Developing standards of care: a tale of two panels

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Abstract

Objective. How will a group of experts convened to develop standards of care communicate in meaningfully different ways when interacting online in contrast to traditional face-to-face meetings. Furthermore, does online interaction facilitate discussion among participants from diverse cultural backgrounds and at what cost?

Design. A project to develop standards of care for deaf and hard of hearing adults used two panels of experts interacting in two different formats: online and face-to-face. One panel interacted via an online system while the other met in an evening face-to-face conference. As one component of the project, we tracked the interactions of these two groups in order to describe and contrast their group processes.

Study participants. The subjects were volunteer experts in hearing impairment and health care, from organizations across the United States. They were a geographically diverse group with widely varying communication needs. We applied two different systems for facilitating communication among culturally diverse participants, and assessed interaction and satisfaction.

Main outcome measures. Data were collected on the two groups on the pattern of interactions, satisfaction with the process, and satisfaction with outcomes.

Results. The results showed a high level of user satisfaction with both process and outcomes, and provide data for a description of the source of user satisfaction and the management of the groups.

Conclusion. Online interaction offers unique advantages but poses unique requirements for success.

Keywords: collaboration, computer-mediated communication, expert panel

The Internet enables collaboration among people who would normally be separated by distance, time, or communication barriers. The ease of use and proliferation of online systems makes it convenient for people to create online collaborations, but so far, little is known about the specific requirements for managing these collaborations. Would experts be as likely to express themselves online as they do in conference, and at the same frequency? Are online sessions subject to the same social pressures? Is managing an online panel essentially the same as a face-to-face panel, or do they differ in important respects? A project to develop standards of care offered an opportunity to examine these questions.

Background to the current project

In October of 1999 the Delmarva Foundation for Medical Care, a health care quality improvement organization in Maryland, and Gallaudet University (Washington, DC) received a special contract from the US Department of Health and Human Services, Health Care Financing Administration (now Centers for Medicare and Medicaid Services) to propose standards for health care services to deaf and hard of hearing adults. The contract called for a panel of experts to propose a set of standards that would then be evaluated for possible inclusion in Federal regulations. The project team proposed to HCFA to use two expert panels. One would interact online via e-mail for two months, the second would meet face-to-face after the first group had generated a set of standards and would evaluate the proposed standards. The structure of the panels had special implications for this project. The number of people who are truly expert in health care to deaf and hard of hearing is limited. In order to get the greatest participation possible we needed to create a mechanism that would allow people to participate who have very busy schedules, who, in some cases, would not be able to take the time to travel to a traditional conference, and were widely separated geographically. In addition, we wanted representatives from a variety of consumer advocacy...
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to recruit participants from a wide geographical area. Con-ducting the group by e-mail allowed the elimination of travel, which is a major barrier to participation. We believe that an e-mail-based system is effectively a specialized Delphi approach. It is semi-anonymous, managed, and interaction is asynchronous; thus it is similar to indirect communication. It is different in that the moderator does not edit and then distribute the e-mail. In our process the moderator initiated the discussion and then participated by offering clarification and direction to the group.

One of the project requirements was a process for validating the results of the panel. We elected to convene a second panel that would meet face-to-face and review the standards. Having a second panel, drawn from the same population, with a related task would allow us to collect data on the two processes. We could then contrast the virtual panel with the face-to-face panel as a means of clarifying the unique features of the online panel. However, it also posed a challenge in that we might have artificially created a dysfunctional process by having a face-to-face conference with people whose communication needs would dispo-eal negative results. This was addressed by holding the conference in a multimedia conference room at Gallaudet University that was designed for maximum efficient communication for people with diverse communication needs. Full multimedia services were arranged, including a team of sign-language interpreters, amplification systems, real-time transcription to a bank of monitors, and stenographic services. What we accomplished was a test of two systems using a population sensitized to problems in group interactions, and using the most sophisticated communication service available. In comments after the conference the participants repeatedly stated that the conference allowed for a level of interaction that far exceeded anything they had experienced before. As we had two state-of-the-art systems to support interaction between two groups of people with diverse language and cultural attributes. The multi-media and interpreting services would ameliorate the impact of hearing impairment but would not mitigate the factor of culture.

