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The European Parliament and the Challenge of Internet Voting

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INTRODUCTION

On May 27, 2002 a motion for a Resolution on e-democracy and e-European citizenship was put forward to the European Parliament. It called for Member States 'to promote electronic voting, and in particular voting arrangements using e-voting monitored polling stations for the 2004 European elections'. Earlier the same month the first international conference on introducing internet voting for the European Parliamentary elections was held at the Robert Schuman Centre for Advanced Studies, situated at the European University Institute in Florence, directed by Professor Yves Mény and Professor Alexander H. Trechsel[1].

The international conference, funded by the 5th Framework Programme of the European Commission's Key Action "Improving the Socio-economic Knowledge base" under the Programme "Improving the Human Potential", brought together an interdisciplinary team of scholars to discuss the prospects and problems associated with introducing internet voting (i-voting) for the European Parliamentary elections[2].

The issue of internet voting has increasingly become a "hot topic", but why are we thinking about it? Is it merely because we want to find new mechanisms that would slow down the erosion of turnout or, even more optimistically, lead to an improvement in electoral participation? Should we simply assume, rather naively, that offering citizens new online voting tools will provide the digital panacea to political apathy? Or is there a more ambitious agenda behind the flurry of 'e' action plans that have been initiated in most EU member states? Are we looking at a new European reality, where existing public spheres could be strengthened through the spread of electronic technologies or even complemented by new virtual public spheres? Would this, in turn, address some of the current concerns about the democratic legitimacy of the European institutions? These are some of the central questions that were discussed by the conference participants.

The conference was organised around three core interrelated dimensions: the socio/political, legal and technological dimension. The discussion around these themes resulted in a very lively debate concerning the political consequences and the democratic, administrative and technical issues related to the introduction of online voting at the EU level. Participants addressed a series of critical questions at the core of the internet voting challenge:

- What are the possible effects of internet voting on electoral turnout?
- Could it enhance democratic participation by fostering better opinion formation among the EU citizenry?
- What will be the financial and social costs of such a transformation?

- Does the digital divide constitute an impediment?
- Is internet voting secure?
- Is internet voting legally feasible at the EU level?

We propose, within the framework of this Policy Paper, to identify the major contributions of the conference in terms of four themes:

1) Conceptual Frames
2) Overview of i-voting experiences
3) Implementation and feasibility of i-voting
4) Potential effects of i-voting
5) Conclusions and recommendations

1. CONCEPTUAL FRAMES

1.1 Conceptual Issues related to i-voting: The wider picture

To shed some light on the bigger picture we need to place the issue of i-voting in its wider theoretical context. A recent Economist survey[3] illustrated this wider context in the following way:

"Once reliable methods for validating electronic votes have been found and internet penetration rates approach saturation, the internet will remove the biggest single obstacle to direct democracy—the physical difficulty of distributing information to a large population, engaging it in debate and collecting its votes. When this happens, probably during the next decade, many people will come to see national elections every few years as an extraordinarily blunt instrument for expressing the popular will, a remnant from the age of steam, when most representative institutions were invented."

The survey has brought to the attention of its wide readership a lively debate that has been raging among theorists of democracy for decades. It is indeed the prospects offered by new internet technologies for fostering more direct and participatory modes of decision-making that has so excited political theorists. Some of the more optimistic political theorists take the position that with the development of ever more interactive and decentralizing internet technologies more inclusive forms of democratic participation will start to emerge. The electorate's civic engagement will be rejuvenated and political apathy will be reversed. The skeptics point out that the future of democracy will be less influenced by the emerging new technologies than by existing institutional structures which tend to be 'sticky' and will have a much more pervasive influence on democratic outcomes.

It is too early yet to answer any of these questions and, not surprisingly, most of the available evidence regarding the political impact of new technologies is mostly impressionistic and qualitative in nature. Still, this ought not to preclude the discussion of ways in which new technologies could be harnessed to foster more deliberative and efficient modes of democratic participation. To this end, 'e' has become one of the more recent prefixes to be added, not just to the idea of voting but to the very concept of democracy.

What exactly e-democracy means and how it can be transformed into an analytical concept amenable to empirical study is still vague and fuzzy. This has not stopped theorists from attempting to identify some of its defining features. To summarize two extremes can be identified (see table below):

1) A representative model of e-democracy where the basic features of the representative mode of government are maintained and new technologies serve to promote leaner and more efficient public services;

2) A participatory model of e-democracy in which transformative institutional reform is possible and the internet, in particular, serves to strengthen the deliberative dimension of democratic participation.

It is against this wider theoretical backdrop that the i-voting issue has emerged. The ramifications for how i-voting is both framed and implemented are huge. On the one hand i-voting is representative of a wider move towards making services available online while, on the other, i-voting is an integral component of broader move towards more direct and participatory forms of democracy.

