Engage through integrated polling – bridging the gap between e-forums and e-surveys

Stefan René Salz
Fraunhofer Institute for Autonomous Intelligent Systems,
Schloss Birlinghoven, D-53754 Sankt Augustin, Germany.
Stefan.Salz@ais.fraunhofer.de

ABSTRACT

E-forums are the most common form of implementation of e-participation projects. Many properties of e-forums make them suitable for that purpose; yet, e-surveys can offer an easier, faster and more extensive involvement of participants. From a comparison of the properties this paper moves to the question of bridging the gap between e-forums and e-surveys. The distinctive advantages and disadvantages suggest the requirements of a solution that could meet the needs of future e-participation projects. The integrated polling module of the e-participation platform DITO (Voss 2002; Voss et al. 2003) gives a first example of the described solution and demonstrates the operability (Salz et al. 2003).

Keywords

e-democracy, e-participation, online deliberation, online polling, e-survey

INTRODUCTION

E-participation is not only an issue of growing interest at many scientific conferences, but application numbers in e-democracy projects are also rising (Trénel et al. 2001; Gordon et al. 2002; Märker et al. 2003). In many countries e-consultation or e-participation projects are undertaken at all political levels, from local town development to nation wide public discussions. Examples are numerous; in Germany the most recent online discourse deals with all issues concerning bio-ethics (www.1000fragen.de). 35.000 contributions have been collected from its start in October 2002 until today. Advertisements in newspapers and billboards in the streets initiated a widespread public discussion that has been summarized in a separate publication recently (Zirden 2003).

Online discourses such as the one in this example show that the potential of information communication technology (ICT) supported, big scale discussions exists. It demands appropriate ICT tools to enable and improve such e-participation initiatives.
On the one hand, commonly applied tools like online discussion forums (e-forums), mailing lists, chats, or email offer a diverse set of communication possibilities. Approaches like weblogs, shared authoring or conferencing systems support collaborative also work effectively, but are still not as widespread. Online polls or e-

surveys, on the other hand, are a fast growing application and many websites try to engage users in short questionnaires. The purpose varies from gathering information about the political opinion, evaluating technical support advice to more entertainment oriented surveys. The observation that polls are understood and function as an entertaining activity leads to the question why that is so and how one could make use of it in other applications.

A comparison of the advantages and disadvantages of e-forums and e-surveys leads to a set of requirements describing a tool that offers a new combination of properties and possibilities to support e-participation. The result is a polling tool that is integrated into an online forum and allows creating surveys that interact with the forum and the other way round. This integrated polling tool satisfies the set of derived requirements.

In order to compare e-surveys to e-forums and draw conclusions about the requirements of integrated polling the properties of each tool are considered from a general point of view. In addition, the focus is placed on the point of view of the participants.

PROPERTIES OF E-FORUMS

An e-forum is the online equivalent of a public meeting or a town hall meeting. It serves multiple purposes, among which are from the participants point of view

- The purpose of information: To get informed about issues and opinions
- The purpose of action: To formulate and develop the own opinion

E-forums can meet these purposes, but the achievement relies to a high degree on the effort of the participants. It takes an effort to get oriented about a discussion, to get an overview of the whole discourse in order to evaluate the personal interest in the separate questions. To that end, it is necessary to read an often large number of contributions from others. Depending on the duration of the ongoing discussion and the availability it can be impractical to review the whole discussion. In that case, the coherence of the discourse is at stake.

If a personally interesting discussion thread is identified, the participant has to find out, if her or his own opinion is different from the other contributions and in what way. The participant has to perform a comparison of the own versus all other opinions. Once the own point of view is clarified, the own contribution has to be formulated. This can amount to a substantial effort, depending on the present state of the interaction and its complexity. References to the previous contributions maintain the

thread and a well formulated contribution raises the probability that somebody will post a response.

Apart from the efforts of the participant there are expenses on the managing side of an e-forum. Normally it requires suitable software including a database and a web server. Furthermore, the configuration and facilitation of the discussion can amount to the limiting factor in the application of e-forums in e-democracy. Even given an effective facilitation there is still a restriction in the number of participants and contributions that can be handled.

Table 1: Advantages of e-forums, e-surveys and integrated polling.

