Estonia’s post-communist transformation has been marked by several parallel processes, such as democratization, economic liberalization and the rise of consumerism. Another crucial component has been technological change – most notably the emergence of the personal computer and the Internet. The rapid transition to the information society began with governmental initiatives to develop various areas of societal life through the introduction of new technologies, but soon made its presence felt in people’s everyday lives. As the initial phase of transformational euphoria began to subside, technological ‘revolution’ was mooted as one possible means of reducing citizens’ growing alienation from the state and revitalizing Estonia’s democracy. The latter approach has previously been discussed in other academic and political contexts, both in Europe and the US. Distinguishing technological and democratic developments from one another is next to impossible, therefore analyzing them in context and with reference to each other is important.

Information and communication technologies have been part of the development processes of the Estonian state since the 1990s. The Tiger Leap Program was officially launched in 1997 in order to provide Estonian schools with information and communication technology (ICT) infrastructure, and to support content creation and the acquisition of usage skills. It is largely on the basis of this that ‘Internetization’ has come to be viewed as one of the central symbols of Estonia’s rapidly changing...
society (Runnel 2001). A few years after these efforts to merge ICTs with the education system, success stories in the areas of e-governance and services gained both domestic and international recognition, leading to a widely held perception of Estonia as a leading e-state.

Recent analyses of changing Eastern European societies have for the most part been concerned with institutional and structural change: the effects of economic and political reforms and their social environment. The focus has been on the 'space of possibilities' rather than on individuals as active agents within these environments. Individuals are rather dealt with as decision makers representing politics, and their administrative capacities are interpreted as one of the prerequisites for change (Nørgaard 2000, p. 9). In the particular framework of EU accession, EU models in various spheres of life have been central (Kalvet 2007; Siil 1997) and thus provide a necessary context when attempting to understand ongoing processes of change. Transition studies have generally followed people in order to estimate the ability and readiness of the population to go along with change, including the study of change by means of the public opinion poll, i.e. from the perspective of agreeing or not agreeing and coping or not coping with ongoing changes. The role of people as interpreters or co-producers of the meaning of change has often been underestimated in such studies. Similarly, ICT-related change – like other areas of transformation – has been dealt with primarily at the macro level and has often been interpreted from the perspective of Eastern Europe ‘catching up’ with the West (Lass 1999; Lauristin & P. Vihalem 1997; Vogt 2005, p. 9; Wormald 2005). Even now, micro-level studies of what people do on a daily basis are poorly integrated with the macro level context of the information society (Pruulmann-Vengerfeldt 2006b).

When one looks at Information Society (IS) policies developed throughout the last decade, it becomes clear that they carry ideas visible in public discourse from the early days of IS policies, according to which providing access to ICTs is important in order to: (1) increase competitiveness; (2) reduce division within society; and (3) foster state–individual relationships (Principles of Estonian Information Policy 1998). In the case of Estonia we are dealing with a unique example in which civic participatory culture also started developing in parallel with, and was strongly influenced by, ICT development. At the same time ICTs have strongly influenced democracy and e-participation and are therefore probably much more integrated into Estonia’s concept of democracy and political participation (Reinsalu & Winsvold 2008). This concept goes side by side with general social development, which expects the growth of civic society in Estonia and puts public participation very much on the political agenda (Pruulmann-Vengerfeldt 2007).

Departing from this context, our essay will look at the place of informatization within the political agenda and analyze how expectations have been realized (or not). It aims to combine both textual analysis of 1990s political and public texts concerning the information society in Estonia with quantitative survey data from a nationally representative survey of the Estonian speaking population conducted in February 2007. These will be used to analyze what kind of usage practices can be identified and how much participation in online democratic environments is part of the usage.

In what follows, we first briefly locate Estonian developments within the Baltic ICT sector and internationally. We then present the position of ICTs in the early political
agenda of Estonia, before focusing on the different Internet user types to identify the diversity of online practices. We then use theoretical material together with empirical examples to analyze the conditions that exist for digital democracy in Estonia, and then finally return to our survey data to focus on actual participatory activities.

Estonia’s Position in Baltic and European Comparison of ICT Indicators

The rapid pace of Estonian ICT development could already be seen in the late 1990s in parallel with information policy processes. An analysis of computer ownership in the three Baltic states during the 1990s shows that between 1997 and 1999 Estonia ‘took off’ and left the two other Baltic countries behind. In 1995 and 1997, home computer ownership grew equally (steadily increasing by around 1% in two years in all countries). By 1999, however, Estonian computer ownership had grown from 5% to 14%, whereas in Latvia and Lithuania it was still only 6%. The successful dissemination of ICTs is also evidenced by high Internet use in recent years – a total of 64% of Estonians had used the Internet in the past three months when surveyed in 2004, which is 9% higher than in Latvia and 15% higher than in Lithuania (Vengerfeldt & Runnel 2004, p. 250) (see Figure 1).

