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# Cross-Cultural Analysis of Status Messages within IBM

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**Abstract**

In this paper we describe our initial research on cross-cultural uptake of Beehive, an IBM-internal social networking site. We focus on microblogging through status messages as a first pass at observing distinct patterns of usage in three geographies – China, India and the United States. We conclude by outlining our future research directions on this topic.

**Keywords**

Cross-cultural communication, social networking

**ACM Classification Keywords**

H5.3. Group and Organizational Interfaces: Computer-supported cooperative work

**General Terms**

Human Factors

**Introduction**

The workplace has been transformed into a global endeavor, with communication technologies helping to create opportunities and challenges for intercultural collaboration. These interactions can occur in a structured, formal context in which team members from different cultures collaborate on complex projects such as software development [7]. In such task-

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oriented small groups, variations in communication styles between collaborators of different cultures can have an impact on task performance and perceptions of other collaborators [3].

However, enterprise social software has begun to facilitate informal communication on a larger scale. Blog communities have been developed within workplace for employees to broadcast their thoughts and expertise within the enterprise [9]. More recently, microblogging has also emerged as an additional lightweight form of social interaction within the enterprise, where users can comment on others' ideas or bring attention to resources that they find valuable [2]. Some organizations have implemented internal-only microblogging (e.g. Yammer) is a while other enterprises have integrated more public systems, such as Twitter, into their work practices [10].

As social software become more globally available, the situated nature of these systems suggests that there will be cross-cultural differences in the appropriation of these technologies. For instance, Ahn et. al. [1] observe structural differences in the friendship networks of Cyworld, Orkut and MySpace, each popular in Korea, Brazil/India, and the US respectively. However, because each of these sites differ in design features (e.g. language, friending mechanisms), it is difficult to make any conclusive judgments regarding the social factors influencing usage differences.

In this position paper, we describe our initial analysis of cross-cultural adoption and appropriation within of microblogging within Beehive, an English-language social networking site that has been deployed within IBM [4]. We currently focus on three main

geographical regions: China, India and the United States. As we begin this line of research, we are guided by the following high-level questions. First, what different usage patterns might emerge between these three regions? Second, what local norms surrounding social software might exist among distinct geographies? Third, what might the implications be for designing social software for global enterprises?

### **Beehive: A Brief Description**

Beehive was deployed internally at IBM in 2007. Since launching, 60,000 employees joined the site (~15% of the company) and between 6000 and 13,000 employees are currently visiting the site each month. Over 400,000 network connections have been made between employees and 150,000 comments have been left on thousands of profiles, photos and lists.

Beehive has many features common on popular SNSs such as articulated social networks, profile pages, photo sharing, commenting on profiles and content, and status messages. The status messages can be set by a user from their profile and appear under the user's name on every page showing the user's content. Additionally, the user's social network is notified of the status message update both by email and on the homepage of the site. Outside of the site, status messages can be updated through a couple different client tools that combine status message updates with IBM's instant messenger client.

The user base of Beehive is distributed across the corporation, with 40% of the users in the US, 21% in Western Europe, 14% in India, 2% in China, and the remaining 23% spread across the Americas (excluding the US), Eastern Europe, and Oceania [8].

Region	Status messages
China	I am from IBM China. I am under Supply China Leadership Program. This is my 2nd rotation. I am staying in [technical center], ShenZhen, China. I am working in planning team for X server.
India	If fate means you to lose then give it a good fight anyhow.
U.S.	Working on a some patents to make the world a better place :-)

Table 1. Example status messages

### Initial Methods and Results

We obtained 184,439 status messages generated by users from China, India, and the United States from a database dump of Beehive activity from July 2007 to October 2009. We chose to focus on these three regions for the following reasons. First, users from the US comprise the largest portion of the user base. Second, we observed that Beehive membership in India was growing a fast rate with notable differences in connection behaviors [5]. Third, we were interested in trying to obtain a better understanding of what appeared to be a slower rate of adoption in China.

As we described earlier, status messages on Beehive could also be automatically generated from IBM's instant messaging client. These messages took the basic form of signaling location availability. After removing these messages from the corpus, 49770 status messages remained. Figure 1 describes the total number of status messages across the three geographic regions.

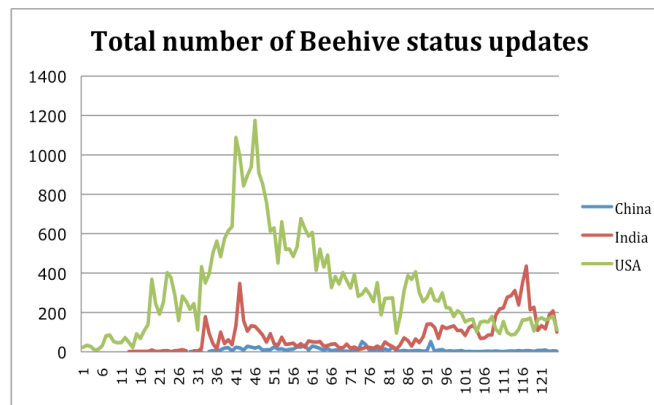


Figure 1. Frequency of Beehive status messages by week, from summer 2007 to fall 2009 (in x-axis).

While more work needs to be completed in order to fully understand the different patterns of activity, it appears that users in India have been increasing their posting activity while users in the United States have become less active. An initial scan of the messages in India appear to be more informal in nature and personally expressive. Table 1 shows a few example status messages.

### Future Work

From this initial analysis, we have begun to form two working hypotheses. First, previous familiarity with the characteristics of other social networking/microblogging sites may be influencing how users behave on Beehive. For instance, because of the popularity of Orkut in India, the status messages from this region may be more likely to be expressive and informal. On the other hand, the status messages from the United States might tend to focus on the present and answering the Twitter-like question of "what are you doing?"

Second, we hypothesize that power distance – the perception of how power is distributed within an organization -- may affect how users craft status messages [6]. Users who may have a higher power distance may be more likely to perceive that the power structure is hierarchical in nature and distributed unequally. It may be the case that cultures with high power distance may use the status messages more for indicating general career interests and skills, rather than time-based updates of what one is doing or how one is feeling.

While this position paper specifically focuses on microblogging, our next steps include cross-cultural

analysis of other types of content on Beehive. Our prior analysis reveals that overall Beehive users felt comfortable in sharing personal information inside the corporate firewall [4]. However, it may be the case that local and cultural norms might influence less disclosure and sharing by users from certain geographies. Furthermore, while our initial quantitative data provides us with a high-level overview of activity, we intend to conduct more ethnographically-inspired forms of analysis to more fully understand the underlying influences and motivations for the differences in user activity.

Finally, we are interested in the possibility of intercultural communication that may be afforded by Beehive. While this current analysis focuses on separate analysis of the three geographies, we intend to look more closely at interactions across regions and analyze these informal expressions to see if they might have an impact on impression formation, particularly in intercultural teams.

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