Competent electronic participation channels in electronic democracy

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Abstract: Electronic Democracy is appearing in political agendas across countries and boarders. This paper refers to electronic participation channels implemented to digitalize decision processes in an electronic democracy. Electronic participation includes the sub processes of information acquisition and formation of an opinion. The function of efficient electronic participation in electronic democracy is crucial and indispensable. Electronic Democracy provides citizens with the opportunity to engage efficiently in democratic processes. Current technology can be perceived as an evolution of traditional communication linkages between political representatives and citizens. These can provide an "extensive library" of information and a "meeting point" for political debate. A surplus of existing technologies provides the means to enhance the unidirectional and bidirectional communication paths between citizens and involved political entities. Such a technological deployment though must meet a number of requirements ranging from usability issues to electronic security. An in depth analysis and review of social and technical requirements of such channels is provided in this paper. Solutions are presented which meet previously identified needs and through their comparison the fulfilment of the requirements will be met. This papers objective is to identify the custom design for efficient and competent electronic participation channels in electronic democracy. This goal will be achieved through a comparison of the current technological tools used in e-participation, called e-methods. For each one of these e-methods a SWOT analysis will be provided, listing the Strengths, Weaknesses, Opportunities and Threats, that this particular tool may have. Eventually a comparison is made after the establishment of criteria regarding many aspects such as: security, privacy, accessibility, user's or developer's viewpoints. Proficiently deployed technological infrastructures which enhance the bidirectional communication pathways will lead to engaged and better informed citizens, and evidently to a stronger democracy. Findings of this paper should be considered by parties interested in deploying electronic democracy infrastructures and fellow researchers in the field.

Keywords: e-democracy, e-voting, e-participation, e-methods comparison

1. Electronic Democracy

Recent years have brought upon us the digitalization of society. Through innovation, evolutionary communication technologies have drastically altered traditional ways of interaction and communication, initially used by academia and businesses to provide their students and customers new services. Countries globally, realizing the benefits of new technologies, envisioned e-governments and e-democracies.

The dictionary's definition for democracy is that of "a government in which the supreme power is vested in the people and exercised by them directly or indirectly through a system of representation usually involving periodically held free elections".

Electronic Democracy is defined as the electronic representation of the democratic processes. (von Lucke). Democratic process are divided into three sub processes (Parycek, 2003)

(i) Information acquisition,
(ii) Formation of an opinion and
(iii) The decision itself.

E-democracy contains two aims which derive from the above statement (Alexander Prosser, 2004):

- The field of E-Participation (Information acquisition & formation of an opinion)
- The field of E-Voting (the decision making process)

Combining technical complexity and political processes leads to the development of an E-Democracy application framework. The proposed framework by A. Prosser and R. Krimmer follows an approach introduced by the EU Forum E-Democracy working group (Macintosh, 2003):

