The "Consultative" Methodology and Technology Support for Consultations

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ABSTRACT: *e-Consultations are consultations supported by information and communications technology (ICT). This paper presents one specific methodology for consultations between stakeholders ("Consultative") and discusses how this methodology can be supported by ICT. The discussion is based on a bilateral project between Poland and Norway to implement the "Consultative" methodology in Poland.*

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1. Introduction

e-Democracy is about using information and communications technology(ICT) to enhance democratic processes. e-Democracy includes a broad range of applications:

- e-Voting: The use of ICT in the electoral process [1][2].
- e-Campaigning: The use of ICT in election campaigns [3][4].
- e-Participation: The use of ICT to include citizens in decision-making processes [5][6].

e-Participation may be characterized by the initiator of the interaction between the decision makers and the citizens. Several applications exist to enable citizens to raise political issues. The most common is e-Petitions or e-Initiative [7], where a citizen may submit a proposal or idea, and collect support through signatures. It is not uncommon that legal mechanisms secure that decision-makers will have to take the proposal or idea under consideration, as long as some specific conditions are fulfilled [8].

But decision-makers may also initiate interaction. This is commonly done through consultations [5][9] where the decision makers want input on an issue, e.g., the selection among a set of alternatives.

The standard procedure is as follows:

• The government decides to seek input on a policy issue.

• Document is prepared, describing issues, often with specific questions.

• The answers are summarized and used in the final preparation of legislation or policies.

This type of consultations is not genuinely deliberative in its form. It is neither a new invention. Paper-based consultations have been around for years. The new thing is that governments now facilitate the submission of comments through the use of ICT.

The European Council Ad-hoc Committee on eDemocracy defined e-consultation as [10]:

E-consultation is a way of collecting the opinions of designated persons or the public at large on a specific policy issue without necessarily obliging the decision maker to act in accordance with the outcome. There are various forms of e-consultation, formal and informal, public-authority regulated and unregulated.

E-consultation can invite and collect various opinions whilst providing an inclusive space for deliberation or for simply following the debate; it allows decisions to be directly or indirectly influenced.

However, consultations can also be used for mediation between groups of stakeholders. In this case, the aim is to uncover stakeholder interests, explore solutions, and reach a consensus on an acceptable solution for all parties.

The following sections will discuss electronic support for consultations. The discussion is based on a well-tested face-to-face based methodology ("Consultative"), tested in practice by the as part of a bilateral project between Poland and Norway. After explaining the "Consultative" methodology, some experiences from the project will be described, followed by a discussion of technology use in consultations. Finally, a tool ("vGrid") developed to support "Consultative" (vGrid) is presented.

2. The "Consultative" Methodology

The "Consultative" methodology is based on workshops among stakeholders, in the same room, led by a facilitator. The final objective is to create consensus on solutions among stakeholders. The methodology was used in several consultations as part of a bilateral project between Poland and Norway (see acknowledgements). The methodology contains several steps to achieve the final objective:

• Stakeholder analysis

• Problem analysis

• Problem break down

• Goal analysis

• Creating consensus

Stakeholder Analysis. The stakeholders are identified, and similarities and differences are explored. The objective is to group stakeholders having something in common. Figure 1 shows the list of stakeholders represented by yellow cards.

The blue cards (see Figure 2) are used to show issues of common interest between the stakeholders

Problem Analysis. Problems are defined and broken down into a hierarchy of components. Each (sub) problem is written on a red card (see Figure 3).

Problem break down. Figure 4 shows the hierarchical ordering (see the black lines connecting the cards) of the (sub)problems. The idea is to break problems down into manageable parts.

Goal Analysis. After the problems have been broken down in components, corresponding solutions are proposed and written on green cards (see Figure 5).

Figure 1. Stakeholders

Figure 2. Grouping

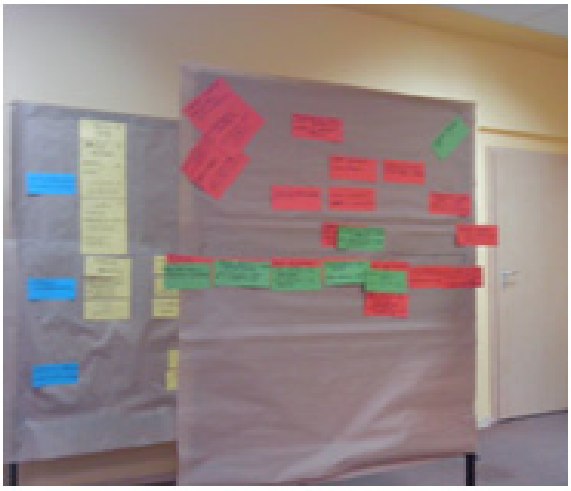

Figure 3. Problems

Figure 4. Breaking problems into manageable parts

Figure 5. Finding solutions

Figure 6. Creating consensus

Create Consensus. The last part of the process is to make stakeholders decide on solutions that will altogether create consensus (see Figure 6).

