“Currently, political activity has important deficits in the seduction of important sectors of the population [...] I understand it would be pointless and it would be against politics to maintain strong traditions, even the most ritualized ones, like going to the polling booths and voting –I agree this has an important ritual value- and not establishing mechanisms that society has increasingly adopted in other activities –commercial, cultural, recreational, informative, educational...— Politics, behaviors and forms of political participation have to evolve as other types of social behaviors.” (Sánchez, 2000:27)

Innovate or “disguise”? The implementation of ICT into political processes

We could say with almost absolute certainty that one of the issues on which there would be some general agreement concerning the characteristics of the ICT (Information and Communications Technology) implementation process among analysts and people in charge of public administrations; which is the disparity in existing criteria for its assessment. In this sense, at the risk of oversimplifying the analysis, we would be facing two major strategies: on the one hand, the search for innovation as a symbol for political administration modernization process and on the other hand, the simple implementation of technological tools or solutions into traditional processes. This is, to disguise an existing process. In this sense, we could not be referring to the habitual benchmarking processes which would allow solutions to be adapted to reality; however, we want to emphasize the existing differences between those ideas that consider ICTs as opportunities and those that think of them as trends. For example, following the (not very) recent US electoral experience, all of the political parties (as well as politicians) in the world have discovered the potential of ICTs, using ICTs as mechanisms to collect donations, open blogs or participate in an

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unusual competition to add “friends” and/or “followers” on social networks like Facebook or Twitter.

So, which is the correct approach to implement ICT into political processes? Usually, this process is described through different analytical resources of stages or phase models; almost all of them are excessively technical. Most of the politicians and administrative in charge seem to have an absolute technical ignorance; therefore, it would be useful to approach this process through activities and organizational conditions that will guide the implementation of ICT into political processes and especially into electoral processes.

From this point of view, the initial phase or stage is characterized by focusing on information, that is, its main goal is to provide the citizens huge volumes of online information to access and share. This has led to the spilling of information related to the provision of services by Public Administrations; however, this is often done without filtering the information through the segmentation of said content. It can be inferred that most of the time citizens end up being misinformed; also, this websites have shortcomings in usability and accessibility.

Even though we assume this first stage can be easily overcome, the next step should be the automation of already existing procedure and services. That is, improve the effectiveness of the provision of services procedures by introducing solutions and applications to assist them. For example, “call-centers” or online “chat” assistance systems or Voice over IP services (VoIP); as well as the implementation of online processing processes (e-processing); all of these are referred to as generalized practices.

This scenario means that an important qualitative leap has been made; however, it reminds us that we face a difficult challenge that has been forgotten for some time. This is the need to face a process of reengineering; to reorganize political-administrative procedures. This challenge can be overcome by integrating different departments in Public Administrations, and especially by redefining this processes from a double perspective: citizens and efficient use of ICT. When we get to this third stage or phase, we find ourselves facing the strategic decision we mentioned earlier: innovate or disguise? In other words, the politician in charge of the decision should solve old challenges by analyzing existing information through new technological channels so as to create knowledge; or on the contrary, maintain the existing procedural dynamics by incorporating ICT only to satisfy activity memoirs or statistical counts.

We have reached a point where we face an obstacle of difficult solution. We find it obvious that these stages imply that the introduction of ICT in political processes —especially in electoral processes— has to be more
than just a simple technological disguise process. In general terms, the introduction of ICT in political and administrative processes ends up being a temporary trend with no real intention of permanence. This decision is greatly conditioned by the fact that the current political and institutional context where public administration operates (society of knowledge) is very similar to the traditional structural basis of the industrial society. Formal political structures have not adapted to the new technological environment; this is one of the main reasons why political activity finds it difficult to adequately manage and represent the citizens’ demands. Tensions appear when political processes —unlike other sectors of social activity— do not evolve at the same rhythm as the transformation of said institutional structures. And even though it is more and more common to use ICT in cultural, recreational, financial, educational, interpersonal relations, informational and other areas, political activities are not rooted in the “ex situ” principle of political representation, based on political participation passivity and reactivity. On the contrary, the new political environment after the establishment of ICT is characterized by “in situ” participation, built with the bricks of pro-activity and interaction, chasing the generation of direct and immediate effects on reality.