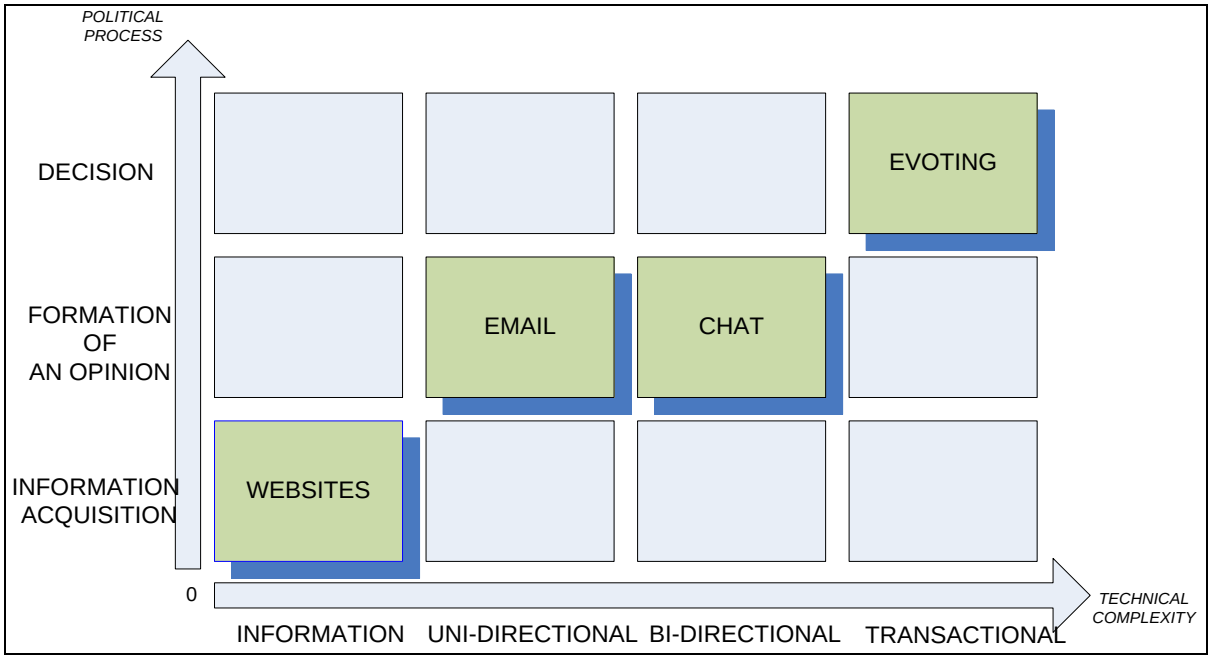


Figure 1: E-Democracy application framework

Using Information & Communication technologies (ICT) to engage the public in the democratic processes is named electronic participation. E-Participation refers to "ICT-supported participation in processes involved in government and governance. Processes may concern administration, service delivery, decision making and policy making" (Pauliina Lehtonen, 2007). The combination of the various stakeholders' interest in participation and the development of the technological infrastructure have resulted in many new projects designed to exploit the potential of ICT that supports communication and participation in political processes (Bekkers, 2004) (Best, 2005) (Curwell, 2005).

E-Participation can principally be understood as technology-mediated interaction between the civil society sphere and the formal politics sphere, and between the civil society sphere and the administration sphere (Clive Sanford, 2007). The task of e-Participation is to empower people with ICTs to be able to act in bottom-up decision processes, to make informed decisions, and to develop social and political responsibility. Therefore, e-Participation is a means to empower the political, sociotechnological, and cultural capabilities of individuals giving the possibility that individuals can involve themselves and organize themselves in the information society. (Christian Fuchs, 2006).

Table 1: Participation areas, identified by C.Fraser etc:

Information Provision	ICT to structure, represent and manage information in participation contexts
Community building / Collaborative Environments	ICT to support individuals come together to form communities, to progress shared agendas and to shape and empower such communities
Consultation	ICT in official initiatives by public or private agencies to allow stakeholders to contribute their opinion, either privately or publicly, on specific issues
Campaigning	ICT in protest, lobbying, petitioning, and other forms of collective action (except of election campaigns, see electioneering as participation area)
Electioneering	ICT to support politicians, political parties and lobbyists in the context of election campaigns
Deliberation	ICT to support virtual, small and large-group discussions, allowing reflection and consideration of issues
Discourse	ICT to support analysis and representation of discourse
Mediation	ICT to resolve disputes or conflicts in an online context
Spatial planning	ICT in urban planning and environmental assessment
Polling	ICT to measure public opinion and sentiment
Voting	ICT in the context of public voting in elections, referenda or local plebiscites

2. Social Requirements

The roots of all democratic constitutions rely in ancient Athens. Athenian philosopher Plato (Greek: *Πλάτων)* and founder of the Academy in Athens, the first institution of higher learning in the western world, believed that an uninformed and disengaged public was the greatest threat to democracy. “In ignorance they tend to vote for politicians who beguile them with appearances and nebulous talk, and they inevitably find themselves at the mercy of administrations and conditions over which they have no control because they do not understand what is happening around them. They are guided by unreliable emotions more than by careful analysis, and they are lured into adventurous wars and victimized by costly defeats that could have been entirely avoided.” (Plato, 370BC) Plato’s critique on democracy still poses the question whether citizens of today's democracies are interested and informed enough to participate meaningfully in the democratic process.

Centuries later Barber (Barber, 1984) emphasizes on the concept of a strong democracy, on the basis of active citizen participation. Held (Held, 1996) in his participatory model emphasizes the need to engage citizens and civil society organizations in the policy process, however he recognizes the need for informed and active citizens. Many academics and authors of our time are recognizing the same need. Fishkin argues the need for ‘mass’ deliberation by citizens instead of ‘elite’ deliberation by elected representatives (Fishkin, 1995) (Macintosh, 2003). However he fears that technology could diminish face to face confrontation and increase the dangers of elite manipulation. Van Dijk also warns of the consequences of bad designs of technology and implications on the democratic system (Dijk, 2000). Macintosh (Macintosh, 2003) identifies as a social requirement” that computerized information campaigns and mass public information systems have to be designed and supported in such a way to help narrowing the gap between the ‘information rich’ and ‘information poor’ otherwise the spontaneous development of ICT will widen it.

The term “digital divide” is defined as disparities in computer ownership and Internet access based on income (Neu, 1998). The divide refers to an imbalance in physical access to hardware and in knowledge necessary to enable a digital citizen participating in an e-voting system. Digital Divide is discussed to hold in the context of socioeconomic, racial and geographic differences. The digital divide is often referred to as the primary socio-political issue (Hoffman L.J., 2000) leading to inequality of citizens vote. It can be argued though that this “divide” is not clearly “digital” and originates from a deeper societal issue. Scholars and policymakers have long recognized differential turnout rates by socioeconomic status in American elections; individuals with higher income, education and occupational status are significantly more likely to vote, as are whites (Campbell, 1960). “As a result the internet may merely magnify existing disparities in the electorate representation” (Tolbert C., McNeal R., Kent State University, 2001) and cannot be viewed as introducing inequality. The existence of a digital divide is not universally acceptable. Compaine (Compaine, 2001) argues that such a gap is only a “perceived gap”. As technology primary goal is becoming user friendlier such a gap, if existent, is evidently going to disappear.

