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# In Search of Empathy Online: A Review of 100 Online Communities

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## Abstract

*Empathy, knowing, feeling and responding to the way another person feels, is so essential in some online communities that they can be described aptly as 'empathic communities'. This paper discusses a review of 100 online communities. The aim of this review is to examine whether the existence of empathic communities is widespread and to compare these communities with a range of other online communities, whose focus includes religion, sports, pets, culture, science, etc. The results of our analysis suggest that empathic communities develop when patient support or emotional support topics are the focus of interest.*

## Introduction

Online communities are no longer confined to serving as a medium for the exchange of information and knowledge by technical people. Today, users from diverse cultural backgrounds, computer expertise, and interests turn to online communities to reach others. (Pitkow & Kehoe, 1997) The communication needs of this new and diverse population of users are different from the factual exchange of information by the traditional users of online communities. These new communities serve a strong social function as well. For example, a support community for people with chronic back pain has different needs than a community discussing the intricacies of Java programming. People in patient support communities not only want information about their condition, but may also seek empathy from their fellow sufferers.

Empathy is the ability to identify with and understand another person's situation, feelings, and motives. Our ability to empathize affects how well we can communicate our thoughts and feelings with others, how well we understand others, and how comfortable people feel communicating with us. (Etchegoyen, 1991)

Traditional measurement techniques for empathy have relied on self-reporting which has been wholly unreliable (Levenson and Ruef, 1992). However, from a synthesis of many researcher's work on empathy, Levenson and Ruef (1992, p. 234) identify three different qualities of empathy: (a) *knowing* what another person is feeling; (b) *feeling* what another person is feeling; and (c) *responding compassionately* to another person's distress. This broad categorization provides the basis for our work on identifying and characterizing online communities that exhibit strong empathy which we will call *empathic communities*.

Research has shown empathy to be strongest when people share a common experience (Ickes, 1997), common frame of mind (Ickes, 1993), and when they are increasingly exposed to empathy (Hodges and Wegner, p.139). Moreover, it has been observed that empathy is conveyed primarily through touch, gesture, gaze, and posture. (Eisenberg et al., 1989)(Lanzetta and Englis, 1989). This last finding is particularly interesting for online communities since the majority are text-based. An important question is how well and in what ways is empathy conveyed via text?

In previous studies (Preece, 1998a, 1998b) we describe the importance of empathy in an online patient support community. Results showed that communicating empathy was as important as exchanging factual information. One of the aims of this review was, therefore, to see if empathy is a strong phenomenon in other online communities, and if so, what other characteristics tend to be associated with empathic communities.

With the increased popularity of online communities, it is important to begin considering how empathic communities develop, change over time, and how we can characterize them. Answers to these questions will aid in improving the design of online communities for empathic communication.

## Method

One hundred communities were selected from those available on the Internet through search engines. Selection of communities was *ad hoc* since the kind and number of communities on the Internet are changing daily. This was also an exploratory study. Classification of the sites was done separately by the two authors. There was high agreement between the authors and only one community was reclassified.

The topic areas covered by the communities are:

- patient and emotional support communities (59 communities),
- other communities (41 communities), which comprise: cultural (4 communities), pets (5), religion (3), scientific (6), societal (5), sports (9), miscellaneous (9)

Twenty messages were collected from each of the 100 online communities. Data analysis was done using three techniques: (i) content analysis to classify the dominant type of communication in each message; (ii) data-visualization to explore relationships between variables; and (iii) statistical validation. Data was stored in a Microsoft Excel table. For each message in a community, the communication type and the topic of discussion was recorded.