Nonetheless, it is important to emphasize that the much-demanded technological innovation cannot be considered as an inherently positive factor, but rather a factor that will only add value if it is used in a functional way in an equally innovative context. In other words, the ICT introduction process has to start from the fact that these are tools to achieve certain goals, and not the goals themselves.

Thus, two great problems with no suitable answers have arisen. On the one side, we have the aforementioned tension between information society and “old” social structures; thus, the appearance of a new knowledge society model also needs new political-institutional organizational models. That is, the use of the traditional political-organizational structure that is almost exclusively based on the political representation relation starts to clash with the citizens’ (increasing) ability to become the main actors of the public arena. In this sense, the exploitation of the potential of the so called Web 2.0 technologies (Wikis, Twitter, blogs, Facebook, etc…) succeed in conditioning the political agenda thanks to its immediacy and the social interaction on which they are based. The effects of these actions, though and executed online, have to be assessed according to their success or failure and also as innovative actions or as simple adaptations or disguises of old practices with no added value.

The second problem goes beyond the adoption of short term measures (this paper’s main interest) because it focuses on the need to overcome the current model of representative democracy to consolidate and generalize participative democracy practices based on the intensive and extensive
use of ICT. Basically, the current situation has paradoxical characteristics; essentially, we are trying to overcome old governance challenges that are still current by placing our hopes in new technological tools. Both problems have in common the difficulties faced by society to successfully implement ICT in political processes. These difficulties focus on the possibility (or evidence, unfortunately) of social exclusion that hovers over every implementation strategy of ICT.

**Chart 1**

SWOT Analysis on the implementation of e-voting

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Need to acquire specific competences</strong> (digital alphabetizing) + technological deployment (infrastructural investment)</td>
<td><strong>Digital Divide/ Social Exclusion</strong> (especially sensitive groups: older people and people with low income)</td>
</tr>
<tr>
<td><strong>Social groups that will be potentially favored</strong> (highly familiar to the Young population)</td>
<td><strong>Opportunities</strong></td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td><strong>Improvement in governance + Administration modernization</strong></td>
</tr>
</tbody>
</table>

As we can see, in the aforementioned scenario (Chart 1) the goals are articulated in three main areas: a) improvement of governance by opening new channels in citizen participation to design public policies that will affect them; b) improve the quality of the provision of public services and c) measures focused on improving the access, interaction and provision of services of the Public Administration through electronic means.

So what things should we consider? On the one side, it is imperative that said ICT introduction process does not exclude an important part of the population; its main objective has to be the inclusion of all citizens. To achieve this, ICT has to be understood as complementary mechanisms to open new channels for citizen participation, management of public affairs and optimization of public resources. In this sense, more and more voices point out the need to go beyond the use of the Internet as the main channel between public administrations –understood as Big Government– and citizens (Government to Citizen - G2C).

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1 On some previous occasion we have developed at great length our multiplatform strategy proposal for the provision of said e-services as well as the technological resource with highest penetration nowadays: cell phones. The advantages of this mobile democracy has to do with the state of infrastructure; mobile phone networks have already been deployed in almost any territory, this technology also favors social penetration with a 90% of unique users; its usability, cell phones have greater familiarity due to a high functional similarity with traditional phones, there is also a low inhibition threshold for new users regardless of their age.
If we focus on the political participation area, it becomes evident that one of the recurrent themes in established democracies is the need to debate over the introduction of participative democratic mechanisms. It will be said, certainly with some truth, that the operation of representative democracy needs elements in which citizens can express their opinions, projects and decide over more specific aspects, besides the periodic trip to the voting polls. This scenario becomes important if we consider two variables: on the one side, giving our analysis unit a local focus, each and every one of us have a direct and immediate perception of problems, needs and real priorities regarding decisions to be taken and policies to promote.

On the other hand, the expansion of ICT into political areas becomes a strong argument to claim greater participation, remembering its huge potential. In this sense; when facing these challenges, it is important to know that ICTs are only a tool. Said claim starts from the ascertainment that the political class—and citizens too—often generate unrealistic expectations regarding the use of ICTs, generating an idyllic environment where we are only a click away from every day making decisions about relevant issues and completely revolutionizing existing mechanisms for the governance of public affairs. Nothing could be further from the truth, ICTs do not create per se participation spaces, they also do not guarantee a better participation (qualitatively and quantitatively) or subvert the democratic government process.