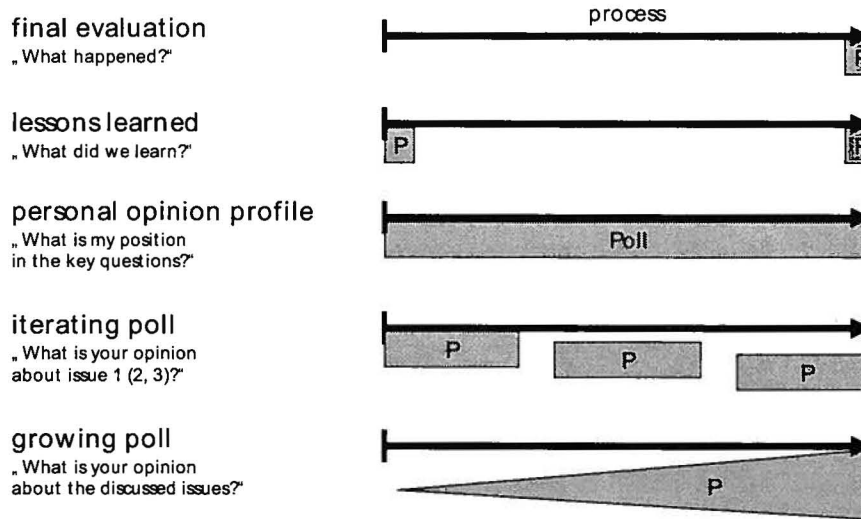| Properties	E-forum	E-survey	Integrated polling
General			
Potentially high number of participants		X	X
Easy setup and configuration		X	X
Low facilitation / maintenance expense		X	X
Summarized product with detailed analysis options		X	X
User perspective			
Get informed about issues	X		X
Formulate own opinion freely	X		X
Learn about other people's opinion	X		X
Develop own opinion	X		(X)
Small orientation effort		X	X
Low expense to read questions		X	X
Low expense to contribute answers		X	X
Direct comparison of own to other opinions in poll results		X	X

To come back to the recent example of the bio-ethics discourse in Germany, there is a central forum where all questions are collected that citizens voiced about the possible use of genetic engineering in medicine. This forum has about 9.000 contributions that are listed, 10 per page. The resulting 900 pages are in itself such a long list that it is difficult to navigate through this forum at all. The content of this forum and its contributions is therefore lost but to the most eager reader. Only a tool that allows for structuring, summarizing or comparison of contributions could support other participants effectively in using this forum. Text mining or other approaches have not made it possible until today to analyse such a forum automatically.

Table 2: Disadvantages of e-forums, e-surveys and integrated polling.

Properties	E-forum	E-survey	Integrated polling
General			
High expense to setup	X		-
High expense to facilitate / maintain	X		-
Restriction in numbers of participants	X		-
Difficulty to summarize and analyse the product	X		-
One-time communication act		X	-
Fixed content		X	-
User perspective			
No direct interaction with other users		X	(-)
Effort of orientation about which discussion / contributions is available	X		-
Effort to understand the issue(s)	X		-
High expense to read many contributions	X		-
High expense to formulate own contribution	X		-
High expense to compare the own with other opinions	X		-

Figure 1: Combinations of the application of a forum and poll.

final evaluation
„What happened?"

lessons learned
„What did we learn?"

personal opinion profile
„What is my position
in the key questions?"

iterating poll
„What is your opinion
about issue 1 (2, 3)?"

growing poll
„What is your opinion
about the discussed issues?"

process

Poll

P

P   P   P

P

PROPERTIES OF E-SURVEYS

The advantages of online polls with their entertainment aspect lie mainly in the small necessary effort needed to fill in a – short – questionnaire. At the same time, the poll results allow for a fast comparison between the personal and average opinion. Also, the participant's effort needed for orientation at the beginning is significantly smaller for a survey than for a forum. The questionnaire itself typically consists of considerably less items than a discussion has contributions.

The effort needed to contribute the own point of view is much smaller than in a forum. No comprehensive reading is necessary in order to find the right spot for the own remark, because the opportunity for the participant's answer is well defined. The contribution itself is easier to formulate, not only because of structurized answer options like yes / no answers, scales from one to five, checkboxes or others, but also because no explicit references need to be made, no subject lines to be composed or replies to many questions to be combined in one.

The comparison of the own point of view to other points of view or the average opinion is much easier, because the structured information allows the visualization of the poll results which in turn supports understanding.

In general, surveys are suitable for potentially high numbers of participants. They are easily set up and require a low maintenance expense. They have some distinctive disadvantages that result mainly from the lack of interactivity and the one-time communication they realize.

