Can Internet Improve Democracy in Local Government?

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ABSTRACT

This paper describes a Swedish example of when the Internet was used as a citizen-local government link. More specifically, the Internet has been used to provide on-line discussion forums in three local government districts in the City of Göteborg. Some user representatives participated in the process of design of the forums. Consequently, this is an example of Participatory Design outside the workplace. The potential of the forums to improve democracy is valued against the ideal of deliberative democracy. In this ideal the presence of a genuine discussion between citizens and politicians is seen as a goal. Unfortunately, there was a lively discussion only in the forum of one district. This means that the goal of deliberative democracy was not reached yet in the districts. To reach this goal, a strategy of continuous involvement of potential user groups in the design and implementation of the forums is recommended. Such groups are e.g. parents of schoolchildren, as well as relatives of elderly that get service from local government.

Keywords

Internet, World Wide Web, local government, democracy, Participatory Design

INTRODUCTION

This paper describes a case of when Participatory Design (PD) and usage of modern information technology (IT) such as the Internet goes on beyond the workplace [13]. The case is situated in a local government context in Sweden. The system that is implemented has as its aim to improve the contacts between local government and citizens by using the Internet, and preferably also to improve local government democracy by providing online discussion forums.

In PDC 98 Proceedings of the Participatory Design Conference. R. Chatfield, S. Kuhn, M. Muller (Eds.) Seattle, WA USA, 12-14 November 1998. CPSR, P.O. Box 717, Palo Alto, CA 94302 cpsr@cpsr.org ISBN 0-9667818-0-5. Consequently, the potential participators in the design process include civil servants and citizen groups, as well as politicians. The process of design and usage could be described as, ideally, a kind of community-based PD, that goes on in a Western society, as a contrast to similar experiences in the third world [2].

In the following, reflections will be found on whether introducing Internet in a local government context really has resulted in improved democracy. There will also be reflections on factors that have influenced the democratic effects of the forums, with a specific focus on the PD activities.

As we all know, the usage of Internet has grown rapidly, and continues to do so [5]. In Sweden, between June 1996 and Mars 1997, the access rose from about 15% to about 22% among people between 16-65 years of age [33]. Consequently, the Internet is seen and used as a big potential marketplace for commercial business. As a contrast, Internet has been used much less to improve democracy. Naturally, it has been used as a media that is able to provide citizens with information, documents, law-texts etc., something which has become quite common in e.g. Sweden [32], Australia [23] and the US [16]. An alternative, or rather a complementary approach to improve democracy, would be to stimulate direct contacts between citizens on the one hand, and government with its politicians and civil servants on the other. The qualities of the media, as e.g. its interactive character, would in that case be utilised to a much higher degree.

In the following we will describe experiences from the DALI project in the City of Göteborg in Sweden. The acronym DALI stands for 'Delivery and Access to Local Information and Services'. This is a case of when an Internet-enabled information system as the Web is used as a link between local government and its citizens. These citizens have their geographical place of residence in common, a local district in the City of Göteborg. Göteborg is the second largest town in Sweden, and has 432,000 inhabitants. The intention has been to use the Internet, or more particularly, the Web to provide citizens with information about the political process in the districts, to inform about services that are available, but also to provide on-line forums to improve the political discussion in the districts.

An important question in the following text is to which extent the ideal of deliberative democracy has been fulfilled, or in other words whether there was a genuine discussion of local political events in the on-line discussion forums of the districts. A second question concerns the factors that have affected if this has been the case. In particular, the effect of actual PD activities will be considered.

The following discussion can be characterised as an evaluation of the quality of the DALI-system as it was designed and implemented. This means that the experiences will hopefully be of value to systems developers in local government contexts.

PREVIOUS RESEARCH

The following experiences adheres to research on PD that goes beyond the workplace. Traditionally, as Bjerknes and Bratteteig [1] and Clement and Van den Besselaar [6] have described, the context of PD was seen as the workplace, and the participators those who are active on the labour-market, preferably also as union members. But, as Greenbaum puts it:

"Computer support for workplace activities is a necessity but not sufficient condition for the way work is being divided. It would be useful for users to create more protected design environments where groups of citizens, consumers, workers and users as well as political interest groups could get together outside of the scope of individual organizations in order to express their needs – thus creating communities of use." [13, p. 70]

The DALI case in this article is an example of a community of use created outside what is normally defined as a workplace. It is situated in a local government context, where the espoused users of the system first and foremost are the citizens and politicians that live and are active in a district of Göteborg. The civil servants, i.e. the people that use the system when working in the administration of the districts, are seen as indirect users. This is e.g. expressed by the democratic aim of the DALI-system, in which the politicians and citizens are included, rather than the civil servants.

