999: Three scenarios for the future of technology and strong democracy. in: Political Science Quarterly 113(1999) S.: 573-590.

Coleman, Stephen 2001: What Was New? Online innovations in the 2000 US elections in: Coleman, Stephen (ed.): Elections in the age of Internet. Lessons from the United states. London: Hansard Society: 48-64

Duverger, Maurice 1951: Die politischen Parteien. Tübingen

Gibson, Rachel K. 2002: Internet Voting: The pro's and con's. in: Political Studies Quarterly 2002.

Michels, Robert 1910 (1990): Zur Soziologie des Parteiwesens in der modernen Demokratie. Untersuchungen über die oligarchischen Tendenzen des Gruppenlebens. Stuttgart.

Kersting, Norbert 2002: Die Zukunft der Parteien in der Lokalpolitik. In: Bogumil, Jörg 2002: Opladen: Leske

Kersting, Norbert 2003: New information and communication technologies and the future of local democracy . paper presented at RC05 IPSA conference. Durban

Eldersveld, Samuel 1982: Political Parties in American Societies. New York

Lehmbruch, Gerhard 1975: Der Januskopf der Ortsparteien: Kommunalpolitik und das lokale Parteiensystem. in: Der Bürger im Staat 1 (1975): 3-8

Scarrow, Susan 1999: Local parties and electioneering in Germany. in: Saiz, Martin/Geser, Hans 1999: Local parties in political and organizational perspective. Boulder, S. 151-170

Schiller, Theo 1999: Prinzipien und Qualifizierungskriterien für Demokratie. in: Berg-Schlosser, Dirk/Giegel, Hans-Joachim (eds) 1999: Perspektiven der Demokratie. Frankfurt: Campus pp.28-56.

Schneider, Herbert 1999: Local parties in German countryside. in: Saiz, Martin/Geser, Hans 1999: Local parties in political and organizational perspective. Boulder, S. 151-17

ANNEX II - METHODOLOGY

The empirical analysis of the websites was conducted following a uniform structure. The co-ordinating team designed two questionnaires for analysing the websites of legislatures and of political parties. The goal was to produce a set of indexes measuring various dimensions of e-democratic potential. Following a pre-test on the questionnaire that was conducted in February 2003, the revised version was then handed over to experts for conducting the survey in each of the 25 EU member/accession states. All experts were native speakers and were therefore able to fully understand and evaluate the content of the respective websites. Finally, researchers were also invited to attach a short country report noting contextual facts related to e-democracy initiatives in the various countries. The individual country reports are attached in the annex to this study.

The main goal of the team was to design an instrument that not only counted features and assessed quality but also included an evaluation of interactivity. With regard to the former the two most prominent features for evaluating websites are usually the content provided and the ease with which it can be accessed. We developed measures for both these dimensions. To measure the interactivity potential the study has identified two conceptually distinct dimensions a) bilateral interactivity and b) multilateral interactivity[73].

Part 1: Website analysis of legislatures

Thirty eight legislatures' websites were analysed. This figure includes both upper and lower chambers of all twelve bicameral systems in the EU member and accession states as well as the fourteen unicameral systems. The empirical analysis is composed of 76 variables that aim to measure the e-democratic presence of the legislatures online. We have divided the variables into four dimensions: 1) information provision, 2) bilateral interactivity, 3) multilateral interactivity and 4) user-friendliness. For the construction of the various indexes, some variables were weighted, primarily in order to give more weight to the implementation of e-techniques aiming at increasing the plurality of information and interactivity.

1) Information provision (48 variables)
This dimension aims to measure the general information provided by the legislature's website. We have established four indexes that reflect i) general information provided by the parliamentary website concerning its activities, its links and news, ii) information about MPs life and political activities, iii) information about legislative committees, iv) information about legislative debates and v) information about legislation. All questions could be answered by either "yes" (1) or "no" (0).

[73] For a discussion of interactivity see Rommele, Andrea 'Political Parties, Party Communication and New Information and Communication Technologies' Party Politics, Vol 9. No 1 pp7-20.

GENERAL INFORMATION	weight
1. Is there a general introduction/overview of the Chamber?	1
2. Does it have a weekly newsletter/bulletin?	1
3. Does website provide an online virtual tour/panorama of the parliament/senate?	1
4. Is there a 'what is new' or a 'what's on' section?	1
5. Is there a link to other, devolved or regional, assemblies?	1
6. Is there a link to the European Parliament?	1
7. Are there links to other legislatures?	1
8. Is there a press (or media) section?	1
9. Is there any facility to receive news and latest information through registration of email address (e.g. subscription)?	1
10. Are there any statistics regarding the number of hits of the website?	1
11. Is there a 'recreational' section (e.g. games, quizzes)?	1
12. Is there a 'contact information' section?	1
13. Is there an email link to webmaster/web content manager?	1

INFORMATION ABOUT MPS	weight
1. Is there a guide (e.g. factsheet or summary) on the role of members?	1
2. Is there a list of members?	1
3. Is there a list by constituency?	1
4. Is there a list by political group?	1
5. Is there a list by gender?	1
6. Does it include biographies?	1
7. If so does this apply to the majority of members?	1
8. Does it include links to personal website?	1
9. If so do most members have a personal website?	1
10. Does it include interventions from members?	1
11. If so does this apply to interventions from most members?	1
12. Can you find out how members have voted on particular issues?	1
13. Can you find out general information about the pay and conditions of members?	1