The internet can be perceived as an evolution of current communication linkages between political representatives and citizens. It provides an “extensive library” of information and a “forum” of political debate. Since the 1960s mass media has dominated the political arena, placing television in a unidirectional linkage between individuals and political candidates. Widespread television ownership in the US allowed voters to see and hear candidates from the comfort of their living rooms; individuals had greater information to help them decide how to vote and candidates no longer had to depend on the political party for access to voters (M.R., 1995). Academics and researchers have expressed their concern about the over reliance on the media in the political process. (Davis, 1994) (Graber, 1989) (Kerbel, 1998) (Cappela, 1997) (Crotty, 1980) (Entman, 1989). The press has been blamed for the disengagement of citizens in the political process; interested individuals cannot find substantive information and are being led away from the political process (Crotty, 1980) (Entman, 1989). Reliance on outlets of information such as television has reduced the general public to passive receivers of information passed on by public officials and political candidates. An efficiently designed e-democracy system will provide the means for bi-directional exchange of information and re engagement of active citizens in the political process. But before any medium can be adopted as a mass medium a critical number of adopters must be reached. Marcus (Markus, 1990) states that in general, the critical number of adopters for an innovation is approximately 16% of population. Internet adoption in EU is growing at exponential rates. Recent Surveys show that broadband internet connections have reached 23% of EU households.

From the above, a number of social requirements can be identified:

- Accessibility: Is it possible for this method to meet the accessibility guidelines stated by the W3C Recommendation 5-May-1999?
- Privacy: Can the user's privacy be preserved?
- User Hardware Requirements: What kind of hardware is the user required to posses to execute the application (ex. High speed Broadband connection)?
- User Technical Knowledge Required: Is the user required to be familiar with certain technologies in order to use the e-method?

3. Technical Requirements

A number of tools which are targeted at increasing e-participation have been identified; these are also referred to as e-methods. These web based tools cover various areas of participation.

Each one of the e-methods presented below is accompanied by a SWOT analysis. SWOT analysis (Strengths, Weaknesses, Opportunities and Threats analysis) is a descriptive method for identifying and listing positive or negative factors about an issue, in a more representational and concentrated way. Eventually all the data from the SWOT matrixes are combined in one criteria form in order to make a comparison between e-participations' tools.

The first step for the SWOT analysis was to establish a series of criteria. These criteria were carefully selected as to maintain a balance in sought after technical requirements and social requirements. Fraser et al. (2006) have identified a number of preconditions for the successful deployment of e-Participation tools. One of the identified preconditions is related to security and privacy in e-Participation contexts. E-Participation services need to be easy to use, simple and without time-consuming procedures to ensure the participation of users.

However, there is also a need to implement security and privacy measures in e-Participation services to ensure that the users will trust a system. If users' expectations of security and privacy are not met, or if the measures are excessive, then participation will be ineffective, either due to a lack of trust in the system, or due to system usability problems. It is, therefore, important that a proper balance between security, usability and transparency of e-Participation services be achieved.

From the above, a number of technical requirements can be identified:

- Deployment Complexity: How difficult is the deployment of an e-participation tool?
- Information Richness: What amount of information is the specific e-method able to contain?
- Security: Can the user's navigation be secured?
- Interactivity: To what degree are the communication channels unidirectional or bidirectional?
- Scalability: How effectively can the application scale to meet a broader public or extend its current capabilities?

3.1 Webcasts

A webcast is the Internet audio and/or video stream produced from a live event, or an online simulcast of a broadcast signal (Elaine G. Toms, 2005). A webcasting system can be classed as a form of multimedia system, and a webcast, thus, is a multi-media object with multiple components. In addition to the video, the webcast usually includes the slides from a presentation, and may include other artifacts. Webcasts are usually transmitted and seen by the participants at the same time (real-time) and their duration may be over one hour, although they can be archived to allow people to view them at a later time, creating an issue of data storage. This system offers its participants a way to see and hear a transmission but in general it's not very interactive.

Table 2: SWOT Analysis for WebCasts

Strengths	Weaknesses
✓ Accessibility: **HIGH** ✓ Information Richness: **HIGH** ✓ Privacy: **HIGH** ✓ Security: **HIGH** ✓ User Technical Knowledge Required: **LOW**	✓ Deployment Complexity: **HIGH** ✓ Interactivity: **LOW** ✓ Scalability: **MODERATE** ✓ User Hardware Requirements: **HIGH**

Opportunities	Threats
✓ Information Provision ✓ Electioneering	✓ Real Time Video Player might create accessibility issues ✓ Large Hardware Requirements and High Complexity in Deployment in case of scalability due to large amount of data stored

3.2 FAQ

This method presents information through questions (Q) and answers (A) that can be searched using keywords or by inputting a question or statement in 'natural language'. However the information cannot be considered to be sufficient to cover and communicate a whole topic as the system question-answer provides participants a very fragmental opinion.