There are several streams of research that is closely related to the DALI case, and to processes of PD that take place outside a workplace. A first stream of research deals with systems development with user participation in a community context, as presented by Braa [2] and Schuler [21]. A second stream includes research about implementing and using on-line discussion forums within a local government context [3, 16, 28 and others].

First, Braa describes experiences from two cases of systems development in the African health sector, where 56

the whole community outside of the hospitals is involved. His study shows that that a community consists of different groups, such as organisations, political groupings, and etnical groups, that all of them have different goals and agendas. This means that different constituencies will be engaged in a systems development process depending on the issue that is at stake at the moment. Another important conclusion is that in each situation different kinds of uncertainty affects the result of the process. There can be uncertainty regarding the *context* of the system and the development process, at the same time as the design of the system is more clear maybe because there are previous experiences of similar cases. In those cases PD is crucial. There can also be uncertainty regarding the goals of development process. To get a positive result in this case it is even more important to involve the whole community as participators, apart from that they are seen as the focus of the development activities [2].

Schuler [21] describes how different organisations, individuals, and groups within a community can set up a community network together. A community network provides access to information about non-profit organisations and government agencies. It can also offer on-line discussion forums, as well as other services. He sees the very activities that are associated with building and using a community network as important to the democratic process in itself. Furthermore, the network itself can function as a link between people that mobilise the good forces in society. Therefore, the description of how to implement community networks is related to PD, although the concept is not always used.

Second, as was said in the introduction, when Internet is used in local government, it is most frequently used to provide information, and not for on-line discussion [7, 16]. Information is by no means unimportant, because it could be seen as a necessary precondition for politically active citizens [7]. In a recent description; 'Local digital democr@cy - an overview' [32], examples of how information technology (IT) such as the Web can provide information through home pages, citizen bureau's, and libraries are the most abundant. As a contrast, not many concrete examples of local on-line discussion forums are mentioned, except for when they appear within the US variant 'community networks' [21]. In the overview of Åström, the DALI-system in Göteborg is given as one of the few examples of that IT is used to provide a local discussion forum, but no concrete experiences of this are presented.

Very recently, Tsagarousianou, Tambini, and Bryan [28] have presented research about several cities that have provided on-line discussion forums, as e.g. Amsterdam [10], Athens [27], Berlin [20], Bologna [26], and Santa Monica [8]. Common themes is how a limited access to IT will affect the democratic effects of the forums, as well as the actual effects of when the debate is censored and the activities of moderators in respect to this. Another common theme is to discuss the initiators of the projects, that is if they have been initiated by different voluntary organisations as in Amsterdam and Santa Monica, by local government as in Bologna, or by researchers as in Athens. These aspects are most likely ones that affect the size and contents of the online discussions according to the researchers. Lastly, in some of the articles there are descriptions of the issues in the discussions within the forums, without so many details about e.g. the participation of local politicians. In most of these examples, the amount of *political* debate has been limited, maybe with the exception of Santa Monica [8].

THEORETICAL FRAME OF REFERENCE

There are several democratic ideals in a discussion about how IT in general, and the Internet in particular, can improve democracy. One ideal is guick democracy or plebiscitary democracy, in which the goal is that every citizen should make an on-line vote on all political affairs. Otherwise, according to this ideal, opinion polls should constantly be arranged so that the politicians can stay informed about the views of their voters. An alternative ideal is deliberative democracy. Here, representative democracy is taken as a starting point when asking how it could be strengthened and made more participatory [11, 30]. Also, the presence of a genuine discussion, or deliberation, between citizens and politicians is seen as an ideal. In the DALI case there was an intention that the on-line discussion forums should improve the contacts between politicians and citizens, and hereby also improve the democratic process in the district councils. This is why deliberative democracy has been taken as the ideal against which the discussion in the DALI-system will be evaluated.

As this piece of research is conducted within the discipline of informatics, and not political science, there is another knowledge interest as apart from the interest in the democratic qualities of the DALI-system *per se*, and whether it satisfies different democratic ideals. The ideal of deliberative democracy and the amount of debate is also seen as a ground for evaluating the design of the system as such, as well as the implementation activities. This includes using the experiences for giving advice about how an on-line discussion forum in a local government context should be designed and implemented.