FIGURE 1 Percentage of the population which has used the Internet in the three past months and the percentage of the population which has used the Internet for the listed activities.
Today, more than ten years after the initial documents were launched, Estonia can indeed be proud of its achievements in ICT-related development as the country has quickly positioned itself ahead of many larger Western economies. The use of complex measures also indicates Estonia’s relative success in achieving its aims of distributing access to information, while enjoying the competitive edge that ICTs have brought to Estonia. The Lisbon Review (of the competitiveness of EU member states) lists Estonia in 12th place. This is the highest of the ten member states that joined in 2004, a position that Estonia has since maintained. Lithuania is in 20th position, rising from 21st position, while Latvia is in 22nd position having fallen from 16th position in 2004 (World Economic Forum 2006).¹

While the Lisbon Review could be seen as showing the success of Estonian ICT policies as measured by social dissemination and by competitiveness, the Global Competitiveness Report (2007) adopts a broader perspective, using a sample group of 131 countries. Here Estonia ranks 27th, with Lithuania 38th and Latvia 45th. In the technological readiness category Estonia is 19th, Lithuania 38th and Latvia 40th. This shows that Estonia has fairly successfully managed to integrate ICTs in terms of economic competitiveness, and also in terms of social inclusion.

However, it is one thing to measure the prerequisites, in the form of technical infrastructure; another question is how much of this Internet usage is for participation in public life? As can be seen from Eurostat data (see Figure 1), the percentage of Estonians using the Internet for communication is close to the average across the Internet, while the percentages using Internet banking are also equally similar. Yet when it comes to using the Internet to obtain information from public websites, or to interact with the government or other public authorities, Estonia is ahead of its Baltic neighbors, although only average among the EU27 countries.

The Internet is now well integrated into the personal lives of Estonians – even Internet banking, which requires skill and trust.² However, although it is often claimed that once people start using and trusting online banking, use of all other Internet applications will follow, the data here suggest otherwise. Despite being ahead in the field of Internet banking, Estonians still have a lot to learn about participatory online activities. This can be explained at least partially by the fact that the government focused on investments in infrastructure, encouraging an increase in competitiveness but leaving local Internet users somewhat empty-handed – a void that was quickly filled by activities in the private sphere. The task of explaining the use and functionality of ICTs was quickly taken over by banks, which saw an immediate return on their revenues, rather than the state.

One of the reasons for this situation could be that the measurement of competitiveness, as it relates to Estonia’s information society, follows the internationally much criticized path (Barzilai-Nahon 2006; Menou & Taylor 2006; Servaes 2003) of quantitative and technology centered measures: number of Internet users, number of computers and number of Internet connections. This in itself proposes a normative barrier – it becomes more important to achieve target numbers than to focus on the activities individuals perform within online environments. These formal measures helped Estonia gain the international image of an advanced e-state. The successful implementation of information technologies became a spectacular characteristic that was used to sell Estonia to international audiences. Estonia also
became a yardstick, a comparison that was eagerly used by the international media when describing a rapidly changing country. Estonian newspapers carefully quoted stories in the foreign media that portrayed Estonia’s success, thus helping in their turn to bring this particular form of hype back to Estonia (Driessen 1999).

ICTs in the Political Agenda of Estonian Transition Society

The first strategic document discussing the information society in Estonia, *The Estonian Way to the Information Society*, was published in 1994 (Eesti Informatikanõukogu 1994). As Kalvet (2007) and Siil (1997) point out, the document demonstrated an aspiration to follow similar processes then occurring in the EU, the joining of which was Estonia’s main national goal at the time. The development of information technology, and its implementation into different spheres of life, was discussed extensively in general policy reports like the Estonian Human Development Report (1996, 1997), in more focused policy plans like the Tiger Leap Program, which aimed to bring computers and Internet connections to Estonian schools (1997), and in Estonian Information Policy (1998); similar aspirations also appeared in the speeches of visionaries (for example IT activist Linnar Viik, former foreign minister Toomas Hendrik Ilves, former prime minister Mart Laar, etc.), forming ways of understanding the concept of the information society.

According to these documents, the rationale behind the ICT-related change in society lay in its benefit to society: the ability of technology to increase Estonian competitiveness, reduce social divisions, and foster state-individual relationships. Special emphasis was placed on introducing ICTs to the education system in order to prepare future citizens and entrepreneurs.

The development of ICTs and the Internet, and their integration into everyday life in Estonia, occurred at a time when many of the most far-reaching changes had already been made, during a period characterized first by relative stability (1995–1998), and subsequently, by the euphoria of success. At that time ICTs became part of the political agenda and policy overviews and development plans were drafted discussing the role of ICTs in general social change, with the aim of incorporating technology into the changes. At that time, administrative, academic, technological and industrial groups made successful efforts to boost Estonian economic development through strong ICT policy (Lauristin & P. Vihalemm 1997) and conscious investment in technology and ICT infrastructure. This was to be followed by initiatives designed to acquaint the population with the new technological infrastructure.

Despite strong reservations, including claims by some social scientists that ICTs possibly add to the strong stratification of society, generally very optimistic and even uncritical statements can be found across all of the documents. Estonia is seen as having the necessary prerequisites for the implementation of ICT-related change, for example flexibility and a relatively high level of education (Human Development Report 1996). The Tiger Leap Program, which became the metaphor for the whole success story of rapid reforms during the pre-accession period, was notably based on rather strong ideological beliefs. For example, Enel Mägi, general manager of the
Tiger Leap Foundation, stressed that the information age gives Estonia great opportunities:

The Tiger Leap Program is a step toward ensuring our success in competing with larger nations in the 21st century, when the world is evolving into a society in which information is the main commodity. Estonia is willing to invest in the future of its people. (Mägi 1999, p. 31, quoted in Runnel 2001, p. 59)

Ideologically, the notion of the ‘Tiger Leap’ embodied many aspects other than merely providing access to the Internet. The Tiger Leap Program became the metaphor for a general computerization of society that was not limited to the field of education.