Table 3: SWOT Analysis for FAQs

Strengths	Weaknesses
✓ Accessibility: **HIGH** ✓ Deployment Complexity: **LOW** ✓ Privacy: **HIGH** ✓ Security: **HIGH** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Information Richness: **MODERATE** ✓ Interactivity: **LOW** ✓ Scalability: **MODERATE**
Opportunities	**Threats**
✓ Information Provision ✓ Electioneering	✓ May not fully inform a user ✓ Navigation and search problems

3.3 Blogs

A web-blog is a web page with minimal to no external editing, providing on-line commentary, periodically updated and presented in reverse chronological order, with hyperlinks to other online sources. (Daniel W. Drezner, 2004). Software required to run a blog is available free of charge on the internet, is relatively easy to use and requires no specialist knowledge of web languages to operate.

Table 4: SWOT Analysis for Blogs

Strengths	Weaknesses
✓ Accessibility: **HIGH** ✓ Deployment Complexity: **LOW** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Information Richness: **MODERATE** Interactivity: **MODERATE** ✓ Privacy: **MODERATE** ✓ Security: **MODERATE** ✓ Scalability: **MODERATE**
Opportunities	**Threats**
✓ Information Provision ✓ Campaigning ✓ Electioneering ✓ Discourse	✓ Information provided could be one sided if only authors opinion expressed ✓ Privacy issues could be a problem

3.4 Quick Polls

An opinion poll is a survey of opinion from a particular sample. Opinion polls are usually designed to represent the opinions of a population by asking a small number of people a series of questions and then extrapolating the answers to the larger group within confidence intervals. The answers given are anonymous, no personal or demographical data required.

Table 5: SWOT Analysis for Quick Polls

Strengths	Weaknesses
✓ Accessibility: **HIGH** ✓ Deployment Complexity: **LOW** ✓ Privacy: **HIGH** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Information Richness: **MODERATE** ✓ Interactivity: **MODERATE** ✓ Scalability: **MODERATE** ✓ Security: **MODERATE**
Opportunities	**Threats**
✓ Consultation ✓ Campaigning ✓ Electioneering ✓ Polling	✓ The same visitor could submit more than one responses to a specific poll ✓ Security could be an issue if input not validated

3.5 Surveys

A survey is a process for gathering information, without detailed verification, on the activity being examined. It is in fact a questionnaire with specific structure of close-ended questions (typically with ordered response categories) and some open-ended questions.

Table 6: SWOT Analysis for Surveys

Strengths	Weaknesses
✓ Accessibility: **HIGH** ✓ Deployment Complexity: **LOW** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Information Richness: **MODERATE** ✓ Interactivity: **LOW** ✓ Privacy: **MODERATE** ✓ Security: **MODERATE** ✓ Scalability: **LOW**
Opportunities	**Threats**
✓ Consultation ✓ Campaigning ✓ Electioneering ✓ Polling	✓ Visitors' privacy must be protected and no personal or demographic data should be required ✓ Security could be an issue if not implemented carefully

3.6 Chat Rooms

A chat room or chatroom is a term used primarily by mass media to describe any form of synchronous conferencing, occasionally even asynchronous conferencing. The term can thus mean any technology ranging from real-time online chat over instant messaging and online forums to fully immersive graphical. Chat rooms sometimes have a 'moderator' to facilitate interaction with the panel and to control the discussion.

Table 7: SWOT Analysis for Chat Rooms

Strengths	Weaknesses
✓ Information Richness: **HIGH** ✓ Interactivity: **HIGH** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Accessibility: **MODERATE** ✓ Deployment Complexity: **MODERATE** ✓ Privacy: **LOW** ✓ Security: **LOW** ✓ Scalability: **LOW**
Opportunities	**Threats**
✓ Information Provision ✓ Community Building ✓ Campaigning ✓ Electioneering ✓ Deliberation ✓ Discourse ✓ Mediation	✓ A large number of visitors can create scalability issues ✓ Privacy must be maintained

3.7 Decision-making games

Decision-making games allow users to view and interact with animations that describe, illustrate or simulate relevant aspects of an issue. There is usually some competitive aspect such as a quiz. The content, level of difficulty and types of interfaces are dependent on the target audience. Information can be provided through a question and answer type game similar to a FAQ. The user can be presented with a graphical representation of a place or situation and various options that, when selected, change the representation in some way to simulate the effect of real-life decision-making.

