When to Break the Ice: Self-disclosure Strategies for Newcomers in Online Communities

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Abstract
Online communities have become a prevailing cyberspace for people to communicate, collaborate, share information and experiences. Their high reliance on user-generated content makes their success tied to the continuous flow of newcomers and their subsequent effort. Our previous study suggested that newcomers’ introductions positively affect their subsequent effort. In the current work, we identified two different introduction strategies in terms of the presence of initial participation before introduction to the community. Our analysis of these two strategies shows that providing introduction after some initial participation in the community has significant positive associations with newcomers’ commitment to the community.

Author Keywords
Online Communities, Newcomers, Self-disclosure, Commitment

ACM Classification Keywords
H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous.

Introduction
Online communities based on user-generated content such as online discussion forums have become prevalent in the information society. As they mature, these online
communities and their members face various challenges [4]. Their high reliance on members’ participation places particular importance on ensuring a continuous flow of newcomers to replace the inevitable turnover of exiting members. However, entering a new community introduces many challenges for newcomers. Newcomers are particularly sensitive to early-on experiences in the community since they have not yet developed any commitment to the community [1, 3]. Particularly, the initial contribution of newcomers and the responses newcomers receive from the communities influence the extent to which they continue to participate[3]. However, less is known of what kind of initial participation will help newcomers in terms of developing feelings of commitment to the community. Our previous work suggested that self-disclosure, defined as revealing personal information to others [2, 5], has a significant positive relationship with newcomers’ subsequent effort in online communities. In this work, we identified two different self-disclosure strategies of newcomers in online communities: 1) disclosing personal information to the community as their first post; or 2) disclosing themselves to other members after exerting some effort in the community. We focus on answering the question of how different self-disclosure strategies as the initial participation of newcomers is related to newcomers’ subsequent participation. This can be particularly important in forming newcomers’ initial experiences to facilitate their subsequent effort and help them develop a commitment to a group.

Data
We studied self-disclosure strategies in the context of the E-Democracy online community. E-Democracy is an online public space for neighborhoods to support participation in public life, strengthen communities and build democracy1. Active since 1994, E-democracy hosts more than 50 local online forums across three countries including the United States. Many of the discussion forums dedicate a thread to introduction and encourage members to introduce themselves to the group upon joining the group. We considered the posts in these introduction threads as incidents of newcomers’ self-disclosure since they often include personal information such as family information, occupation, address, or wishes for the neighborhood.

Our dataset includes data from 22 E-democracy discussion forums dedicated to 22 neighborhoods in the cities of Minneapolis and St. Paul in the United States. The dataset contains data from August 6, 2007 to September 3, 2013. In total, the data includes 46,396 posts from 3,716 distinct members. After removing the extremely active founder of E-democracy, we identified 583 distinct members across 21 neighborhoods who posted an introduction.

Two Self-disclosure Strategies
Among the 583 members who provide an introduction to the community, we identified two different self-disclosure strategies of newcomers. 83.7% posted in the introduction threads as their first effort in the forum, while 16.3% members provided self-introduction after some prior participation in other discussion threads.

The 95 newcomers who participated in the forums before introducing themselves to other members contributed 4.24 posts on average in other discussion threads prior to their introduction posts (SD=7.439; Median=2.00). Figure 1 shows the distribution of the number of posts those newcomers contributed before they introduced themselves.

1http://forums.e-democracy.org/
The intervals between those members’ first posts in the forum and their introduction posts varies from one day to 1772 days (Mean = 171.59; SD = 296.818; Median = 51.00), as shown in Figure 2.

Impact of Self-disclosure Strategies on Newcomers’ subsequent participation

To answer our research question about how different self-disclosure strategies relate to the subsequent participation of newcomers in an online community, we considered the participation of the members in terms of amount of effort and commitment to the group.

Self-disclosure strategies and newcomers’ effort

To examine the relationship between self-disclosure strategies and newcomers’ effort, we conducted a regression analysis with a Negative Binomial Model. We measured members’ effort by counting the number of times they posted in any discussion forums after they posted in the introduction threads. Our independent variable is a binary variable representing two self-disclosure strategies adopted by newcomers: introducing themselves as their first post in the forum or introducing themselves after some prior participation. Since each discussion forum is associated with a particular neighborhood, we controlled for the neighborhood characteristics that can affect the general participation behavior in the forum, including the size of the population of the neighborhood and the average income level of the neighborhood. Additionally, we controlled for the number of days from members’ introduction posts to the last day of our data collection as well as the size of each forum. The significant factors of the analysis are presented in Table 1. The results suggest that there is a significant effect of different self-disclosure strategies on the number of subsequent posts of newcomers. Controlling for all other variables, members who introduce themselves after exerting some prior effort in the community post 80.9% more in other threads later, compared to those who introduce themselves as their first effort in the community. There are also significant effects of group size and number of days after introduction, both represented in the model after log transformation. The income level and population of the neighborhood do not have significant effects on the number of posts.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Coef.</th>
<th>SE</th>
<th>Wald</th>
<th>$\chi^2$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation before Intro.</td>
<td>1.809</td>
<td>.172</td>
<td>11.930</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Group Size</td>
<td>3.146</td>
<td>.474</td>
<td>5.846</td>
<td>.016</td>
<td></td>
</tr>
<tr>
<td>Days after Intro.</td>
<td>2.591</td>
<td>.336</td>
<td>9.184</td>
<td>.002</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Relationship between different self-disclosure strategies and subsequent contributions on E-Democracy
who introduce themselves as the first effort in the community (B=1.049, SE=.149, Wald $\chi^2=49.521$, Sig.<.001).

Figure 3: Survival pattern of members with different self-disclosure strategies

Discussion and Future Work
In this work, we identified two different self-disclosure strategies of newcomers in terms of the presence of initial participation before disclosing themselves to the communities. We explored the impact of different self-disclosure strategies on newcomers’ effort and commitment in an online community. Our results suggest that newcomers who disclose themselves to the community after some prior participation in the community are more likely to exert more effort in the community subsequently and are also more likely to develop higher commitment to the community.

The findings indicate that having the opportunity to participate in the community before sharing personal information to other members can lead to positive affection on members’ subsequent effort and commitment to the group. It is possible that the prior participation in the community helps newcomers to better learn the social norms and rules and thus moderate their introductions towards better subsequent engagement with the community. The prior participation before self-disclosure may provide extra opportunities for newcomers to receive early responses from other members which makes them more committed to the online community[3]. Further research is necessary to uncover the reasons behind the phenomena from both quantitative and qualitative perspectives. Our future work will focus on understanding the motivation of newcomers adopting different self-disclosure strategies, and how the strategies impact the content of newcomers’ self-disclosure.

References