This is why any ICT implementation in political participation areas should have a prior analysis of the real need to create said participation spaces along with the unavoidable reference to the pursued goals; and even though the recipe is complex, different experiences seem to indicate that the success of these experiences is a result of the combination of the following elements: a) a specific and precise delimitation of the object that motivates the ICT adoption; b) generation of a broad social and political consensus on it; c) the election of a a mechanism or technological platform that has inclusive qualities, or that considers different participation channels.

In addition, even if it is an obvious and simple argument, we must remember that we learn to participate by participating, the political decision to introduce technological innovations should be considered as a learning process; the best results will appear on a medium and long term period of time. This is especially true if we consider that participative behavior does not depend exclusively on the opening of said spaces or the technological platform that has been used. Thus, using ICTs could and should be an excellent opportunity to promote citizen participation by offering them the possibility to express their opinions, suggestions and criticisms; as well as participation in the decision making process of specific issues regarding their environment.
In this sense, one of the main dangers is derived from the planning of political strategies that can be developed solely and exclusively in a virtual environment. The aforementioned has been done perhaps as a sign of technological excellence or as political propaganda; however, total migration to virtual contexts has denied access to an important part of the population the proposal was meant for. We mentioned earlier the need to deploy inclusive processes; that is, all groups should have the opportunity to access and take part in them, regardless of their technological knowledge or abilities. This can be achieved by combining different strategies. Firstly, it is especially useful to consider a gradual implementation of technological solutions, so that they can coexist with traditional mechanisms and specifically, to directly express the citizens’ will through voting processes. Secondly, the use of different participation technological platforms should be considered; ICTs do not equal Internet, we have pointed out that we have a tool with greater penetration: cell phones.

In any case, if we focus on the analysis of e-voting potential as an example of technological implementation in political areas, one of the main sociopolitical facts is that is has certain inevitable character. As we have said before, ICT expansion to every human activity seems to justify the urgent need to include the political area and more specifically, electoral processes; nonetheless, it is important to consider some persistent misunderstandings concerning the adoption of e-voting.

Some misunderstandings...

I) E-voting can only be done via Internet

The first misunderstanding has to do with the automatic link established between e-voting and the use of Internet as the only channel to cast a vote. From this point of view, which focuses only on remote e-voting, its negative effects are criticized because of the digital divide in a short term period of time. They will say that remote e-voting can only be used by citizens that have access to the net; therefore, only higher socioeconomic and cultural levels of the population. This assertion is valid only for this type of e-voting; however, it is based on a mistake. E-voting has not only been developed as a remote solution, but also –especially in the Latin American context and very particularly in the Mexican one– as one that has a local configuration through the development of electronic ballot boxes

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2 Different solutions linked to remote e-voting are characterized by voting via internet, regardless of the technological platform that is used. The main mechanism used is a computer hooked to the net; however, remote voting can also be done through the use of state-of-the-art cellular phone technology or smartphones such as Iphones or Blackberries.
or DRE (Direct Recording Electronic); we can also consider as e-voting technologies the Optical Character Recognition (OCR)\(^3\) ones.

**II) E-voting can only be used in uncontrolled environments**

The second misunderstanding is closely linked to the last one, it emphasizes the lack of legal controls and safeguards while casting an e-vote. If we take into account the premise that remote e-voting is the only technological solution, high possibilities of coercion arise; the voter has to exercise his right to vote in an environment that is not monitored by any electoral authority.

Even though it is true that coercion is one of the main dangers of remote e-voting\(^4\), this type of voting is not the only plausible or desired scenario. Currently, the most habitual practice in e-voting is the one done in controlled environments, that is, the use of electronic ballot boxes or voting computers in polling stations, under direct supervision of electoral authorities in charge of the process.

Beyond the global strategy adopted worldwide (substituting traditional vote or using a combination of electronic ballot boxes and traditional ones); the interesting thing about using controlled environments lies in the use of identical or similar identification procedures and voter registration.

**III) E-voting can only be used for political elections.**

We previously considered the misunderstandings in the “theoretical” definition of e-voting, now we will focus on the misunderstandings in their practical realization. E-voting has been exclusively tied to public electoral processes—probably as a result of reductionist democratic conceptions—; thus, limiting the scope of its development.