COMMITTEE'S INFORMATION	weight
1. Is there a guide (e.g. factsheet or summary) on the role of committees?	1
2. Is there a list of committees?	1
3. Is there a list of members of committees?	1
4. Is there a list of committee publications/reports?	1
5. Is there a timetable for future committee meetings?	1
6. Are there any contact details?	1
7. Is there an audio link to committees?	1
8. Is there a video link to committees?	1

LEGISLATIVE DEBATES	weight
1. Is there a Parliament/Senate debates schedule?	1
2. Is there a facility for accessing online the full text of debates?	1
3. Are these archived?	1
4. Is there an Audio facility to listen to debates?	1
5. Are these archived?	1
6. Is there a facility to watch live video of debates?	1
7. Are these archived?	1

LEGISLATION	weight
1. Is there a guide (e.g. factsheet or summary) to the legislative process?	1
2. Is there a list of pending or ongoing legislation?	1
3. Is there an index list of pending or ongoing legislation (e.g. alphabetical or thematic)?	1
4. Is there a search facility for pending or ongoing legislation?	1
5. Is there a list of legislation passed?	1
6. Is there an index list of passed legislation (e.g. alphabetical or thematic)	1
7. Is there a search facility for legislation passed?	1

2) Bilateral interactivity (7 variables)
Bilateral interactivity aims at measuring the possibilities given to citizens i) to notify problems concerning the website itself, ii) to express their opinion on political issues, iii) to file complaints (link to Ombudsman).

BILATERAL INTERACTIVITY	weight
1. Is there a facility for notifying webmaster of website problems?	1
2. Is there a link to an Ombudsman (official/office that investigates complaints from members of the public about government)?	1
3. Is there a link to an office or responsible official for making general (e.g. political) enquiries?	1
4. Are there any guidelines for submitting feedback or enquiries?	1
5. Can feedback on issues be given online?	1
6. Can citizens suggest new discussion/issue?	1
7. Is there a facility for commenting on the website?	1

3) Multilateral interactivity (7 variables)
This dimension aims at measuring the possibilities and effectiveness of debate offered by the parliamentary website. As for the weighting of the variables, the variable "is there an online forum" received a factor of 3 since it is the major e-technique for promoting political debates. The variable "are there any opinion polls" received a score of 2 since it is a more limited technique of interaction. The non-dichotomous variables were excluded from the index construction.

MULTILATERAL INTERACTIVITY	weight
1. Are there any online opinion polls?	2
2. Is there any attempt to link with other consultation exercises outside the Parliament/Senate?	1
3. Is there an online forum?	3
4. If so how many issues are being discussed? (non dichotomous)	0
5. Are any of the online forums archived?	1
6. Indicate the total number of interventions in the forums? (non dichotomous)	0
7. Is there any attempt to link with other discussion groups outside the Parliament/Senate?	1

4) User-friendliness (14 variables)
This dimension aims to measure: i) the ease of access and navigation of the website, ii) the design sophistication of the website and iii) the attractiveness of the website. As to the number of dead links three scores were used: if no dead link was encountered, the value of the variable is 1. If 1 to 3 dead links were encountered, the variable's value is 0 and if the website contained more than 3 dead links the variable's value is put to -1. With regards to language we adopted the following scorings: if the website is monolingual the value is 0. If it is bilingual the value is 1. If the website is available in more than two languages the variable gets the value of 2.

USER-FRIENDLINESS	weight
1. Is there a FAQ (Frequently Asked Questions) section?	1
2. Is there a general search facility?	1
3. Are there separate search facilities for specific sections of the site?	1
4. Is there a site map?	1
5. Is there a content index?	1
6. Is there an A-Z index?	1
7. Does the homepage have a lengthy scroll? (If you print the homepage on A4 paper does it contain more than two pages, if so then website contains a lengthy scroll)	1
8. Did you come across any dead links?	-1 to 1
9. Is there any information or special facility for difficult to reach groups such as children?	1
10. Is there a text only version of the website?	1
11. Is there a 'help' or 'how to use website' section?	1
12. Is there information in any other language?	0 to 2
13. List languages	-

Part 2: Website analysis of political parties

This part of the study includes all the political parties' websites that obtained more than 3% of the seats in Parliament (lower house) in the 25 countries of the European Union as well as in the European Parliament (total number of 144 political parties). The empirical analysis is composed of 72 variables that aim at measuring the e-democratic potential of the political parties online. We have divided the survey into six dimensions: 1) information provision, 2) networking, 3) bilateral Interactivity, 4) multilateral interactivity, 5) mobilisation potential, 6) user-friendliness. As we did for legislatures, we gave more weight to variables that reflected the implementation of e-techniques aiming at increasing plurality of information and interactivity.

1) Information provision (16 variables)
This dimension aims at measuring: i) the level of internal information, that we define as the information concerning the internal organization, the members and the activities of the party ii) the level of external information provision, which generally measure the provision of national and international information related to public actions of the party's members iii) the presence of some more 'ideological information' or in-depth political information by measuring whether there are links to traditional media or, more specifically, to political readings.

INFORMATION PROVISION	weight
1. Is there an history of the party?	1
2. Is there an organizational map/chart of the party (e.g. staff and representatives of the party)?	1
3. Are there links to party congress/conferences?	1
4. Are these archived ?	1
5. Are the intervention/speeches of the congress available?	1
6. Are there biographies of national political leaders of the party?	1
7. Are there pictures of the leader?	1
8. Are there biography of party representatives other than the leader?	1
9. Are there pictures of them?	1
10. Is there a national news section?	1
11. Is there an international news section?	1
12. Are there news archives?	1
13. Are there links to public intervention/speeches of political leaders?	1
14. Is there an agenda of political events?	1
15. Is there a section on political readings?	1
16. Are there links to traditional media (radios; TV; newspapers)?	1

2) Networking (14 variables)
The networking dimension is indicative of i) the networking potential activity of the party itself i.e. the level of internal and external connection of the party, ii) an increased provision of partisan information related to party activities and action in some specific areas and iii) the level plurality/openness of the party. This last aspect is measured by the variable "are there links to opponents parties/organisms/associations. The last variable in the following list (14) has been weighted by a factor of 3.