	PARTICIPATORY MODEL	REPRESENTATIVE MODEL
Basic Conception	Individual as part of a wider political community Primacy of the public sphere Recognition that knowledge is discursive, changeable and emerges through interaction	Antagonism between individual and political community Primary concern with efficiency An importance attached to the concept of service delivery to customer
Institutional Design	Direct Democracy via electronic means Participatory system of representation Civil Society and strengthening of the public sphere via new media	Representative system Classical 'Burkean' system of representation Protection of private sphere
Political Behaviour	e-consultation and decision-making via electronic means Deliberation and voting via electronic means	Improved efficiency of government-2-citizen transactions and information access Electronic voting

Source: Adapted from Zittel (2001: 4).

1.2 Definitions of i-voting

The conference gave the participants the opportunity to address some of the definitional issues related to internet voting. A first definitional issue regarded the way in which internet voting should be abbreviated. While the abbreviation commonly adopted is *e-voting* (for electronic voting), it has been pointed out that a more precise abbreviation would be *i-voting* (for internet voting) or *online*

voting. The latter abbreviations would emphasise that it is a voting procedure that uses the internet for transmitting the vote[4].

> Internet voting refers to a voting procedure whereby a secure and secret vote ballot is cast and transmitted to officials via the internet.

Another important definitional issue and crucial distinction concerned the nature of the i-voting system. An important difference has been proposed to distinguish between the more risky but more convenient remote internet voting (RIV) from internet voting at the polling places (IV@PP) that is considered less risky but less convenient. The two distinct i-voting systems differ markedly in terms of the security implications and the convenience factor.

The crucial difference between the two arises from the administrative perspective. RIV represents a radical departure from existing practices whereby voters are offered the possibility of voting from any terminal or computer connected to the internet in order to cast their vote. IV@PP represents a less radical modification and simply replaces existing paper ballots with a machine that records votes locally then transfers those votes to the election headquarters. The crucial distinction is that vote authentication with the IV@PP model is conducted at the polling station by election officials while RIV would necessitate technical solutions such as voter PIN or digital signature and the voting infrastructure is not under the control of election officials. The two models are shown below (for further elaboration see Gibson 2002).

1) IV@P	⟶	Votes sent via internet to HQ Voter i.d. checked by officials	⟶ Infrastructure controlled by election authority
2) RIV	⟶	Votes sent via internet to HQ Votes checked via technical solutions, e.g. PIN or encryption	⟶ Infrastructure not controlled by election authority

Other innovative forms of remote voting that do not necessarily use the internet, including mobile telephones (via short-text messages) and interactive television, were also discussed. The key point was to distinguish between the various different platforms for I-voting the choice of which will have important security and participative consequences.

2. OVERVIEW OF I-VOTING EXPERIENCES

Internet voting is no longer a novelty and is increasingly used in the private sector or for casting opinions via online polls such as those offered by newspaper websites. At the political level the adoption of this new method, for very obvious reasons, is much less straightforward given the much higher security threshold that will have to be satisfied and the need for such a reform to be legitimated, trusted and recognised by the population and the political class as a whole. This has ensured that the introduction of i-voting is still, even in the most technologically advanced nations, at the trial stage. Nonetheless various governments have signalled their desire to introduce such a reform:

- The German government has indicated that it would like to see i-voting fully operational for the 2010 general election with a more limited form introduced in 2006.
- The Estonian government recently announced plans to implement i-voting for the 2003 general elections
- Sweden has established formal inquiries into the possibilities for introducing i-voting.
- In the Netherlands, work is underway to allow remote internet voting for Dutch citizens living abroad.[5]
- In New Zealand a taskforce has set a 2005 target for offering i-voting at the polling stations.
- The UK government has indicated in a consultation paper[6] that it expects an 'e-enabled' general election to be held after 2006.

Among the most noteworthy politically *binding* i-voting experiences to date, two have occurred within political parties and another two in government held elections.

2.1 I-voting in political parties

The Arizona primaries

One of the most well-known i-voting elections that took place is the Democratic Party primary in Arizona held in March 2000. They have featured in most discussions not only because the election offered the possibility of using the internet for voting but also because an impressive increase of over 600% in participation took place. Furthermore, 42% of the voters voted online[7].

Partito Radicale

A less reported European example of i-voting are the elections of the *Partito Radicale* in Italy. Two internet enabled elections have been conducted for electing one third of the Partito Radicale's executive board in December 2000

and subsequently in July 2002. It is a particularly interesting case because: a) the election was 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 and chats were organised around the elections.

2.2 I-voting for elections/referendums

To date the UK and Switzerland have been among the first countries to have experimented with internet voting in a binding way. In the UK i-voting trials were conducted for local elections and in the Canton of Geneva a referendum with the possibility of voting via the internet was held.

UK i-voting experience

For the 2002 and 2003 local elections a number of council authorities have been running electoral pilot schemes. This is part of UK plan for an "e-enabled" general election after 2006 which aims to increase the electoral participation through a system of multi-channel elections in which voters are offered a range of means by which to cast their vote.

For the May 2002 local elections five of the thirty electoral pilot schemes (Sheffield, Swindon, St. Albans, Liverpool and Crewe) offered some experiments of online voting. Some of the more interesting results were in Swindon where over 10% of the electorate voted online and Sheffield where over 30% of those who voted did so electronically. Nonetheless the picture with regard to levels of participation was mixed with some wards experiencing an increase while others decreased.