\(^3\) This is no time to start a conceptual debate regarding the definition of e-voting; however, it is important to note that we think systems based on optical character recognition—such as optic ballot readers which are specially used in the US or some specific ballot boxes like the ones developed by Demotek in Spain—have some conceptual problems on fitting into the e-voting concept. And even though they are a technological improvement in vote scrutinizing and counting, votes are still expressed traditionally by marking or selecting something on a ballot. This means there is an absence of technological intervention in the casting of the vote; conceptually it would be difficult to use the same analysis criteria as in electronic ballot boxes and remote e-voting.

\(^4\) Coercion in the exercise of e-voting (AKA voting in pajamas) can be reduced by developing a system that allows the same citizen to cast several votes, only the last one will be computed. Additionally, cancellation of a remote vote by voting in person can be allowed during election day; both mechanisms are successfully used in Estonia [Ülle Madise, 2008].
Arguments regarding ICT generalization in the political-electoral arena cannot be limited exclusively to binding public processes. Moreover, a significant number of e-voting exercises in the Latin-American context—specifically the Mexican—correspond to different processes, which do not have binding character.

E-voting, in any form, should be understood as a mechanism that extends democratic culture throughout the social structure. Electoral processes that take place in universities, student associations, professional associations, political parties, etc. are particularly suitable spaces to improve and facilitate electoral participation. If we add the use of said technological solutions to conduct public consultations; whether they are binding or not, we will deepen democratic practices beyond institutional electoral processes.

IV) E-voting is only for rich countries

The corollary of misunderstandings refers to societies’ economic capacities that develop or use e-voting processes. This statement may seem true in light of the economic costs associated with the development or acquisition of e-voting equipment, the truth is that a simple review of geographical distribution shows us this is a mistake. Besides the majority of the US counties or different implementations in the European Union (France, Belgium, the Netherlands, Switzerland…), the truth is we find e-voting processes in very different countries such as Argentina, Mexico, Brazil, New Zealand, Australia, Singapore, Spain, Estonia or Kazakhstan, to name a few. In any case, this geographic variety contradicts e-voting economic determinism beyond the country’s socioeconomic potential.

What reasons justify the introduction of e-voting?

After trying to undo the existing misunderstandings regarding e-voting definitions and characteristics, it is important to consider the reasons behind the adoption of said systems. In this sense, we consider the set of experiences up to date can be grouped under four great motivations related to technological development, deepening of participative democratic mechanisms, search for greater democratic legitimacy and lastly, the complexity of the electoral process.

Firstly, we must mention those societies that have had a high technological development; therefore they consider the electoral arena as a step in that growth. Countries such as Japan or Sweden, which are characterized by their high technological production, have initiated development processes

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5 Considering pilot tests which took place in Coahuila, the Federal District, State of México, Baja California, Nuevo León, Chihuahua, Jalisco, San Luis Potosí or Campeche [Barrat, 2011 and 2007; Romero and Téllez, 2010]
of technological applications related to e-voting, even though they have not implemented said solutions to their electoral systems.

Secondly, we find those countries with a fully consolidated political democratic culture and which habitually deploy citizen participation mechanisms to design public policies. The paradigmatic example is Switzerland, which has high postal voting rates for a variety of consultations and referendums regarding diverse socio-political issues. It is not surprising that some Swiss cantons are leaders in the adoption of remote e-voting solutions to promote citizen participation in said processes and deepen the exercise of these participative democracy mechanisms.

Another reason, not directly adduced but noticeable in its development, is the one that links the adoption of ICT with democratic legitimacy processes of the political system. This is a problem and even though we cannot address it here, it is true that the analysis of some countries that have adopted e-voting—or completely migrated to be more accurate—shows us that they are not recognized as countries with high levels of democratic consolidation. The most paradigmatic examples are Venezuela and India, for very different reasons. In the Asian subcontinent, the existing social stratification based on the caste system makes it difficult to classify it according to regular democratic standards. That is why—along with the following reasons regarding complexity in the electoral process—it appears to be as if the adoption of an e-voting system works as a legitimizing mechanism of the different existing forces in the country. This can be clearly identified in Venezuela, the “Bolivarian revolution” (sic) of Hugo Chávez has decided to make a total migration to e-voting, besides implementing additional technological elements to—allegedly—enhance the integrity and quality of the democratic process and its results.