Among other aims, the Principles of Estonian Information Policy (1998) also promised to provide a forum enabling every individual to join the discussion on shaping the information society. This forum never came into being, although one can see early ideas relating to it at the web portal TOM (Täna Otsustan Mina – Today I Decide⁴), which was established in order to facilitate participation. The tone of the document, however, was one of providing information for citizens in order to guarantee a successful realization of the ‘opportunities [that moving into the Information Society] gives them’ (Siil 1997).

The policy documents were inspired not only by strategic decisions, but also by the general technology-friendly culture in Estonia, including a general awareness of technology and a readiness to use it. Although the importance of technology diminished in comparison to other values during the 1990s (Lauristin & T. Vihalemn 1997), the understanding of technology as a modernist value and the idealized view of progress so characteristic of the Soviet period still lingered on, creating a favorable environment for technological change.⁵

It can therefore be said that ICT friendliness, represented in policy documents, was as much a cultural model as it was an economical tool. In his study of the Hungarian information society, anthropologist Tom Wormald refers to technological change as an integral part of applying EU models of statehood (Wormald 2005). Vogt (2005) also states that the technological utopia, or rather the information society, was in many ways an essential driver for widespread change in Eastern Europe: people wanted to achieve the technological level and possibilities of the West as soon as possible. Today the feeling of the ‘grand narrative of ICTs’ (Servaes & Heindercykx 2002) has diminished and Estonia has in many respects ‘caught up with and overtaken’ ‘old Europe’; as there are no good examples of, or statements about, continuous improvement, there is now less ambition regarding the participation of citizens in online environments. Here one can also see conflicting ideas about individual well-being as achievable through the use of technology. State success is proclaimed through aspirational speeches on the future. Many individuals have achieved basic well-being and the use of technologies is now put towards personal goals rather than participation in public life.

**Conditions for Democratic Practices – Theoretical Considerations and Actual Online Participation**

When, in 1998, the Principles of Estonian Information Policy were adopted by the Estonian government, the transition process had reached the alienation, or
post-revolutionary phase (see Lauristin & Vihalemm 2008). As in other countries, academic and political circles regarded the technological ‘revolution’ as a remedy for the shortcomings of democracy. For this reason, citizens’ participation was highlighted as one of the main principles in IT policy documents. Although the development of institutional democracy in Estonia had been impressively rapid, the decreasing numbers of voters and increasing public discussion about the alienation of the state (Ehin 2007) showed that people had become more focused on their individual needs.

The expectation that ICTs would quickly foster new hybrid forms of participatory and representative democracy, however, betrayed a lack of critical engagement. As has been the case in other countries, Estonia adopted a very top-down approach to implementation: rather than introducing the proposed online discussion forum dealing with what kind of information society citizens would like (Principles of Estonian Information Policy 1998), the emphasis was instead given to several state-initiated projects. Although this was looked upon highly favorably in the international political scene, it is not that appreciated by individuals. As Hague and Loader (1999, p. 10) describe:

The underlying logic would appear to run along the following lines: ICTs are a good thing per se; those who can access and have the skills to utilize these ICTs will gain obvious advantages (primarily economic) for themselves and will be more useful (primarily economically) to society (…).

What is missing here is any attempt to ground awareness raising and training regarding ICTs in the everyday experience of individuals and communities and to allow them to decide for themselves what use ICTs may be for them.

Estonian ICT policy documents and state initiated projects follow a similar top-down logic. This leaves very little space to understand that the use of ICTs does not necessarily lead to individuals seeking ‘valuable’ information, or making ‘valuable’ deliberations, etc.; rather these functions and practices come when space is provided for them, while at the same time leaving the possibility for social shaping. For instance, the large scale public campaign to train 100,000 Estonians to use computers (Look at the World6) can also be considered for the most part to have been a public relations exercise, as the four–eight hours of training available was enough to raise curiosity rather than increase skill levels, particularly the skills required to search and participate (Pruulmann-Vengerfeldt & Kalvet 2008). From the point of view of the social shaping of technology, there is an inherent political similarity to law and policy, although unlike the latter, technology policy is often designed without public debate (Docter & Dutton 1999).

The concept of participation plays a crucial role in theoretical models proposing that the Internet will open a new public sphere, with the possibility of a more direct and/or deliberative democracy. But this raises new questions. ‘Quick-fix’ Internet solutions for democratic crises have been both celebrated and criticized, and while the Internet is seen as a mobilizing tool to bring the young and underrepresented into politics, it also appears to some to be just another way of reinforcing existing social divisions (Hibberd 2003; Norris 2001; Scheufele & Nisbet 2002).
In the Estonian context there is some confusion and ambiguity about the terms that express participation within the theoretical debate. In current political rhetoric more emphasis is put on the word kaasamine (engagement), whereas the concept of participation is more explicitly expressed in Estonian using the word osalemine. Lagerspetz (2006) explains the two key concepts osalus and kaasamine in the context of Estonian civic society, as follows: Kaasamine is (a) an inward-oriented ‘mobility’ of a target group or constituency; or (b) activities of the public or private sector aimed at giving citizens or citizens’ organizations the chance to participate in decisions that are related to them, including legislative processes. Osalus is the individual’s possibility to have a say in decisions that are related to him/her.

