

# DELIBERATION AND REPRESENTATION IN PARTICIPATORY TOOLS FOR THE PUBLIC SECTOR

*Prototype*

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## Abstract

*Tools for participatory decision-making in the public sector have gained attention for a while, where, in particular, wikis have been put forward as an open-ended negotiation between different worldviews and discourses. It might seem that these are the ultimate Habermasian deliberative tools engaging the participants in the collaborative processes of developing consensus. However, in actual fact, neither the processes nor the tools are sophisticated enough. Tools often lack the necessary structure to support more complex reasoning, and if they do they are too complicated to use to enable broad participation. Furthermore, participants mostly lack legitimacy due to unequal representation, as there is a rather limited group that has the means and the motivation to participate. Therefore, in this paper we present a prototype where we have implemented tools for decision support and a statistical tool in a standard, easy-to-use application. The voting feature and pro/con argumentation is integrated in the discussion forum, as an extra formatting feature. The statistical tool, in an adequate context, can be used for understanding how the decisions are taken and how representative the opinion/decision is for the relevant population. It can also be used as a reflective tool, i.e., for making users aware of power questions in the group of users. What this show is how a standard interface can be improved with integrated tools for structured discussions and representation analysis, without sacrificing usability.*

*Keywords: Decision support, Representation online, Digital inclusion, Public deliberation, Open government, E-participation.*

## 1 Introduction

New types of collaborative information sharing and deliberative discussions take place in social media on platforms such as micro-blogs, social networks, photo and video sharing sites and wikis enabling a more innovative and collaborative public sector, as well as a more deliberative and participatory democratic system, what Chun, Shulman, Sandoval, & Hovy, (2010) call an open government. Especially in the voluntary sector, these tools enable a bottom-up approach to information production and sharing that enables the public to participate with their time and expertise, and several tools for public interactions of various kinds and qualities have been developed for supporting these processes. Most of the influential ones are developed by the private sector, such as photo and video sharing tools like *Flickr* and *YouTube*, social networking sites like *Facebook* or *LinkedIn*, or micro blogs such as *Twitter*. There are also some tools developed in or for the public sector that have gained recognition. Crowdsourcing projects where the public is asked to perform a simple predefined task, e.g. transcription projects like the Australian historic newspapers *Trove* (n.d.), *Citizen Archivist Dashboard*(n.d.) and *DIY History*(n.d.). Other projects demand more from the participants, but are still strictly task oriented like e.g.; *SeeClickFix*(n.d.) and *FixMyStreet*(n.d.), for identifying neighbourhood issues; *Ushahidi*(n.d.) to collect eyewitness reports of violence; *Peer-to-Patent*(n.d.) to open the patent examination process to the public; *HM Government E-petitions*(n.d.) to submit and vote on petitions to

the House of Commons, UK. Some projects aim to make the public sector more transparent, like e.g.; *Ballotpedia*(n.d.), *OpenCongress*(n.d.), or more innovative like *Diplopedia*(n.d.), *Intellipedia*(Ben Eli & Hutchins, 2010), *GCpedia*(Fyfe & Crookall, 2010) and *MyUniversity*(n.d.). Another common use for wikis and community portals are to collaboratively share information about a local place like a city, e.g. city wikis like *Stadtwiki Karlsruhe*(n.d.) or *Kassel Lexikon*(n.d.).

Especially wikis has been used widely, simple systems enabling a group of people to develop information online without knowledge of coding, where the basic idea is that in principle anyone can add or edit pages. Social media tools like wikis might enhance communication and collaboration in the public sector and also support a more innovative public sector. But there are some participatory tendencies that are particularly troublesome from a democratic perspective.