NETWORKING	weight
1. Are there links to regional section of the party?	1
2. Is there a member's area?	1
3. Are there links to parties allied at the national level?	1
4. Are there links to parties allied at the European level?	1
5. Are there links to parties allied at the international level?	1
6. Are there links to partner associations/organizations?	1
7. Is there a link to trade unions?	1
8. Is there a link to the party section at the lower Chamber (Parliament)?	1
9. Is there a link to the party section at the upper Chamber (Senate)?	1
10. Is there a link to the party section at the European Parliament?	1
11. Is there a link to a youth section?	1
12. Is there a link to a women section?	1
13. Is there a link to a disabled section?	1
14. Are there links to opponents parties/organisms/associations?	3

3) Bilateral Interactivity (8 variables)
This dimension aims at measuring how open the parties' members are to inputs, remarks and questions from users of the website. It is assessed by the presence/absence of e-mails of party members and of a general e-mail. It is composed of 8 variables.

BILATERAL INTERACTIVITY	weight
1. Is there a general e-mail of the party (e.g. contact section)?	1
2. Are there e-mails of elected representatives at lower chamber?	1
3. Are there e-mails of elected representatives at the upper chamber?	1
4. Are there e-mails of elected representatives at the European Parliament?	1
5. Are there e-mails of local representatives?	1
6. Is there an e-mail for the party leader?	1
7. Is there an e-mail for the responsible of international/external affairs?	1
8. Is there an e-mail for the webmaster?	1

4) Multilateral interactivity (7 variables)
This dimension aims at evaluating how parties valorise the interactivity potential of the Internet by assessing if it introduces feedback possibilities or communicative possibilities. The multilateral interactivity dimension is measured by the presence of opinion polls while the communicative dimension is measured by the presence of forums and chat rooms. We weighted the variable "opinion poll" by a factor of 2 and the variable "forum of discussion" by a factor of 3. The variable "chat rooms" was not weighted since we consider it not to be efficient to develop a qualitative political interactivity. Finally, we did not take into consideration the non-dichotomous measure concerning the level of participation in the forums.

MULTILATERAL INTERACTIVITY	weight
1. Are there opinion polls?	2
2. Can you leave comments in the opinion polls?	1
3. Is there a chat room?	1
4. Are there forums of discussion?	3
5. How many issues are discussed? (non-dichotomous)	0
6. How many issues are archived? (non-dichotomous)	0
7. Indicate the total number of interventions in the forums? (non-dichotomous)	0

5) Mobilisation potential (12 variables)

The mobilisation potential dimension tries to measure the possibilities for individuals to initiate and take part in political activities organised by the party as well as possibilities for acquiring the values/attitudes of the political organisation. Four aspects are important: i) to join the party online, ii) to send and receive campaign information, iii) to make online donations, iv) to be actively involved/participate in core activities (online petition, take part at demonstration). The variable "leaving comments in the petition" was weighted by a factor of 2.

MOBILISATION POTENTIAL	weight
The users are invited to:	
To receive news through registration to an e-mail list	1
To subscribe to the party	1
To make a donation	1
To buy banner	1
To circulate documents and other material	1
To send publishable material on the site	1
To take part at demonstrations	1
To buy gadgets and products of the party	1
To subscribe to newspapers and reviews of the party	1
To sign a petition	1
To leave comments in the petition	2
To download campaign material (for election; referendums; petition etc.)	1

6) User-friendliness (16 variables)

The dimension of user-friendliness is composed of a set of 16 variables measuring i) the ease of access and navigation of the website, ii) the design sophistication of the website and iii) the attractiveness of the website. As to dead links and to language the same logic has been applied than to the legislature's measurements.

USER-FRIENDLINESS	weight
1. Is there a FAQ (Frequently Asked Questions)?	1
2. Does the homepage have a lengthy scroll? (If you print the homepage on A4 paper does it contain more than two pages, if so then website contains a lengthy scroll)	1
3. Is there a search facility?	1
4. Is there a map of the website of the party?	1
5. Did you come across dead links?	-1 to 1
7. Is there a text only version of the website?	1
8. Does the site use audio-video techniques?	1
9. Is there a section for press information (e.g. press release)?	1
10. Can you see when was the site last updated?	1
11. Is there a recreational section (satire, games, jokes)?	1
12. Is there a cultural section (book, music, performance, movies)?	1
13. Can you download entertainment images or file audio/video?	1
14. Are there possibilities of information in other languages?	0 to 2
15. If yes indicate which ones?	-

Part 3: Interactivity

Test of interactivity for the parliaments

In order to produce the interactivity test for parliaments the following e-mails have been sent individually to all MPs that provided an active email address on the legislature's website (first e-mail) and to the websmasters of the parliamentary website (second e-mail). The messages used for the interactive test were translated into the official language of the country except for the European Parliament where English was maintained. For the purpose of the final report, we just considered the level of interactivity for parliaments. We did not analyse the content of the responses of the parliamentarians, but simply calculated their response rates. Nor did we measure the level of interactivity and the responses of the webmasters in the final report. The latter were generally lacking and could therefore not be systematically compared. However, this data can be found in the country reports.