Lastly, the most powerful reason to justify introduction or migration to e-voting processes is the first one mentioned. Countries with electoral systems which have different degrees of procedural complexity argue the need to simplify the voting process for their citizens. What kind of complexity are they arguing about? Basically, we can establish two great types of difficulties in the electoral process: on the one hand, we have problems derived from the way the vote is expressed (including electoral fraud) and on the other hand, those related to the “size” of the electoral process.

One of the main potential obstacles for electoral participation and, therefore, for improving democratic processes lies in the choice of a particular form

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6 We are referring to voter identification and validation terminals (popularly known as “fingerprint scanners” or “captahuellas” in Spanish in the polling stations, based on fingerprint capture and validation through the electoral authority’s database. The details pertaining to its adoption or functioning have been criticized, as well as the doubtful party management of the relation between the voter’s personal data and their participation or lack of it in the Venezuelan electoral processes.
of expressing the vote. In Spain, for example, the act of voting is extremely simple: the voter selects a ballot of the chosen party which has a list of the candidates of said party. The voter introduces said ballot in an opaque envelope and then into a transparent ballot box. The voter does not need to carry out any additional procedure besides selecting the ballot: the voter does not have to mark or write anything on the ballot, he only has to be capable of identifying the party or party coalition he wants to vote for.

At the opposite end, we find systems in which voters have to operate on an electoral ballot by marking their choice with a cross (like in Mexico or other electoral systems), casting a vote for a party and one for a candidate (Germany) or by ranking all candidates (Ireland). If we assume that the degrees of difficulty are not the same in all of the aforementioned ways to cast a vote, we can assume that any type of operation on a ballot can lead to the commission of a mistake which can invalidate a vote—especially in cases of poor training, age or the individual’s socioeconomic status—. These could be reasons enough to incorporate e-voting solutions to eliminate physical mistakes; however, the truth is that they can even be more justified in electoral systems where the voter expresses preference among candidates. Thus, the reduction of casting-of-the-vote complexity is a justificative element and the managing of the counting and scrutinizing process of the votes cast is a determining factor of the highest magnitude. In addition, the problems linked to electoral fraud situations should not be overlooked because they find fertile ground in those situations where the voter has to manipulate a ballot. In this sense, the introduction of technological solutions means greater difficulty in coercing voters; as long as the voting environment ensures basic conditions to exercise it.

On the other hand, we mentioned the complexity of the electoral process can be conditioned by its “size”. We are talking about countries that have various electoral processes that happen at the same time, a very large population or a large territory. In the US we find a good example of processes that happen at the same time, the counties and states’ ability to choose different voting systems and issues subject to consultation can lead to the emission of more than fifty votes in a single electoral process, this happened in California’s last presidential election. Another example is the electoral concurrence in some Mexican states, the federal electoral process to elect the President of the Republic, deputies and senators can be held at the same time as the election for Governors, local deputies and municipal presidents.

Besides this factor we must consider the complexity of the electoral process in countries with large populations, in which territorial extension

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7 This happened in the federal electoral process on July 2nd 2006, in Jalisco, Guanajuato, Morelos and the Federal District local deputies and governors were elected; and local deputies and municipal presidents in Campeche, Nuevo León, Querétaro, San Luis Potosí and Sonora [Aguilera de Prat and Reniu, 2007].
and communications infrastructure are key elements for the normal development of electoral processes. The examples in this regard are overwhelming: Brazil and India defend their decision to adopt e-voting in the urging need to logistically simplify their electoral processes due to a large number of voters and the difficulty to manage said processes in a large territory which is poorly communicated. So, two major assets in this regard are the capacity to manage bigger voting flows and drastically reduce the time it takes to transfer scrutiny acts from each polling booth to count them and release the results.

We have tried to clarify what e-voting is and why it is adopted, we will now try to show the (few) certainties to defend its adoption.

**E-voting certainties**

**I) Modernization of electoral processes**

As we have said before (Reniu, 2008 and 2008b), empirical data repeatedly show that electoral participation is not directly related to the introduction of ICTs, because participative behavior in citizens is shaped by several variables. In other words, the decision to participate in an electoral process has nothing to do with the way the vote is cast; it has to do with the perception of the process’ decisiveness, the degree of competiveness in it, the perception of the usefulness of politics, etc.