‘Engagement’, with its top-down nature, in which people are engaged or involved when it is deemed suitable by the groups in power, has become a new catchword in the wider public vocabulary. Marju Lauristin has noted the improper replacement of ‘participation’ (osalus) by ‘engagement’ (kaasamine) noting that:

Engagement is a one-sided (the dominant, governing), group activity towards another (dominated, governed) group; the one who engages is a subject while the one who is being engaged is more of an object whose possibilities to influence final decisions are limited. (Lauristin 2007)

Despite the criticism expressed above, the e-state as well as some well-known examples of online participation have supported the success-story idea of the ‘Tiger Leap’ in Estonia. Three key initiatives from within the Estonian Internet sphere (Internet based voting and two e-participation/consultation websites) have become symbols of Internet participation: they are often used in public discussions about Estonian Internet initiatives and are often considered to be trademarks of Estonian online participatory democracy.

Regardless of the above-mentioned idea that technology might bring new and hybrid forms of democracy, the best-known Estonian application of the Internet within the democratic process is online voting. E-voting has already been used twice in Estonia, in local elections in 2005 and in the parliamentary elections of 2007. E-voting enables people to vote from anywhere using their identity card and a smart-card reader to select their favored candidate from lists held on the relevant website. About 9,000 people used this option in 2005 and more than 30,000 people (5.4% of the population) in 2007 (VVK 2007). It can be said that having the option to vote via the Internet has helped to increase citizen involvement. As Vassil’s (2007) analysis of e-voters shows, the number of people whose participation depended on e-technologies is small but significant: 10% of e-voters in the analysis claimed that they would not have voted if Internet voting was not an option, while 95% of e-voters were convinced that they would not like to vote in the traditional way if e-voting continues as an option. This indicates relative techno-friendliness in some groups. However, it should be kept in mind that e-voting can be viewed as the preparation of citizens and institutions to trust and accept online activities, rather than an adequate model of e-participation.

Although internationally less well known or discussed than e-voting, we consider e-participation and consultation website initiatives to be more significant achievements
from the point of view of participatory democracy, even though one of the websites is a relatively low-traffic environment and the other is still in the stages of implementation and development. In the following passages we will give a more thorough overview of them and analyze the possible reasons for their relatively low visibility and usage.

When seeking a more participatory model of the democratic process, Estonia has found ways to support hybrid democratic forms and has tried to set up a deliberative democratic space to foster participation in policy making. *Täna Otsustan Mina* – (Today I Decide, TOM) – was set up in 2001 and received a great deal of media attention as the ideal democratic forum. It is a state-initiated forum website where registered users can propose legislative changes. According to a recent study, only 9% of the 6,000 registered users have ever presented an idea, and only 1% of them have presented more than two ideas (Tallo et al. 2007). TOM appears to be a good example of what the OECD (2001) calls participatory democracy, namely an initiative where people have the opportunity to co-decide on policy agendas and to influence other (political) agendas. However, in TOM, the problem of power imbalance negates any democratic potential: not only have administrations more time and flexibility in their reactions to citizens’ comments, but practice also shows the hesitancy of the administration to respond in a non-protective and stimulating way. In its ideal version, TOM could facilitate what the OECD (2001, p. 12) calls ‘active participation and [an] effort to engage citizens in policy making on a partnership basis’, but the lack of dialogue and severe power imbalances evident in practice make it seem more like what Verba calls ‘pseudo-participation, in which the emphasis is not on creating the situation in which participation is possible, but on creating the feeling that participation is possible’ (Verba 1961, pp. 220–1, quoted in Carpentier 2007, p. 215).

Arnstein (1969) defines a ladder of participation in local life, similar to the OECD’s classification of participation, in order to separate activities that are inclusive of citizens (partnership, delegated power and citizen control) from those that only appear so (for example, informing, consulting and placating citizens) and are in fact ‘tokenisms’. Estonia is doing well in terms of informing its citizens and excellent attempts have been made on the consultation front, but according to the model, there is still progress to be made towards using the Internet to form partnerships and to provide tools for citizen control. Currently the available participatory models online have changed from being state originated public discussions, to relatively closed and small-scale civic society initiatives. One of the latest state initiatives aimed at using the Internet for improved consultation purposes is the newly founded participation web Osale.ee, which defines itself using ideas of community engagement. There are several forms of opinion expression at Osale.ee: non-formal ‘comments’ and more formal ‘opinions’. Some of the consultations also include a survey, where open-ended questions are added to the consultation process to structure the positions. By the end of summer 2008, 31 consultations had been carried out, with a few or no comments on each, which makes this a very low-traffic participatory website. Although the word osale means to participate in Estonia, as previously explained, the page aims to offer the possibility of community engagement (*kaasamine*) and does not reach the level of participation. In order to become a tool facilitating genuine participation, it not only
needs the additional functionalities of TOM (which are in fact in the process of being implemented), but also legislative recognition of its mandate and the proposals it generates (Pruulmann-Vengerfeldt 2007).

Another way of analyzing the (dis-)engagement of the Estonian population in the online sphere is to look at user practices and see if and how those practices reflect the variety of democratic and participatory activities.

**Individual Practices**

This essay has previously pointed out that many transition studies focus only on macro processes, taking individuals only as obedient recipients of these processes. In the next section, we analyze Estonian Internet users and their participatory practices in order to focus on the diversity of online practices and compare different Internet users and non-users. In addition to the textual analysis above and the secondary analysis of the usage of participatory initiatives, we also use survey data to highlight some of the participatory practices undertaken by individuals. We use the data to illustrate the variety of Internet user types and their practices in various fields of online activities. In order to evaluate the fulfillment of the democratic potential of Internetization, we also compare Internet users and non-users using two participation indices – online and offline participation at the local level.