E-mail for members of parliaments

Dear Mr/Ms X

I would like to know whether you are in favor of implementing measures that will enable citizens to vote online?

Many thanks in advance,

YOUR NAME

E-mail for webmasters of parliaments

Dear Webmaster,

I am part of a transnational research team conducting an investigation of political websites in the European Union. The research project has been commissioned by the European Parliament and is being coordinated by the European University Institute. We would be very grateful if you could answer the following three questions:

1) How many staff are employed in the maintenance of the web site?
2) Could you give us an indication of the traffic demand (e.g. average hits per day/week)?
3) What is the frequency of changes of website content (e.g. hourly, daily, weekly)?

We thank you in advance for your support,

YOUR NAME

If you have any specific queries or require further information please contact:

Professor Alexandre Trechsel
European University Institute
Alexander.Trechsel@iue.it

Test of Interactivity for the political parties

The same e-mails have been sent out for measuring the level of responsiveness of the political parties. The first was sent to the highest party official with an active email. In case the higher party official was also a parliamentarian the e-mail was sent to the second highest party official that had an active email. Another e-mail was sent to the webmaster of the political parties. As with the parliaments, the messages were translated into the official language of the country with the exception of the European political parties for which English was maintained. The data gathered has not been included in the final report. However, it is contained in the country reports.

E-mail for highest party official

Dear Mr/Ms X

I would like to know whether you are in favor of implementing measures that will enable citizens to vote online?

Many thanks in advance,

YOUR NAME

E-mail for webmaster

Dear Webmaster,

I am part of a transnational research team conducting an investigation of political websites in the European Union. The research project has been commissioned by the European Parliament and is being coordinated by the European University Institute. We would be very grateful if you could answer the following three questions:

1) How many staff are employed in the maintenance of the web site?
2) Could you give us an indication of the traffic demand (e.g. average hits per day/week)?
3) What is the frequency of changes of website content (e.g. hourly, daily, weekly)?

We thank you in advance for your support,

YOUR NAME

If you have any specific queries or require further information please contact:

Professor Alexandre Trechsel
European University Institute
Alexander.Trechsel@iue.it

ANNEX III - DESCRIPTION OF INDEPENDENT VARIABLES

A number of the independent variables we used in this report have been provided to us by "empirica GmBH" in Bonn (Germany). This data has been produced withing the "Statistical Indicators Benchmarking the Information Society" (SIBIS) project funded within the Information Society Technology (IST) Programme of the European Community (IST-2000—26276). We are very grateful for having been able to share the this very useful dataset. In the following, we describe in detail the content of the different independent variables that have been included in our bivariate analyses.

1. Population
This variable measures the population in each country and in the EU. The indicator has been provided by the United Nations Department of Economic and Social Affairs (Source for 2003 elections: official gvt. website http://maltadata.com/reg-vote.htm).

2. GDP per capita in PPS
This variable contains the GDP per capita in Purchasing Power Standards (PPS), (EU-15=100) for the year 2002. Source: Eurostat (http://europa.eu.int/comm/eurostat/datashop/print-product/EN?catalogue=Eurostat&product=1-eb011-EN&mode=download).

3. Fragmentation of the party system
This variable reflects the number of political parties we took into account for each country.

4. Change of turnout between the last two general elections
This variable has been computed by mostly using the database provided on the internet by International Idea (www.idea.int/).
For the Estonian elections of 2003 we used data provided by the official governmental website:
http://www.vm.ee/estonia/kat_340/pea_172/3476.html
For data on the Latvian elections of 2003 we used the University of Essex elections website:
http://www2.essex.ac.uk/elect/database/indexElections.asp?country=LATVIA&election=lv2002
For the 2003 Maltese elections our source was the official governmental. Website:
http://maltadata.com/reg-vote.htm

5. Proportion of internet users
This variable expresses in % the proportion of internet users in each country (Source: SIBIS GPS 2002, SIBIS GPS-NAS 2003). See also SIBIS Pocket Book 2002/2003, p.11.

6. Intensity of internet use
This variable expresses in % the proportion of high intensive (over 6 hours a week) internet users among all internet users.

7. Index of e-literacy

This digital literacy index corresponds to the so called COQS index, which is a measure that combines four types of skills in using the Internet into an overall "digital literacy" score. The skills included are:

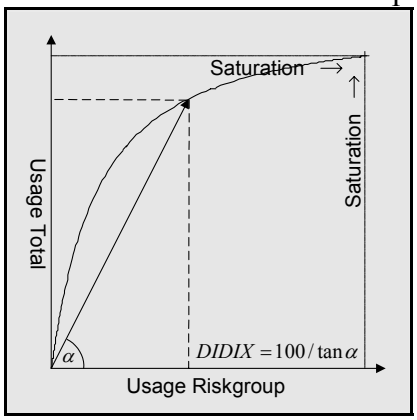
- **C**ommunicating with others (by e-mail and other online methods),
- **O**btaining (or downloading) and installing software on a computer,
- **Q**uestioning the source of information on the Internet and
- **S**earching for the required information using search engines.

The "COQS" index combines these items (based on self-assessment) into a single scale with a range from 0 to 3, with "0" representing the lowest possible digital literacy score and "3" representing the highest. For more information on this index see SIBIS Topic Report No.4 “Education”, available on www.sibis-eu.org. (Source: SIBIS GPS 2002, SIBIS GPS-NAS 2003). See also SIBIS Pocket Book 2002/2003, p. 75

8. Index of digital divide

"SIBIS developed a Digital Divide Index (DIDIX) to enable the manifestations of digital divides in EU Member States to be quickly compared. This index combines the divides by gender, age, education and income in relation to computer use, Internet use and Internet access at home. It measures the relative adoption of ICT by potentially deprived societal groups - relative as compared to the population as a whole.