However, if we assume said idea, we could hardly state that the introduction of e-voting would per se immediately improve the electoral process. Although it is also true that in a context of generalization of these technologies to all areas of human activity, we cannot leave politics and elections out. If we did this, we could weaken even further the legitimacy and credibility of democratic institutions.

**II) (Specific) Reduction of economic costs**

Other times we have mentioned the doubts we have concerning the general costs of e-voting implementation and/or migration (Reniu, 2008b); although this is not an obstacle to assume there are specific economic benefits. There are three items in which economic costs are reduced: firstly –whatever the chosen technological solution is– there are enough elements to consider an important reduction of economic costs in logistics, human resources and used materials.

Fewer electoral materials (ballot boxes, screens and stationery: ballots, envelopes, etc) result in direct cost savings and indirect savings in transportation and manipulation. Secondly, the aforementioned reduction in the massive use of paper in traditional voting processes will also mean environmental benefits. Lastly, the cost of acquiring and maintaining e-voting technologies still needs to be discussed; however, the need to
deploy a political strategy to socialize said equipment is inexcusable. We are referring to the possibilities derived from its extensive and intensive use: extensive refers to the useful life of said equipment’s machines—hardware—and computer programs—software—and intensive means that they should not only be used in binding public electoral processes.

III) Increased participation of certain social sectors

One of the main potentials of e-voting introduction paradoxically has to do with its relation to very specific and concrete social groups whose electoral behavior leans towards abstentionism. In light of this statement we could argue there is some kind of contradiction between it and our former criticism regarding the relation between e-voting and increased participation.

Then, to which side of the story do we stick to? We think the answer is crystal clear: there are certain groups that usually find themselves in a complicated position to exercise their right to vote in an effective manner. We pay attention to four groups we think could benefit from the introduction of e-voting: citizens living abroad and residents who will be absent on Election Day, hospitalized and or imprisoned citizens (if their political rights have not been taken away), citizens with disabilities and lastly, the youngest voters.

The issue of an effective exercise of the right to vote by those residing abroad or by citizens who know they will be far from their home on the day of the election has been tried to solve through different mechanisms\(^8\). In some cases (i.e. Canada), citizens far from home can appoint a delegate to vote in their name\(^9\). The practice of early voting is very interesting, this practice is widespread in the US and the Scandinavian countries, electronic ballot boxes seem to be the ideal mechanism\(^10\).

Notwithstanding the above, the main voting alternative for these groups—whatever the reason is not to attend the voting polls—is voting via postal mail (Qvortrup, 2005: 414-419). Voting via postal mail poses one advantage: it allows citizens to vote; however, this advantage is usually out-

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\(^8\) Even though it seems contradictory, not all electoral legislations allow citizen’s residing abroad to exercise their right to vote. For example, Mexico allowed this for the first time on the federal electoral process on July 2\(^{nd}\) 2006 after arduous discussions regarding content and methodology of the voting process by mail.

\(^9\) Casuistry regarding vote delegation, in general terms, has to do with the existence of physical difficulties to access voting polls, work demands, or simply being absent from home for other reasons: tourism, studies… The few cases where vote by delegation is accepted, there is a complex mechanism to certify said designation; although controls to ensure the delegate will exercise the vote according to the voter’s will are not very clear; it is also a situation that presents a very high coercion and abuse potential.

\(^10\) In the European context, Switzerland, Finland, Norway, Iceland and Sweden have traditionally allowed the cast of early votes during the week previous to the day of the election; usually in public spaces such as libraries, City Council buildings and post offices.
weighed by the inconveniences which e-voting can help overcome, except in the Swiss case (Luechinger et al., 2007). One of the main inconveniences is that the voter needs to appear before an electoral authority (usually through postal services) to arrange his request for postal vote. After this first step, the citizen usually receives in the mail electoral documents that allow him to express his choice; later he returns them to the country of origin by mail. There is a deadline that has to be met, and due to the deficient functioning of many postal systems, most of the time this deadline is exceeded; thus, invalidating said possibility of electoral participation.