- The first concerns deliberation. Many support tools incorporate peer-communication and discussion as a way of reaching consensus, but the discussions are seldom combined with any sophisticated means to enable a deliberative democratic process in which relevant facts from multiple points of view are taken into consideration. Even less in a rationally structured way, such as, e.g., the (albeit still limited) processes described in (Danielson et al 2008, 2007). Even though a more structured discussion have been proven to create higher-quality debate it might result in reduced participation and exclusion, as not everyone can handle it (Loukis & Wimmer, 2012). Therefore there is a need for easy-to-use discussion tools that integrates means for structured debate without sacrificing usability.
- The second issue is representation. Even disregarding the obvious problems regarding time and means to participate in the collaborative work, social media are far from neutral places where participants are treated equally. Rather, they are places where discrimination regarding gender, age and ethnicity are just as common as in other social contexts (Herring, 2008; Nakamura, 2001, 2008; Wright, 2005). On Wikipedia 87 % of contributors are males, typically around 18 years old, and half of the contributors are 22 years old or younger, and only 14.7% are parents (Glott, Schmidt, & Ghosh, 2010). In the ten biggest Wikipedia less than 10% of the total number of authors are responsible for more than 90% of the posts (Ortega, Gonzalez-Barahona, & Robles, 2008). Furthermore, in an overview of the e-government field Flak, Moe, & Sæbø's (2003) point to the lack of knowledge about stakeholders differences characteristics. Similarly, Sæbø et al. (2008) call for greater in-depth knowledge of the citizen as an e-participant, especially given the differences in gender, nationality, social grouping, and cultural background. In Fyfe & Crookall's (2010) study of the thoughts and attitudes of public servants in Australia, Britain and the United States, one of the obstacles to a more collaborative government was the dearth of analytic support. Macintosh et al. (2009) emphasise that the unequal distribution of Internet access may cause severe counter effects when attempting to strengthen democracy through increased e-participation. The risk is that the result of the online deliberation is not taken in account when political decisions are taken, as it not is regarded as representative. Therefore there is a need for means both to analyse debate from a representative point of view, and to enhance awareness about the importance of representation in the discussions. Here both the question of what and who is represented, and the question of how discussions are structured, is important.

Despite the quite lugubrious perspective above, the potential of these tools should be substantial if these problems could be better understood and handled. In the following section 2 we present a prototype for a groupware, where we address the above problems with deliberation and representation. Section 3 concludes our findings and discusses future development.

## 2 Tool for structured discussion and analysis of representation

Over the last few years, we have conducted various projects for participatory planning and decision-making where we have been studying and developing participatory methods in urban planning. As a part of this work, we have been investigating open government tools that could be used both from a bottom-up and top-down perspective to establish a base for e-collaboration citizen-to-citizen and citizen-to-municipal. To enable open and constructive discussion we needed non-hierarchical tools that both were easy to use and integrated structuring support.

Another issue is that discussions online are far from the “ideal speech situation” between equals, where consensus is reached through rational reasoning along the lines of, e.g., Habermas (1990). This is particularly notable in urban development projects. In such, the issues at hand are often controversial among different stakeholders, the process is often stalled and the conflicts easily escalate. Furthermore, trying to access different stakeholders, particularly in more marginalised groups, is notably difficult. Urban planners have to access these groups in more innovative ways, or at least be aware of to which extent the opinions expressed are representative of the population and various stakeholder groups. But when it comes to means for a more representative participation in the collaborative government, the current tool support seems to lack the ambition to identify the users and the interests they represent (Hansson, Ekenberg, & Belkacem, 2014).

Unsatisfied with the prevailing methods, we started developing a new tool for public participation that we are now implementing within a participatory project in the Swedish municipality Upplands Väsby. The municipality of Upplands Väsby has a long tradition of using participatory methods to reach out to citizens directly in town hall meetings and focus groups, or through different local organisations and schools. This is of course time consuming both for the municipal and for the residents. The public administrators have as usual found it difficult to reach out to certain groups not being able to participate in public meetings. So they have started to consider ICT-solutions for trying to enable asynchrony communication with people on distance and motivate online peer-discussions in focus groups around local issues. Furthermore, they have realised that local organisations, such as culture organisations and sports clubs, have been important for the flow of information and as forums for discussion among people that already know each other. So the idea is that a “community software”, might support the internal democratic processes in the organisations as an alternative to the available tools online. The hope is that this also will assist in establishing a general participatory methodology in the community as a whole.