In May 2003 seventeen councils offered some form of electronic voting (either via the internet, electronically at polling stations, through interactive kiosks, touch-tone telephone, digital TV or text message) with early indications showing that one-fifth of voters in pilot areas used new methods to cast their vote. Evidence from Swindon Borough Council suggests that internet voting proved the most popular of the new methods, with 7.5% of voters preferring this option [nevertheless, those councils experimenting with all postal ballot saw an even larger increase in turnout].

Anières i-voting experience

In January 2003, the commune of Anières in the canton of Geneva (Switzerland) offered its electorate the possibility of voting via the internet for a local referendum. This was the first legally binding, direct democratic decision where internet voting could be used and it was introduced as a *supplementary mode* to the existing postal voting and voting at the polling place. This experience has been considered by the cantonal authorities as a success, since:

- turnout was very high compared to the usual levels of turnout in the Swiss context: 63.77% of the electorate participated in the vote;
- almost half of the actual voters voted over the internet (44%);
- a large majority of internet voters indicated that they trusted this form of voting and that the design of the voting device was user friendly;
- among elder citizens turnout was particularly high. The same was true for women.[8]

In view of the proliferation of i-voting initiatives around the globe, and within Europe, it is not surprising that it should be considered for the European Parliament elections. The Commission has funded the *Cybervote*[9] and *True Vote*[10] projects as part of the Information Society Technology (IST) 1999 programme for research technology.

At the European level a motion for a Resolution on e-democracy and e-European citizenship was put forward to the European Parliament in 2002, calling for Member States to promote e-voting for the 2004 European Parliament elections. More recently the Greek Presidency has displayed a strong interest in promoting e-democratic projects, with a particular stress on e-voting.[11].

It is against this backdrop that the issue of internet voting at the EU level was considered from a two-fold perspective: a) as a possible mechanism for addressing the so-called democratic deficit and low electoral turnout, and b) as a possible consideration for institutional reform at a moment that coincides with a crucial juncture for European integration in which the Convention on the Future of Europe and the upcoming 2004 Intergovernmental Conference will discuss measures for further democratizing the EU.

3. IMPLEMENTATION AND FEASIBILITY

3.1 Political Issues

A first, and obvious question, is to ask whether a noticeable political will exists among European policymakers to offer the electorate new voting mechanisms. Governments and the European Commission have, for some years now, been keen to trumpet the virtues of e-government although the same has not yet been the case for i-voting. In this regard surveys have revealed a strong difference of appreciation between the political class and population. A majority of surveys based on the opinion of citizens tended to show that they were willing to introduce i-voting. For instance, Gibson (2002) quotes a Rasmussen Research poll of September 2000 showing that 60% of the 1598 American adults surveyed would use i-voting if it were available for the presidential election, a rise of over 10% from the previous year. This is further confirmed by the survey realized in the canton of Geneva in 2001 where almost 70% of the electorate was in favour of introducing i-voting (see Kies & Trechsel, 2001: 64).

However, opinion seems less favourable and homogenous among political elites. For instance, a recent survey of French deputies and senators revealed that only four percent supported the idea of using internet to vote[12]. With regards to the reasons of such a political resistance, it has been pointed out that large part of it is driven by a combination of ignorance, fear of change or just plain old inertia (Gibson 2002).

Another barrier that could acquire a political dimension is the so-called digital divide. The electoral process ought to be equally available to every citizen, a principle widely recognized as important in locating traditional polling stations throughout local communities. Critics argue that the divide in terms of internet access could further skew electoral participation, and therefore political power, toward more affluent and wired socioeconomic groups (Norris 2002). This being an issue that merits attention, there is still a lack of consensus with respect to the problems arising from the digital divide – in the context of i-voting – in view of the continuation of voting by traditional means or by mail. In any case the problem of the digital divide is a transitional one. According to Kriesi (2002) digital divide arguments should not be used to mask the real, fundamental divide – that is between the more resourceful citizens and the less resourceful ones. This divide is independent of the techniques applied for voting and "the way to reduce the disadvantages of the less resourceful is obviously not the suppression of technical progress, but the redistribution of the resources which would allow to reduce the inequalities that have caused those disadvantages in the first place".

3.2 Legal Issues

At a first stage any attempt to introduce new voting methods will have to deal with a host of complex legal issues. Among the most prominent is the need to ascertain the compatibility of any electoral innovations with a number of international treaties –in particular European Court of Human Rights provisions- ensuring respect for the core principles of European electoral heritage. The five cardinal principles of Europe's electoral heritage and electoral law have been enumerated by Garrone (2002) and include: 1) universal suffrage, 2) equal suffrage, 3) free suffrage, 4) secrecy of ballot and 5) direct suffrage. They are enshrined, implicitly or explicitly, in international treaties such as the Additional Protocol to the European Convention on Human Rights or the International Covenant on Civil and Political Rights.

To the extent that i-voting is offered as a supplementary voting means these core principles would not be undermined. The table below illustrates the problems that arise from the introduction of i-voting for each of the fundamental principles and the extent to which the problems are new from a legal perspective compared to traditional voting methods (see Garrone 2002 for a more detailed discussion).