Table 8: SWOT Analysis for Decision-Making Games

Strengths	**Weaknesses**
✓ Interactivity: **HIGH** ✓ User Technical Knowledge Required: **LOW**	✓ Accessibility: **LOW** ✓ Deployment Complexity: **HIGH** ✓ Information Richness: **MODERATE** ✓ Privacy: **MODERATE** ✓ Security: **MODERATE** ✓ Scalability: **MODERATE** ✓ User Hardware Requirements: **HIGH**
Opportunities	**Threats**
✓ Information Provision ✓ Community Building ✓ Electioneering	✓ A large number of visitors can create scalability issues ✓ Accessibility requirements may not be able to be followed

3.8 Discussion Forums

An Internet forum is a web application for holding discussions and posting. Internet forums are also commonly referred to as Web forums, message boards, discussion boards, (electronic) discussion groups, discussion forums, bulletin boards, fora (the Latin plural) or simply forums. It typically shows a list of topics people are concerned about. Users can pick a topic and see a 'thread' of messages and replies then post their own message. Communication channels can either be asynchronous or synchronous.

Table 9: SWOT Analysis for Discussion Forums

Strengths	**Weaknesses**
✓ Information Richness: **HIGH** ✓ Interactivity: **HIGH** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Accessibility: **MODERATE** ✓ Deployment Complexity: **MODERATE** ✓ Privacy: **LOW** ✓ Security: **MODERATE** ✓ Scalability: **MODERATE**
Opportunities	**Threats**
✓ Information Provision ✓ Community Building ✓ Campaigning ✓ Electioneering ✓ Deliberation ✓ Discourse ✓ Mediation	✓ Information provided could be one sided if only authors opinion expressed

3.9 e-Panels

E-Panels represent a recruited set, as opposed to a self-selected set, of participants who have agreed to discuss on a variety of issues using ICTs at specific intervals over a period of time. Sometimes we may have no interaction in case online questionnaires are used but it is also possible to support intensive engagement by providing participants a number of e-tools in order to contribute online.

Table 10: SWOT Analysis for e-Panels

Strengths	Weaknesses
✓ Information Richness: **HIGH** ✓ Interactivity: **HIGH**	✓ Accessibility: **MODERATE** ✓ Deployment Complexity: **HIGH** ✓ Privacy: **MODERATE** ✓ Security: **MODERATE** ✓ Scalability: **MODERATE** ✓ User Hardware Requirements: **MODERATE** ✓ User Technical Knowledge Required: **MODERATE**
Opportunities	**Threats**
✓ Information Provision ✓ Consultation ✓ Deliberation ✓ Mediation	✓ A large number of visitors can create scalability issues ✓ Privacy must be maintained

3.10 e-Petitions

An Internet petition is a form of petition posted on a website. Website visitors are questioned if they want to add their email addresses or names in the petition form, and after enough "signatures" have been collected, the resulting letter may be delivered to the author of the petition, usually via e-mail. An integrated discussion forum can also be incorporated to allow users to voice their support or concerns for the e-petition.

Table 11: SWOT Analysis for e-Petitions

Strengths	Weaknesses
✓ Information Richness: **HIGH**	✓ Accessibility: **MODERATE** ✓ Deployment Complexity: **MODERATE** ✓ Interactivity: **MODERATE** ✓ Privacy: **LOW** ✓ Security: **MODERATE** ✓ Scalability: **MODERATE** ✓ User Hardware Requirements: **MODERATE** ✓ User Technical Knowledge Required: **MODERATE**
Opportunities	**Threats**
✓ Consultation ✓ Campaigning ✓ Mediation ✓ Polling	✓ Data protection required

3.11 E-Deliberative polling

Deliberative polling combines small-group discussions involving large numbers of participants with random sampling of public opinion. Its overall purpose is to establish a base of informed public opinion on a specific issue. Citizens are invited to take part at random, so that a large enough participant group will provide a relatively accurate, scientific representation of public opinion.

Table 12: SWOT Analysis for e-Deliberative Polling

Strengths	Weaknesses
✓ Information Richness: **HIGH** ✓ Interactivity: **HIGH**	✓ Accessibility: **MODERATE** ✓ Deployment Complexity: **HIGH** ✓ Privacy: **MODERATE** ✓ Security: **MODERATE** ✓ Scalability: **MODERATE** ✓ User Hardware Requirements: **MODERATE** ✓ User Technical Knowledge Required: **MODERATE**

Opportunities	Threats
✓ Information Provision ✓ Community Building ✓ Consultation ✓ Campaigning ✓ Mediation ✓ Polling	✓ Data protection required

3.12 Virtual Communities

A virtual community, e-community or online community is a group of people that primarily interact via communication media such as, email or Usenet rather than face to face. If the mechanism is a computer network, it is called an online community.