The design concept was developed in discussion with the IT-department of the municipal and together with the officials responsible for citizen dialogues. The idea was to create a tool that could be used by the public administration as well as addressing the community as a whole to survey attitudes and opinions from focus groups or by local groups of citizen, still addressing the issues discussed in the previous sections.

The final design concept is summarised in Figure 1 as a wiki-like tool, where issues can be suggested, developed and voted on, and where the representativeness of the participation is described. The basic functionality of the tool resembles many other publishing and discussion systems but includes and further develops important missing features. To start a discussion around an *Issue*, the initiator of the group sends an invitation to other participants to form a group. The initiator of an *Issue* is the one that decides when to close it, and how to use the result. This person has the role of the expert and moderator of discussion. Just as in a wiki all changes of the *Issue* are stored in *History*. The initiator can restrict the right of other users to develop the *Issue*, but by default others can *Comment*, *Edit*, and add additional *Documents*. Unlike most publishing and discussion systems, the participant can also structure the discussion by integrating *Options* (and Sub-options) in the text, which can be given a *Rating*, and *Pro/Con* arguments. *Statistics* shows outcomes of ratings in relation to user groups, and in *Followers*, the users' individual contributions to the issue are measured.

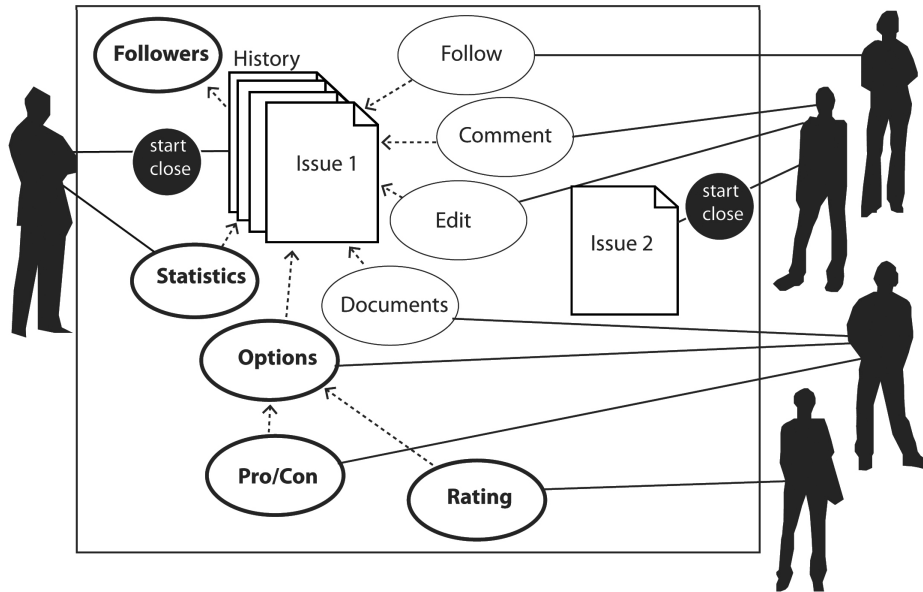


Figure 1: The basic features of the design concept.

The page and the related discussion may also have a time limit, so a user can provide a deadline for participants to submit opinions on the matter. In this way an asynchronous but still relatively time intensive discussion can be created. This can be compared to an auction where the bidding (cf. the argument) runs for a limited time, and that the seller (cf. the author) uses the information obtained when taking a decision.

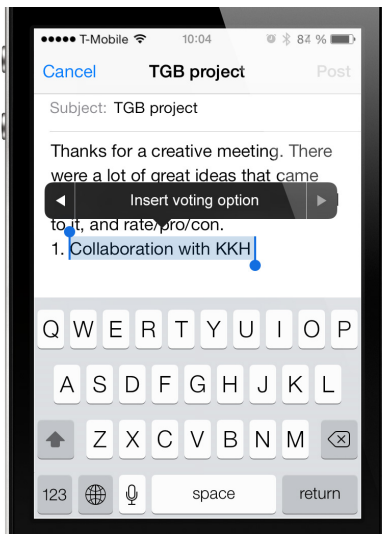


Figure 2: Text in the post can easily be converted to a voting option.