PRINCIPLE	SPECIFIC PROBLEM	LEGAL NOVELTY
Direct Suffrage	None	
Universal Suffrage	e-voting as the only modality of voting: would exclude voters	Mainly new
	Lack of reliability, security	Not really new
Equal Suffrage: equal voting rights	Risk of multiple voting and similar problems	Not new –settled by prohibition of anonymous voting
Equal Suffrage: accessibility of voting procedure	Making a computer available to every voter	New
	Access barred to non-initiated voter	Mainly new, but the extension of postal voting could avoid legal inequalities
Equal Suffrage: no discrimination on the basis of age, race, or ethnic origin	Access barred to non-initiated voter	Mainly new, but the extension of postal voting could avoid legal inequalities

(cont. overleaf)

(cont.)

Equal Suffrage: equal opportunity	See next item	
Free suffrage: freedom of voter to form their own opinion	Neutrality of official information provided to the voter via the internet	Not new
	Neutrality of the links to other (political) web sites	New
Free suffrage: freedom of voter to express their opinion	Family voting and other types of "collective" voting	Not new
Free suffrage: accurate recording of the outcome of the ballot	Lack of security or reliability	Partially new (risk of automated fraud increased)
Secret Voting	Lack of security or reliability	Not really new
	Undue intervention of election officials during the voting process	Partially new

Source: Adapted from Garrone (2002).

The key issue to be addressed at the European level is whether i-voting should be pursued via Community legislation. To make this possible, an adequate legal basis must either be found or created. The first port of call would be Art 190(4) EC which provides that the European Parliament shall draw up a proposal for elections by direct universal suffrage in accordance with a uniform procedure in all Member States or in accordance with principles common to all Member States. Given that e-voting cannot be said to constitute a principle common to all Member States, it leaves the option of a uniform procedure in all Member States (Auer 2002). And whilst Art 190(4) imposes somewhat onerous procedural requirements, it clearly opens the gateway to the possibility of a system of i-voting for European Parliament elections that, political will permitting, would apply in all the Member States.

3.3 Technical and Design issues

As underscored by most reports on internet voting there are formidable technological challenges that need to be overcome so as to provide European citizens with i-voting tools. Even if technical solutions were made readily available the system would need to inspire public confidence and trust in the new method of democratic participation. It is therefore crucial for the technical and design issues to be seen from the wider social dimension, which require more than the supply of 'technical fixes' to achieve security. If the majority of

the population or part of the political class perceive i-voting to be insecure the legitimacy of election outcomes would be thrown into question. Trust and confidence must be ensured in order to safeguard and preserve the legitimacy of the election.

Among the most salient security concerns is the need to guarantee the authenticity, secrecy and integrity of the vote. Standard approaches to threat analysis and risk assessment could be utilised to better understand and quantify the risks of malfunctions or attacks that would compromise internet voting (Mitchison 2002). The following dangers were identified:

- danger of impersonation of voter
- interception of vote between the voter and central machine
- hacking into the central machine
- corruption of central software
- corruption of voter's software
- attack on voters' machine

Warynski (2002) indicated that many of these dangers have been successfully addressed using encryption tools and that "we are now sure that the system is safe, respects the democratic principles, is as secure as the postal vote, very user-friendly and ready for public use". It should be noted that 100 per cent security could not be achieved for i-voting systems, but then neither is this possible in relation to current electoral practices. Regarding the level of security that should be reached Auer indicated that it should not be overestimated and be adapted to the socio-technical circumstances that are in perpetual evolution: "There is probably no 100 per cent safe solution to the undoubtedly complex security problems raised by e-voting. The question therefore cannot be to look for absolute security standards. The question is to find optimal security standards under given circumstances that are necessarily subject to change... The choice between different available technical devices and solution is never a final choice and is more political than of a technical nature" (Auer 2002).

In designing an i-voting system a balance must be struck between the importance of achieving system security while, at the same time, ensuring simplicity and convenience of use (Pratchett *et al* 2002). Designers of e-voting systems need to recognise that if widespread use is to be achieved, they must be simple and convenient. Not all voters will have access to state of the art technology and, even more importantly, the necessary technical and cognitive skills to deal with complex security requirements. Pratchett *et al* (2002) argue that the design of i-voting systems ought to be also guided by a simplicity criterion so as to reduce the possibility of imposing sophisticated technical barriers to political participation.

In order to realise the improved opportunities for democratic participation at the EU level, special care must be taken with regard to the design of a so-called "pre-voting public sphere" for the i-voting system (Kies 2002). Such a space will necessarily need to address the specificity of the EU political system, especially with regard to plurality of languages. Information and the possibilities for interaction should be presented and controlled in such a way that all citizens – young/old, rich/poor, well educated/less educated – should have access to information and interaction possibilities that are adapted to their needs and competences. The pre-voting sites should also be as pluralistic as possible. Since pluralism is a key element for a qualitative process of opinion formation, its promotion is an essential feature for the development of the pre-voting public space.

