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Evaluating an Online Academic Community: 'Purpose' is the Key

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Abstract

Online communities are fast becoming a major aspect of the daily lives of millions of people around the world. Determining what makes an online community successful is therefore crucial for developers and designers. Why do some succeed and some fail? In order to study these questions, an online academic community was created for students in an interdisciplinary doctoral program at a major university in the United States. Because the program serves working adults with a variety of research interests, it is difficult for members to get together to discuss ideas and socialize. Students expressed the desire for an online community with a discussion board to facilitate communication. A community-centered design approach (Preece, 2000), that involved the students in all aspects of community design and development, was used to create the community. An action research approach, using quantitative and qualitative methods, was used to assess the success of the community. Data was collected through surveys, observations, and interviews and indicated that 25.6% of all members actively participate in discussions, 12.7% never visit the discussion board and 61.7% are occasional readers. Most participants indicate that the purpose of the community should be narrowly focused to fit their particular interest. They emphatically indicate that the discussions should relate to their own specific area, be lively and well moderated. This study reveals that a narrow purpose appears to be the strongest indicator of success for an online community. The purpose brings them in to the community, but lively, interesting discussions keep them coming back.

1 Introduction

The contemporary concept of community encompasses the idea of a group of people that are united by culture, but who do not have to live in the same neighbourhood (Rheingold, 1996; Wellman & Gulia, 1999). Online community can mean different things to different people, in some it might evoke a warm feeling, in others it can lead to thoughts of hate groups and groups catering to people with antisocial behaviour (Preece, 2001.) A community does not have to have physical boundaries; it may be defined as a social network without physical boundaries rather than in terms of space (Rheingold, 1996; Jones, 1998; Wellman & Gulia, 1999). These social networks have loose, more permeable boundaries, interaction is with diverse people, and hierarchies are no longer as well defined as in face to face interactions (Wellman, Boase & Chen, 2002).

For the purpose of this study we will adopt the working definition of an online community established by Preece (2000): an online community consists of, *people* who interact socially as they strive to satisfy their own needs or perform special roles, such as leading and moderating. A shared *purpose* which provides a reason for the community, such as an interest, needs for

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information, or service. That *policies* in the form of tacit assumptions, rituals, protocols, rules, and laws guide people's interactions, and *computers systems* that support and mediate social interaction and facilitate a sense of togetherness.

The aim of this research is to establish an academic online community in order to study which usability and sociability heuristics are key to evaluating success in this particular community. The following sections discuss the approach taken in designing the community, the approach taken in the research, and initial findings deduced from questionnaires, observations, and interviews.

2 Establishing the community

The method used to design the online community was a community-centred development approach, where the focus is on the community. This type of design approach is participatory (Preece, 2000) and compliments the action research paradigm adopted as the research approach in this study. In this design, the developers start by assessing the needs of the community, through surveys, observations, and interviews. The design was implemented according to the wishes of the community and the prototype was tested and evaluated. At each step, the designer went back to the community for further assessment. Before initiating the site, the developers tested for usability and sociability in order to assess whether any usability or sociability issues did not work for this particular community.

The online community in this research consists of members of a doctoral program at a major university in the United States. This particular program is interdisciplinary and therefore the interests and aspirations of all the members are varied. The program is a collaboration between eight different departments and the students can specialize in any number of areas depending on their interest. The nature of this program and the fact that the majority of students are working adults makes it hard for members to get together. In essence, after completing the core courses, they hardly see each other again.

The site was launched in 1999, but it remained unused for over a year. Since students in the program continued to express a need for an online community, it was decided to work to revive it (Maloney-Krichmar, Abras & Preece, 2002). As with the first attempt, a community-centred development approach was used (Preece, 2000). When the Web site was introduced again in 2002, the doctoral program had 38 students and had existed for four years. The students were surveyed concerning their wishes and the purpose of the community and the revised site was designed accordingly. The revised site was launched in the spring of 2002 without a discussion board, which was added in fall 2002.

This process was guided by the community-centred development approach, in which the designer refers back to the members of the community, through surveys, questionnaires and interviews, and modifies the design according to the wishes, desires, and needs of the community. The selection of the software to be used was guided by the wishes and needs of the students in the doctoral program. Once the site was designed, it was evaluated by expert reviewers and a group of students that were not part of the community. A second survey was administered to test for usability and sociability. The site was reassessed according to the results while the community was being nurtured by an active moderator. The discussion board was introduced three months later, with many topics for discussions and an active moderator for each topic. Professors and students were asked to moderate. Research shows that when an online community is introduced, it must be nurtured by publicizing it, welcoming members, maintaining a healthy dialogue, and making sure hardware and software are in good working order at all times. The evaluation process never stops and reassessing is continuous (Preece, 2000). This particular community existed in a face to face setting, yet the bonds that held the members together were very weak. It was hoped

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that in the online setting, the members will be able to find one common purpose that will hold them together, which is an attempt at communication and the desire to stay connected.