This image is complemented by another element, which paradoxically is accepted for voting via postal service, but that is used against the implementation of remote e-voting: voter coercion. The characterization of postal vote is, environmentally speaking, identical to the remote e-voting one: an uncontrolled environment in which no element allows us to state categorically that the voter has chosen freely. Examples of postal votes processed by political parties’ delegations abroad that take part in the electoral process or the orientation of the collective decision of the members of family by the head of it; these are not just catastrophic predictions. Then, the paradox appears to justify the attack against the introduction of remote e-voting due to the danger of voter impersonation and coercion associated to said expression of vote. Speaking of voter impersonation, we should only remember that said act is a punishable electoral offense (in democratic electoral systems), meanwhile, coercion in these environments can be neutralized through strategies like the ones used in Estonia.

After everything we have said, we think that remote-voting implementation as a complementary channel would allow greater participation of citizens living abroad because of said mechanism’s versatility and convenience against postal vote. On the other hand, citizens that could foresee their absence during election day could cast their vote remotely, having previously been registered in a specific census. Likewise, groups of hospitalized or imprisoned citizens, as well as people with physical disabilities (visual or physical impairment) could benefit from the introduction of e-voting. The first group could use any form of e-voting—using some kind of mobile ballot box in the case of electronic ballot boxes—; meanwhile, the second one could only use electronic ballot boxes. Audiovisual possibilities attached to these solutions allow the voting procedure to adapt to each voter’s different and specific needs in real time. Thus, said solutions have the potential to modify the size of sources and images, they can also include private audio instructions—through the use of headphones—to assist visually impaired voters; other solutions have to be developed so that physically impaired people can vote too11.

11 It must not be forgotten that one of the great potentials is, precisely and specifically for the Mexican context, the possibility of presenting electoral information in different language formats; which would be a giant leap to achieve political standardization of Mexican ethnic and language minorities.
Lastly, we must not forget the group that could be potentially more receptive to the use of different e-voting systems because they are natural ICT users: young people. There is data backing up this information, there is a high volume of electoral abstention among young people. Besides an evident indifference and disinterest towards the electoral process and politics in general (which cannot be blamed on the use of any voting procedure), it is true that traditional voting procedures does not seem to generate excessive motivation for these voters.

Remembering our first certainty, modernization of the electoral process, we think that the introduction of these technological innovations can help hook this group and make them participate for the first time. ICTs would be used as way to break down existing reluctances to show the need and usefulness of electoral participation in democracy.

IV) Multiple participatory applications

We discussed earlier some misunderstandings, most of them derived from ignorance, that envelop the introduction of e-voting processes. Among them is the belief that these systems can only be used for binding political electoral processes. Nothing could be further from the truth; multiple scenarios show that the implementation of these systems is highly recommended in terms of improving participative processes and its high educational potential.

Conducting public consultations on issues of local relevance, improvement of election processes in all kinds of civil associations, universities, political parties, public and private professional organizations and the growing use of them in shareholder meetings in big companies bear witness to the different possibilities of e-voting\textsuperscript{12}. This diversification also benefits the recovery of the political culture of the participants, and in the end, the deepening of democratic practices.

V) Need for specific electoral authorities

The complexity associated with ICT introduction to electoral processes; specifically e-voting, urges us to reorganize –and update– the design, composition and attributions of electoral authorities. Said reorganization should take into account the implementation of multidisciplinary equipment to assess and analyze electoral processes which include e-voting technology solutions; furthermore, competence requirements that arise have a clearly defined specificity\textsuperscript{13}.

\textsuperscript{12} Sometimes citizen participation processes that include e-voting solutions are not as successful as expected (i.e. Consultation on the Reform of Avenida Diagonal in Barcelona); however, it is true that in America there have been numerous initiatives in this regard.

\textsuperscript{13} Examples of this attitude are the 2007 OSCE observation missions in systems that use e-voting like France, Belgium or Kazajstan. These missions include at least an e-voting expert, whose task is to specifically observe, analyze and evaluate the use of e-voting.
Constant presence of e-voting experts is not enough; we should consider generalizing the incorporation of citizen representatives on the tables of guardians of cryptographic keys in e-voting processes (Barrat, 2009). Lastly, the aforementioned certification and auditing processes should be included in this area, to ensure greater operational capacity in human resources and material terms (Boltz and Centeno, 2005).