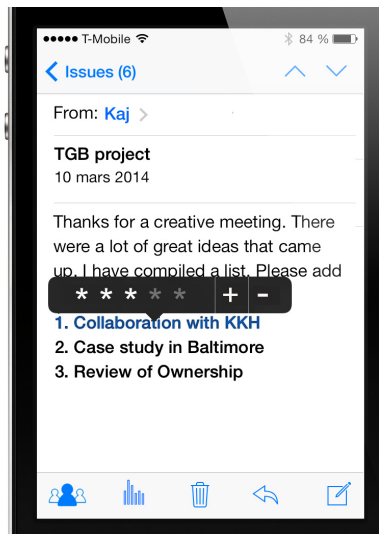


Figure 3: Text tagged as voting option can be "voted" on, and the user can add pro and con arguments.

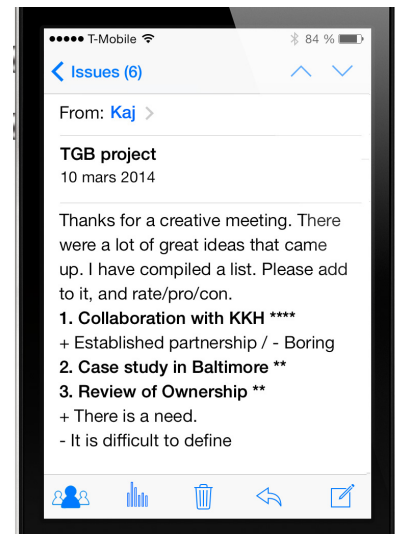


Figure 4: Voting options in post with nested pro and con arguments.

In order to create an easy-to-use deliberation tool that integrates means for structured debate without sacrificing usability, we have started out with a conventional interface, looking much like an ordinary e-mail or discussion forum. But, in addition to ordinary text formatting features like bold and lists, the text can also be formatted as *voting options* (Fig. 2). Text tagged as voting option can be "voted" on, and the user can add *pro* and *con* arguments, arguments that also can be nested (Fig. 3-4). The editing can continue during "voting", and the user can changes their votes during the process.

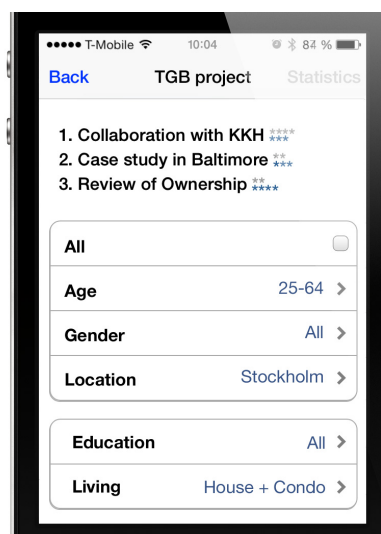
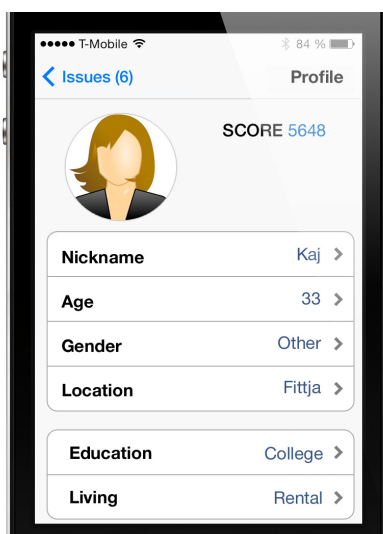


Figure 5. Users are categorized and their total activity and popularity is summarized as a score. Figure 6: Users can see if differences in user categorizing affect voting.