METHOD

The following text is based on a qualitative case study in which creating a broad understanding of the context of study both is seen as a goal, as well as a means to get a well-grounded and valid result [9]. The researcher has previous experiences of the context of study, i.e. with local government in the City of Göteborg [18]. Three different local government districts in Göteborg that take part in the DALI project by using the DALIsystem are included in the study. Long (30-90 minutes) interviews have been conducted with 17 persons; leading local politicians, webmasters and infomasters, leading civil servants at the local level, as well as a centrally situated technician, and a director of IT at the City of Göteborg. Additional shorter interviews have been made by phone and email with nine members of the user groups that took part in the development of the DALIsystem, and with six additional local politicians. This part of the empirical study was conducted between May 1997 and February 1998.

Furthermore, the researcher has also inspected the debate in the DALI-system (http://dali.goteborg.se/) between January 1997-January 1998. Apart from providing a brief qualitative summary of the issues in the debate, some quantitative data have been used to describe the activities in the discussion forums.

The content of the debate itself and the interviews have been the guidance to what should be considered as important results, rather than an extensive theoretical framework. This means that the research approach has a strong inductive character [25]. Hopefully, this approach is of value as a contrast to descriptions that are made at a more distant level as to those involved, as represented by e.g. Francissen and Brants [10], Tsagarousianou [27], and Schmidtke [20].

THE DALI PROJECT IN GÖTEBORG

Local government in the City of Göteborg

Since 1990, the City of Göteborg is divided into 21 districts. with their own local government administration, as well as their own district council with local politicians. The districts have between 4,500 and 48,000 inhabitants. The three districts that are a part of this study (district A, B, and C) have about 19,000, 9,000 and 21,000 inhabitants respectively. At the district level of local government, elementary schools, childcare, social services, libraries as well as the support that are given to the aged and handicapped people by local government are administered. Apart from the 21 districts, there is also a central administrative level, as well as a central political level (the city council). Here, decisions are taken about the total budget of each district, but the politicians in each district decide about details in running schools, libraries etc.

There are several groups involved either directly or indirectly in the activities of the local government organisation:

- Infomasters and webmasters: Civil servants that distribute information on the Web.
- Administrative managers: Civil servants at a higher level in the districts that take strategic decisions about local government affairs.

- Local politicians: A chairman and a vice-chairman in each district council, as well as 10-15 ordinary members that take political decisions.
- Other civil servants at the district level.
- A central systems administrator: Gives information systems support to the districts.
- A central systems strategist: A civil servant that takes strategic decisions about information systems.

The DALI project in Göteborg

The DALI-system in Göteborg is a part of a project at the European level, within the I*M Europe-Telematics Application Program. The project is partially financed by the European Commission. The systems development work took place during the second half of 1996, and the DALI-system was opened to the citizens during the first months of 1997. Since this point of time, the system has been accessed by citizens either from computers in private homes, or from nine public terminals. Furthermore, computers have been distributed to four of the leading local politicians in each one of the three districts that took part in the project.

User participation in the DALI project

One condition that had to be fulfilled before getting economic support from the European Commission was that user groups should be engaged in the systems development process. In Göteborg, various user groups have been involved in this process from the autumn of 1996 - spring 1997. In district A and B the participants were recruited from the local political parties that are represented in the district council, whereas in district C the participants were recruited from other local organisations. As e.g., user representatives were recruited from the boards of private schools, childcare institutions, and organisations of pensioners. There have been several meetings between the systems developers of the DALI project, and the user representatives. At the meetings, short introductions to computers and the Internet were given due to the differences in knowledge about computers and the Internet. Almost all participators had some experiences of computers, but much less experiences of Internet.

After a few months, the user representatives could experience and react to the appearance of the DALIsystem (late 1996). The users also discussed how appropriate manuals to the public kiosks should be designed, as well as where the public terminals should be placed. Views of a more critical character were also put forward, as e.g. how information about the DALI could be made known to the citizens, which was seen as important.

When asked if their own organisation were using the Internet and the DALI-system, only two of the nine user representatives knew that this was the case. However, one of these users was included in the DALI project as a politician. According to these experiences, at the time of the interviews (late 1997), the usage of Internet had to a rather limited degree spread to others than the politicians that have been involved in the DALI project.

The DALI-system in Göteborg

The present version of the DALI-system comprises four main areas that are accessed through the district home page.

The administrative information section contains information about the opening hours, addresses, and activities of various municipal services, such as childcare, schools, social services, libraries, and sports facilities etc. There is also some information about how to apply for services. However, there are not facilities to make applications for services.

The *current issues* section contains the political proposals of the district council, and revised protocols of its decisions. There is also local news of a general character, such as the menus of schools and the restaurants for elderly, information about cultural events, as well as about special events in schools etc.