With regards to the provision of information Kriesi (2002) indicates that the site should provide access to information and communication facilities that cater to voters with various levels of interest in the particular election. At a minimum, the site should provide an overview of the *relevant partisan cues*. This means that i-voting portal should provide access to an overview of the parties and their candidates- with biographical statements for each candidate. Kies (2002) added that access to the information could take the form of *a double entrance system*. The first entrance would lead to a simplified, though not simplistic, system of information, where citizens with limited time and/or low political interest would be able to gain access to essential and plural information about the candidates. The second entrance, would give the possibility to all parties, organisations and individual to post links and other information on the site.

3.4 Financial and Administrative costs

In the short term the implementation of i-voting will require a sizeable resource investment. Moreover, given that the only model envisaged is one in which i-voting is offered as a supplementary means of voting the cost of organizing elections will increase. Alabau and Benedito (2002) have estimated the cost of implementing an i-voting system, as a supplementary mean of voting, in the Spanish region of Valencia at about 6million euros. Over time, and as more of the electorate uses the new vote facilitation mechanisms, higher efficiency and cost savings could be gained. In the case of RIV (remote internet voting) staffing costs for polling stations and voting machines could be considerably reduced. If the majority of votes were cast electronically, errors in the count and the time taken to produce the final tally could also be drastically reduced.

Nonetheless these gains need to be offset against the costs of regularly upgrading hardware and software (Mitchison 2002). Gibson speculates that "the

system would need to be constantly upgraded in terms of hardware and software to protect it from viruses. Also if extending the voting period meant that poll sites had to be kept open longer then staff costs would not necessarily go down. Finally massive voter education program be necessary to teach people about how to cast their vote and download software to protect their PC form hackers or viruses'' (Gibson 2002). Somehow underlying the financial and administrative dimensions of implementing i-voting procedures is an almost philosophical question: does the organisation of democratic elections have to be the exclusive right, or even obligation, of the State? In other words, can one "outsource" the organisation of elections to actors of the private sector? Could one think of a public-private-partnership? The Dutch participants stressed their government's preference for a public model and aversion to any type of public-private-partnership. The Swiss case on the other hand demonstrated a greater openness for such partnerships.

4. POTENTIAL EFFECTS OF I-VOTING

4.1 Turnout

The question of improving turnout is especially relevant for the EU since a notable feature of European Parliamentary elections is that they are generally viewed as second-order elections, i.e. as mid-term judgments on the performance of incumbent governments. One of the consequences resulting from the second-order character of European Parliamentary elections is that the turnout is lower than the national one because political parties and mass media attention is restricted (see Schmitt, 2002). As a consequence, any potential gains in voting participation from new technology are particularly important for the European Union, given that only 49,2% of all European citizens voted in the June 1999 European Parliament elections, haemorrhaging from almost two-thirds of the electorate just two decades earlier.

For analysing the possible impact of i-voting on turnout, an important distinction was made between IV@PP and RIV. In the case of IV@PP, that would give the opportunity to the European citizens to vote via the internet from any polling place, a general agreement could be found that the introduction of i-voting would have a minimal effect on turnout at best. When RIV was taken into consideration evidence from electoral surveys[13] and earlier i-voting experiences[14] indicate that introducing internet voting could have positive impacts on turnout. It should be stressed that as long as RIV is introduced as a supplementary mode of participation it could not have negative effects on turnout. Therefore, the effect of RIV on turnout would, at worst, be neutral and, at best, be positive, provided that the traditional forms of participation would not be abandoned.

One of the main reasons offered is *convenience* or *cost reduction*. The act of vote would be simplified since RIV would allow voting to be spread over a series of days, and would make it much easier for people with mobility restrictions (disabled, ill and elderly), those in transit for work or holiday, those living in remote rural locations and expatriates living in another country to vote. Other factors may incite political participation including a better and more informative provision of information and enhanced communication opportunities, which have an intrinsic entertainment value. If, as seems likely, the main beneficiaries of i-voting are the young one may speculate that this will lead to a greater enfranchisement of the young as political parties redefine their policy platforms (Mendez and Domm 2002). Offering i-voting opportunities could also be seen as a positive way to tap into the enthusiasm of young people in particular for this technology. Critics (Norris, 2002; Schmitt, 2002) however argued that the impact of RIV would be insignificant since the supplementary commodity offered by i-voting is not sufficient to provide a cure against the electoral boredom and the indifference that tends to characterise European Parliament elections. According to Schmitt (2002), consequential elections, close race, real electoral alternatives to choose from, would probably represent better alternatives to fight lower turnout.

In sum while i-voting would not constitute the magic panacea for the poor turnout for European elections, the discussions held during the conference seemed to indicate that one can be rather optimistic with regard to the impact of RIV on political participation. Most surveys, analogies with the introduction of other vote facilitations such as postal voting and earlier i-voting experiences indicate a positive effect on turnout. However, the effect will not be revolutionary. As Kriesi (2002) points out, by referring to a survey realized in the canton of Geneva, the effect is not likely to exceed 10%, but still this effect remains a significant one.

