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# Deliberation on the Net: Lessons from a Field Experiment

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## 1 Introduction

The emergence of the Internet and its potential for creating a public sphere has sparked renewed interest in the concept of deliberative democracy. Efforts have begun to test whether such online activities actually produce the prerequisites of deliberative democracy, and to explore the effects of Internet discussion in general (Corrado and Firestone, 1999; Norris 2000; Price and Cappella 2002; Price et al. 2002; Rheingold 1993).

However, the results have not been consistent enough to reach a conclusion about the positive or negative potential of online deliberation (Delli Carpini, Cook, and Jacobs 2004). Conflicting results on the political prospects of Internet discussion call for a clarification of empirical conditions under which Internet discussion substantially contributes to deliberative democracy. We reasoned that if discussions, offline or online, do bring about effects, they must come from a specific set of structural and regulative conditions of communication. In other words, what invokes the effect of deliberation might not be the mere fact of talking but the specific conditions surrounding discussion—the methods, norms, and rules by which people talk to each other. To further simplify, there is beneficial talk and harmful talk depending on the potential goal.

The 'virtual' nature of the Internet permits us to monitor communication behavior under varying circumstances. It can be easily transformed into

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a testing field to account for the systematic effects of a focal variable by, for example, devising the webpage to operate in specific ways. Exploiting this 'virtual' nature of the Internet, we reasoned that a field experiment is a powerful research method for testing the effects of structural and regulative conditions of communication in an online deliberation forum.

Previous empirical studies on the effects of online deliberation (Fishkin 2003; Hansen 1999; Iyengar, Luskin, and Fishkin 2003; Price et al. 2002) showed that various online deliberative activities do bring about positive effects on democracy, with heightened convenience but less cost compared to offline. The virtuous effects on which such studies have focused include increased political knowledge, higher opinion quality, increased social capital, and greater trust. However, these studies did not represent the natural conditions of online political conversation. In addition, they usually focused on the outcomes of online deliberation, without paying much attention to the process through which discussions were carried out.

This chapter reports on the theoretical assumptions, methodological considerations, and major findings of a field experiment. The experiment, carried out as a part of the *Daum Deliberative Democracy Project*, attempted to examine the structural and regulative conditions of Internet deliberation which bring about outcomes related to deliberative democracy.[1] The study as a whole suggests a new theoretical approach to deliberative democracy, by emphasizing the processes and conditions that mediate between political discussion and ideals of deliberation.

## 2 Structural and Regulative Conditions of Communication

Deliberation can be divided into two dimensions: the formal frame and the content. Although the two dimensions are inseparable in the actual communication process, they must be separated for analytical purposes. In our conceptual model, the two dimensions, in fact, interact with one another to constitute the dynamic nature of human communication. The former renders the structural and regulative frame of the latter, while the latter enables the former.

[1] The Daum Deliberative Democracy project was a series of field experiments to explore the impacts of online deliberation on Korean voters' political activities within the context of the 2004 Korean General Election. After the presidential election in 2002, Korean voters, renowned for the heaviest Internet use in the world, utilized the medium as a main channel for expressing their political opinions. Daum Communications Corporation, a provider of Internet communities, search engine, e-commerce, and media, runs the portal site (http://www.daum.net, last accessed September 19, 2008), which was ranked number one in terms of visitors, and registered users during the 2004 election.

It is the formal frame of communication that functions as a structural and regulative ideal of democracy. That is, deliberative democracy assumes that the ideals of inclusion, openness, uncoerciveness, and rationality of communication are realized in talks, discussions, and argumentation (Dryzek 1999; Habermas 1996). Thus, when deliberation is said to have worthwhile effects, this means that the structural and regulative conditions (the formal frame dimension) of communication in deliberation exerts influences in such a way that the ideals of inclusion, openness, uncoerciveness, and rationality are realized in the outcomes of deliberation (the content dimension). To substantiate this assumption, the connection between the structural and regulative conditions of communication and deliberative actions has to be confirmed. In this study, we are particularly interested in exposure of social identity cues in deliberation, intervention of moderators in deliberation, and reinforcement of discussion efficacy.

**Social Identity Cues**

Physical appearance or social status (perceived) in face-to-face interactions often function as 'gates' that control human interaction. Anonymity in computer-mediated communication frees interaction participants from potentially feeling socially inferior to their counterparts and, thus, facilitates expression for everyone. On the other hand, the presence of other people in an interaction creates inherent 'publicness' of the communication context. But it is not clear whether a higher level of interaction leads to improvement of the process or its consequences, such as attention, rationality, and persuasion. Revelation of social identity cues in computer-mediated communication is likely to make discussants more attentive to messages and possibly to lead them through cognitively higher elaboration. At the same time, it may make group identity more salient, leading people to conform to a salient group norm rather than to attend to the informative argument (Lea, Spears, and de Groot 1991). There is still a possibility that having to reveal social cues could cause chilling effects. Thus, anonymity in online discussion seems to be a double-edged sword.