To explain the practical use of the methodology, a fictive and simplified case will be used.

The government wants to close down a prison located in a rural area. The close-down will have consequences for the local society. All stakeholders are invited to a "Consultative" session. Stakeholders are local employees, local government, local businesses, and the central government. The public uproar over the closedown was broken down into unemployment, reduced tax income, reduced revenues for business, concerns about the decay of the prison facility. The solutions proposed was to get funding for restructuring, creating a plan for alternative use of the facilities, and creating some incentives for creating new businesses. A consensus was obtained, and public uproar was transformed into a positive outlook.

During the bilateral project, we observed several consultations to learn how consultations can be better supported by technology.

1. Workshop for Hospital w Centrum Zdrowia Dziecka (Children's Health Centre - very famous Hospital with serious structural problems). The workshop was held in Warsaw in two rounds, the first in January 2010, the second in February 2010. The aim was to prepare a development strategy for the hospital. 37 persons took part in the workshop. A Wiki solution was prepared for this workshop. The wiki contained information related to the process, and participants had the opportunity to comment and make changes. It was primarily used as an information repository, but no comments were made. The main reason is that most of the users were present in the workshop and therefore did not feel the need for an additional channel of communication. If the wiki should be used in such a setting, it will be essential to use it for specific purposes, e.g., to ask people to fill in surveys or answer questions. The workshop itself was successful. A set of objectives were developed, and there was good communication between employees and board of directors. These objectives are currently under implementation

2. Another workshop was held in Lubovitz in November 2009. The aim was to develop a strategy for the German minority in Poland for the years 2010-2015. The workshop had 24 attendees. A follow-up session was tried, using the application Webex, but this was not successful due to technical problems and lack of appearance. 18 people registered, fewer tried to log in, and only two persons managed to get an ActiveX control to work. A lesson learned is that even leading software can be a steep learning curve for occasional users. The problems of using technology are discussed later.

3. A third workshop was held in Olsztyn in September and October 2009. The aim was to develop a strategy for the educational system in the city of Olsztyn. The reason was the need for structural changes due to a decrease in population. The prepared set of objectives and actions was later disputed by the participants when the local government wanted to make structural changes. In this case, there was a clear need for additional consultations - conflict management around schools that need to be closed.

4. A fourth workshop was organized for the Lubuskie region, first in Przelazach in October 2009 and one week later in Zielonej Górze. The aim was strategy development for Information Society in Lubuskie for years 2009-2013. This included preparation of major infrastructural network and e-government projects. (approx 20participants each). Based on the problem analysis, a set of overall objectives and main actions was prepared.'

5. A fifth workshop was organized for CSIOZ in Warsaw September 2009. This institution realizes the national e-health project. The issue was Electronic Health Records, data centralization, the scope of data retention, rules of engagement and access. Very politically disputable between representatives of Ministry, medical staff associations and national healthcare fund that is financing the medical treatment. The result was agreement on future project steps. No substantial agreement was reached for Electronic Health Records and how it should be operated. Participants wanted a broader public debate and were not willing to take responsibility for the subject.

Some of the problems discussed in the above workshops are highly complex, and some also are emotionally problematic, e.g., the closing of schools. But "Consultative", as a methodology, makes people discuss in an open environment. The alternative is no effort to reach a consensus.

2.1 The Limitations of the Current Methodology

Even if "Consultative" is a well-proven methodology, it has some limitations related to the organization of workshops. All stakeholders should be present in the same room at the same time. In the real world, this is often not feasible, since potential participants are unable to attend.

Therefore, one part of the project set out to investigate how to use the same framework in a setting where (some) stakeholders are separated by space and time.

3. Technology Support for"Consultative"

The reason for looking into technology support for the "Consultative" methodology was based on two assumptions:

The current workshops were constrained by time/space, where stakeholders had to be in the same location at the same time. This is often expensive, but also problematic, since some stakeholders may be missing due to other priorities. As mentioned earlier, it is of great importance to keep all relevant stakeholders to take part in the process. Information technology can relax the constraints time and space.

The other aspect is the limitation of the number of stakeholders. In a standard workshop setting, it usually is necessary to put a limit on the number of participants. At the same time, more people may be interested in the discussions, even if they will not take part themselves. The use of information technology could contribute to a more open process by allowing more people to take part and listen in on the process. In some cases, it could be feasible to have a physical workshop but use information technology to let a larger secondary group view, listen and take part in the consultations.

3.1 Many Existing Tools for eParticipation

Today, there exist many tools for electronic participation. The most common tools are as follows:

• Discussion forums, where participants can write entries and comment on what others have been writing. Discussion forums can be moderated or unmoderated. In a moderated discussion Forum, a moderator approves submissions before they are published or has the ability to remove entries if they conflict with the rules set by the owner of the discussion forum.

