Encouraging Personal Storytelling by Example

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ABSTRACT
Online communities often face challenges of encouraging people to provide more, better, or particular kinds of content. In this paper we add to a growing body of work on interface techniques and domains for influencing people's behavior by encouraging people to contribute personal, rather than informational, content to an online community through presenting example content in a tutorial video. A study of 175 people who viewed a video that contained either more personal or more factual content attached to places on a map showed that people who saw personal content contributed more personally-oriented content and saw MyMaps as more useful for personal tasks than those who saw descriptive content.

General Terms
Design, Experimentation, Human Factors

Keywords
Social influence, conformity, persuasion

1. INTRODUCTION
Man is a social animal, with individuals and society mutually shaping each other. Man also observes his physical surroundings, learning from them what is expected, appropriate, and possible. This learning and shaping takes place online as well as off, and recent evidence suggests that what people see in an interface can influence how they participate in online communities (Balaam et al., 2011; Sukumaran et al., 2011).

Our interest in influence arose from a study of how people might create and use online maps such as Google MyMaps to support reminiscing (Peesapati et al., 2010). Participants in that study suggested a number of possible uses for creating maps: showing their friends what places they visited on their trip to Spain, the route they are going to run this evening, or the places they want to see before they die. These personal uses stand in contrast to more common informational uses of maps such as location and navigation; local search, reviews, and recommendations; and logging personal traces of location for, e.g., fitness tracking.

The primary question we address is whether we could influence people to contribute either more personal or more descriptive information by manipulating the content they see in the interface of a hypothetical online mapping community. This is an important practical goal, as some communities might want primarily factual information about the physical nature and contents of a place, while others might want personal stories, experiences or reviews.

More specifically, we wondered whether showing people others' content would lead them to make inferences about the potential uses and kinds of information that were appropriate for the community. This is similar to how Sukumaran et al. (2011) chose to highlight higher-quality comments to set norms and prime desired behavior, though our goal is to elicit content that contains personal information.

2. EXPERIMENTAL SETUP
To answer this question, we conducted a study asking people to watch one of two versions of a short video for a hypothetical new online community. In the video, two characters chat about what they are doing. One says she's making a *Google My Map* and shows the other a tutorial on how to use the site. Both versions of the video walk users through creating the same five places, but we manipulate the title and description of the placemarks that were created in the video. One version contained more personal experiences and stories about the places, while the other contained more factual, descriptive information.

To measure whether the video influenced people's view of appropriate uses and behaviors for online maps, we asked them to complete a seven-item questionnaire after watching the video. The first two questions looked at whether the video content affected people's perceptions of the site by asking them to mark and describe a place they would put on a map for this site. The remainder of the questions asked people whether they thought they had been influenced by the video and open-ended questions about their reactions to the study and their use of online maps.

We recruited 175 participants (88 who saw the *Personal* version, 87 who saw the *Descriptive* version) from two pools of experimental subjects at a large Northeastern university. The experiment was conducted entirely online. It began with a standard consent form; after consenting, participants were instructed to watch the video before starting the survey. Each survey question was on a different page, and the map that was shown in the video was also placed to the left of the questions to make it easy for participants to review the placemarks.

3. Results
Marking and describing places. The first question was primarily behavioral, asking participants to give the title and description of a place they would like to mark on the map, as well as the reason they chose that place. We expected the *Personal* group to use more personal language and the *Descriptive* group to focus on the physical nature of a place. Two coders independently coded the titles and descriptions as personal or descriptive (Krippendorff's alpha=0.65). About 97% (85 of 87) of the places marked by

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Descriptive participants were coded as descriptive, while 70% (62 of 88) of places marked by *Personal* participants were coded as descriptive, a significant difference ($\chi^2(1, N=175)=24.2$, $p=0.00$), suggesting that although overall people tended to mark places in descriptive ways, viewing personal content caused them to be more likely to create their own content in more personal ways.