**Methodology**

In analyzing how the democratic potential of ICTs is realized, we use two important measures: Internet user typologies, and an index for local participation. We draw these data from a nationwide survey conducted in February 2007. A total of 803 Estonians between the ages of 18 and 74 participated in the survey. Respondents were recruited using the source address method, and in rural areas an age and gender based quota was used. A self-completed survey with in total 305 variables was used. An additional weight variable was used to match the data with census information.

We used statistics analysis software SPSS to analyze the data both by cross-tabulation of different variables and by conducting cluster analyses in order to formulate Internet user typologies and index calculations for participatory activities. In total 70% of the people participating in this survey were Internet users. First, we will look at the Internet user types. Through illustration of these types we can see that the Internet user practices differ greatly, and thus if some groups have grasped more of the variety of options available, this cannot be said of everyone. Internet user typology is composed using participants’ self-evaluation as to how well they consider themselves to be able to perform each named Internet activity (in total 13 activities). The value of these ratings on a scale of 1 (not at all) to 7 (very well) was used as a basis for a two-step cluster analysis with a preset number of clusters – in this case six. Several numbers of clusters were tested, but finally six was preferred as it held the best explanatory power. This also supports previous findings, which used similar survey data to analyze Internet user typologies (de Almeida Alves 2007; Pruulmann-Vengerfeldt 2006b; Vengerfeldt & Runnel 2004). In addition, six clusters were best distributed composition-wise among the groups. An additional cluster was created by
analyzing missing values and redefining them as Internet non-users as non-users did not answer those questions on the survey and thus could not play a role in cluster analysis.

**Internet usage practices**

Next we will give a short overview of the Internet users based on their Internet use and socio-demographic characteristics.

(1) The Versatile user’s Internet use is characterized by versatility and above-average active participation in all listed activities. This group is generally aged between 18 and 44; there are more people with higher incomes in this group.

(2) Work, communication and e-services oriented users are relatively active Internet users who feel that their usage is generally characterized by communicating with friends and family, seeking information related to work, using e-services and seeking advice and help. Least characteristic of this group is online participation and seeking exciting information. This pragmatic user type is 72% female, and one third of this group is aged between 25 and 34.

(3) Entertainment and exciting information oriented users feel that their usage is first and foremost characterized by seeking entertainment and exciting information. Searching for information from state, Intranet and Internet services is least likely to characterize their use. An average age of between 18 and 34 makes this type characteristic of the younger population.

(4) The Work and information oriented user is positively characterized by Intranet use, seeking information from state and work, and searching for study related information. People in this category consider using Internet services, and using the Internet for practical information and reading online journalism is also characteristic to their Internet use. At the same time seeking entertainment and participation in forums has, for them, significant negative association with their Internet use. These Internet users are generally aged between 35 and 64, and this group is the one with the greatest proportion of people with higher education. Their income is average or above average.

(5) E-services oriented users feel that their Internet use is most clearly characterized by the use of e-services like banking, the tax office and use of other form filling websites. They are fairly passive Internet users and they could be seen as single application users (Pruulmann-Vengerfeldt & Kalvet 2008). Seeking information from the state and using job search facilities are slightly above average, but can still be considered characteristic. In comparison, participating in forums, seeking entertainment, and seeking advice and help can all be considered activities that are significantly less characteristic than average. One third of Internet users in this type are aged 45–54 and nearly half of this group has higher education.

(6) Small-scale users are not characterized by any of the listed activities and are the most passive group. Of the listed activities, they feel most associated with Internet services (banking, tax office and form filling), but still on a much smaller scale than other Internet users. This is the oldest user group, with nearly one quarter over 55 years of age.
The seventh type is Internet non-users – those who said that they have not used the Internet or did not list any characteristic activities, leaving all variables blank. There are very few of them among 18–34 year olds and there are more in this group with only primary education.

Table 1 gives an overview of the socio-demographic background of the six Internet user types used in this analysis.

**Local participation through traditional and new media**

In this essay we use our survey in order to identify how active our Internet users and non-users are in local life. For that we analyze two activism indices: traditional forms of activism in local life and new media forms of local participation. Participants were asked whether they had undertaken listed activities in the last four–five years, and based on this an index was prepared in which people were placed in one of three groups: (1) those who have participated in none of the activities; (2) those who have participated in one; and (3) those who have participated in two or more of the activities. Traditional participation was composed using three criteria: (1) those who have participated in a local community problem-oriented meeting, action or demonstration, or given their signature to a joint letter to local government; (2) those who have contacted local government or council members in relation to a local problem or issue; and (3) those who have contacted a local newspaper or radio, or spoken in the local media on an issue relating to a local problem. The new media participation index consisted of four activities: (1) following a debate in the Internet relating to local life or politics; (2) expressing an opinion about local politics or the local community in a debate or survey on the Internet; (3) calling, or sending an e-mail or SMS to a radio or TV show dealing with local life; and (4) participating in a local newspaper’s online forum, or writing commentaries on the online edition of a local newspaper. Based on the results, we compared Internet user types and non-users using their activism scale both through traditional and new media forms.

The following indices were analyzed using mean results in both participation categories. Figure 2 shows the average means: 0.39 for traditional participation and 0.29 for new media participation (maximum 2 for both indices) as well as the differences within the Internet user and non-user groups. Versatile Internet users, and Work and information oriented users, are the most active in both methods of participation, while the former group is more active in online participation and the latter more active in traditional participation. Non-users and Small-scale users are equally very passive on the new media participation scale, although Small-scale users at least have had some contact with the Internet. After Entertainment and exciting information users, they are the most passive in terms of traditional participation.