Table 13: SWOT Analysis for Virtual Communities

Strengths	Weaknesses
✓ Information Richness: **HIGH** ✓ Interactivity: **HIGH**	✓ Accessibility: **MODERATE** ✓ Deployment Complexity: **HIGH** ✓ Privacy: **LOW** ✓ Security: **LOW** ✓ Scalability: **MODERATE** ✓ User Hardware Requirements: **MODERATE** ✓ User Technical Knowledge Required: **MODERATE**
Opportunities	**Threats**
✓ Information Provision ✓ Community Building ✓ Electioneering ✓ Deliberation ✓ Discourse ✓ Mediation	✓ Data protection required ✓ The target audience must be willing to participate

3.13 Alert Mechanisms – email alerts and RSS Feeds

RSS or Real Simple Syndication is technology designed to allow users to subscribe to a specific content feed and be automatically alerted when new updates are available.

Table 14: SWOT Analysis for e-mail alerts and RSS Feeds

Strengths	Weaknesses
✓ Accessibility: **HIGH** ✓ Deployment Complexity: **LOW** ✓ Privacy: **HIGH** ✓ Security: **HIGH** ✓ Scalability: **HIGH** ✓ User Hardware Requirements: **LOW** ✓ User Technical Knowledge Required: **LOW**	✓ Information Richness: **MODERATE** ✓ Interactivity: **LOW**
Opportunities	**Threats**
✓ Information Provision ✓ Electioneering	✓ Single sided information

3.14. E-Methods Comparison

The following table is a criteria rating form for the above analysed e-methods. For each criterion established a weight is given to declare its importance. Then each e-method is rated corresponding to its coverage of the perquisites. The rates that each method gets are multiplied with the weight, in order to get a total score (note that the ratings are according to the swot analysis of each method). It is essential to note at this point that it doesn't matter which method gets the maximum score. Instead the important thing is the fluctuation that each method's ratings presents, that implies that one method may be more proper for one application than another.

Table 15: Criteria Form for e-methods

Decision Matrix		e-Methods												
		1: WebCasts	2: FAQ	3: Blogs	4: Quick Polls	5: Surveys	6: ChatRooms	7: Decision-Making Games	8: Discussion Forums	9: e-Panels	10: e-Petitions	11: e-Deliberative Polling	12: Virtual Communities	13: Alert Mechanisms
Criteria	**Weight**	**Rate**												
Accessibility	3	3	3	3	3	3	2	1	2	2	2	2	2	3
Deployment Complexity	-1	3	1	1	1	1	2	3	2	3	2	3	3	1
Hardware Required from User	-2	3	1	1	1	1	1	3	1	2	2	2	2	1
Information Richness	3	3	2	2	2	2	3	2	3	3	3	3	3	2
Interactivity	2	1	1	2	2	1	3	3	3	3	2	3	3	1
Privacy	3	3	3	2	3	2	1	2	1	2	1	2	1	3
Security	3	3	3	2	2	2	1	2	2	2	2	2	1	3
Scalability	1	2	2	2	2	1	1	2	2	2	2	2	2	3
User Technical Knowledge Required	-2	1	1	1	1	1	1	1	1	2	2	2	2	1
Total Score	**10**	**22**	**17**	**16**	**17**	**14**	**15**	**19**	**17**	**21**	**18**	**21**	**19**	**18**
Summary		**29**	**32**	**28**	**31**	**25**	**22**	**18**	**26**	**24**	**20**	**24**	**18**	**33**

"Total Score" corresponds to the sum of an e-method's rates **[Total Score = Sum of an e-methods Rates]**

"Summary" corresponds to the weighted sum of the rates multiplied by the corresponding criteria weights. [**Summary = Sum (Rating * Weight for each criteria)]**

Table 16: Rates

Rating	Description
0	No Fit
1	Low Fit
2	Moderate Fit
3	High Fit

Table 17: Weights For Positive Factors

Weights	Description
1	Low Importance
2	Moderate Importance
3	High Importance

Table 18: Weights For Negative Factors

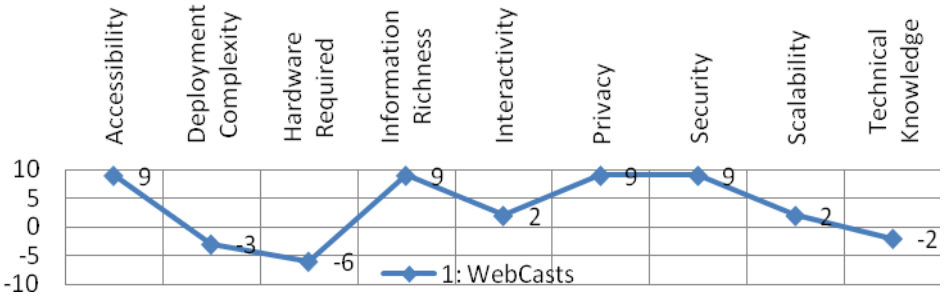
Weights	Description
-1	Low Importance
-2	Moderate Importance
-3	High Importance

