Communities of Practice, Gender and Social Tagging

Abstract
Social or collaborative tagging enables users to organize and label resources on the web. Libraries and other information environments hope that tagging can complement professional subject access with user-created terms. But who are the taggers, and does their language represent that of the user population? Some language theorists believe that inherent variables, such as gender or race, can be responsible for language use, whereas other researchers endorse more multiply-influenced practice-based approaches, where interactions with others affect language use more than a single variable. To explore whether linguistic variation in tagging is influenced more by gender or context, in this exploratory study, I will analyze the content and quantity of tags used on LibraryThing. This study seeks to dismantle stereotypical views of women’s language use and to suggest a community of practice-based approach to analyzing social tags.

Introduction: Tagging Language and Gender
Social or collaborative tagging enables users to organize and label resources on the web. Users attach textual labels, or tags, to online resources such as photos, articles, videos or websites. Users tag to create personal organization systems, record and share content of online resources, or make recommendations. Information organization researchers have questioned the ability of professionally-assigned subject access terms to reflect the language of users and have proposed that social tagging could bridge that gap to enhance retrieval (Lu, Park and Hu 2010, Adkins, Bossaller and Thompson 2009; Rolla 2009). Furthermore, the dominant controlled vocabularies and classification systems have been criticized as being inherently biased. Libraries and other information environments hope that tagging can complement professional subject access with user-created terms. But who are the users who tag, and are they representative of the user population? Virtually no research has investigated the identities of taggers and the differences in how they tag, mainly because websites do not always require users to provide or make public personal information such as gender, ethnicity, or even real names, thereby making it difficult for researchers to determine demographic information. But does demographic information actually influence how linguistic variation in tags? In terms of gender, research has been split on this topic, both asserting and refuting the existence of a ―woman’s language.‖ Since social tagging is purported to be the voice of the user community, this exploratory study will investigate whether the linguistic characteristics of social taggers divide along gender lines on the website LibraryThing, an online, ―full-powered cataloging application,” comparable to a library catalog (“About LibraryThing” 2011). An alternative framework for analysis will be proposed, using the community of practice approach, first articulated by Lave and Wenger (1991) and Wenger (1998) and further developed in the context of language and gender by Eckert and McConnell-Ginet (1992, 1999).

A number of assumptions have been made about the differences between how men and women use language, much stemming from Robin Lakoff’s (1973, 49-51, 1975) work raising awareness of gender differences in language. For example, she believes women use more tag questions, hedges, polite grammar, and intonations that betray insecurity and subordination. She believes that language reflects a power differential, with women working from a self-perpetuating deficit that is unrewarded by society. Though Lakoff’s work was not informed by rigorous research and has since been disputed, her work continues to be uncritically cited. Sunderland (2006, 95-96, emphasis in original) writes that the use of her findings now entails a theoretically dated essentialist representation of gender; women talk like this, men like that” without any regard of questions of power,
individual nuancing, social and linguistic development and change.‖ Nonetheless, many of her conclusions have been accepted by the popular mainstream as well as some linguistic scholars, and have formed a core of stereotypes about women and language use.

Communities of Practice

More recently, sociolinguists have begun to see gender as one ingredient that affects language use rather than as a constitutive force. Eckert & McConnell-Ginet (1992) criticize generalizations drawn from statistical differences that interpret gender as the reason behind linguistic variation, and instead propose that ―communities of practice‖ influence how people speak. Communities of practice were first introduced in the context of apprenticeship education by Lave and Wenger (1991), and Eckert and McConnell-Ginet (1992, 464) expand its boundaries to include social groups with linguistic and behavioral similarities, or ―An aggregate of people who come together around mutual engagement in an endeavor. Ways of doing things, ways of talking, beliefs, values, power relations—in short practices emerge in the course of this mutual endeavor.‖ Membership is determined by goal and context, rather than inclusive of a demographic group that has no ―mutual endeavor.‖ Communities of practice are both self-reinforcing and transformative in that participants affect the larger community just as the community affects the participants’ practices (Wenger 1998, 59). A person can interact with multiple communities of practice in a single day. Membership may be institutionally reinforced or self-constituting, and gatekeeping can be policed by formal or informal rules of legitimacy. Wenger (1998, 130-131) also includes other characteristics that includes ―a shared discourse that reflects a certain perspective on the world,‖ ―shared ways of engaging in doing things together,‖ and ―jargon and shortcuts to communication,‖ among others.