DIDIX - Curve of relative adoption



The lower the DIDIX value, the greater the gap between the risk group and the population average. If the ICT adoption rate of a risk group is equal to that of the population average then the DIDIX value would be 100.

The most apparent divide is in relation to education. Age leaving school turns out to be the major determinant, the most powerful predictor in multivariate analyses of ICT usage. ICT diffusion among people having left school under the age of 16 is only about one fourth of that in the whole population. And even when allowing for the fact that older people are on average less well educated than younger people, education appears to exert greater effects than age.

Time series data for DIDIX based on SIBIS and earlier Eurobarometer surveys show that the overall magnitude of the digital divide in Europe has remained more or less constant at a DIDIX value of about 50 since 1997. This means that ICT uptake amongst the combined at risk groups has remained only half as advanced as it is in the whole population. However, there are indications of changes in some of the specific divides." (quoted from SIBIS Pocket Book 2002/2003, p. 107).

For our purposes I chose the index of 2002 for the 15 EU countries and the index of 2003 for the 8 Accession Countries. (Source: SIBIS GPS 2002, SIBIS GPS-NAS 2003). See also SIBIS Pocket Book 2002/2003, p.91 and p.107.

9. Proportion of e-commerce users among internet users

This variable expresses in % the proportion of internet users that are regular or occasional users of eCommerce. (Source: SIBIS GPS 2002, SIBIS GPS-NAS 2003). See also SIBIS Pocket Book 2002/2003, p.30.

10. Proportion of e-government users

This indicator measures proportion of the population that has used the internet to either find administrative information, send them an email, used form filling procedures or for other reasons.

11. Proportion of basic government services online

This indicator evaluates the percentage of basic public services available online (October 2002). The data comes from the European Commission's Benchmark study "Web-based Survey on Electronic Public Services", to be found at http://europa.eu.int/information_society/eeurope/documents/CGEY-Report3rdMeasurement.pdf

ANNEX IV - LEGISLATURES' SCORES ON THE E-LI AND ITS DIMENSIONS

Country	Parliament	E-LI	Information provision	Bilateral interactivity	Multilateral interactivity	User-friendliness
A	Nationalrat	36.22	56.48	57.14	0.00	31.25
A	Bundesrat	36.22	56.48	57.14	0.00	31.25
B	Lower House	48.14	69.34	85.71	0.00	37.50
B	Upper House	51.43	63.74	85.71	0.00	56.25
CY	House of Representatives	27.56	50.41	28.57	0.00	31.25
CZ	Chamber of Deputies	52.36	70.88	85.71	9.09	43.75
CZ	Senat	49.61	66.13	85.71	9.09	37.50
DK	Folketinget	62.12	81.59	71.43	45.45	50.00
EE	Riigikogu	40.28	53.98	57.14	0.00	50.00
EU	European Parliament	67.01	78.27	100.00	27.27	62.50
FIN	Eduskunta	56.53	65.96	85.71	18.18	56.25
F	Assemblée nationale	64.43	77.77	71.43	27.27	81.25
F	Sénat	71.57	73.38	71.43	72.73	68.75
D	Bundestag	72.81	89.07	85.71	72.73	43.75
D	Bundesrat	43.17	35.91	71.43	9.09	56.25
EL	Hellenic Parliament	65.00	79.31	100.00	18.18	62.50
HU	National Assembly	38.34	69.45	71.43	0.00	12.50
IRL	Dáil Éireann	35.78	54.73	57.14	0.00	31.25
IRL	Seanad Éireann	35.78	54.73	57.14	0.00	31.25
I	Camera dei Deputati	60.12	89.42	85.71	9.09	56.25
I	Senato	46.54	69.92	57.14	9.09	50.00
LV	Saeima	39.21	47.91	71.43	0.00	37.50
LT	Seimas	53.45	72.42	85.71	18.18	37.50
L	Chambre des Députés	32.74	54.01	42.86	9.09	25.00
MA	House of Representatives	34.33	53.05	28.57	18.18	37.50
NL	Eerste Kamer	37.86	58.41	71.43	9.09	12.50
NL	Tweede Kamer	47.82	58.98	85.71	9.09	37.50
PL	Sejm	53.73	78.71	71.43	27.27	37.50
PL	Senat	38.28	56.70	71.43	0.00	25.00
P	Assembleia da República	46.29	63.74	71.43	0.00	50.00
SK	Národná rada	34.21	53.63	42.86	9.09	31.25
SI	National Council	42.86	67.69	57.14	9.09	37.50
SI	Senate	34.91	49.48	71.43	0.00	18.75
E	Cortes	36.39	71.46	42.86	0.00	31.25
E	Senado	55.41	78.13	57.14	36.36	50.00
S	Riksdag	58.47	73.74	85.71	18.18	56.25
UK	House of Commons	61.80	89.89	85.71	9.09	62.50
UK	House of Lords	53.89	86.81	57.14	9.09	62.50