**Moderator**

Lack of discussion structure and lack of leadership both contribute to the failure to improve the quality of online discussions (Rice 1984). Coleman and Gøtze (2001) emphasized the role of moderation, such as setting up rules for discussion, ensuring fair exchanges among parties, offering a balanced summary of the discussion, and giving feedback to participants. In this way, moderators contribute in a pivotal way to shaping the democratic potential of online discussion by actively intervening in debates (Edwards

2002; Trénel 2009). Moderators who perform effectively in online discussions seem likely to improve the deliberative process.

**Reinforcement of Deliberation Efficacy**

Coleman and Gøtze (2001) sought to ensure that participants received feedback so that they did not feel their contributions were in vain. In the same way, this study instituted a 'point-reward system', through which online activities were monitored, indexed, and rewarded as 'points' to the individual. The points were then shown next to their login ID whenever they talked online. A participant would observe his/her points adding up in the course of active participation, which was expected to increase the person's efficacy and thus provide further motivation.

**Research Model**

Along with the conditions of communication discussed above, predispositions or characteristics of communicators should also be considered in a research model of communication effects. Online deliberation could be influenced by availability of Internet access, computer related skills, motivation to communicate, or, more generally, socioeconomic status. In addition, deliberative behavior may vary according to individual differences such as communicative competence, motivation, political involvement, political information consumption, and Internet literacy.

Our research framework incorporates the above considerations and reflects the stages of a generic communication process: sociopolitical context, communicator, communicative action, and effects. The theoretical components address sociopolitical differences in online deliberation, effect of individual characteristics, structural and regulative conditions of communication on deliberation, and effects on quantity and quality of online deliberation, as well as political discussion efficacy, tolerance, and trust. Thus, we can ask whether the structural and regulative conditions of communication have any effects on the quantity and quality of online deliberation and other outcome measures when the effects of sociopolitical differences and individual characteristics are controlled for (see Table 1).

Note that the model attempts to integrate communicator characteristics and social conditions as Internet users communicate under specific communication conditions. We manipulated these conditions in the field experiment to predict communication outcome measures such as quantity and quality of political discussion, political discussion efficacy, and other outcome variables.

| Model Components | Functional Constructs | Observations |
|---|---|---|
| **Moderators (Control Variables)** | Sociopolitical conditions | Gender<br>Age<br>Region |
| | Individual knowledge and competence | Internet literacy<br>Political involvement<br>Political ideology<br>Media information consumption |
| **Experimental Treatments** | Structural and regulative conditions of deliberation | Social identity cues (showing gender, age, and region vs. anonymity)<br>Moderator (Moderated Vs. Unmoderated)<br>Reinforcement of deliberation efficacy ('discussion points system' vs. no points system) |
| **Outcome Measures** | Quantity and quality of discussion | Quantity (frequencies of posting)<br>Quality of discussion (argument repertoire and other quality indices)<br>Discussion engagement (agreement, disagreement) |
| | Consequences of discussion | Political discussion efficacy<br>Civility<br>Tolerance<br>Trust<br>Political participation |

Table 1. The research model

## 3 Methods

A pre-/post- field experiment was conducted on three stimuli. These three different structural features of online discussion settings included: social identity cues (showing social identity cues vs. anonymity), moderation (moderated vs. nonmoderated), and reinforcement of efficacy (point reward system vs. no such system). The combination of these resulted in eight different experimental conditions.

First, in the 'social identity cue' condition, individuals writing messages to the discussion group were required to reveal their social identities: gender, age, and region. These social identity cues were displayed next to the user nickname at each posting. Second, in the 'moderation' condition, mod-

erators greeted the participants. Three trained moderators shared the work of 'management and regulation' of the four 'moderated' groups, providing 'supplementary information and other materials' collected from mass media or the Internet on a regular basis, posting rules and etiquette guidelines for the discussion, and sending 'warnings' to ill-mannered participants. Finally, where the efficacy reinforcement condition was applied, each participant received an icon in the shape of a cylindrical barometer. The barometer 'reading' changed as the participant accrued points, based on the frequency of postings, frequency of being read by someone else, and number of favorable replies. The more the participants wrote, were read by others, and received favorable replies from others, the higher the reading on the barometer icon.

**Procedures**

When users logged on to the Daum portal site and visited the 'Discussion Plaza' page set up for the 2004 Korean general elections, they were asked to 'sign in'. At the point of initial sign-in, participants were randomly assigned to one of the eight experimental conditions, i.e., the discussion groups. This process was preprogrammed in such a way that subsequent visits were automatically directed to the preassigned experimental group.

The plaza launched on February 9, sixty-six days before the general election in Korea (April 15, 2004), and people began to post messages or replies. An online survey (pre-test) through email to discussion plaza participants ran from March 8 through March 18. The survey posed questions on communicator characteristics such as communication competence, Internet literacy, and political involvement as well as questions about the person's demographics, ideological tendency, and mass media usage, including Internet. By April 15, the number of participants who signed on to the plaza totaled 36,485. Among these, 15,996 participants actually left more than one message on the discussion group. That is, more than half of the participants were just lurking at the site rather than posting any messages.

