
Ethical issues of interventions in large online discussion groups

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Abstract

For individuals in online support groups to receive benefits from membership and to develop commitment to the group, others in the group need to respond to them. Correlational research from a variety of discussion groups indicates that approximately 40% of newcomers' initial posts receive no response, and that people who get no response are likely to abandon the group. We have identified a number of features of initial messages that are associated with getting a reply—e.g., providing an autobiographical introduction, asking explicit questions, or using terminology that is common in the group. We propose an experiment posting modified messages to the groups to see if factors identified in the correlational research have a causal impact, as well as ethical arguments in favor and against this methodology.

Keywords

Computer-mediated communication, ethics, interventions, experimentation

ACM Classification Keywords

H.5.3 [Information Interfaces]: Group and Organization Interfaces - Collaborative computing, Web-based interaction, Computer-supported cooperative work.

Proposed interventions in discussion groups

For individuals in technical and health support groups to get benefits from membership and to develop commitment to the group, others in the group need to respond to them. Correlational research from a variety of Usenet discussion groups indicates that approximately 40% of newcomers' initial posts receive no response, and that people who get no response are much more likely to abandon the group than those who get a response [4]. We have identified a number of features of initial messages that are associated with getting a reply—e.g., providing an auto-biographical introduction, asking explicit questions, using terminology that is common in the group, writing shorter posts, or using simple language [1]. In this research, we propose an experiment to see if the factors identified in the correlational research have a causal impact. We will conduct this research by posting a small number of experimentally altered messages to approximately 100 Usenet groups.

We are instituting the following safeguards to ensure that we have minimal impact on any individuals in the groups or on the groups as a whole. We will post only messages that are appropriate to the group. They will be alterations of ones that had been posted to that group at least a year earlier. We will "recycle" prior messages, altering them according to the experimental design—e.g., including or deleting an autobiographical introduction, adding or deleting phrases indicating prior reading of group messages, adding or removing explicit questions. We will replace original posters' names and identifying information with pseudonyms, and post the messages from new email accounts created for the purpose of the study. Table 1 shows a sample of the type of recycling we will do.

We will harvest and post these messages in 100 Usenet groups selected within four categories: Technical discussion groups (e.g., sci.med.vision), issue discussion groups (e.g., alt.politics.economics), hobby groups (e.g., rec.sport.unicycling), and health support groups (alt.support.diabetes).

The groups we have chosen are all public ones. They do not require logins to participate and are not moderated. Therefore, we are not violating any implicit privacy norms in posting to these groups. We have selected these groups to have sufficient message traffic so that our posts to the group will not noticeably change characteristics of interaction in the group. (Each group receives more than 50 messages per week; average = 358). We will post a maximum of two messages to any one group during any one-week period. The groups all have relatively high turnover. Only 13% of people who post in one month also post in the next month; that is, most people who post to these groups are newcomers. Therefore, the addition of new posters to the group over a one-week period is well within the norms of these groups.

The dependent measure for these experiments is the number of replies each message receives. We will measure this by monitoring the Usenet for a 2-week period following message posting. Our previous research indicates that 95% of messages receive their replies within 24 hours after the initial post [4]. We will use linear regression to test the hypothesis that messages with a particular feature (e.g., self-introductions) receive more replies, controlling for the number of replies the original post received, the type of discussion group (health, issue, technical, or hobby), and the focal traffic of the group that day and month.

[Original message] with no introduction

To: alt.support.cerebral-palsy

Subject: Neuromove

Anyone had any experience with this device?

<http://www.neuromove.com/>

With introduction added (in italics)

My son has cerebral-palsy and I've been looking for options. Anyone had any experience with this device?

<http://www.neuromove.com/>

Table 1. Sample message manipulation.

We are asking for waiver of informed consent. This is minimal risk research, and it isn't practical to ask for informed consent. Potential responders would not respond to these messages authentically if they knew they were experimentally modified for research purposes. The dilemma in terms of obtaining informed consent is that no human subject is identified until they actually respond to the post. The experimental stimulus—an online post with or without reply-inducing features—is simply posted to a public forum. At the time of posting, we cannot know who will see the post. In Usenet, the number of people who silently read posts is far larger than the number who visibly communicate [5]. The situation is analogous to posting a sign on a public thoroughfare. Even though many people may view the sign and some may be influenced by it, their presence is invisible until they respond.

Argument in opposition¹

Despite the great potential of the research, the approach calls for disturbing levels of deception in which previously submitted—and modified—postings are re-posted. The concern is especially great in health groups. Though the individual messages may be similar to those common in the group, this research wastes the time of group members, who believe they are responding to needy others (e.g., individuals with cancer), and may actually take time away from legitimate members seeking help.

Most risky is the potential for group members to recognize the deception, which could undermine the trust and cohesiveness that are crucial to a well-functioning support group. Health support groups are vulnerable, and thus any intervention that has the potential to interfere with the provision of support needs extra scrutiny.

Though the archives are public, we cannot assume that all members clearly understand the boundary or seek attention from people who do not have a legitimate connection to the group [2]. Furthermore, studies of similar groups indicate that members have a strong aversion to presumed “outsiders” observing them [3]. Discovery of the deception in any of these groups would muddy the waters for future researchers accessing archival data.

A secondary concern is copyright, which is only tenuously covered under fair use. To maintain ecological validity, the researchers must preserve the majority of the original text, which they repost it with an attribution of a fictitious author.

¹ This experiment was approved by Carnegie Mellon's IRB, and was conducted as described. These arguments are paraphrased from actual reviewers' comments on articles generated from this study.

Argument in favor

The potential benefits of this methodology far outweigh the minimal risks. The research will yield information that will inform strategies for meeting the support needs of cancer patients, survivors, and caregivers. By comparing many kinds of groups, we can determine differences in the provision of health support, entertainment, political debate, and technical support, and tease out causality not possible by any other method.

The large size and high turnover in the Usenet groups has two consequences. First, because of the high turnover and lack of registration, it is impossible to conduct this research by asking informed consent, either at the level of the individual or the group. People are not members of the group until they show up, and no one is responsible for the group as a whole. Second, newcomers in these high-turnover groups frequently ask redundant questions, and most participants haven't been around long enough to notice this naturally occurring repetition. As a result, people in these groups are unlikely to notice modified posts.

After receiving IRB approval, we started some of these validation experiments and have evidence that our manipulations are rarely discovered and have little impact on the groups when they are. So far we have sent 364 messages to 100 different Usenet groups, 25 of which are health support groups. We estimate that between 4,500 and 18,000 people have read our messages. Even though our messages quoted prior content, less than 2% of the responses to them mentioned their similarity to a previous post and only eight of the 364 messages were suspected of being a repost. Most comments about the "discovered" messages were benign (e.g., "Someone asked exactly this question a year ago and no one had an answer then" and "You

sound like xxxx, a regular here on rec.music.gdead, who did something very similar to what you did, back in 2001. I enjoy the jazz/big band/swing sound, for a change of pace, too.") Seven of the eight "discovered" messages still received conventional responses, answering the question they posed or continuing the conversation they started. There is no evidence that the groups where manipulated messages were discovered were harmed.

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