ANNEX V - POLITICAL PARTIES' SCORES ON THE E-PI AND ITS DIMENSIONS

Country	Party	E-PI	Information provision	Networking	Bilateral interactivity	Multilateral interactivity	Mobili-sation	User-friend-liness
A	Oesterreichische Volkspartei (OEVP)	61.15	75.00	50.00	87.50	42.86	61.54	50.00
A	Sozialdemokratische Partei Oesterreichs (SPOE)	64.51	56.25	81.25	87.50	42.86	69.23	50.00
A	Freiheitliche Partei Oesterreichs (FPOE)	38.19	43.75	43.75	62.50	42.86	7.69	28.57
A	Die Gruenen	45.87	37.50	56.25	87.50	42.86	15.38	35.71
B	Centre Démocrate Humaniste	55.96	81.25	62.50	75.00	42.86	38.46	35.71
B	Ecolo	55.82	75.00	62.50	87.50	42.86	38.46	28.57
B	Mouvement réformateur	39.92	56.25	62.50	62.50	0.00	15.38	42.86
B	Parti Socialiste	58.53	81.25	71.88	75.00	42.86	23.08	57.14
B	Sociaal Progressief Alternatief	36.79	56.25	31.25	75.00	14.29	15.38	28.57
B	Vlaamse Liberalen en Democraten	41.67	87.50	37.50	75.00	14.29	0.00	35.71
B	Agalev	34.47	62.50	43.75	50.00	0.00	7.69	42.86
B	CDV	40.57	50.00	25.00	75.00	57.14	7.69	28.57
B	Vlaamse Blok	50.49	87.50	18.75	100.00	0.00	53.85	42.86
B	SPIRIT	45.31	43.75	18.75	100.00	42.86	30.77	35.71
CY	Anorthotiko Komma Ergazomenou Laou – AKEL	14.06	68.75	3.13	12.50	0.00	0.00	0.00
CY	Dimokratikos Synagermos - DISY	16.01	56.25	12.50	12.50	0.00	7.69	7.14
CY	Dimokratiko koma - DIKO	13.78	37.50	12.50	25.00	0.00	7.69	0.00
CY	kinima Sosialdimokraton EDEK – KISOS	16.96	43.75	18.75	25.00	0.00	0.00	14.29
CY	Neoi Orizontes - NEO	4.17	6.25	6.25	12.50	0.00	0.00	0.00
CZ	Czech Social Democratic Party (CSSD)	52.36	87.5	37.50	87.50	42.86	23.08	35.71
CZ	Civic Democratic Party (ODS)	51.02	68.75	25.00	75.00	71.43	23.08	42.86
CZ	Communist Party (KSCM)	52.3	87.50	18.75	62.50	71.43	30.77	42.86
CZ	Christian Democratic Union (KDU)	52.51	81.25	37.50	87.50	42.86	23.08	42.86
CZ	Freedom Union	44.12	68.75	18.75	75.00	28.57	30.77	42.86
DK	Venstre	42.39	50.00	68.75	62.50	0.00	23.08	50.00
DK	Socialdemokratiet	29.14	56.25	18.75	62.50	0.00	23.08	14.29
DK	Dansk Folkeparti	32.21	56.25	18.75	37.50	0.00	30.77	50.00
DK	Det Konservative Folkeparti	45.60	62.50	50.00	87.50	0.00	30.77	42.86
DK	Socialistisk Folkeparti	47.15	75.00	31.25	75.00	42.86	23.08	35.71
DK	Det Radikale Venstre	42.35	43.75	43.75	87.50	42.86	7.69	28.57

Country	Party	E-PI	Information provision	Networking	Bilateral interactivity	Multilateral interactivity	Mobilisation	User-friend-liness
EE	Keskerakond (KE)	25.30	43.75	18.75	25.00	28.57	0.00	35.71
EE	Res Publica – Ühendus Vabariiji eest (RP)	36.05	56.25	37.50	50.00	0.00	15.38	57.14
EE	Rahvaliit (RL)	28.87	37.50	12.50	37.50	71.43	0.00	14.29
EE	Eesti Reformierakond (RE)	45.12	56.25	6.25	50.00	85.71	15.38	57.14
EE	Isamaaliit (IL)	1.19	0.00	0.00	0.00	0.00	0.00	7.14
EE	Rahvaerakond mõõdukad (MO)	34.91	37.50	12.50	37.50	85.71	7.69	28.57
EU	Union for Europe of the Nations	8.78	0.00	18.75	12.50	0.00	0.00	21.43
EU	Party of European Socialists	56.43	68.75	56.25	62.50	85.71	15.38	50.00
EU	The Greens / The European Free Alliance	53.71	56.25	43.75	75.00	57.14	61.54	28.57
EU	Group of the European Peoples Party (Christian Democrats) and European Democrats	36.46	68.75	37.50	62.50	0.00	0.00	50.00
EU	European Liberal Democrats and Reform Group	64.35	93.75	56.25	62.50	100	30.77	42.86
EU	Confederal Group of the European United Left / Nordic Green left	24.26	37.50	31.25	62.50	0.00	0.00	14.29
FIN	The Swedish People's Party	38.87	62.50	37.50	75.00	0.00	15.38	42.86
FIN	The Finnish Social Democratic Party	48.04	68.75	62.50	62.50	28.57	23.08	42.86
FIN	The Centre Party	53.55	75.00	87.50	50.00	42.86	23.08	42.86
FIN	The National Coalition Party	45.96	62.50	43.75	75.00	42.86	23.08	28.57
FIN	The Green League of Finland	44.97	56.25	75.00	87.50	0.00	15.38	35.71
FIN	Christian Democrats	56.11	62.50	62.50	87.50	57.14	38.46	28.57
FIN	The Left Alliance	33.67	37.50	43.75	62.50	0.00	15.38	42.86
F	Socialist Party	38.00	75.00	28.13	37.50	42.86	23.08	21.43
F	Union pour un Mouvement Populaire (UMP)	44.60	75.00	0.00	25.00	85.71	46.15	35.71
F	Communist Party	37.16	50.00	25.00	37.50	42.86	46.15	21.43
D	Sozialdemokratische Partei Deutschland (SPD)	56.76	75.00	34.38	62.50	57.14	61.54	50.00
D	Christlich Demokratische Union (CDU)	68.22	81.25	59.38	50.00	100.00	61.54	57.14
D	Christlich Soziale Union (CSU)	67.81	62.50	65.63	87.50	71.43	76.92	42.86
D	FDP Die Liberalen	60.93	75.00	46.88	75.00	57.14	61.54	50.00
D	Die Grünen	57.89	68.75	46.88	62.50	57.14	69.23	42.86
EL	Pan-Hellenic Socialist Party	55.82	75.00	75.00	75.00	28.57	38.46	42.86
EL	Synaspismos-Coalition of the Left & Progress (SYN)	53.07	93.75	81.25	100.00	0.00	7.69	35.71
EL	Communist Party of Greece (K.K.E)	40.73	68.75	68.75	25.00	0.00	46.15	35.71
EL	New Democracy (ND)	42.71	68.75	62.50	75.00	0.00	0.00	50.00