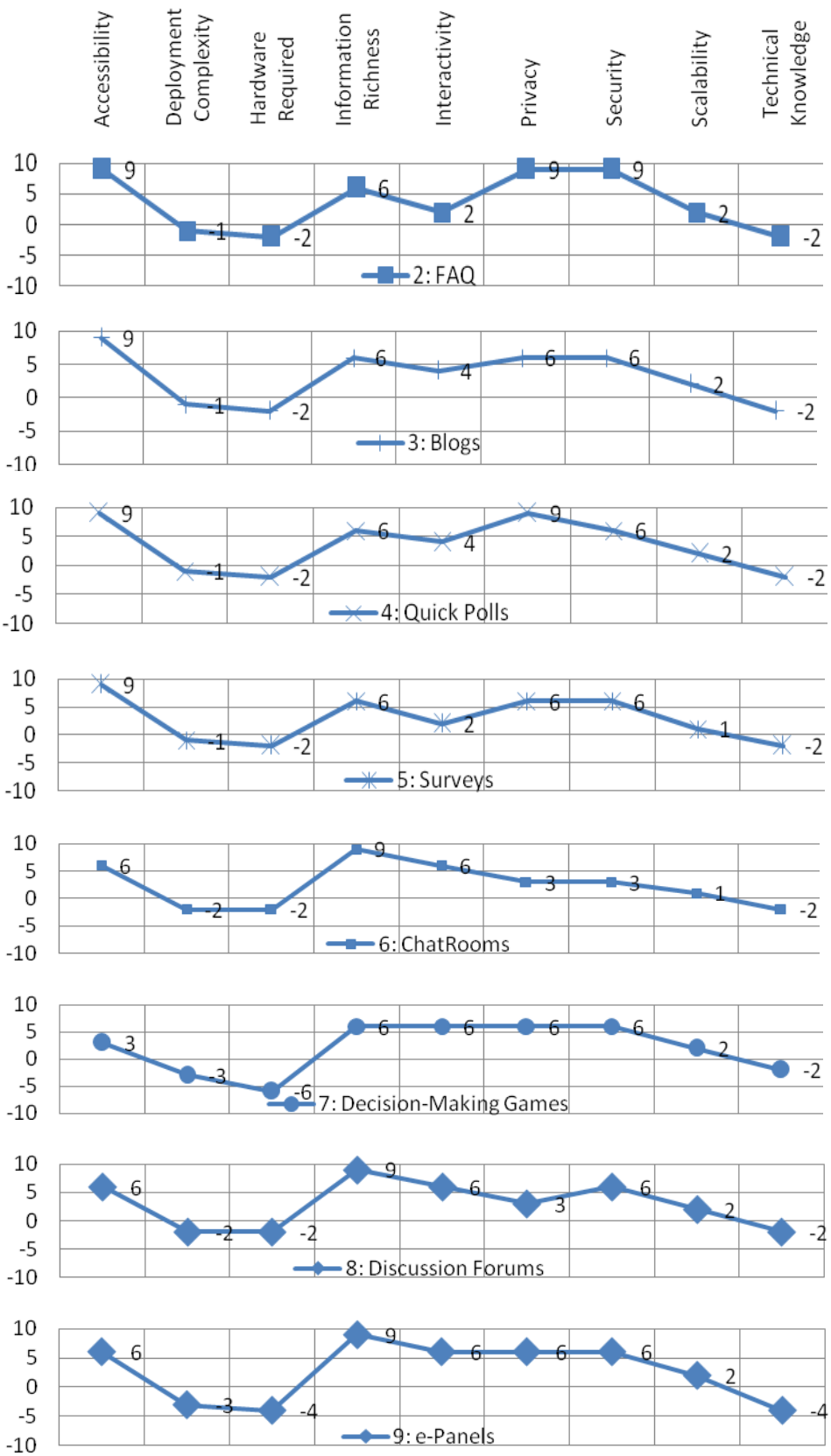
Table 19: Explanation of Criteria Weighting

Weights	Criteria	Reason
3 or -3	Accessibility Information Richness Privacy Security	If users' expectations of security and privacy are not met, or if the measures are excessive, then participation will be ineffective, either due to a lack of trust in the system, or due to system usability problems. Security, usability and transparency are equally of high importance in e-Participation services. Accessibility is of high importance as inequalities in accessibility will exclude a number of users from participating. Information Richness (acquisition) is a crucial element of e-Participation, leading to e-Democracy.
2 or -2	Interactivity Hardware Required from User User Technical Knowledge Required	As technology's primary goal is becoming user friendlier such a gap in hardware requirements and technical knowledge requirements, is evidently going to disappear. An efficiently designed e-democracy system will provide the means for bi-directional exchange of information and re engagement of active citizens in the political process (interactivity). So these factors do not affect participation or users in the same way that the above mentioned do.
1 or -1	Scalability Deployment Complexity	As e-methods are targeted at increasing participation in democratic processes, Scalability and Deployment Complexity, do not directly influence end users.