• Blogs [11], where the blog owner writes the entries and invites the participants to comment.

• Wikis are collaborative text repositories where all participants can contribute their input. The most common application is Wikipedia.

• Meeting software and instant messaging where participants can communicate in real-time, possibly using several channels (audio, video, and text messages).

• Webcasting, where the proceedings of a meeting can be transmitted in real time and be archived for later viewings.

3.2 Thoughts on Technology Support

The project aimed to find out how information technology could be used to enhance and support the existing deliberative consultation model. It is essential not to kill the dynamics of the existing approach, and the technology should not impair the workshop facilitator. Table I shows challenges and ideas.

As shown below, a lot of technology support can be done at very low cost, by using and adapting existing technologies. In the workshops, we have tested both wiki technology and WebEx. The only custom development suggested is a system to support the deliberative process in the workshop (argument card management). The rest of the ideas uses off-the-shelf technology.

The "Consultative" methodology is highly structured, and no tool was able to support the methodology directly. Therefore, a prototype application of a new tool: vGrid or virtual grid was developed as part of the project.

Challenges	Ideas
To involve more stakeholders/interested parties in the consultation process in space and/or in time, without losing the advantages of workshop style of consultation. One of the strengths of ICT's is to remove barriers caused by distance or time.	• By using video streaming or audio streaming technology, a workshop may be transmitted to other locations. • Remote participants can take part in the discussion through a return video or audio channel. An alternative is to use instant messaging (chat) for feedback.· • If the number of external participants is low, logistics is not a problem, but it may be if the outside interest is high. • All feedback from remote participants can be incorporated into the workshop discussion by the use of large video screen/projector with audio capabilities. • By proper organization, it is possible to give remote participants the ability to comment on issues, e.g., between the closing of the first day and the opening of the second day. • To enable such participation, it is essential that workshop facilitators know how to handle such additional input. • Such involvement does require neither expensive equipment nor custom developed software. Quality is dependent upon available bandwidth, and bandwidth is a cost.
To increase transparency (and understanding of issues involved). It is possible to utilize information technology in a many ways to improve the participation capabilities of the stakeholders.	• First, documents can be made available before the workshop. One of the strengths of the World Wide Web is the opportunity to drill down into information until one has found the appropriate level of detail. Technology like Wiki gives the possibility for organizers to invite stakeholders to upload facts and position statements up front. (Wiki was tested in one of the workshops described earlier) • ICT's also brings new opportunities for visualization of issues. This includes diagrams, but also maps, pictures, etc. • The technology here is mostly open source and needs minimal modifications. Good visualizations require professional assistance on an hour-by-hour basis.
To improve the process itself (like enhancing existing diagrams).	• It could be possible to design a system for submitting colored argument cards through a computer and make an application with an easy to use interface to shuffle these cards around on a big screen to support the methodology. An alternative possibility would be to scan cards and shuffle the resulting pictures around. This could be done very fast, without distracting participants with technology issues. • SMS could be an exciting channel for submission, especially where young people are concerned.

	• The cards could have different attributes, like some visualization of importance • It would also be possible to introduce a timeline to visualize the different phases of the consultation and the current status. • This would require custom made software, but the software itself would not be very sophisticated. It would, however, have some physical limits on the number of cards, based on space available for presentation.
To support process activities, like collecting ideas, opinions, objections, but also visualization, fact-finding?	• It would be possible to do an online preparatory phase where stakeholders are invited to submit facts, opinions, and resources using Wikis or similar technologies. In order to structure content, a set of predefined templates could be made, one for each category of submissions. Stakeholders could be asked to put a limit on the length of their submissions, and instead, link to external content for further details. • Each stakeholder could have its own page/pages, but it could also be a section for reputable sources (to be defined) like government publications, etc. • In some cases, electronic maps may be a valuable addition to preparatory material. • ICT's could also be used for fact-finding and fact verification throughout sessions, e.g., by having specific administrative resources assigned to such activities. • These ideas are again based on low-cost solutions, mostly based on open source software. Administrative resources would be a variable cost.
To document the process and the results:	• Video and/or audio streaming gives the possibility to record the deliberation for future use. • A system for handling argument cards, such as described above, would make it easy to document the process. • A portal with predefined templates would facilitate the documentation of a consultation. This template could include sections/web pages covering all essential aspects of the consultation and would support accountability.

Table 1. Challenges and ideas

4. vGrid – A Tool for Consultations

Despite a large number of tools available, no tool captured the essentials of the "Consultative" approach based on colored cardsput on a board. Part of our research, therefore, focused on investigating how information technology could be used to support the existing methodology.

The uses of colored cards are essential. One early idea was to implement an online board where cards in different colors could be moved around. By using an online board, it would be possible to overcome the limitations set by distance, and also to involve more people in the process.