The *discussion forum* consists of moderated, publicly accessible debates on current political issues in which both citizens and politicians can participate. In the DALI-system, there are also lists of some of the local politicians and their electronic mail addresses allowing for direct contact between citizens and politicians.

Lastly, the *archives* contain outdated discussions and documents with a free-text search capability.

The home page of district A had 28 visits/day during February-Mars 1998, the one of district B 49 visits/day, and the one of district C 47 visits/day.

Usage of DALI

The discussion

Citizens in three local districts can participate in the political discussion through the home page of their respective district. The participation in the debate is not strictly limited to citizens living in the districts, but is open to everyone. The webmasters of the districts read the contributions the day they are sent (Mon-Fri), and publish them on the very same day if they not have to be censored due to their offending content. However, according to the webmasters, not many contributions have been censored.

The participation in the discussion has to be characterised as rather modest, with the exception of one of the districts (C). During a period of one year (January 1997-January 1998), there has been 36 contributions to the debate in district A, 50 in district B, and 145 in district C. A majority of the contributions have been made by anonymous citizens. The largest group of citizens that have been active are those engaged in traffic issues (planning of roads etc.), as well as those engaged in the relation between their own local district and the City of Göteborg. Another prominent group consists of

58

those who are interested in issues related to schools and childcare.

Furthermore, the modest participation in the discussion by citizens in general, and by politicians in particular, has been discussed in two of the three districts. In Table III on the next page the issues in the discussion are shown in more detail.

	District A	District B	District C
Citizens	30	40	107
Politici- ans	3	7	34
Civil servants	3	3	4

Table I Contributions from citizens, politicians, and civil servants in district A, B, and C.

In Table I, the *participators* in the debate are shown in more detail. As was mentioned above, the citizens of district C have been the most active ones. Local politicians have contributed sparsely; again with the exception of district C. Only in this district more than one politician have made several contributions to the discussion. In fact, in district C, there are two politicians that made 19 and 13 contributions respectively. The other two politicians have been considerably less active. In the other districts, there have been contributions from only two of the (at least) four potential politicians. The contributions from civil servants have been even fewer, only three-four in each district, often related to answering questions about the rules of the debate.

Voices about the participation in the debate

In this section, factors are presented that according to the interviewed have affected the participation in the debate. As can be seen in Table II, there are many similarities between the districts as regards the factors that were mentioned as affecting the debate. However, many subtle variations between the districts can be found in the exact example that was given of a certain factor, as well as whether it was seen as a problem in the district or not. As e.g., the access to Internet was mentioned as affecting the participation in the debate negatively, but was seen as less of a problem in district C. That the DALI-system was accessible without interruptions during, as e.g., summer holidays, was mentioned as affecting the debate in two of the districts. This was not mentioned by district B because there was no such interruption. Also, the knowledge among the citizens about IT in general, and about the DALI-system in particular, was mentioned as affecting the debate in all districts. Again, the knowledge about IT was seen as less problematic in district C.

	District A	District B	District C
Access to Internet Interrupt-		Yes, limited access is a problem	Yes, but access is no problem
ed access to the DALI	Yes, interrupted access is a problem	Not mentioned	Yes, interrupted access is a problem
Know- ledge about IT Know- ledge about the DALI	.	Yes, limited knowledge is a problem Yes, limited knowledge is a problem	Yes, but limited knowledge is no problem Yes, limited knowledge is a problem
Political cycle in district	Yes, there are hot topics	Yes, but there are no hot topics	Yes, there are hot topics
Mandate of district council		Yes, mandate is too limited	Yes, mandate is too limited
Participa- tion in the debate by politi- cians	Yes, limited participation is a problem	Yes, limited participation is a problem	Yes, but limited participation is no problem
Usage of DALI as a debate forum	good as a	Yes, it can be used as a debate forum	be used as a
Local structure of contacts	Yes, there is no time to use the forum	no need to	a big need to

Table II Factors presented as affecting the debate in district A, B, and C.

Furthermore, there are less obvious factors that were mentioned as affecting the debate. One of those was what can be described as the 'political cycle' in itself, that is if there are hot topics to discuss in the districts or not. District A mentioned school issues as a hot topic, and district C mentioned traffic issues (planning of roads etc.), as well as questions about the relations between their district and the City of Göteborg. Hence, these were seen as likely candidates for a lively debate. As a contrast, district B mentioned the actual *absence* of a hot topic. The mandate of the district councils was seen as a problem that affected the debate negatively in district B and C.