Not that the importance given when assessing with e.g. 3 or -3 is the same, with the difference that a negative weight implies a negative factor.

Table 20: E-Methods Score Fluctuation




Accessibility
Deployment Complexity
Hardware Required
Information Richness
Interactivity
Privacy
Security
Scalability
Technical Knowledge
10
5
0
-5
-10
9 -1 -2 6 2 9 9 2 -2
2: FAQ
9 -1 -2 6 4 6 6 2 -2
3: Blogs
9 -1 -2 6 4 9 6 2 -2
4: Quick Polls
9 -1 -2 6 2 6 6 1 -2
5: Surveys
6 -2 -2 9 6 3 3 1 -2
6: ChatRooms
3 -3 -6 6 6 6 6 2 -2
7: Decision-Making Games
6 -2 -2 9 6 3 6 2 -2
8: Discussion Forums
6 -3 -4 9 6 6 6 2 -4
9: e-Panels

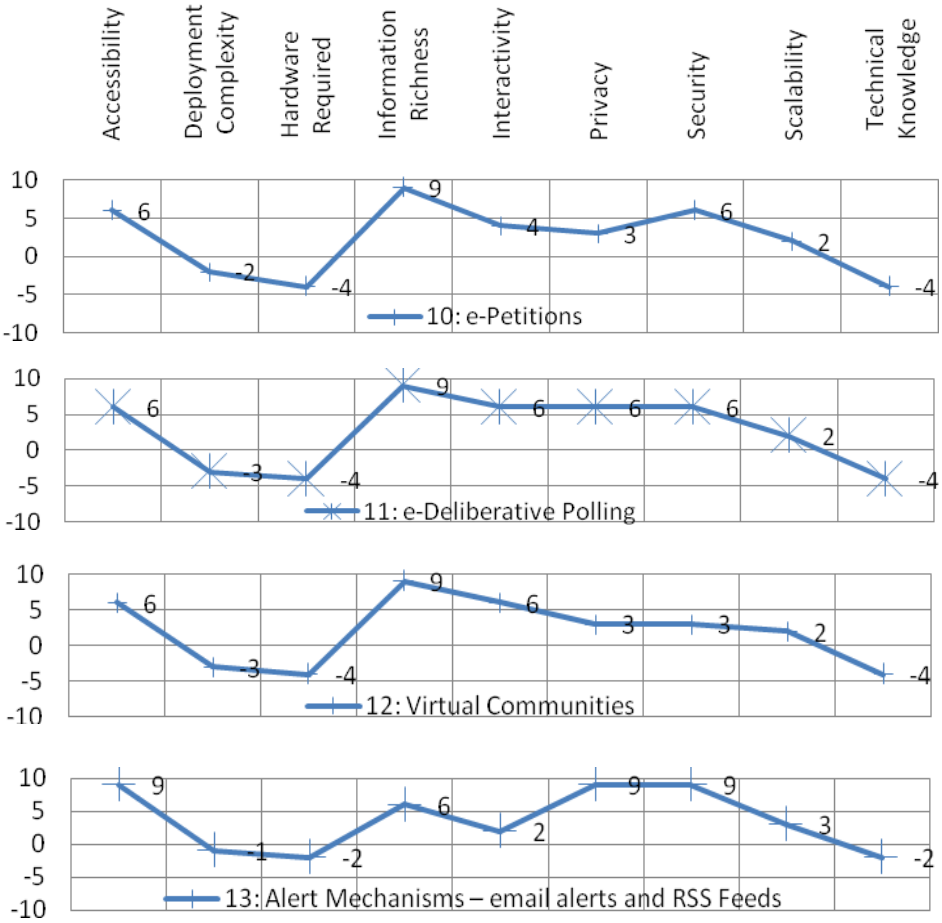


Table 21: Symbol Explanation for the above E-Method's Score Fluctuation Chart

1: Webcasts
2: FAQ
3:Blogs
4:Quick Polls
5: Surveys
6: Chat Rooms
7: Decision-Making Games
8: Discussion Forums
9: e-Panels
10: e-Petitions
11: e-Deliberative Polling
12: Virtual Communities
13: Alert Mechanisms – E-mail alerts and RSS Feeds

4. Conclusion

Towards an electronic society and an electronic democracy it is important to assess the suitability of each available method. Competent e-participation channels in e-democracy depend on the technologies used. This is the purpose of the comparison of e-methods presented in this paper, to

point out the characteristics of each method in order to make appropriate use of them. Although a final score has been awarded to each method it cannot be a conclusive result leading to the use or not of a specific e-method, only a guide to each methods advantages and disadvantages. There is no e-method that can be suitable for all applications, and vice versa, no application can make use of all e-methods. An e-method must be chosen regarding each situation's demands and considering the above mentioned advantages and disadvantages that this particular e-method has.

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