In the post-test survey, more than two million email surveys were sent out to the Daum portal users, and 52,419 were completed (return rate 2.4%). Among the participants who signed on to the discussion group, 6,542 completed the survey. On April 15, the final day of the experiment, those who had completed the survey and left more than one message on the message board totaled 2,777.

**Stimulus Evaluation Tests**

We employed to two methods to evaluate whether the experimental treatments produced the kinds of responses that were theoretically expected.

First, during the early period of experimentation, two student samples (one of thirty-one students, the other containing forty-four) among the participants were recruited to report on the distinctiveness, effectiveness, and conventionality of the discussion plaza. After, the experimenters analyzed the reports and drew implications for management of the experiment. The reports suggested few difficulties in assuming the kinds of effects that this experiment was expected to produce. Secondly, three questions regarding the evaluation of the Daum Communication Service were included in the post-test. Detailed analyses of the data revealed no sign of significant differences in evaluation across the experimental conditions in terms of distinctiveness, ease of use, or satisfaction.

## 4 Key Findings

The major findings reported in three papers (Kim and Rhee 2006; Rhee and Kim 2006; Rhee, Kim, and Moon 2004) can be summarized as follows:

### Reading Versus Writing

In the online discussion plaza, participants were more likely to be engaged in reading than writing. Among 32,647 participants, who read other participants' postings an average of 30.7 times, only 15,996 (49.0%) actually wrote for the discussion plaza. The number of postings per participant averaged 1.5. Reading was significantly associated with communicative competence, political liberalism, political knowledge, and political information seeking in newspapers and television news, even after controlling for positive effects of gender (male), age, and education. By contrast, writing was correlated only with communication competence and political liberalism. More importantly, reading was significantly predicted by civility, tolerance, and political participation. By contrast, writing was accounted for by political discussion efficacy and political participation.

### Quantity and Quality of Discussion

The presence of a moderator was found to *decrease* the number of message postings. Participants in the moderated condition seemed to be more cautious than their unmoderated counterparts in writing about the election. A borderline effect was found in the reinforcement of deliberation efficacy on the number of message postings. The treatment variables of social identity/anonymity and inclusion/noninclusion of a moderator produced significant effects on a surrogate measure of quality. In addition, participants in the moderated group wrote messages that were read more often than those written by counterparts in other groups.

There were significant interactive effects between moderation and other experimental treatments. Participants in both the moderated and social identity cues groups were most likely to be read by other participants. Anonymity, as opposed to displaying social identity cues, produced more engagement in deliberation. Reinforcement of deliberation efficacy (through 'points') also increased the frequency of responses generated by a message.

### Political Discussion Efficacy

Display of social identity cues was found to be significant in increasing political discussion efficacy. The effect of the reinforcement/points system on political discussion efficacy was positive but only borderline significant. Discussion quantity and quality significantly affected political discussion efficacy. However, tests for interaction effects between the experimental conditions and the quantity and quality variables did not approach significance.

Considering that some people were more sociopolitically and psychologically disposed to demonstrate political discussion efficacy than others, such factors are included in the analysis. When controlling for these variables, the effect of 'display of social identity cues' and 'discussion quality' on political discussion efficacy remained significant while all of the other main effects and interaction effects showed no significance.

### Tolerance, Trust, and Other Outcome Measures

No significant findings were obtained as the main effects of the experimental treatments on civility, tolerance, and trust. However, positive empirical associations between reading and civility and between reading and tolerance were found to be significant. Further analyses of possible interaction effects between the experimental conditions and other mediating variables on the outcome measures remain to be conducted.

## 5 Conclusion

Based on the assumptions that various communication channels offer different structural and regulative conditions of communication and that they affect deliberative behavior and its consequences, we conducted a field experiment on the Internet to examine whether these conditions of communication affect not only the quantity and quality, but also other outcome measures of online deliberation. The three experimental conditions on which this study focused have produced some nuanced effects on the quantity and quality of online deliberation. It was also found that the 'social

identity cue' factor showed the most significant effect on political discussion efficacy followed by the 'reinforcement system' factor.

The findings in this experimental project taken together provide strong support for the role of structural and regulative conditions of communication in producing better deliberation outcomes. The conditions under which deliberation is conducted have significant impacts on its quantity and quality and also on its consequences, such as political discussion efficacy. The effects were confirmed through a field experiment which controlled for the impacts of sociodemographic conditions and individual differences in Internet use.

A field experiment on the Internet clarifies the empirical conditions under which Internet discussion substantially contributes to deliberative democracy. Deliberative actions and their consequences differ depending on the specific process of communication, which can be effectively explored by experimental research whose conditions can be manipulated and tested. What invokes the effect of deliberation is not the talk itself but the specific process of talking—that is, the way people talk to each other. Future studies are expected to explore various potential outcomes of online deliberation such as content of discussions, flaming behaviors, knowledge gains, attitude change, participatory acts, the level of trust, and others. In this way, empirical findings can effectively be transformed into theories of deliberation.

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