The requirements were set by the author, while the actual prototype was developed by a student as a project assignment. It was decided to make it as a web application, which brought some challenges. The browser technology is not well adapted to moving things around a screen, so it was necessary to use some advance client-side libraries to do this. The application itself was written in Ruby on top of the Rails framework.

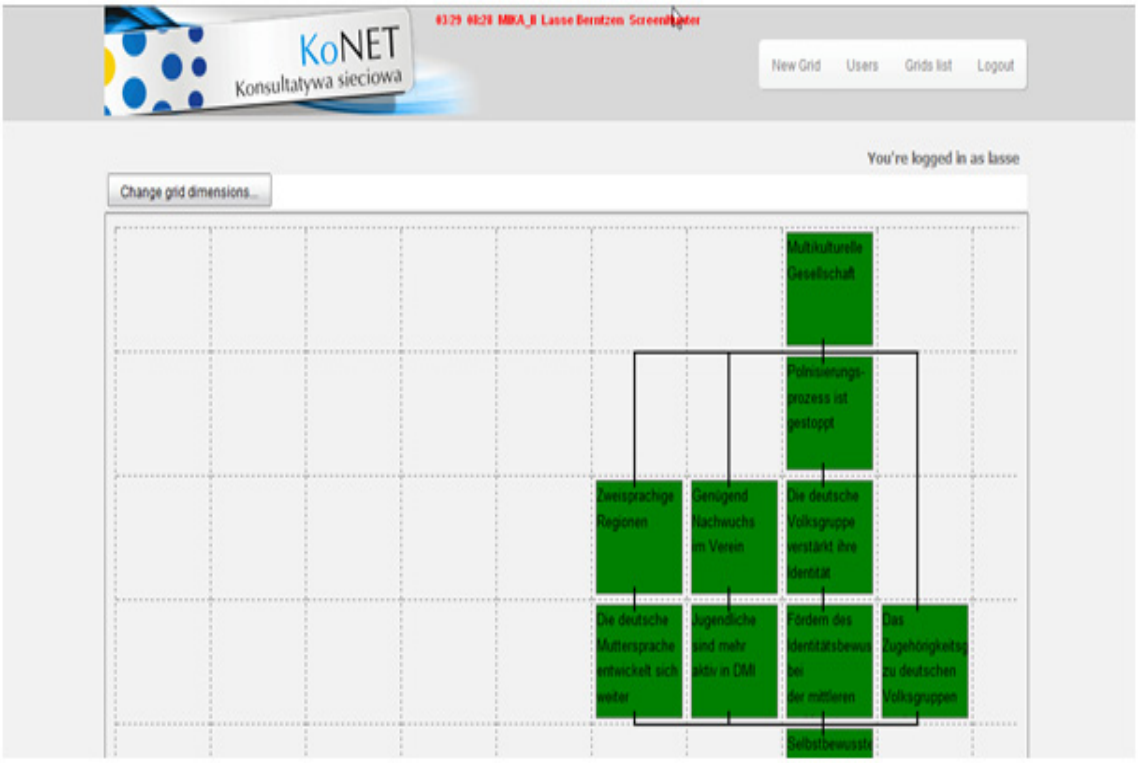

Figure 7. Screenshot from the vGrid application

4.1 Trials and Lessons Learned

The ambition was to use the vGrid application in a consultation for the about cultural identity of the German minority in Poland. The technology was working at the time of the consultation, but we ran into other problems, mainly caused by barriers. The conclusion is that in this specific consultation, the stakeholders were not ready to use the technology.

5. Discussion and Conclusions

This paper has discussed consultations and e-consultations based on one specific methodology ("Consultative"). The methodology was used in a bilateral project between Poland and Norway. After describing the methodology and experiences with some specific consultations, some thoughts on ICT support for consultations were shared. Also, a tool (vGrid) was presented.

5.1 Potential barriers

There are several potential barriers to the use of ICT in consultation processes. First of all, there is a digital divide. The traditional digital divide is related to gender, age, and financial situation. As more people get access to infrastructure and technology, the modern digital divide is caused by lack of interest. Just as some people do not read newspapers, some people do not feel participation as necessary.

In order to avoid the digital divide, it is essential to:

• Provide the necessary infrastructure.

• Provide access to technology (PC's, etc.)

• Make accessible solutions to also include people with impairments.

• Provide the necessary training to operate the technology.

5.2 Assessment of Stakeholders

One of the key lessons from the project is the importance of assessing the stakeholder groups' ability to take part in electronic consultations based on the above-mentioned criteria. In many cases, stakeholders are not ready to utilize information technology. In particular, it is necessary to pay attention to those situations where the use of information technology may put specific stakeholder groups at an advantage and thereby shift the balance of power between stakeholders.

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