	District A	District B	District C
Schools	Cuts in association with school meals/6 Integration of different age groups in primary school/8	Planning of school-yard/4 Planning of physical training/2 Goal formulation/2	Economic conditions for musical activities/4 Economy in general/2
Childcare	Responsibility for playground/1 Access to childcare/1		Situation in childcare/5 Cuts in childcare/3
Traffic	Regulation of traffic outside primary school/3 Roads in district/1	Change of name of a local square/9 Problems with particular bus route/2 Security aspects/2	Regulation of specific roads in the district/ 54 Road signs/1
Environmental issues	Recycling etc./2 Environmental issue in a school/1	Recycling etc./3	Environmental aspects on - roads etc./19 Recycling etc./5
Sport and culture		Suggestions to build sport facilities/11	Information about activities/3 Closing of youth centre/2
Regional planning	Access to regional plan through the Web/2		Environmental aspects on planning/4
Discussion in DALI	Participation in the debate by politicians/5		Participation in the debate by politicians, if they answer E-mail/ 15 Policy on how to write dates/2 Placement of public computers/2
Relations local district-City of Göteborg		Relation between part of district-other municipality/ 5	Relation between district and City of Göteborg/ 24
Miscellaneous	New leader of the liberal party/3 Various subjects/3	Open up meetings in district council/7 Various subjects/3	
			-

Table III Issues in the discussion and numbers of contributions in district A, B, and C.

Some of the interviewees described how the, as they perceived, limited mandate of the district council meant that there was not much to discuss and decide about at this level. Consequently, the participation in the debate was low. District A didn't mention the mandate of the district council, but instead mentioned that the citizens had no interest and time to participate in the debate. Another factor that was mentioned as affecting the debate in the three districts is how much the politicians participated in the discussion, but a limited participation was not defined as an important problem in district C. A similar point is that the DALI-system was seen as a good discussion forum by many of the politicians in district B and C, but by a minority of the politicians in district A. However, in the last-mentioned district, there have been many other kinds of meetings where the citizens could discuss political issues with the local politicians, in comparison with the other two districts.

Lastly, the local structure of contacts between politicians and citizens has, according to the interviewed, affected the participation in the debate both positively and negatively. In district A the local structure of contacts was said to have affected the debate negatively, as the participation in the debate was hampered because the citizens did not have time to participate due to their high activities on the labourmarket. In district B, the contacts between citizens and politicians in their daily life were described as being so close that it was not necessary to use Internet. As a contrast, in district C the opposite situation was described, or in other words that the Internet have to be used in the contacts between citizens and politicians due to the big population of the district.

DISCUSSION

The ideal of deliberative democracy

Was the ideal of deliberative democracy fulfilled in the DALI case? In district A and B the answer is no. The participation in the debate by politicians and citizens was so low, and the issues in the debate so few, that this was most clearly the case. An instance of something that resembles a debate could be found in district A regarding school issues, but there have been no contributions from politicians in this debate. By contrast, in district C, there are many issues that were treated in a more lively debate. Consequently, the situation here seems to imply that democracy has been improved at least to a limited degree, and that the ideal of deliberative democracy could be fulfilled in future.

Influence of PD activities

In the DALI case there was an ambition to include user groups in the development process, but the PD activities stopped approximately at the same time as when the DALI-system was opened to the citizens (early spring 1997). Unfortunately it seems that the PD activities ought to have continued during a much longer period of time, because the stipulated activities were not enough to result in a usage of the DALI-system that actually improved democracy in the three districts. The limited discussion in at least two of the districts supports this view. Previous experiences indicate that different kinds of uncertainty affect the result of community based systems development. With his examples from the African health sector, Braa [2] describes that uncertainty can apply both as to the context of the development process, as well as to the goals of the development process. In the DALI case both kinds of uncertainty seem to have been represented.

There exist almost no previous experiences of systems such as the DALI in a Swedish context. Yet, the community networks as described by Schuler [21] as well as other recent examples of local government networks [8, 10, 20] can be seen as something similar. However, their origins are of a quite different character. DALI was developed as a local government initiative, in which other non-governmental organisations were included in the PD activities. Community networks and other local government networks are, as a contrast, often initiated by the non-governmental organisations themselves. This makes it more likely that the organisations have at least a minimum of interest in using the network. In other words, there was uncertainty [2] or limited knowledge of the context of the DALIsystem because the potential user groups were either not reflected upon, or taken for granted.