We have drawn a two-dimensional matrix of scales based on average results from the traditional and new media participation scales: active–passive in traditional participation and active–passive in new media participation. Figure 3 gives an overview of the relative placements of Internet users and non-users on these scales. The relative center point is taken from the average result on both scales.

Here one can see that in the first quartile are Versatile Internet users, Work and information oriented Internet users and Work, communication and e-services


<table>
<thead>
<tr>
<th></th>
<th>Versatile Internet users</th>
<th>Work, communication and e-services oriented users</th>
<th>Entertainment and exciting information user</th>
<th>Work and information oriented user</th>
<th>E-services oriented user</th>
<th>Small-scale user</th>
<th>Non-user</th>
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</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>799</td>
<td>143</td>
<td>75</td>
<td>94</td>
<td>70</td>
<td>80</td>
<td>96</td>
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<tr>
<td><strong>% of total population</strong></td>
<td>100</td>
<td>18</td>
<td>9</td>
<td>12</td>
<td>9</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>374 (47)</td>
<td>50</td>
<td>28</td>
<td>62</td>
<td>50</td>
<td>45</td>
<td>42</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>425 (53)</td>
<td>50</td>
<td>72</td>
<td>38</td>
<td>50</td>
<td>55</td>
<td>58</td>
</tr>
<tr>
<td><strong>18–24</strong></td>
<td>125 (16)</td>
<td>35</td>
<td>22</td>
<td>43</td>
<td>1</td>
<td>7</td>
<td>4</td>
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<tr>
<td><strong>25–34</strong></td>
<td>157 (20)</td>
<td>36</td>
<td>34</td>
<td>31</td>
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<td>17</td>
<td>18</td>
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<tr>
<td><strong>35–44</strong></td>
<td>152 (19)</td>
<td>22</td>
<td>23</td>
<td>13</td>
<td>34</td>
<td>25</td>
<td>17</td>
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<tr>
<td><strong>45–54</strong></td>
<td>138 (17)</td>
<td>4</td>
<td>15</td>
<td>13</td>
<td>20</td>
<td>36</td>
<td>24</td>
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<td><strong>55–64</strong></td>
<td>122 (15)</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>21</td>
<td>13</td>
<td>25</td>
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<tr>
<td><strong>65–74</strong></td>
<td>102 (13)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td><strong>Primary education</strong></td>
<td>136 (17)</td>
<td>8</td>
<td>1</td>
<td>31</td>
<td>1</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td><strong>Secondary education</strong></td>
<td>423 (54)</td>
<td>62</td>
<td>57</td>
<td>57</td>
<td>34</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td><strong>Higher education</strong></td>
<td>235 (30)</td>
<td>30</td>
<td>42</td>
<td>13</td>
<td>65</td>
<td>49</td>
<td>35</td>
</tr>
<tr>
<td><strong>Income up to 1,500 kr</strong></td>
<td>66 (9)</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td><strong>1,501–2,500</strong></td>
<td>90 (12)</td>
<td>7</td>
<td>11</td>
<td>11</td>
<td>13</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td><strong>2,501–4,000</strong></td>
<td>223 (30)</td>
<td>26</td>
<td>16</td>
<td>21</td>
<td>14</td>
<td>31</td>
<td>24</td>
</tr>
<tr>
<td><strong>4,001–6,000</strong></td>
<td>184 (24)</td>
<td>20</td>
<td>27</td>
<td>26</td>
<td>30</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td><strong>6,001–8,000</strong></td>
<td>95 (12)</td>
<td>18</td>
<td>16</td>
<td>9</td>
<td>17</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td><strong>over 8,000 kr</strong></td>
<td>109 (14)</td>
<td>24</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>
oriented users. Members of these groups are more active than average on both participation scales. E-services users, who are relatively passive Internet users, are also passive in terms of e-participation, while being active users of the traditional means of participation. Entertainment and exciting information users are marginally more active when it comes to e-participation, although overall they are still in the third quartile together with Internet non-users and Small-scale users. The latter two are nearly average when it comes to traditional participation. The corner of the matrix where there should be users active in the Internet and passive in traditional participation is empty. On the one hand, this indicates that the Internet is, at the moment, not taken seriously as the sole participatory medium and also that it has not replaced other means of participation. On the other hand, it also shows that those active in the area of participation, seek online channels complementary to their existing practices – the Internet has not created purely online participants.

**Conclusions and Discussion**

This essay aimed to look at the state’s wish to encourage the implementation of ICTs in society in order to advance Estonia in three major ways: competitiveness, education and democracy, with special emphasis on the latter. Of the three initial aims set out in
the first policy documents – strengthen competitiveness, increase coherence in society and improve democracy – the first two are better fulfilled. However, serious restructuring of the economy to become more knowledge-based is still underway, with one of the major obstacles being the relative failure to restructure education. The third aim, that of strengthening democracy, has been relatively less successful and it might therefore be assumed that despite the infrastructure and openness to new developments, the lack of the necessary political culture and weakness in civic practices have been important barriers.

In the current study we looked at the relationship between democratic developments and IT, and how this has been reflected in policy documents, major government initiated-projects and individual usage practices. We started by identifying certain patterns and policy aims present in early IS policies in the mid-1990s, which treated ICTs as significant agents in reinforcing democracy, then we went on to look at online environments, reflecting certain understandings about democratic online participation as implemented by the government. Lastly, survey data enabled us to track the current situation from the point of view of the usage practices of individual Internet users, including online activities as well as their local online and offline participation.