Country	Party	E-PI	Information provision	Networking	Bilateral interactivity	Multilateral interactivity	Mobilisation	User-friend-liness
HU	Fidesz Hungarian Civic Party	40.21	68.75	37.50	12.50	71.43	15.38	35.71
HU	Hungarian Socialist Party	47.84	62.50	43.75	50.00	71.43	30.77	28.57
HU	Alliance of Free Democrats	40.30	56.25	37.50	25.00	71.43	23.08	28.57
HU	Centrum Party	14.67	12.50	12.50	12.50	42.86	7.69	0.00
IRL	Fianna Fail	31.28	50.00	18.75	75.00	0.00	15.38	28.57
IRL	The Labour Party	45.27	75.00	31.25	50.00	85.71	15.38	14.29
IRL	The Green Party	36.34	62.50	31.25	87.50	0.00	15.38	21.43
IRL	FineGael	24.98	50.00	12.50	50.00	0.00	23.08	14.29
IRL	Progressive Democrats	27.21	50.00	6.25	62.50	0.00	23.08	21.43
IRL	Sinn Fein	16.46	31.25	6.25	25.00	0.00	7.69	28.57
I	Alleanza Nazionale	46.79	75.00	25.00	100.00	14.29	30.77	35.71
I	Margherita	60.52	75.00	68.75	87.50	28.57	46.15	57.14
I	Lega Nord	42.50	75.00	34.38	50.00	0.00	38.46	57.14
I	Forza Italia	45.35	56.25	71.88	0.00	71.43	15.38	57.14
I	Democratici di Sinistra	67.25	87.50	43.75	75.00	71.43	61.54	64.29
I	Cristiano Democratici (CCD)	36.73	50.00	56.25	62.50	0.00	23.08	28.57
LV	Jaunais Laiks (JL)	42.42	56.25	18.75	62.50	42.86	38.46	35.71
LV	Tautas Partija (TP)	40.81	68.75	25.00	50.00	42.86	15.38	42.86
LV	T_vzemei un Br_v_bai / LNNK	36.85	62.50	18.75	25.00	71.43	7.69	35.71
LV	Tautas saska _as partija (TSP)	31.99	56.25	25.00	25.00	42.86	0.00	42.86
LV	Latvijas Ce_ (LC)	42.45	56.25	18.75	50.00	71.43	15.38	42.86
LV	Latvijas Pirm_partija (LPP)	14.23	37.50	6.25	12.50	0.00	7.69	21.43
LV	Latvijas Za_a partija (LZP)	19.97	37.50	18.75	12.50	0.00	15.38	35.71
LV	Latvijas Soci_ldemokr_tisk_str_dniek u partija (LSDSP)	30.00	43.75	12.50	37.50	42.86	7.69	35.71
LV	Centrisk_partija – Latvijas Zemnieku Savien_ba (LZS)	28.81	50.00	18.75	25.00	42.86	7.69	28.57
LT	Lietuvos socialdemokratu partija - LSDP	41.79	56.25	62.50	37.50	28.57	23.08	42.86
LT	Naujoji sajunga (socialliberalai) - NS (SL)	25.54	68.75	25.00	37.50	0.00	7.69	14.29
LT	Libralu ir centro sajunga - LiCS	42.24	50.00	37.50	50.00	28.57	23.08	64.29
LT	Liberalu demokratu partija - LDP	33.81	68.75	6.25	62.50	28.57	15.38	21.43
LT	Tevynes sajunga (Lietuvos konservatoriai) - TS (LK)	31.14	68.75	18.75	62.50	0.00	15.38	21.43