However, local government networks with on-line discussion forums that have been introduced by voluntary organisations does not guarantee a lively *political* discussion *per se*. This is exemplified by the networks of Berlin [20] and Amsterdam [10]. In Berlin the historical experiences of the Weimar Republic created a mistrust towards political turbulence and populist strategies, according to Schmidtke [20]. As a consequence, the political culture did not support that citizens should be involved in interactive political discussion. In Amsterdam, there were some political discussions in on-line forums, albeit much more limited in size than the debate about other issues [10].

Furthermore, the goal to improve democracy was not clearly defined in the DALI project, and can by itself be characterised as too vague. This is an example of what Braa calls goal uncertainty. Most probably, if the goal of improved democracy had been broken down and made clearer, it would have been easier to define measures that have to be taken for the goal to be attained. One of these could be to let the user representatives participate also after the DALI-system has been introduced to the citizens. This would be a kind of continuous user participation after the implementation of the first version of a system [18]. In other words, a strategy on how to create a lively debate, and by thus an improved democracy in the local government districts, should include different kinds of user groups as participators. This seems to be a necessity when the initiative to implement Internet as a link between citizens and local government is not taken by the non-governmental organisations themselves, as e.g. in the community networks [21].

So much for the question of how the PD activities affected the debate, but what can be said about the views of those who were involved in the DALI case?

The influence of access to knowledge and technology

In all kinds of previous research about the democratic effects of IT in general, and of Internet in particular, access to technology and knowledge is defined as the most important factor that affects their democratic potential [3, 12, 27]. Limited access to technology and knowledge has also been defined as a factor that was harmful to the democratic potential of IT in the DALI project as well, which is something that should be noticed by systems developers. As a contrast, in one of the districts (district C), the access was seen as less of a problem due to (as was described) a higher access to technology and knowledge. These experiences, as well as the exponential growth of Internet access itself in Sweden [33], could be seen as evidence to support that the problem with access is slowly diminishing. Also, the Swedish unions are involved in projects with the aim to spread Internet access among their members [17]. Hopefully, this means that the democratic effects of Internet in Sweden are not so far away.

Limited knowledge of the very existence of the DALIsystem was defined as another problem by the interviewed. Accordingly, a systems developer should notice the importance of spreading knowledge about IT in general, as well as knowledge about the home page of the local government in particular. If this isn't done, a high access to the technology *per se* is of no value if the aim is to improve democracy by providing a discussion forum. This has not been pointed out as clearly in previous research.

Another aspect that is associated with the problem of access to technology was emphasised by the experiences. According to the interviewed in Göteborg, the discussion in the districts was hampered by long periods of when the forums were closed for summer holidays, Christmas etc., when the moderator was out of duty. The value of providing continuous access to the forums can not be overestimated, and is a very 'down to earth' thing to be observed by a systems developer. As a contrast, the negative effects of moderators that have been defined in previous research are that they perform activities resulting in censorship and agenda setting in the discussion [8, 19].

The participation in the debate by politicians

High access to technology is often seen as decisive to the success of Internet when used to improve democracy. As a contrast, the debate itself in the DALI case as well as the experiences of the interviewed, implied that an equal difficult thing could be to make the politicians participate in the debate in the forum. This problem is not treated very often in previous research, with the exception of as e.g. Docter and Dutton [8]. In other words, some politicians in the DALI case found it difficult to accept the technology as a tool to be used in the political debate. The problem of acceptance when implementing on-line discussion forums is similar to the situation where groupware is introduced [14]. Using groupware, as well as on-line forums, is not obligatory in the same way as e.g. organisational information systems of a traditional character. Yet, the success of groupware as well as of discussion forums depends on if a critical mass of users can be attracted. To reach this goal, it is important to work actively with creating an understanding of the rational behind the technology, but also to provide education that demonstrates the positive impact of the technology [14]. Docter and Dutton [8] describe another reason why politicians didn't want to participate. The politicians felt that the discussion in the forums often lacked substance, and that the debate contained personal attacks and 'abusive' behaviour. There were no such similar experiences in Göteborg.

On the other hand, the hesitance of some of the politicians in the DALI case towards participating in the debate is often not much of a problem, since many of them expressed positive attitudes towards participating (district B,C). Furthermore, the hesitance that did exist could, according to our experiences, be seen more as a result from that a few politicians had a negative attitude towards contributing to on-line forums, than because they were unwilling to discuss with citizens in any kind of forum [20]. As was shown by district A, even the politicians that did not want to discuss on-line, had a positive attitudes towards providing other kinds of discussion forums in the districts as e.g. open meetings. They were also willing to give personal answers to citizens by telephone or email. This can be seen as a good point of departure for changing the attitudes of the politicians.