It is important to try to view these different aspects together, as policy documents set the basic aims of, and define the bodies responsible for, different sectors, and only in this way does the entire population become subject to these policies. An individual’s
success very much depends on which of the state’s regulative, legislative or opportunity frameworks they act within – the question is how much does what they do reflect or shape the strategic aims set out in policy documents.

Developments in this field are framed by public understanding of the information society and the opportunities it offers. As Leah Lievrouw argues (2000), the whole notion of the information society is based upon an ideological belief in the positive and socially integrative power of technology alongside a prevailing ethic of instrumental rationality and strategically practiced self-interest towards accruing such benefits.

Policy documents in Estonia that dealt with the information society held a more or less technologically deterministic viewpoint, which is not surprising as in the political and economic world technological determinism still appears as a prevailing ideology in debates concerning general technological change and the information society. The dominance of this discourse probably also depends on the small number of academic analyses dealing with the questions of how various social and cultural practices influence the development and distribution of information technologies (Vengerfeldt & Runnel 2004).

In the vein of such technologically deterministic approaches, the policy documents show that Estonia adopted a very top-down approach to the implementation of ICTs as part of its information society policies, and that in doing this it was acting in a similar way to other countries. In the policy texts of the 1990s, people were considered important actors in the diffusion and acceptance of new technologies, but they were viewed mostly as passive recipients, who were expected to adopt infrastructure step by step.

In implementing policies, the supporting actions for better acquisition of technologies were often missing. In the field of democratic development, policy documents did emphasize the importance of participation and Internet democracy, but in reality activities and projects were focused mainly on the development of technology.

However, state initiated projects, following the aims set out in the earlier documents and generally executed in the international political spotlight, are often not that widely used or even recognized by individuals. Providing citizens with tools with which to express their opinions has been accompanied neither by education nor by a willingness to listen.

Although Estonia possesses one excellent example of a service where offer and demand balance (the Estonian electronic tax office, where about 90% of individual income declarations and 94% of value added tax declarations were made in 2008), most e-services cater to government and are intended to make life easier for officials. For instance, online forums launched by central or local governments are mainly in a question and answer format and are not aimed at facilitating discussion (Reinsalu 2006). The rhetoric accompanying the services that have been launched has been generally technical, not motivational: advancement of e-voting, digital signatures, ID cards.

The top-down approach of policy, in which technology itself was the main focus, was probably a useful tactic in the earlier phases of the transition when the focus of attention was on implementing infrastructural change and supporting the
development of the private sector. The strong structural reforms that occurred in Estonia came after a series of remarkable years in the country’s development – the so-called national awakening period. The ‘soft’, and perhaps more idealistic, values from the period immediately before and after the regaining of independence which triggered the reforms were quickly replaced by a more pragmatic approach. The period of national awakening, based on an extraordinary mobilization of citizen power, might have offered conditions in which further services for the facilitation of participation could have been developed. Yet, at that time the penetration and understanding of the democratic potential of ICTs was insufficient, although here again Estonia reflected the contemporary international situation. And neither did developments in ICT encourage the development of participatory Internet democracy. In the first phases of Estonia’s transition, when people would more eagerly have taken advantage of opportunities for participation, only a representative Internet democracy was developed. By the time the more coherent ICT-related participatory democracy projects were launched, Estonian society had entered the post-revolutionary phase of alienation (Lauristin & Vihalemm 2008). Subsequent years of radical change diminished the potential of participatory democracy, while the rapid development of ICT infrastructure tended to answer, in the majority, the expectations of increasing general competitiveness.

The analysis of the actual user practices online indicates that the number of active and versatile users is increasing in comparison to earlier studies. Despite overall passivity in the fields of participation, active and pragmatic Internet users have also developed ways to participate in online environments. However, the majority of Internet users are still focused on activities within the private sphere. Increasing numbers of forums, semi-public social networking sites and increasing amounts of user generated content is fragmenting the public sphere, while at the same time directing online communication and discussion in different areas of private life. The youngest user groups, generally representing the entertainment and exciting information user type, are among the most passive in both traditional and electronic participation, which perhaps refers to a lack of civic understanding among them. At the same time, this age group is very active in social networking. The most popular Estonian social networking site Rate.ee is used by about 70% of 12–17 year olds and has a total of 300,000 users (one fifth of the country’s population). It can be argued that civic participation, in terms of voting or other statutory rights or responsibilities, begins when a person comes of age, but the culture of participation should be part of the socialization processes.

Allegation and institutional development in the public sector, which brought along the consumerist approach of handling citizens as clients, supported the development of consumerist democracy (Bellamy & Taylor 1998; Ridell 2002). At the same time, these developments hindered the participatory democracy, based on real mutual communication.

As part of the reforms, Estonia made several efforts to promote participatory democracy and facilitate governance, among them launching TOM and Osale.ee, as mentioned above. Still it seems that particular services developed by the state to promote participation do reflect the general approach identified in policy documents, which were influenced by techno-determinist interpretations of the ICT-facilitated
participatory democracy. Online participation environments do not focus on equal
dialogue, and when their usage side is analyzed they turn out to be fairly marginal.