The face-to-face conference took place on March 31, 2000. Twenty participants were presented with the standards produced by the virtual panel and invited to add, delete, or edit as they chose. The panel was charged with validating whether the proposed standards were sufficient to address the disparity that is believed to exist in the health care quality received by deaf and hard of hearing adults compared with the general population. Like the online panel, this group was highly motivated and held strong opinions concerning the need for standards of care. This created a dilemma in that many people wished to address an issue, but time was limited. The morning of the conference was largely taken up by presenting and explaining the standards of care, the rating of them for them, and the process used to create them. As the long conference progressed, we were faced with the need to structure the interaction and limit discussion. The behavior of the conference did not use any online features, such as any of the communications by electronic means.

**Moderation**

The author carried out the moderation of both panels. The same approach was used in both cases. First, the moderator, followed by leaving the group relations unverified early in the discussion and the second half of the process. Group statements were made regarding the purpose of the project and reinforcement of the processes. The moderator refrained from making evaluative statements or any of the messages or the standards. Most of the comments were of a clarifying and supportive nature, aimed at sustaining the interaction and keeping the group on track. Messages that distracted from the focus were quickly directed to an off-line discussion. Many people were concerned about the potential for their suggestions to become regulations. This concern led to a desire to want to carefully construct every sentence, in spite of repeated assurances from the moderator that this was an early phase in the process and that the goal was to define the domain of possible standards, not engineer specific regulations.

**Methods**

**The panels**

The project began with a review of the literature to identify existing standards of care and the people who were currently working in the field. The project team then generated a list of potential panel members, in part from those identified from the literature review. In addition, consumer and professional groups were contacted for recommendations. All members of the resulting list were contacted and invited to participate in the project. Interested individuals who knew of the project were able to apply to be on a panel, such as professional medical interpreters, directors of programs for the deaf and hard of hearing, and medical directors of schools for the deaf. Panel applicants were invited to state a preference for
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Table 2 Conference satisfaction survey items

Conference survey (all items rated on a 1 to 4 scale of agreement)

1 I would rate the standards produced by this panel as:
   a) very poor, b) somewhat poor, c) somewhat positive, d) very positive.

2 As far as whether the standards represent my personal views:
   a) they do not represent me at all, b) they somewhat represent my views, c) they generally represent my views, d) they completely represent my views.

3 Regarding having an opportunity to fully express my ideas, the format of the conference:
   a) made it difficult for me to express myself, b) made it somewhat difficult for me to express myself, c) made it somewhat easy for me to express myself, d) made it very easy for me to express myself.

4 Concerning staying on subject, I thought the conference:
   a) was impaired with a problem of staying on subject, b) had a minimal problem staying on subject, c) generally stayed on subject, d) did well staying on subject.

5 The goals for the conference were:
   a) not met at all, b) generally not met, c) somewhat met, d) completely met.

6 In terms of the diversity of the panel, I would say that:
   a) the diversity was completely insufficient, b) the diversity was somewhat lacking, c) there was sufficient diversity, d) the diversity was a major strength.

7 The management of the panel by the moderator was:
   a) insufficient for the needs of the panel, b) somewhat insufficient and detracted somewhat, c) sufficient for the panels needs, d) very sufficient and contributed to the success of the panel.

8 When bringing together people with different communication needs and preferences, I would rate the conference as:
   a) much worse than a typical conference, b) not quite as good as a typical conference, c) somewhat better than a typical conference, d) clearly superior to a typical conference.

Panel interaction

Panel interaction was measured in two ways. For the virtual panel it was the frequency of e-mail messages contributed per subject. In the conference it was instances of verbal contributions, as recorded in the project transcript. A count of contributions was calculated for each subject, along with a percentage of total interaction. The percentage represented the level of participation relative to other participants.

Virtual panel survey results

The mean item rating on the satisfaction survey from the virtual panel was calculated. In addition, two subsets of items: a group of process-oriented items, and a group of outcome-oriented items. This distinction is seen as useful in distinguishing the satisfaction with the virtual panel as a means of communication, and the level of satisfaction with the outcome of the particular panel. The means for these items were calculated as well and are shown in Table 4.