The influence of the political cycle and the usage of DALI in the debate

Factors such as variations in access to technology and knowledge are rather familiar to professional systems developers when working with any kind of IT. Somewhat new and different are factors emanating from the logic of the political arena in local government. The political cycle and the mandate of the district council have in various ways, according to the interviewed, affected the amount of debate in the DALI case in Göteborg. These are examples of how different political cultures affect the projects as such, as well as the democratic results of using the technology [27]. Defining the political cycle and the mandate of the district council as a part of the political culture that affects the debate is something new. Previous research has mostly treated general phenomena as if the political climate in the country as a whole supports citizen participation or not [8, 20]. The study of the DALI in Göteborg is unique in that it is largely built on interviews with local politicians and others with experiences from the politics of local government.

It is difficult for a systems developer to affect aspects such as the mandate of the district council and the political cycle, except for keeping them in mind as factors that influence the usage of any on-line discussion forum in a local government context. However, if a systems developer should be allowed to go further than implementing a discussion forum that is similar to the DALI-system the debate could be stimulated. It is possible to introduce functions that aim to engage different groups in using the Internet and the Web in a creative way in local government politics [8, 22]. In this way, the political cycle could be affected as well. As e.g., groups of people that are interested in social issues could use the Internet to communicate with each other and their local politicians, and get local government support for doing this.

Furthermore, citizens could use the Internet and the Web to provide each other with documents such as protocols, petitions etc. Some of this information can be made accessible to local government politicians, who in their role as politicians deal with social issues. If such an arrangement is made, groups of people, as e.g., parents of children, or relatives of elderly and handicapped, are activated in the political discussion. This arrangement would also be a means to go beyond the idea of the Internet as just another media or link between local government and its citizens [19]. Instead, it would be a way of using the special character of the media (its interactive capacity, its capacity to connect people without the limits of time and space etc.).

Critics like Castells could describe this as a way of liquidating urban political movements as sources of alternative political change, by integrating them in the structure and practice of local government [4]. At the same time, arranging a 'activist-local government network' can be seen as a way of giving access to power at the local level to various groups of citizens, and balancing the interests of more elitist groups.

The interest in traditional forms of political activities that are performed within the political parties is said to be low in Sweden. But, as a contrast, there is a considerable involvement at the local level in social issues such as schools, and childcare [15]. The vision of an 'activist-local government network' in this section is partly in accordance with the kind of 'advocacy networks' that have been described by Friedland [11] and Schwartz [22], only that it includes some kind of local government sponsorship. A somewhat similar idea is outlined by Stegberg and Svensson [24]. They describe visions of when parents and relatives of children with a handicap are members of a network in which they can share information and views. The difference between their approach and the one in this article is that the system of Stegberg & Svensson has a much less defined role in local government politics.

A network of, as e.g., parents of children, and relatives of elderly is grounded in a group interest, instead of a personal or geographical interest [29, 31]. The DALIsystem in itself seems to be built on the belief that the mutual interest among citizens because of a common place of residence is enough to create a lively political discussion. Implementing technology to support group interest would not be in accordance with traditional deliberative ideals, as it could be characterised as a way to surpass representative democracy in its strictest sense. However, it is a manner in which systems developers can change the political cycle into one that includes a genuine discussion between politicians and citizens.

REFERENCES

- Bjerknes, G. and Bratteteig, T. User participation and democracy: A discussion of Scandinavian research on system development. *Scandinavian Journal of Information Systems* 7, 1 (1995), 73-98.
- Braa, J. Community-based participatory design in the third world. In Blomberg, J., Kensing, F. and Dykstra-Erickson, E. (eds.), PDC '96. Proceedings of the Participatory Design Conference, IFIP/ CPSR/ ACM, (Cambridge, Massachusetts November, 1996), 15-24.
- 3. Brants, K., Huizenga, M., and van Meerten, R. The Canals of Amsterdam: An Excercise in Local Electronic Democracy. *Media, Culture and Society* 18 (1996), 233-247.
- 4. Castells, M. (1997) The Information Age, Volume II. The Power of Identity. Blackwell Publishers, Oxford, 1997.
- Charlton, C., Gittings, C., Leng, P., Little, J., and Neilson, I. Diffusion of the Internet: a local perspective on an international issue. In McMaster, T. et al. (eds.), Facilitating Technology Transfer through Partnership. Learning from Practice and Research. Chapman & Hall, London, 1997, 337-354.