A survey, by definition, allows for only a limited interactivity. The possible answers are pre-defined and precisely structured. Filter questions that route the user through the questionnaire depending on given answers represent such a limited interactivity - every possible choice and reaction by the questionnaire have to be pre-defined.

Even where a survey allows for free text answers it still is not truly interactive, because it works in a one-time fashion of communication. A participant normally only fills in a questionnaire once and then never returns to it. If it is possible to suspend the questionnaire it does not change in any way until the user revisits it. There is never a direct interaction with any other user except the survey designer. Only if the poll results are made available and the participant can compare the own opinion to others, there is a certain, limited amount of interactivity.

Related to the one-time property is the fact that the content of a survey never changes. Once the survey designer finishes the setup of the questionnaire it remains the same until the poll is closed.

BRIDGING THE GAP WITH INTEGRATED POLLING

Wouldn't it be nice to have a tool with all the advantages of an e-forum and an e-survey, but without the disadvantages of both? What would such a tool look like? As funny as this question may sound, the answer to it could well lead to the improvement of e-participation ICT tools. We will take the question seriously for the moment and analyse which requirements such a tool of integrated polling would face.

First, we need both the forum and the survey tool to offer the basic functionality. The question is then how to integrate both tools to achieve the desired effect. The integration has to take place both in the user interface with the functionality behind it and during the application process of the tool. As stated, an e-forum is continuous in its use whereas a survey is only a one-time event from the user's perspective, when the polling takes place over a period of time.

The second aspect of integration, i.e., into the process of the application, opens up various combinations of e-forum and e-survey. Figure 1 shows an exemplary sample of processes combined with polls. Furthermore, the combined forum and survey have to interact. For example, we have developed a polling module for our e-participation platform DITO. The survey module offers the basic functionality to implement online polls while it lacks sophisticated features like graphical input, filter questions, or extended plausibility checks. It uses the concept of a view on a set of data (as in database management systems) which makes it possible to maintain a single copy of all contributions while each contribution can then be enriched with additional properties. The additional properties of contributions are only shown in certain views, e.g., the poll view or questionnaire. The answer options in a survey are simply attached to a specific or to all contributions in an e-forum, creating an individual questionnaire or a kind of rating.

By running both the forum and the polling tool on the same database, the required interaction between both tools is easily accomplished. If a contribution changes, so does the questionnaire. If contributions are moved or copied from one

forum to another, they take their associated questions with them and form a new survey.

SCENARIOS OF INTEGRATED POLLING

A participant can then choose if she or he wants to read the details of the contributions in a forum or just wants to answer the questions attached to the contributions. When new contributions are entered they can automatically be supplemented with a standard question set or be associated with individual questions. A separate section could contain copies of the most important or most frequently read contributions with according questions, so that a participant can at the same time gather information about the hot topics and be engaged by specific questions.

The integrated polling module was finished recently. First trial applications are under way and further integration in e-participation projects in planned for this year.

ACKNOWLEDGMENT

REFERENCES

1. Gordon, T. F. and G. Richter (2002). Discourse support systems for deliberative democracy. International Conference on Electronic Government – EGOV 2002, Aix en Provence, France, Springer.

2. Märker, O. and M. Trénel, Eds. (2003). Online-Mediation: Neue Medien in der Konfliktvermittlung - mit Beispielen aus Politik und Wirtschaft. Berlin, Edition Sigma.

3. Salz, S. R. and A. Voss (2003). Polling in Participation Systems: An exemplary integration in DITO. DSS 2003, Poland, Publisher of the University of Economics in Katowice.

4. Trénel, M., O. Märker, et al. (2001). Bürgerbeteiligung im Internet - Das Esslinger Fallbeispiel. Berlin, WZB Social Science Research Center Berlin.

5. Voss, A. (2002). E-discourses with Zeno. Database and Expert Systems Applications (DEXA 2002). A. M. Troja and R. R. Wagner. Los Alamitos, IEEE Computer Society: 301-306.

6. Voss, A., A. Schäfer, et al. (2003). Framework for Distributed Problem Solving with E-Discourse Platforms. DSS in the Uncertainty of the Internet Age, Publisher of the University of Economics in Katowice.

7. Zirden, A. M. H., Ed. (2003). Was wollen wir, wenn alles möglich ist? Fragen zur Bioethik, Deutsche Verlagsanstalt DVA.