It can however be claimed that this form of Internet democracy also has the
potential to develop into a participatory democracy, since it helps to fulfill a significant
precondition — enhancing trust in technology, and also indirectly trust in the local
authorities that offer services which correspond to the particular needs of the citizen.
For example, the most widely used system of e-voting can be viewed as simply one
aspect of representative politics that is now in the online sphere. Or it can also be seen
as a tool that holds the key to the future introduction of other aspects of direct
democracy, which would complement and enrich the existing representative
democratic model and make it more inclusive. Despite the fact that the step made
by the election system was solely technical, it could be important in encouraging
young people to move closer to participation in democratic society.

When looking at the current state of web portals such as TOM and Osale.ee,
token participation currently still seems to outweigh real participation. Although
those channels do not function well, there is no initiative to find new formats and no
investment goes into addressing the weak points of the existing system. The most
recently created, state-initiated, participatory environment Osale.ee is rather similar
to TOM and attracts fairly low attention. Low user numbers means a lack of credible
input, thus the state officials involved have developed skeptical and negative attitudes
towards participatory environments like TOM, which in turn discourages new users.
Many potential participants move away to the private and third-sector participatory
initiatives that have emerged recently, fulfilling their potential there instead.

However, in 2008, Estonia seemed to be entering a new phase regarding
participatory activities online. More recently, regular instances of petition signing
online have attracted the attention of the traditional media, and thus wider visibility
and significance is achieved for online participatory practices. In political rhetoric,
these initiatives are still held in low regard. It can be said that Estonia is still searching
for recognition of online participatory acts from ordinary citizens, and is in search
of users for its state-provided environments. Researchers and practitioners have to
analyze more closely the existing participatory environments and user practices in
order to support the state in its attempts to engage citizens in the democratic process.
At the same time there is a need to help the state understand how it can best take
advantage of the participatory initiatives born online but outside its regulated
web-space.

Acknowledgments
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and Science (0180017s07) and a grant from the Estonian Science Foundation (6526).

Notes
1 The Information Society sub-index measures how well ICTs are harnessed by
various stakeholders through ‘variables such as the prioritization of ICT by the
government, ICT penetration rates (Internet, PCs), Internet usage by business and the extent to which students have Internet access in school’ (World Economic Forum 2006, p. 2). In this sub-index Estonia is ranked fifth among European countries, quite noticeably outperforming its Baltic neighbors (Latvia ranks 22nd and Lithuania 18th in this index).

The success of Internet banking in Estonia has been explained by the fact that banking in general is only some five years younger than electronic banking and so there has not been enough time for customers to get used to branch services (Kerem 2003).

The Tiger Leap Program was launched in February 1996 to adjust the Estonian education system to the needs of the information society by equipping schools with information and communication technology, linking them to the Internet and providing ICT education for teachers. The program was called ‘Tiger Leap’ in order to symbolize rapid changes and technological change as Estonia’s main agenda, referring also metaphorically to the example of Asian economic growth. In order to achieve this goal, a special foundation was created in 1997 by the Ministry of Education and private sector ICT firms.

TOM (Täna Otsustan Mina – Today I Decide) is a key Estonian initiative aimed at fostering participatory online activities (http://www.eesti.ee/tom/). It is a state-initiated forum website where registered users can propose legislative changes, which, after the selection process, are sent to the appropriate administrative unit. In Estonia, laws can be initiated by MPs, by the government or by the president, making this the only possibility for individuals to initiate legislation. The site was launched in 2001. Today, TOM has almost 7,000 users and more than 1,000 ideas have been discussed (TOM 2007).

According to a more recent study dealing with values in different population groups, technological development is still rather important, ranking more highly than, for example, ‘value’ categories like wealth, interesting life, or public recognition (Kalmus & Vihalemm 2004). Pruulmann-Vengerfeldt (2006a) also shows that very favorable attitudes towards computers and the Internet could also be perceived in 2003 and 2005.

The Foundation Look@the World (http://www.vaatamaailma.ee) was initiated by ten Estonian private companies with the aim of greatly increasing the number of Internet users and through this the quality of life of Estonians and the state’s competitiveness in Europe. Some of this foundation’s projects included training in basic computer skills for more than 100,000 people, starting the e-school environment and establishing roughly 500 Public Internet Access Points.

The Osale.ee portal (www.osale.ee, opened in July 2007) is managed by the state chancellery in order to facilitate the wider participation of citizens, and citizens’ organizations, in politics, and to create legislation through discussions and consultation according to development plans. In the future it will also allow user-generated content. Currently, participation web Osale.ee brings together the legislative domains of all ministries and is an attempt to consolidate different opinion seeking environments under one roof – there has been similar online initiatives in the Ministry of Economic Affairs and Communications and Ministry of Justice.

On the 1–7 scale people were asked to mark how well the following activities characterized their Internet use: (1) seeking information from public institutions,
courts, local governments, political parties and other official homepages; (2) seeking practical information (weather, timetables, etc.); (3) using Internet services (bank, tax office, forms, etc.); (4) seeking entertainment (games, music, movies); (5) seeking work and studies related information; (6) seeking interesting and exiting information; (7) seeking information and advice on relationships, family, children, health and other matters related to their personal lives; (8) shopping and gathering information about purchases; (9) seeking information about work, places to live, tourism, new acquaintances, etc.; (10) participating in forums, blogs, surveys, writing commentaries; (11) reading online newspapers and information portals; (12) communicating with friends and acquaintances; and (13) communicating within an organization (Intranet, mailing lists, etc.).

Data from www.rate.ee and the survey data gathered in the framework of Estonian Science Foundation Grant no 6526, autumn 2007.

References


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