(i) *Content analysis*

Like other researchers (e.g. analysis of e-mail by Worth and Patrick, 1997) content analysis (Robson, 1993) seemed a natural choice for analyzing the content of the messages. Using the definitions of empathy discussed earlier, and particularly Levenson's and Ruef's (1992) three qualities as a guide for identifying empathic messages, we developed a taxonomy of communication types. Each message was examined holistically and was classified into one of the categories: empathy, factual, personal narrative, hostile, and other according to its *overall* tone and content. The technique was piloted and the method was developed so that an inter-researcher reliability rating of over 95% agreement was achieved (Preece, 1998a). The following definition was used for categorizing messages in the empathic category. (For a description of other categories and examples refer to Preece and Ghozati, 1998).

*Empathic Communication*

These postings had a strong empathic content and echoed the definitions of empathy given by psychotherapists (e.g. Levenson and Ruef, 1992, Ickes, 1997). People asked for support and gave support. The overall feeling conveyed in these messages is one of mutual understanding and caring developed from shared experience. An example is:

*"It's been two weeks and five days now. I read other postings where others pained over feeling alone. Well, I'm having my bout with the depression. It's a battle to entertain my mind, reading, computer, talk radio and rarely TV. I do my exercises ...Thanks for listening. :]"* ACL Bulletin Board

Rule: If pre-dominantly empathic then classify in this category and ignore all other kinds of comments.

(ii) *Data-Visualization*

The data was then summarized for each category in every community and explored using Spotfire version 2.4 (1998), a data-visualization tool (described in Ahlberg and Shneiderman, 1994, Ahlberg and Wistrand, 1995). Using this powerful tool, relationships between pairs of variables in the hypotheses listed below were explored. Correlations that were identified from Spotfire's dynamic visual displays could then be validated statistically.

(iii) *Statistical validation*

SAS was used to verify relationships between variables of interest.

## **Results**

It is important to remember that even though the study included 100 online communities, this is a small sample from the thousands of communities that now exist online. Twenty messages from each community is a tiny slice of the activity going on in these communities but the results do suggest some interesting trends.

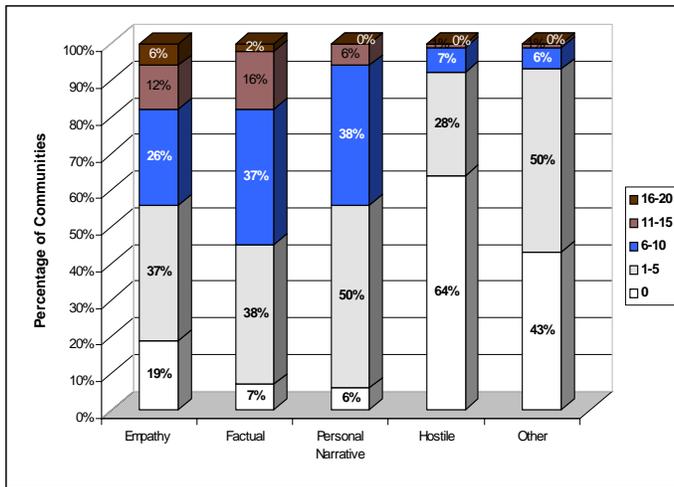
*Does empathic communication occur in most communities?*

In a study of 500 messages from a patient's support community for anterior cruciate ligament injury, empathic communication was found to be important (Preece, 1998a, 1998b). Figure 1 shows the percentage of communities containing different numbers of each of the five message types. 81% of the communities contained some empathic messages. 37% contained between 1 and 5 empathic messages, 26% had between 6 and 10, 12% between 11 and 15, 6% had 16 to 20 empathic messages. More than half of the messages in 18% of the 100 communities were empathic. Therefore, most communities studied have some empathic communication.