Dubé, Bourhis and Jacob (2006) extended the concept of a community of practice to the virtual environment, creating a typology of organizational online communities, which includes the broad categories of demographics (meaning of the site, not of its users), context (the environment in which it was created/exists), membership characteristics, and reliance on technology. The original typology was then expanded by Hara, Shachaf and Stoerger (2009) to more specifically define the parameters of each as well as to include open-access communities, or communities that are not institutionally constituted.

LibraryThing as Community of Practice

Is LibraryThing a community of practice? Wenger’s (1998, 73) original three requirements—mutual engagement, a joint goal, and a shared resource pool—all are present in LibraryThing, although to what degree could be disputed. Mutual engagement means that members of a community of practice have regular interaction. Through the most direct social aspects of LibraryThing, users can access other users’ libraries, track other users, be tracked, rate books, make recommendations, and join discussion groups. However, though users can participate without directly interacting, those who tag, even if they are doing it for themselves, end up passively interacting every time they view a tag cloud, read a review, or post a book to their library. While there may not be one overarching institutional goal for the entire population of LibraryThing, all users whether fully or peripherally participating, to some degree are invested in the activities offered by the site, whether it means uploading a particular part of their collection, or sharing with others; otherwise, they would not access it.

The community members must share a resource pool, which can lead to questions of power. Davies (2005) discusses concerns of power within communities of practice, arguing that despite a shared enterprise, peripheral or marginal members may be denied legitimacy by more powerful group members, although Lave and Wenger (1991, 36) deny the
existence of a “single core or center” of power. Power differentials can exist in several capacities on LibraryThing. Users join free and have access to hundreds of thousands of book profiles from Amazon and the Library of Congress. Some users pay a one-time twenty-five dollar fee to upload an unlimited amount of books, whereas the first 200 books are free for everyone, providing some users more opportunity to influence the practices of the group. Additionally, people can be granted titles such as “top tagger” or “author member,” which might be additional prestige markers that add to the tagger’s authority. However, the tags are aggregated without identification unless the tags are searched via the personal libraries of those who have tagged it. Since LibraryThing is not a face-to-face community, the concept of “participation” would have to be defined because tagging does not have the ephemeral quality of speech. A user could tag once and never return to the site, but still be considered a member because the words remain. On the other hand, few methods of gatekeeping exist that could reduce legitimacy (for example, reviews can be flagged, but tags cannot and are not censored).

Methodology
Although spoken conversation and social tagging are not direct analogs, since interruption, turn-taking, grammar and the oral qualities of language are not present in tagging, some interpretation of speech behaviors in language and gender research can be applied to social tagging. A number of hypotheses could be formulated about the way women and men should tag, based on “folklinguistic” tales about gender and language are true, meaning the ideas spread by popular culture and media about how men and women speak (i.e. men talk sports, women nag.) (Speer 2005, 30). Applying a selection of these folklinguistic beliefs to tagging behavior, it could be conjectured that women may use more affective tags reflecting women’s ostensibly emotional nature, their need for “intimacy” (Tannen 1990, 26) or use “empty adjectives” marked as feminine, such as “divine” or those that do not convey strong emotion (Lakoff 1975, 51). Women may use more relational/prestige tags to demonstrate their connections to others or a lack of confidence in their opinions. Women might use more specific language (Lakoff 1973, 49) or perhaps more tags to show that women are more talkative than men (Speer 2005, 30). Women may use a totally different way of tagging that reflects a “genderlect” (Tannen 1990, 42). Women may practice more correct spelling or capitalization in the public forum of tagging, as equivalent of using more formal grammar or pronunciation to make up for powerlessness (Coates 2004, 52).

Gender
The term “gender” has a disputed meaning in feminist theory, ranging from essentialist biological sets to constrained performance to linguistic activity to psychosocial traits. For the purposes of this study, gender is defined as a performance of a particular gendered identity, not necessarily related to biological sex. The study relied on the self-disclosed gendered traits to differentiate men from women. The data collection depended on an electronic representation of feminine or masculine identities on user profile pages, without the ability to discern the users’ biological status. As in any computer-mediated environment, the assumption is that users are who they say they are, to the extent that one reveals online. Therefore, the terms “men” and “women” will be used to indicate gender rather than sex.