4.2 Impact on the Public Sphere

Democratic participation is however more than simply increasing turnout and to this end the informative and deliberative dimension related to the public sphere were also evaluated. A very fruitful discussion pointed out that i-voting (RIV and IV@PP) could be accompanied by informative and interactive innovations that would be integrated in the official voting site itself. That would correspond to a new type of public sphere that has been coined as the "pre-voting public sphere''(Kies, 2002). According to some participants (Kriesi 2002, Kies 2002) the implementation of a pre-voting public sphere will increase the quality of pre-electoral opinion formation. This should result from the combination of four features that we have summarized as follows:

1) Higher level of participation: While the participation within the specifically political virtual public spaces (political parties, political associations, political informative sites) is usually low, even when they are well designed and offer political information of quality, a recent survey realized in the canton of Geneva indicated that the pre-voting site is likely to be highly frequented[15]. Some speculative reflections based on socio-psychological aspects explain why an i-voting pre-voting public sphere may enhance participation: a) trust is inspired by official websites; b) it may constitute a convenient site with great appeal; c) it may increase the interest of younger generations.

2) Qualitative improvement of opinion formation: In addition to increasing the participation and the interest in the election, it is argued that the quality of opinion formation might be particularly improved since the information and the forums within the pre-voting public space are likely to be pluralistic. This is due to the fact that a) all the political parties and associations will want to express themselves in such a widely visible public space and b) such a public space is likely, by offering the opportunity to organisations and people who do normally have no public visibility, to encourage the birth of new ideas and viewpoints. As Ladeur (2002) puts it: "Different forms of interactive combination of interests, expertise, and values might be brought together in order to generate discussions processes which could be brought together by a moderator, with the aim of producing overlap of networks which, in turn, would provoke new lines of argumentations". The major hope of many of the participants is to counter-balance the supremacy of television, as the major space of political information, by offering a space of information and deliberation that is decentralized, pluralistic and rational.

3) Social understanding of technology: It should be stressed that potential community enhancing technologies, such as computers, the internet and other technological platforms allowing for social interaction are increasingly used by younger generations. Therefore, future electorates will be used to communicate, exchange opinions, "meet" in virtual spaces, which in turn may directly affect the future of democratic processes.

4) "Europeanness" of public spheres: Finally, one should not overlook the potential development of a truly European public sphere that could be greatly furthered by the use of new information and communication technologies.

4.3 Institutional Change

The most interesting, if not controversial, subjects are the possible effects i-voting could have on institutions. In other words, could the implementation of i-voting lead to significant institutional changes and if so what form could these take? These questions bring to the fore the multiple dimensions of i-voting especially when viewed from the longer term perspective. Mendez and Domm (2002) suggest that where attitudes to direct democracy are propitious there are good reasons, to expect referenda to make a renaissance. With the financial cost and time to organise online referenda dramatically reduced citizens may choose to more frequently express their preferences in the decision-making process. More flexible voting methods would allow voters to assign a more 'informative' and complex message to their vote enabling a more differentiated communication flow between political parties and voters (Ladeur 2002).

It is argued by Mendez and Domm (2002) that i-voting could enhance the value of the vote by allowing for a more accurate and sophisticated aggregation of citizen's votes and by enabling far more strategic possibilities for voters. Voters may be asked to specify who they would transfer their vote to if their chosen party fails to meet the quorum requirement for participation. More sophisticated multiple transferable voting systems were also identified. Ladeur (2002) envisaged more flexible voting including a 'stock exchange' of votes where political parties and voters may set up agreements about vote swaps between constituencies. Others identified 'direct debit' voting mechanisms whereby voters would be able to manage their allocation of votes online and voting preferences on a number of issues as they would make payments from a bank account (Mendez and Domm 2002).

Nonetheless, these provocative ideas need to be counterbalanced by real concerns about the erosion and privatisation of the vote. There is a danger that voters would become disconnected from the body politic and be encouraged to vote considering their own individual interests above those of the body politic. According to this view one of the dangers of introducing i-voting is that it signals the descent down a slippery slope towards push-button style democracy. Finally, when debating over the introduction of i-voting procedures one should take into account the ritual and symbolism attached to existing voting procedures. The latter would most probably be transformed by the introduction of i-voting, which, in turn, could produce its own symbolic attachment.

From this longer term perspective i-voting would constitute more than just the implementation of a new technical voting procedure. Instead it would form an integral component of an instituted reform providing EU citizens with more strategic decision-making power. Such new flexible voting forms may do

more than just generate a new interest in democratic participation but also contribute towards the emergence of virtual constituencies as a result of the devaluation of the territorial attachment of citizens. As democratic decision making procedures of the future would increase not only in terms of quantity but also quality, benefits could therefore spread among the society as a whole.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Much of what has been written in this policy paper is relevant and consistent with the Commission's recent White Paper on Governance (2001). One of the White Paper's central aims is to promote "openness" and "transparency" by providing more (online) information about all stages of the European decision-making processes. At the same time electronic means of "participation" could be extended to involve and consult sub-national and local governments, "civil society" and "network-led initiatives" in preparing Community level initiatives. Much of the latter is consistent with the one of the central themes of this paper – i-voting as an integral component of a wider move that seeks to utilize the decentralizing and participatory enhancing benefits of new technologies. This policy paper could be relevant for the current European Convention on the Future of Europe by supplying the latter with some fruitful insights.