To create means to analyse the debate from a representative point of view users are categorized (or categorize themselves), according to criteria as e.g. age, gender and location (Fig. 5). New criteria can easily be added depending on context. The result of the voting on alternatives can then be analysed from different perspectives, and it is thus possible to see if differences in user categorizing affect voting (Fig. 6).

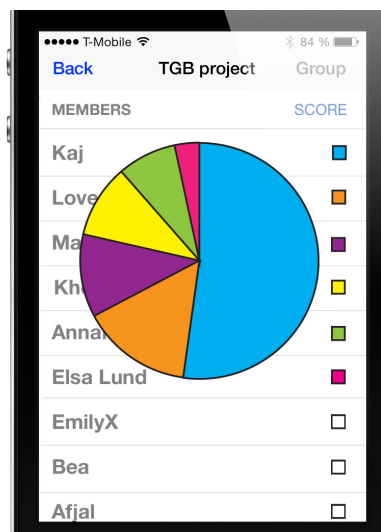
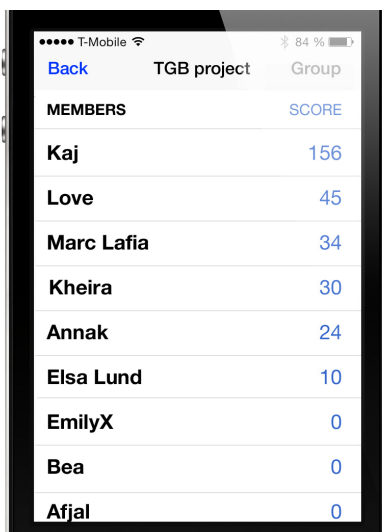


Figure 7-8: Each issue has a user group that consists of users that have contributed to or follow the issue. The score reflects (simplified) each user's actions for the issue, and how other users reacted on these actions.

But in a deliberative democratic perspective the discussion leading up to opinions are just as important to understand in terms of representation, as the final opinions. Therefore it is interesting to see who participated and not, and who got more feedback on their actions than others. This is measured in the user score, which measure both users' activity and how much following activity this activity creates. This is further described in Hansson, Karlström, Larsson, & Verhagen (2013). The users' unequal

contributions are expressed in the issue's *Group*, where each user's part of the collaborative development of the issue is counted (Fig. 7-8).

The statistic and the score enable a means to analyse the opinions developed in the forum from a representative perspective. They also creates a starting point for greater awareness of how opinions are dominated and structured, which can give keys to how structures can be altered. E.g. if we see that one groups perspective never is expressed in the discussion, we can change the way we organize the discussion.

### 3 Conclusion

Open government implies a more deliberative democracy; as more people participate in the production of knowledge that our representatives rely on to take informed decisions. Therefore it is important to develop tools that can be used by a diversity of people to get as complex information about the issue at hand as possible. It is also important to understand whom, and whose interests, are represented in the deliberative discussions.

In this paper we have addressed the lack of easy to use tools for deliberative discussions, and the lack of means for describing representation, in common tools for open government. We have described a work in progress conducted in the Swedish municipality Upplands Väsby where we needed a tool that could be used on several levels, from local NGOs and small group discussions to the dialogue with all citizen in the municipal. Attempting to address the problem regarding deliberation and representation, we have designed a wiki-type participatory tool that provide the users with integrated and easy to use means for structuring the discussion, as well as a possibility to analyse representation in the decision process to understand how representative the opinions/decisions are for the relevant population. It can also be used for making users aware of power questions in the group of users. What we show in this paper is thus how a standard interface can be improved with integrated tools for structured discussions and representation analysis, without sacrificing usability.

It is however too premature to draw any firm conclusions regarding the use of this tool and we are now launching a set of user studies as well as discussing various extensions of this, such as various decision analytical features trying to capture one or more concepts of rationality, and other ways of visualising the data. Needless to say, such a system, however successful this might be with respect to the various features included, can never be useful in isolation. It must be put in a context of a broad participatory methodology, from an active civil sector, to the citizen-government dialogue, to internal communication and innovation. Nevertheless, in such a context it can work as an important instrument for public decision processes.

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