Data Collection
The tag sample consisted of 414 tags corresponding to eight popular fiction books. They were created by sixteen taggers, split evenly between men and women, who tagged all or
most of the selected books. The books were selected for their popularity to ensure they had been tagged by a number of people of both genders. To identify the gender of the taggers, the user profile pages were consulted. As discussed above, all members have a public profile where information about the user and their personal library can be found. Some users fill out the profile in great detail, describing reading habits, life philosophy, and personal interests. Often users upload photos or other graphics they believe represent them. The profile does not have a field for indicating gender; however, the username, photos, or contextual clues, such as the "real name" field, can indicate one gender or the other. Taggers were not included if any question remained about what gender they were trying to portray.

The selected books were Dan Brown’s The Da Vinci Code, Stephen King’s Christine, F. Scott Fitzgerald’s The Great Gatsby, Seth Grahme-Smith’s Pride and Prejudice and Zombies: The Regency Romance, Now with Ultraviolent Zombie Mayhem!, J.K. Rowling’s Harry Potter and the Sorcerer’s Stone, Alice Sebold’s The Lovely Bones, Gail Carson Levine’s Ella Enchanted, and Audrey Niffenegger’s The Time Traveler’s Wife. The first four could be considered "unmarked," or appealing to either gender, and the second four could be considered "marked" or appealing to the subset of women, even though they were read and tagged by men (Eckert & McConnell-Ginet 2003, 21). Users upload the profiles of the books and can choose assigned subject headings or create their own tags. Therefore, only fiction was used because typically libraries do not assign subject headings to fiction. LC assigns headings for some popular books, but their subject headings are easily identifiable because of their complexity and structure.

**Limitations**

Several limitations exist. The sample sizes of books and participants are too small to generalize behavior. Similarly, the users made their identities known either by uploading photos or by self-disclosing. Those who are anonymous may tag differently. Also, based on the information publicly available, it is difficult to discern any other identifying social markers. Therefore, the community of practice is the only common denominator for the selected taggers other than gender. Finally, it is unclear whether social tagging is comparable to the type of linguistic activity in communities of practice as discussed by language and gender scholars.

**Findings**

**Quantity of tags**

As shown in Table 1, the total number of tags for the eight books was similar: 214 for women and 199 for men. Individual taggers tended to tag at consistent levels; that is, people who supplied only one or two tags for a book tended to do so for all the books. In this set, the men (N=8, M=4.9 SD=3.8) and women (N=8, M=4.7 SD=3) both tended to the extreme ends with women only slightly cleaving closer to the mean. Median is 4 for men and 4.7 for women. *Harry Potter* had a higher average amount of tags, since taggers tended to list the many fantasy aspects, such as wizards, spells, and magic wands and because it covered several genres (fiction, young adult, fantasy, adventure, etc.). *Pride and Prejudice and Zombies* averaged fewer tags, probably because the title neatly sums up the book’s subject. *Ella Enchanted* earned an unusually high average of tags from the men (7.3), but the results were skewed because the three men who tagged the book were characteristically enthusiastic taggers, which brought the average up. Ultimately, no difference was evident regarding how many tags men and women assign to the books, and the different levels of tagging were determined by the individual rather than by gender.
Much research has focused on what semantic types of tags are most commonly used. Lawson (2009, 577) divided tags into objective or content-oriented tags, and subjective or user-oriented tags. Kipp (2009) identified three of the most commonly found tags on three major bookmarking sites. Subject tags supply information about the contents of the websites or articles (“dogs”). Affective or emotional tags record how the resource makes the tagger feel, and can also serve an evaluative function (“funny”). She also identified time, task or project-related tags, which tend to be for personal record-keeping (“toread”). Other commonly used tag types found on LibraryThing related to book discourse include “genre,” which describes the subcategory of fiction of each book (“suspense”); “descriptive” discusses details about the item unrelated to content (“made into movie”); “relational/prestige” tags relate the item to what other people thought of the item (“recommended”); and finally, some tags were so personal that no meaning could be discerned from them (“4cot”). These were noted as “undetermined” in Table 1.

Table 1 shows percentages of tag types used by men and women. Both genders followed a similar Zipfian curve. The women tagged subjects about 10 percent higher than the men; whereas, men tagged more descriptive terms, by 12 percent. In other words, the women tended to tag what the work was “about” and the men tagged “about the work.” The spikes in relational tagging for the men and affective for women were caused by the small sample size. Otherwise, the rest of the categories differed by one percentage point or less.