This report has argued that the implementation of i-voting at a European level could be relatively straightforward, assuming the political will exists and, more importantly, satisfactory security measures can be relied upon. On the other hand the potential effects, especially from the participatory perspective, could be quite significant. Left to the market it is unlikely that i-voting and other innovative democracy enhancing experiments will be developed. To this end there is a clear case for intervention to facilitate the research and development of new online modes of deliberative and participatory governance. This underlines the need for the "democratization of expertise" concerning democratic processes that takes into account not only the interests of the major political stakeholders and representatives, but also the input from citizens, civil society and academia.

As has been stressed above, implementing remote i-voting procedures as supplementary means to existing voting procedures can only lead to a win-win-situation. Turnout cannot be negatively affected by such a development. In addition, the quality of democratic decision making can be improved – at least potentially – by offering citizens the possibility to use the internet as a platform for participating in democratic processes. This "win-win-situation", however, can only be achieved if technology provides for secure voting procedures.

5.2 Recommendations

a) Further Research

There is a clear need for further research in this area. An EU Report on the feasibility of i-voting would be an obvious starting point. It should be compiled by technologists, social scientists and lawyers and the focus should be specifically on the EU level. A report of this nature should identify both the strengths and weakness that may affect the implementation and uptake of i-voting tools and combine quantitative and qualitative methodologies, with a strong technological component. Where possible it should also aim to test different i-voting systems not only in terms of their security but also with regard to simplicity of use. Some specific suggestions in the research area include:

- A juridical study of the EU member states to identify possible legal barriers.
- Survey/questionnaire data, i.e. through the Eurobarometer instrument. Such data would be extremely useful for making cross-national comparisons of citizens and politicians attitudes and perceptions of i-voting. Currently this type of data is simply not available.
- In-depth qualitative case studies of i-voting and related e-democracy initiatives.
- Research in the design area would be promising, especially with regard to the design of a 'pre-voting public sphere' where software engineers and social scientists could fruitfully collaborate.

b) New Forum

It is crucial to avoid duplication of national research projects. One innovative idea would be to create an EU I-Voting Forum, which would bring together national and European representatives, experts, civil society, citizens and other political actors. The I-Voting Forum could be located at the European Parliament, serving as a platform not only to discuss best practices and disseminate information, but furthermore to enable reflection and foresight, scenario building etc. for the future. The I-Voting Forum would act as an EU level information clearing house and should hold regular seminars and conferences. As evidenced by this brief survey, i-voting is multi-faceted issue that would benefit from the close collaboration of principal stakeholders particularly academics (legal, social sciences, the humanities and technologists), industry, election officials, politicians and civil society groups (a similar EU forum – on cybercrime – exists at the European Commission's Joint Research Center).

c) e-Europe Action Plan

The Commission has undertaken pioneering efforts in the 'e' domain. In many respects it has been at the forefront of the policy debates and has been quick to

realize the potential of 'e' technologies, more so than many of the Member States. One of the Commission's tools has been the e-Europe Action plans, which essentially amount to a benchmarking exercise with specific targets and policy recommendation. The e-Europe 2005 Action Plan has been more ambitious than the first 2002 Action Plan and represents a move in the right direction. Nonetheless, the 2005 Action Plan does not incorporate an e-democracy target. We suggest that a clear e-democracy target be included for the post-2005 Action Plan. Progress in the area of i-voting could feature as one of the measurable indicators for a broader 'e-democracy' target.

d) EP activities in the view of enlargement

The scope of the report should not be restricted to EU member states but should go beyond to all potential member states. One of the most fascinating questions will be to investigate initiatives already undertaken in the new democracies of Central and Eastern Europe (see for example current developments in Estonia). The European Parliament, in the view of enlargement, should be particularly attentive to these developments. A mutual learning process could emerge that would be highly beneficial for the debate. While internet voting seems not to be an option for next year's elections, a possible future Elections Task Force (comprising of representatives of all 25 member states) preparing for the 2009 European Parliamentary elections should consider internet voting, amongst other alternatives, as a strategy to promote higher voter turnout.

REFERENCES

Alabau A. & J. Benedito, 2002, "An Engineering Approach to Internet Voting Systems. Reflections from a European Region", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Auer A., 2002, "Constitutional Problems of e-voting on the EU level", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Garrone P., 2002, "Fundamental and political rights in electronic elections", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Gibson R., 2002, "Internet Voting and the 2004 European Parliament Elections: Problems and Prospects", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

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.

Kies R., 2002, "Potential for a European Pre-voting Public Sphere and its Possible Design", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Kriesi H. P., 2001, "E-voting: Motivation and Information Issues", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Ladeur K. H., 2002, "E-Voting - A New Political Institution for the Network Society? New Life for an Old Democratic Procedure", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Mendez F. and R. Domm, 2002, "E-voting from a comparative policy perspective" Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Mitchison N., 2002, "Security challenges in e-voting: threat analysis and risk assessment", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Norris P., 2002, "E-Voting as the Magic Ballot? The impact of internet voting on turnout in European Parliamentary elections", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Pratchett, L., M. Wingfield, N. B. Fairweather & S. Rogerson 2002, "Balancing Security and Simplicity in E-voting : Is there an effective compromise?", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Schmitt H., 2002, "Second-order elections to the European Parliament – is e-voting a solution?", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

Trechsel A. H. & F. Mendez (eds.), 2003, *The European Union and E-voting*. London: Routledge (forthcoming).