3 Action research

3.1.1 Action research approach

Action research seeks to find solutions to problems in the community through a participatory approach. The members of the community and the researchers are involved in all steps of the research and are encouraged to theorize their actions, examine the theory in light of these actions, and change their approach to acting in society in light of these new found theories (Reason & Bradbury, 2001). Habermas' critical theory and cognitive interest are at the base of Kemmis' (1985) action research paradigm, mainly that technical, practical and critical reflections are examined respectively from the viewpoint of the action, as part of a larger context and from a social perspective. Freire (1970) theorizes that people should identify and then analyze their own problems in order to find a solution, meanwhile the researcher takes the role of co-investigator and becomes a part of the research instead of being an objective observer (Selener, 1997). This new role allows the investigator to closely analyze, observe, and reflect on the problems in the community while experiencing them at the same time. The researcher's own reflection on his/her participation in the process can add a rich and thick description to the research. The people become more aware of their environment through participatory research (Reason, 1994).

Action research is cyclical in nature and the methods used in analysis are varied, they may include qualitative and quantitative with an emphasis on community reporting and always going back to the group for further input in the research (Reason, 1994; Reason & Bradbury, 2001). In Information Systems (IS) this method of investigation did not become popular until the 1990s. It was introduced to IS through the works of Mumford, Checkland, and Wood-Harper in the mid 1980s (Baskerville, 1999).

3.1.2 Phases of the study

The participants were divided in three groups, A, B and C. Group A consists of the students who were admitted the first two years of the program. They were familiar with the researchers and had participated in the original study. Group B are students that were admitted after the inception of the original community, they were not familiar with the researchers or the original study. Group C are students admitted after the inception of the second version of the online community. They were admitted when the bulletin board had already been introduced, and their teacher agreed to conduct her class using the bulletin board.

In Phase One of the study only groups A and B participated; the community was established and the potential participants were surveyed in order to obtain a baseline data for computer use, Internet habits, and technological skills. The Webpage was introduced in May 2002, without a bulletin board and participants were observed until September 2002. A second survey was administered to assess the feelings of the participants about the site, whether it is successful, and whether they felt that they belonged to an online community.

In Phase Two the bulletin board was introduced. Group C was admitted and they were administered survey one. For the bulletin board we chose PHPBB (www.phpbb.com), because of its intuitive set up, the streaming design of message layout, and because we were able to add extra features, such as: avatars, smilies, and -email message to a friend.

One student moderator was asked to conduct an active session on the discussion board and one class was conducted on the bulletin board. Two weeks later a new topic was introduced, with

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a new moderator and a few days later a third discussion board topic was introduced. All three moderators maintained active discussions on several topics in one area of interest for each. Survey three was administered at this point and the data was analyzed and interviews were conducted.

In Phase Three it was decided that the bulletin board had not have enough time to affect the community; therefore, a new topic was introduced, this time it was moderated by a faculty member. A fourth survey was administered in order to assess whether students' feelings about belonging to an online community have changed.

4 Results

When initially surveyed, the members of the program were asked if a Web site in the form of an online community would be useful to them. The results indicated that the site would be useful to the group: 21% were neutral indicating that they would like to see the site before making up their mind, 37% indicated that it would be very useful and 21% said it would be extremely useful. None were negative about the usefulness of such a tool.

After redesign of the online community and analyzing the surveys administered in Phase Two and Three of the study, conducting the interviews, and observing the activity on the discussion board, the survey results were quite different from the initial study outcomes. These results indicated that 25.6% of all members were actively participating in the discussions, 12.7% never visited the board and 61.7% were occasional readers.

Students felt that the community was successful if it were able to maintain their interest, if it provided interesting topics for them, and if they felt connected to the group. They felt that lurking is a form of participation and therefore can lead to success of an online community. They felt that the site should be useful, dynamic not static, and discussions engaging. Only one member indicated that in order for the community to survive, the members have to be committed to the process.

Some of the findings of this study are not new indicators for determining success in online communities, but what is amazing, is that the active users and the lurkers see success as what interests them and not the number of people participating. When a message receives 65 views and only six replies, users perceive this as successful since they can tell how many people are reading. Some members indicated that they would like the discussions to be philosophical and more in depth, while others wanted an environment for light conversation. It is possible to accommodate both views through careful moderation. However, moderation of topics should be in the hands of the members empowering them in the daily operation of the community. The students indicated, in interviews, that the purpose of the online community has to be very narrowly focused to fit their needs, and since many members expressed different needs, it became apparent that the community needed to be multimodal in order to accommodate all members.

The original purpose, the need to be connected expressed by all was not strong enough to unite them. The data showed a vast divide between what the members indicated on initial survey and what finally materialized. Their desire to have a community is genuine, but they do not want to put an extra effort to assure its survival. The purpose that united the students was not strong enough to make them invest the extra time online. When one expresses need, there should be a measure to how strong that need is, and that would be the single best indicator for the survival of the community. Purpose is the strongest element in sociability heuristics, the others can be achieved to varying degrees. If the purpose is strong enough, the members will come, but of course the developer must not ignore the other aspects of the online community, in order to keep them coming back.

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5 Conclusions

The process of designing, implementing and maintaining this online community is cyclical and ongoing. The community emerged very slowly, with very weak-ties between its members. Some felt greater connection than others, but as one member indicated; this community exists face to face and the ties between the members are also very weak in that setting because of their varied interests; therefore, the same types of connection transferred online. The students have varied backgrounds in sociology, literature, education, technology, and languages, which afforded the researchers a rich description of the users' feelings, opinions, and insights.

This was the second attempt to establish this online community. The first resulted in no participation, the second was more successful, but participation and ties are still weak; however, there is a steady growth in the participation of the students with continued commitment and nurturing, the community can grow, become healthy and independent of the researchers' involvement. Communities are dynamic and therefore one should adapt to their ever changing nature (Preece, 2000).

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