Table 1: Tag Statistics

<table>
<thead>
<tr>
<th>Tag Type</th>
<th>Percentage/Raw Women (8)</th>
<th>Percentage/Raw Men (8)</th>
<th>Broad/Narrow Women (8)</th>
<th>Broad/Narrow Men (8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total tags</td>
<td>215</td>
<td>198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average # tags</td>
<td>4.7 (SD=3)</td>
<td>4.9 (SD=3.78)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tag type</td>
<td>Percentage/Raw Broad/Narrow Women (8)</td>
<td>Percentage/Raw Broad/Narrow Men (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genre</td>
<td>38/82</td>
<td>30/60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>31/66</td>
<td>21/41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptive</td>
<td>10/21</td>
<td>22/43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>6/14</td>
<td>7/16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>7/16</td>
<td>6/13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>5/10</td>
<td>5/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational/Prestige</td>
<td>1/2</td>
<td>6/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective</td>
<td>1.5/3</td>
<td>.5/1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undetermined</td>
<td>.5/1</td>
<td>.5/1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For levels of language specificity, only the genre and subject tags were examined, as the others do not have a comparable hierarchy. Genre was divided into two levels. Such terms as “Fiction,” “Literature,” or “Young adult” that gave no indication of “aboutness” were considered the broadest levels, with such tags as “horror” or “fairytale,” making up the narrower level. The men tagged genre 60 times, with broad and narrow nearly split in half at 52 percent broad and 48 percent narrow. The women tagged genre 82 times. Of those, 36 percent were at the more specific level. Subjects were also divided into two hierarchical levels. The broader level included disciplines, aspects, or themes such as “Religion” or “Coming of Age.” The narrower level was made up of concrete terms such as “Potions,” “Cars” or “Zombies.” Of the men’s 41 subject tags, 36 percent was broad, whereas the women were split at exactly 50 percent broad to narrow. In this sample, men tended to tag genre equally broad and narrow, whereas women tended to be slightly more broad, which refutes Lakoff’s (1973) notion that women use more specific language. Combining subject and genre, men tagged more specifically 55 percent of the time, and women tagged more...
specifically 47 percent of the time. Subject was evenly split by women, with men tending to be more specific. Only one misspelling was present (―autust‖ for ―August‖ by a man), which was not enough to support Coates’s (2004) assertion that women use more correct language. Overall, with the exception of the rates of tagging subject and descriptive tags and spikes caused by the small sample size, no dramatic differences were evident between men and women.

**Discussion**

In this limited sample, no discernible pattern of difference was evident between how men and women tagged. Users of both genders tagged prodigiously, minimally, broadly, and narrowly, calling into question the folklinguistic assumptions about how we use language. So does LibraryThing, as a community of practice, influence the way tags are composed? The community consists mostly of people who read, collect, and generally enjoy books, and a particular discourse associated with books seems to seep into the way users tag. Women and men both overwhelmingly created tag content that typically appears on a catalog record or commercial bookselling website: format, genre, year, general subject topics. Only 14 percent of tags for both genders were strictly personal. There is no way to tell if users examine other tags to shape their own practice, and in fact, the community of practice could be as much or more be about book discourse as about tagging practice. For example, the small percentage of affective tagging from this sample could be explained by an inability to evaluate the items, either because the items were still unread, because evaluation is not part of cataloging discourse, or because the site is public. Furthermore, LibraryThing offers a rating review and system, which provides users with a forum for opinions outside. Evaluative tags do exist. *The Da Vinci Code* alone garnered 46 instances of the tag ―crap," just not by this group of taggers. The ―empty adjectives" Lakoff describes were not evident for either gender.

**Conclusion and Further Research**

Based on the results of this exploratory study, gender has not shown to be an influential factor on how users tag. Tagging behavior in LibraryThing could be described using the community of practice framework; however, further exploration and a larger sample size are needed to identify to what extent the community has on linguistic variation in the online environment. The limitations of this study expose myriad opportunities to examine language use in social tags. A larger sample size could confirm conclusions from this study or some of the subcommunities within LibraryThing could be studied for language or membership requirements, such as the science fiction community. A broader discourse analysis could be conducted on reviews, collections, blogs, profiles and other texts on LibraryThing to discover more traits of the community of practice. Another intriguing avenue for further research involves investigating the community of practice in comparison to an epistemic domain to investigate the overlap between linguistic expression and meaning.

**References**


Eckert, Penelope and McConnell-Ginet, Sally. 2003. Language and Gender. New York: Cambridge UP.