Warynski M., 2002, "Overview of the technical problems related to the e-voting project of the canton of Geneva", Paper prepared for the conference on *E-voting and the European Parliamentary elections*, held at the Robert Schuman Centre for Advanced Studies in Florence, May 10 and 11, 2002.

White Paper, 2001, "Governance of Europe", http://europa.eu.int/comm/governance/index_en.htm

Zittel, Thomas, 2001. "Electronic Democracy and Electronic Parliaments. A Comparison between the US House, the Swedish Riksdagen, and the German Bundestag", paper presented at the 29th Annual ECPR Joint Sessions of Workshops, Workshop No. 3 " Electronic Democracy: Mobilization, Organization and Participation", 6 to 11 April 2001, Grenoble, France, http://www.essex.ac.uk/ecpr/events/jointsessions/paperarchive/grenoble/ws3/zittel.pdf

ENDNOTES

1 The full proceedings and a number of contributions of the conference are available at <http://www.iue.it/RSCAS/Research/Institutions/EVotingParlElections.shtml> An edited volume will be published by the end of 2003 by Routledge (Trechsel & Mendez 2003).

2 The authors would like to thank Mr. Aris Apollonatos for his very useful and constructive comments as well as for his great help revising its final version.

3 See the Economist Survey „Digital Dilemmas" of 23rd January 2003 <http://www.economist.com/surveys/displayStory.cfm?Story_id=1534303>

4 As Gibson (2002) puts it : "Internet voting is a subtitle of electronic voting which refer to the casting of a ballot which refer to a broader band of electronic communication technologies which include telephones, cable and satellite televisions and computer without internet connection."

5 See the remote e-voting project at the ministry of interior: <http://www.minbzk.nl/asp/get.asp?xdl=../views/bzk/xdl/Page&VarIdt=00000002&SitIdt=00000039&ItmIdt=00007421&Aka=true>.

6 See UK government's consultation paper: 'In the Service of Democracy: A consultation paper on a policy for electronic democracy', <http://www.edemocracy.gov.uk/downloads/e-Democracy.pdf>

7 Of the 86000 voters, 40000 used the internet for casting their ballot (Kies & Trechsel 2001: 27). For a detailed discussion of the increase in turnout see Kies & Trechsel (2001: 26 ff.) and Gibson (2002: 8).

8 For more information, see report of the canton of Geneva <http://www.ge.ch/chancellerie/e-government/doc/Rapport_Final9.pdf>.

9 The *Cybervote* project aims to develop an online voting system for use at the local, national and European level. Pilot schemes due to begin in Germany, France, Sweden in 2003. For more information see press release on <http://www.eucybervote.org/press_releaseUK.pdf>.

10 The *True Vote Project* addresses the issues of trust and confidence over the internet by designing, implementing, and testing a secure service. This system is planned to be tested in the Community Network of 'Rete Civica di Milano' in Italy and at the Community Network of Upper North Karelia in Finland. In additions, sessions will also be organized with traditional users at the CGIL trade union in Lombardia (Italy) and at the Carpenters Estate in the London Borough of Newham. See the website of the *True Vote* project: <http://www.true-vote.net/home.html>.

11 See webpage of Greek presidency on <http://www.eu2003.gr/en/cat/0/index.asp>.

12 Survey quoted by Gibson (2002).

13 Rachel Gibson (2002) quoted a survey from the Guardian that indicates that two thirds of the non-voters in the UK would have been more likely to vote during the election if they could have done so by mobile phone.
Similarly, a survey realized for the canton of Geneva that indicated that a third of the irregular voters and abstentionists declared that they would vote more regularly if they had the possibility to vote on the Web. The corresponding share reached 50% in the age categories below 40 (Kies & Trechsel, 2001).

14 The often quoted 2000 Democratic primary in Arizona, that used internet voting as a supplementary possibility of vote, registered an increase of turnout of 600% compared with 1996. Even, if the increase of the turnout can not be directly and wholly attributed to the internet there is a general agreement that internet voting had an important impact.(see Gibson 2002, Kriesi 2002). Similarly, the first i-voting election realised the same year by Partito Radicale also witnessed a surprisingly high rate of participation (see Kies & Trechsel 2001).

15 With regards to information, 56% of the respondents asked for more information, 54% would like to have direct links to political parties websites. With regards to interaction, 67% of the respondents indicated they would like to have the possibility to contact through e-mail the political authorities and 55% said they would like to see discussion forums be proposed on the official elections' website (see Kriesi, 2002).

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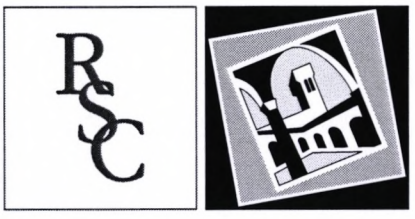

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