*Is empathic communication influenced by the focus of interest?*

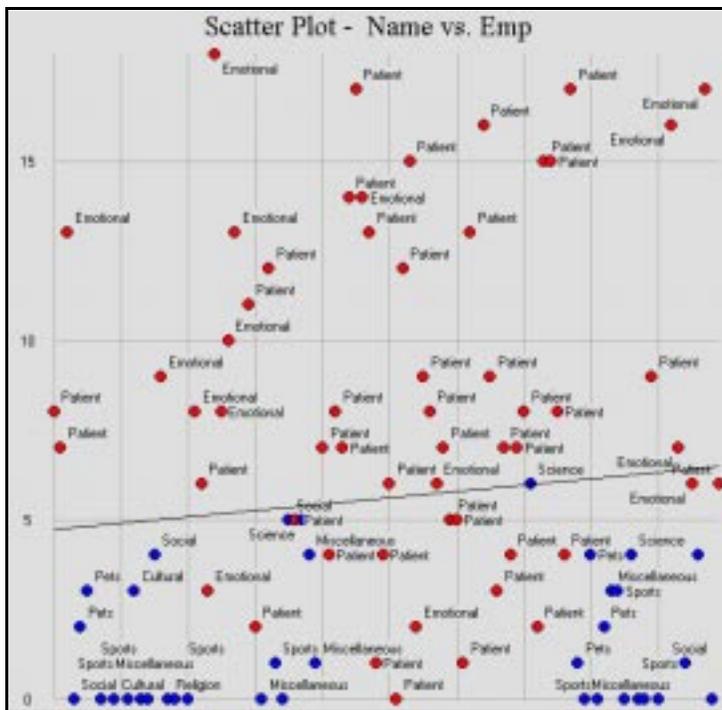
Although empathic communication appears to have a role in all but 19/100 communities, we suspected that it is more important in patient and emotional support communities than in other communities. The scatter plot in Figure 2 supports this suggestion.

Only one of the 19 communities in Figure 2 that contained no empathic messages is a patient support community. Most communities that do not have empathy are concerned with religion, science and culture. 47 out of the 59 patient and emotional support communities have 5 or more empathic messages and over 1/3 of these communities have 10 or more empathic messages. In other words, half or more of the messages sampled from these communities are empathic. In contrast, most of the other communities (i.e. 38/41) have less than 5 empathic messages. Therefore, empathy appears to be more prevalent in patient and emotional support communities than in other communities.



**Figure 1. Chart of Communication Types for All Communities**

anonymous, immediate and messages can be saved for future reference (Sparks, 1992). In the study of the ACL Community (Preece, 1998a, 1998b), sharing personal stories with others was a source of emotional support, particularly if the person 'had already been there'.



**Figure 2. Scatter Plot Showing Empathic Messages (y axis) vs. Name of the Communities in Alphabetical Order (x axis).** (Red dots represent patient and emotional support communities, Blue dots represent other communities. Patient signifies Patient support community and Emotional signifies Emotional support community.)

When patient and emotional support communities are compared with all the other communities to see if there is a difference in general communication style, a significant result was obtained (Chi-square: 398.55, DF 4,  $p = 0.001$ ). It can be concluded that a relationship exists between communication style in an online community and the topic of interest.

## Discussion

The results of these analyses indicate that empathy occurs in most online communities and has a significant role in support communities.

Storm King (1994) reports that recovering alcoholics benefited from the empathy and support that they received from a bulletin board community. King suggests that the online community provides support and that it may be particularly important for people living in isolated localities (King, 1994). Online communities are accessible twenty four hours a day, and they are private,

The results of this study and the earlier studies mentioned clearly indicate that empathy is an essential component in online support communities, and that it also has a role in most other communities. It is, therefore, important that software designers create designs that support empathy as well as factual information exchange. As I have already suggested (Preece, 1998a, 1998b) designs are needed that balance empathy and factual information exchange. Future work is needed to develop and test the efficacy of alternative designs for supporting empathic communities.

Observations of the ACL community also suggest that the balance between factual and empathic communication varies at different stages of the patients' recovery. The next stage of this work will be to empirically validate this model by tracking the messages of individuals in a sample of empathic communities.

## References

References available upon request from Jenny Preece (preece@umbc.edu). The Technical Report is available from either author (preece@umbc.edu; kghoza1@umbc.edu).