Cost

The costs for the virtual panel were negligible, again excluding staff time. The Foundation used an existing web server and inexpensive software. The number of participants was small, thus the significant load was created for the server.

Discussion

Subject to the limitations that are discussed below, it is reasonable to conclude that an online interaction is an effective tool for group discussion and consensus building. The virtual panel shared many of the issues and features of the face-to-face group, but also differed in important respects.

The conference was a very dynamic meeting with lively discussion. The subject, health care for deaf and hard of hearing adults, was one that every person at the meeting felt...
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is that in an online meeting not only do you lack the social cues available in personal meetings, but also it is more difficult to identify who is participating. A verbal statement is associated directly with a speaker, and frequent statements from the same person are easy to identify. In e-mail, it is more difficult to associate a message with a person because the only cue is the address. Determining who is or is not contributing becomes a more complex task.

It is interesting to note that the people on the virtual panel sought more social information from each other, and in many cases established relationships that persisted apart from the panel. The panel interactions began as anonymous exchanges (return addresses were masked), but from the start people identified themselves and offered personal biographies to the group. The masking of addresses was later dropped at the end of the panel to increase usefulness of communication. The group was apparent halfway through the project that the process used in the early part of the meeting would never review and change guidelines even if substantially more time were afforded. Several conference members expressed concern over this and raised the issue to the group, seeking discussion on changing the approach to the task. In contrast, the virtual panel also had a rapidly approaching deadline, but never expressed concern over running short on time and failing to meet the target date and deliverable. The moderator had to initiate and enforce deadlines with the virtual group, while the face-to-face group raised this issue on their own. In other ways, the virtual panel deferred more to the moderator, and contacted the moderator over concerns rather than communicate directly with one another. As the moderator, I would describe my experience of the two groups as more facilitating and supporting the face-to-face group in directing and eliciting with the virtual panel. Although this study is needed before drawing definitive conclusion, there was a more passive and dependent pattern with the virtual panel in contrast to the face-to-face group. Given that the moderator was the same in both cases, it seemed that differences in modality. However, face-to-face groups were more aware of an imminent deadline and so may have felt more anxiety.

Another distinction in moderating the two groups was the need to provide cues to the virtual panel that exist in the environment of the face-to-face panel. Firstly, social/emotions existed in the context and vocal cues of speech. People not only have more data on the environment of the face-to-face panel, they also moderate their interactions more in face-to-face discussions. Group members are more likely to misinterpret others' feelings. The moderator needs to be aware of this and clarify not only content of a communication but also meaning and emotional tone as appropriate. Time is another factor people can get from the face-to-face cue. In synchronous communication, the relationship between current time on task and an approaching deadline is discernible. Time is fragmented into smaller units, making it difficult to judge whether you are allowing sufficient time to meet a deadline. In face-to-face meetings it is fairly easy to judge how much time is required in early tasks and project whether there is sufficient time for the overall project. The moderator of a virtual group needs to provide time cues and assist the virtual group in managing time.

A combined approach

Many of the participants in the virtual panel requested a face-to-face meeting, ostensibly to build upon the relationships created during the panel discussions. This also raised the question of the optimal method for integrating the virtual panel with a face-to-face meeting. In our own work, we frequently use online interactions as a way to maximize the use of direct meetings. Any routine discussion, background materials, planning, etc. does not require decision-making is conducted in advance online. The face-to-face time, which is considered the most expensive and difficult to co-ordinate, is used for on-topic discussion and decision making.
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This would help address the question this study could not answer: does one method produce better standards than the other?

Several questions for future study are raised by this project. These include: What is the optimal relationship between a face-to-face conference and a virtual panel? What distinct roles and skills are needed to successfully manage an online panel? What types of decision making are best suited for online panels? Are some individuals better suited for one type of panel or the other?

Lastly, the cost information is illustrative of the potential for low cost collaboration, but it is not within the scope of this project to determine cost-effectiveness. A follow-up project where comparable tasks are assigned to two groups working in different media is needed to assess cost-effectiveness.

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