Country	Party	E-PI	Information provision	Networking	Bilateral interactivity	Multilateral interactivity	Mobilisation	User-friend-liness
L	Chrëschtlech Sozialer Vollekspartei	53.16	87.50	75.00	62.50	42.86	15.38	35.71
L	Demokratesch Partei	46.97	68.75	50.00	12.50	100.00	7.69	42.86
L	Letzebuerger Sozialistesch ArbechterPartei	29.65	62.50	25.00	25.00	0.00	15.38	50.00
L	Aktiounskomitee fir Demokratie a Rentegerechtegkeet	30.78	81.25	25.00	12.50	0.00	23.08	42.86
L	Déi Grèng	46.31	62.50	62.50	87.50	0.00	15.38	50.00
MA	Nationalist party	48.64	50.00	31.25	87.50	57.14	23.08	42.86
MA	Malta Labour Party	43.13	50.00	37.50	12.50	85.71	23.08	50.00
NL	Christen Democratisch Appel (CDA)	51.35	68.75	31.25	62.50	71.43	38.46	35.71
NL	Partij van de Arbeid (PvdA)	35.13	56.25	37.50	50.00	0.00	38.46	28.57
NL	Volkspartij voor Vrijheid en Democratie (VVD)	39.54	62.50	62.50	37.50	0.00	46.15	28.57
NL	Socialistische partij (SP)	55.73	62.50	31.25	50.00	71.43	69.23	50.00
NL	D66	71.57	68.75	68.75	87.50	85.71	61.54	57.14
NL	Lijst Pim Fortuyn (LPF)	34.35	43.75	25.00	50.00	42.86	23.08	21.43
NL	GroenLinks	41.08	75.00	31.25	37.50	42.86	38.46	21.43
PL	Sojusz Lewicy Demokratycznej (SLD)	53.81	93.75	50.00	50.00	57.14	7.69	64.29
PL	Platforma Obywatelska (PO)	51.13	68.75	15.63	62.50	71.43	38.46	50.00
PL	Prawo I Sprawiedliwosc (PiS)	46.59	75.00	21.88	75.00	28.57	7.69	71.43
PL	Polskie Stronnictwo Ludowe (PSL)	41.37	81.25	18.75	62.50	28.57	0.00	57.14
PL	Samoobrona (SMBR)	39.58	81.25	31.25	75.00	0.00	0.00	50.00
PL	Unia Pracy (UP)	53.34	31.25	21.88	62.50	100.00	61.54	42.86
P	Partido Comunista Português	35.19	75.00	25.00	37.50	0.00	30.77	42.86
P	Partido Socialista	37.51	50.00	43.75	50.00	0.00	38.46	42.86
P	Partido Social Democrata (PSD)	48.34	43.75	37.5	50.00	85.71	23.08	50.00
P	Partido Popular	1.19	0.00	0.00	0.00	0.00	0.00	7.14
SK	Slovenská demokratická a krest'anská únia (SDKÚ)	39.17	75.00	25.00	12.50	57.14	15.38	50.00
SK	L'udová Strana – Hnutie za Demokratické Slovensko (LS-HZDS)	31.85	50.00	25.00	37.50	42.86	0.00	35.71
SK	Smer – Tretia cesta	35.60	62.50	12.50	37.50	42.86	15.38	42.86
SK	Strana Madarský Koalície – Magyar Koalició Pártja (SMK-MKP)	20.54	56.25	18.75	12.50	0.00	0.00	35.71
SK	Krest'ansko Demokratické Hnutie (KDH)	20.33	62.50	25.00	12.50	0.00	7.69	14.29
SK	Alianca Nového Obcana (ANO)	31.38	37.50	31.25	25.00	42.86	23.08	28.57
SK	L'udová Unia	24.40	37.50	12.50	25.00	42.86	0.00	28.57
SK	Komunistická strana Slovenska (KSS)	37.42	43.75	12.50	37.50	71.43	30.77	28.57

Country	Party	E-PI	Information provision	Networking	Bilateral interactivity	Multilateral interactivity	Mobilisation	User-friendliness
SI	Zdru_ena lista socialnish demokratov (ZLSD)	43.06	68.75	34.38	25.00	71.43	23.08	35.71
SI	Slovenska ljudska stranka (SLS)	30.99	50.00	18.75	37.50	42.86	15.38	21.43
SI	Socialdemokrtska stranka Slovenije (SDS)	41.01	56.25	25.00	50.00	71.43	7.69	35.71
SI	Nova slovenija-Kr_ansko ljudska stranka (Nsi)	40.77	62.50	15.63	50.00	71.43	30.77	14.29
SI	Demokrati_na stranka upokojencev	17.04	43.75	3.13	12.50	28.57	0.00	14.29
SI	Liberalna demoktacija Slovenije (LDS)	24.72	43.75	21.88	25.00	28.57	7.69	21.43
SI	Stranka mladih Slovenije (SMS)	17.13	31.25	3.13	25.00	0.00	7.69	35.71
SI	Slovenska nacionalna stranka	5.21	31.25	0.00	0.00	0.00	0.00	0.00
E	Partido Popular (PP)	55.43	75.00	37.50	75.00	57.14	30.77	57.14
E	Partido Socialista Obrero Espanol (PSOE)	45.16	75.00	68.75	75.00	0.00	30.77	21.43
E	Convergència i Unió (CiU)	57.90	62.50	62.50	62.50	42.86	38.46	78.57
S	Miljöpartiet	53.99	68.75	40.63	75.00	42.86	53.85	42.86
S	Socialdemokraterna	61.34	81.25	53.13	87.50	42.86	46.15	57.14
S	Moderaterna	53.81	68.75	40.63	75.00	42.86	38.46	57.14
S	Folkpartiet	49.90	68.75	46.88	75.00	42.86	23.08	42.86
S	Vänsterpartiet	51.73	68.75	46.88	75.00	0.00	76.92	42.86
S	Centerpartiet	38.98	43.75	46.88	62.50	0.00	30.77	50.00
S	Kristdemokraterna	56.69	62.50	71.88	75.00	42.86	30.77	57.14
UK	The Conservative Party	44.33	75.00	31.25	62.50	0.00	61.54	35.71
UK	Liberal Democrats	58.60	87.50	68.75	75.00	0.00	84.62	35.71
UK	The Labour Party	45.99	62.50	75.00	50.00	0.00	38.46	50.00

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