Table 1 shows that showing the video also affected the types of places people marked in each condition. In particular, *Descriptive* participants were more likely to mark libraries, while *Personal* participants tended to mark home and an assortment of other places with personal associations such as the clock tower on campus; a public green where many events take place; and other places where they had first experiences at the university. For this analysis, we only coded locations that were on this campus (151 of the 175 participants), because we didn't know about many of the off-campus locations.

Table 1. Types of places marked by Personal and Descriptive participants, sorted by difference between the groups.

Type of Place	Personal	Descriptive
Home/dorms	19	9
Other	9	2
Classes	10	7
Recreational Activity	18	18
Food	6	8
Quad	5	8
Office/Work	3	6
Library	5	18

Uses of MyMaps. Our second question asked about people's perceptions of the purpose of MyMaps as a way to explore whether the video changed their attitudes about personal uses. We created six reasons for which a person might make a map for someone else and asked participants to rate how likely they would be to make such a map on a 4-point scale that included "Never", "Least Likely", "Likely", and "Most Likely". The six reasons were constructed to be either more personal or more descriptive.

Figure 1 shows the number of people who rated a particular use "likely" or "most likely", separated by condition. People in the *Personal* condition are more apt to rate personal purposes as likely uses, averaging 1.31, than those in the *Descriptive* condition, who on average marked .95 personal uses as likely

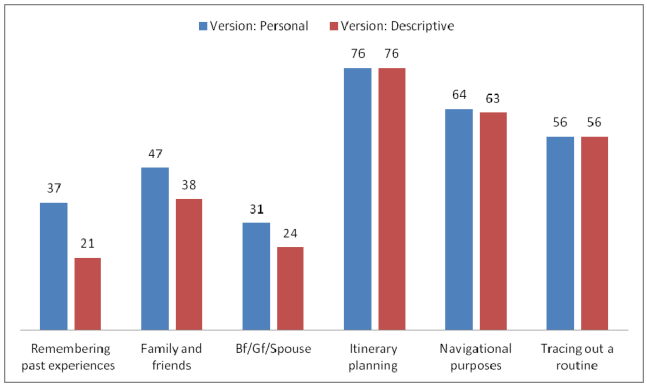

Figure 1. Likely uses of MyMaps for either personal (left three) or descriptive (right three) goals. *Personal* participants were more open to personal uses overall, although all participants see MyMaps as primarily descriptive.

(t(173)=2.26, p=0.025). Interestingly, the effect is asymmetrical: the *Personal* group reports being just as likely to use maps for descriptive reasons as the *Descriptive* group, but is more likely to choose *Personal* reasons than the descriptive group. We believe this happened because people perceive maps as a tool which they would use for itinerary planning or for navigation, and that the video content suggested new possibilities.

Perceived influences. Finally, we asked participants if they thought the video was in any way responsible for triggering thoughts on the place they mentioned in the first question. About 58% participants agreed, 29% disagreed, and 13% were unsure about it. Some people explicitly described following what they had seen in the videos, following the form and format of what they had seen: *"The video definitely influenced how I wrote my description. I noticed that the first thing in the description was something about its location, and then something about its function. That is the format that I followed."*

Unintended influences. Our manipulation also inadvertently affected participants' choices of places to mark. About 86% (151 of 175) places people marked were on the campus of the university featured in the video. This is much larger than the 20% of participants in Peesapati et al. (2010), which used a pre-existing Google Maps tutorial that used places in the Bay Area but recruited participants from the same campus as this study. This implies that showing places on campus helped shape the places they would like to mark on the map. Prior work in recommender systems has also found unintended influences of showing predictions on people's movie ratings (Cosley et al., 2003). These unintended effects may be ubiquitous, and both designers seeking to create effects and researchers looking to control them need to consider how aspects of the interface that are not the focus of study may influence people's behavior.

4. CONCLUSION

Our results show that viewing others' content did affect the kinds of places people marked and their perceptions of MyMaps as a tool for creating personal content. The results also add to a growing body of literature showing that conscious design decisions can have desirable effects on participation in online communities, and that system designers should plan for and use these strategies to improve their systems and their communities.

5. ACKNOWLEDGMENTS

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