VI) Coexistence with traditional voting and gradual implementation

Finally, one of the most consistent certainties shared by a great number of e-voting experts is that related to general and structural characteristics of e-voting that should guide implementation processes of e-voting. Said characteristics refer to the urgent need to understand that e-voting deploys all of its potential in those processes that use it as a tool. E-voting should be considered as another possible way to cast a vote, an additional channel which has –like traditional vote– specific potential and certain limitations.

According to this, we can ascertain that the best scenario to implement e-voting is that in which these technological solutions complement traditional voting; therefore, are not trying to substitute the latter. This additional characteristic of e-voting also involves the recommendation not to focus on a single e-voting technology but to weigh different solutions for different groups as we mentioned earlier. This would result in a multichannel electoral process; the voter would be able to choose between different technological solutions according to his needs, interests and abilities.

On the other hand, we understand that this multichannel e-voting introduction process should meet another criterion that favors citizen acceptance and procedural consolidation: gradual implementation. Processes that involve total migration to e-voting systems are not recommended; however, a generalized practice of conducting innumerable test pilots before adopting them as binding process is not recommended either. The first scenario –complete migration– has a long and varied list of disadvantages and inconveniences; effect of democratic gap and a difficulty to ensure transparent certification and auditing processes.

The second scenario, pilot tests, poses a more complex situation. Public authorities’ arguments regarding the expansion of experimentation processes and pilot tests are often based on generic standard of legal-procedural caution. Bottom line is binding e-voting implementation is a decision that requires a detailed analysis of every variable involved in the

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14 The “table of guardians” means to fragment and divide the precise cryptographic key to open an electronic ballot box and complete the counting process. So each member, randomly, receives a part of said key –generally in a smartcard– which they have to provide to reconstruct the key. The number of parts necessary to reconstruct said key can change, as well as the number of table members to meet procedural requirements established for each electoral process.
process. This is very true; nonetheless, in real life, most countries that are still in the experimentation stage are very reluctant to adopt it due to criteria that have nothing to do with legal caution. In other words, if we add up an outdated legal-electoral code, political fears due to ignorance of these technologies, groundless beliefs regarding nonexistent modifying effects in electoral results and the existence of private business interests of various companies that provide these solutions, the result is the need to discursively disguise indecision and lack of political will.

This would mean forgetting a tremendously negative effect derived from this strategy of indefinite delay that, therefore, affects the subsequent evaluations of pilot tests. Citizens which are aware of the limited practical applicability of most of these experiments, decide not to participate in them; thus, participation dwindles consultation after consultation. Citizens’ results and evaluations of said tests end up being contaminated by a halo of banalization of these processes: if they do not have any effect over the citizens’ life then it does not matter if they are used correctly or incorrectly or the way they are evaluated.

We might rightly add what María Ines Tula points out as an explaining factor for the little relevance of these types of processes: absence of electoral stress. Without the tension of a binding process, citizens view these elections as mere hobbies, not worth getting involved in (Tula, 2011); if the decision-makers wrongly assess these processes based solely on participation, the logical result would be to cancel the e-voting implantation process.

What can we do?

It would be very pretentious on our part to try to offer advice for the future; however, we think there are some elements that deserve to be mentioned because of their importance in the e-voting implementation process. Firstly, it seems clear we have to assume e-voting, in all of its forms, is not a magical political solution. In theory, reinforced by empirical data, it is clear that its introduction will not per se improve electoral participation. Secondly, the key to improve electoral processes (with or without e-voting) is to design public policies that focus on the empowerment and improvement of civic and democratic values; as well as to invest in technological infrastructure and digital alphabetization processes. The result of these policies will be the gradual reduction of structural elements that would otherwise promote the deepening of the democratic digital divide. Thirdly, e-voting should be considered as an excellent complementary tool to improve electoral processes. Furthermore, much of the project’s success will be determined by a gradual rhythm of implementation, initially focusing on those social groups with greater difficulties in exercising their right to vote and then cover the rest of the population.
In conclusion, the facade of every e-voting implementation process should consider that although it can support the generation of a greater democratic legitimacy; in the end, said legitimacy should help deepen citizen information mechanisms, promote a solid political culture, respect fundamental rights and consequently, the accountability of representatives.

References