- 6. Clement, A. and Van den Besselaar, P. A retrospective look at PD projects. *Communications of the ACM 36*, 4 (1993), 29-37.
- Connell, I. Cyberspace: the Continuation of Political Education by Other Means. Javnost 13, 1 (1996), 87-102.
- Docter, S. and Dutton, W.H. The First Amendment on-line: Santa Monica's public electronic network. In [28], 125-151.
- Dyer, W., G. and Wilkins, A. L. Better stories, not better constructs, to generate better theory: A rejoinder to Eisenhardt. Academy of Management Review 16, 3 (1991), 613-619.
- Francissen, L. and Brants, K. Virtually going places:square shopping in Amsterdam's digital city. In [28], 18-40
- Friedland, L. A. Electronic Democracy and the New Citizenship. *Media*, *Culture & Society 18*, 2 (1996), 185-212.
- Graham, S. and Marvin, T. Telecomunications and the City. Electronic Spaces, Urban Places. Routledge, London and New York, 1996.
- Greenbaum, J. Post modern times. Participation beyond the workplace. In Blomberg, J., Kensing, F. and Dykstra-Erickson, E. (eds.), PDC '96. Proceedings of the Participatory Design Conference, IFIP/ CPSR/ ACM, (Cambridge, Massachusetts November, 1996), 65-72.
- 14. Grudin, J. Eight Challenges for Developers. Communications of the ACM 37, 1 (1994), 93-105.
- 15. IT-commission Digital democracy. A Seminar on Technology, Democracy, and Participation. Report number 2/97. ('Digital demokrati. Ett seminarium om Teknik, demokrati och delaktighet. ITkommissionens rapport 2/97', In Swedish), Sweden, 1997.
- Langelier, P. Special series: Local government on the Internet. Part three: Local government home pages. *Popular Government*, *Winter/Spring* (1996), 38-45.
- Martinsson, P. Computers at Home A Success for TUC. (Datorer hemma – en succé för LO, In Swedish). Arbetet Nyheterna 3 Mars (1998), 6.
- Ranerup, A. Participatory Design through Representatives. ('Användarmedverkan med representanter', In Swedish, with Summary in English). Ph.D. Dissertation, Report 9, Department of Informatics, University of Göteborg, 1996.
- 19. Ranerup, A. Contradictions when Internet is used in local government. To appear in Heeks, R. (ed.),

Reinventing Government in the Information Age. Routledge, London and New York, 1999.

- Schmidtke, O. Berlin on the Net: prospects for cyberdemocracy from above and from below. In [8], 60-83.
- 21. Schuler, D. New Community Networks: Wired for Change. Addison-Wesley, New York, 1996.
- 22. Schwartz, E. An Internet resource for neighbourhoods. In [8], 110-124
- Stapleton, K. Local government and the Internet. Australian Public Libraries and Information Services 10, 1 (1997), 21-41.
- 24. Stegberg, T. and Svensson, L. How to use Internet, when you don't have to. In Braa K. and Monteiro E. (eds.), *Proceedings of the IRIS 20*, (Department of Informatics, University of Oslo, August 1997), 665-682.
- Strauss.A. and Corbin, J. Basic Qualitative Research: Grounded Theory, Procedures and Techniques. Sage Publications, Newbury Park, CA, 1990.
- 26. Tambini, D. Civic networking and universal rights to connectivity: Bologna. In [8], 84-109.
- Tsagarousianou, R. Back to the future of democracy? Newtechnologies, civic networks, and direct democracy in Greece. In [8], 41-59.
- Tsagarousianou, R., Tambini, D. and Bryan, C., (eds.) Cyberdemocracy. Technologies, cities, and civic networks. Routledge, London & New York, 1998.
- Wellman, B. and Berkowitz, S. D., (eds.) Social Structures: A Network Approach. Cambridge University Press, Cambridge, 1988.
- White, C. S. Citizen participation and the Internet: Prospects for civic deliberation in the Information Age. *The Social Studies* (January/February 1997), 23-28.
- 31. Ågren, P-O Virtual community life: A disappearance to third places for social capital. In Braa, K. and Monteiro, E. (eds.), *Proceedings of the IRIS 20*, (Department of Informatics, University of Oslo, August 1997), 683-694
- Åström, J. Local Digital Democr@cy An overview. (Lokal digital demokrati – en översikt, In Swedish). Kommunförbundet, Stockholm, 1998.
- 33. Österman, T. and Timander, J. The Usage of Internet in the Swedish Population. ('Internetanvändningen i Sveriges befolkning', In Swedish). Teldok-report No. 115, Stockholm, 1997.