Internet Voting: Do people accept it? Do they trust it?

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The widespread diffusion of the Internet and its use in everyday life has drawn attention to its possible use as an infrastructure for the implementation of voting systems. For such systems to be accepted by a large user community, they should not only guarantee the typical properties of traditional voting systems, i.e., voters’ anonymity and vote secrecy, but also offer additional advantages that could favor their acceptance. For example, they could provide for location independent voting, where users can vote from any location, possibly from their own home. Other advantages are the possibility for individual voters to verify that their votes has been tallied correctly, and the possibility for quick result computation. An even major advantage is the chance such systems offer to realize a form of direct democracy where all citizens may express their opinion, thus helping their representatives to better interpret their wishes. This opportunity might draw the citizens’ attention back to the political arena from where it has been moving away more and more, as low general election turn outs show all around the world. Anonymity, secrecy and democracy, i.e., the correct authentication of eligible voters, are achieved by means of sophisticated cryptographic algorithms that allow to protect votes from indiscreet eyes, to verify users’ identity and eligibility, and to decouple votes from who cast those votes. A variety of protocols satisfying all or a part of the above mentioned properties has been designed by the scientific community and some of them have also been implemented into commercial applications.

Yet, mathematical properties do not seem to be enough to gain users’ trust in Internet voting systems. Other factors may hinder the diffusion of such systems. With TruE-Vote, a research and demonstration project funded by the Information Society Technology programme of the fifth Framework Programme of the European Union, we will investigate both the technical and the social issues that affect the acceptance of Internet voting systems. A voting protocol based on the security services of a Public Key Infrastructure will be implemented and demonstrated in a variety of scenarios, involving community networks and different types of “traditional” social communities, with various degrees of familiarity with technology. The results of the initial workshops with various groups of citizens have provided interesting insights in the acceptance issues.

According to our surveys, surprisingly enough, people tend to worry more about the technical abilities required to use e-voting systems rather than about the possible security threats deriving from the use of the Internet or computer systems in general. People feel the use of computer based voting systems may exclude a large part of them from voting because of their lack of familiarity with computers. Since computer illiteracy is the immediate barrier for a vast number of people, it is natural that the problems of computer and network security be perceived as less important. Another interesting result is that people seem to accept quite easily identification forms based on smart cards, since the use of electronic cards, i.e., credit or debit cards, is nowadays quite common in a large group of people, across all social conditions.

We considered a different group of potential users, i.e., the “pollsters”, those that might be interested in adopting e-voting systems for political elections, organization elections (such as trade union representatives elections, decisions of corporation boards, secretary of political parties, etc.). In this case the advantages of e-voting systems are perceived as uninfluent on the voting process as far as attracting people’s interest in the matter under discussion. However, the presence of practical and logistic advantages is generally acknowledged.

In general, both citizens and politicians have express a clear interest in trying Internet voting systems, in order to understand their best applications, whether to survey opinions, vote in general elections or administrative ones, or as a tool in small assemblies such as company stock holders. Getting users to accept Internet voting systems is a significant contribution to the development of the Information Society.