

# A Bosom Buddy Afar Brings a Distant Land Near: Are Bloggers a Global Community?

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**Abstract.** Information communication technologies on the Internet such as Usenet, Internet relay chats and multi-user dungeons have been used to enable virtual communities. However, a new form of technology, the weblog, or “blog”, has quickly risen as a means for self-expression and sharing knowledge for people across geographic distance. Though studies have focused on blogs in Western countries, our study targets the global blogging community. Inspired by previous studies that show significant differences in technology practices across cultures, we conducted a survey to investigate the influence of regional culture on a blogging community. We asked the research question of whether bloggers are more influenced by their local cultures with respect to their sense of community, or rather whether a “universal” Internet culture is a stronger influence of community feeling. Our results, based on a multilingual worldwide blogging survey of 1232 participants from four continents show that while smaller differences could be found between Eastern and Western cultures, overall the global blogging community is indeed dominated by an Internet culture that shows no profound differences across cultures. However, one significant exception was found in Japanese bloggers and their concealment of identity.

## Introduction

Never before have [people] been able to maintain intimate and continuing contact with others across thousands of miles; never has intimacy been so independent of spatial propinquity...And never before has it seemed economically feasible for the nodally cohesive spatial form that

marks the contemporary large settlement to be replaced by drastically different forms, while the pattern of internal centering itself changes or, perhaps, dissolves.

*Order in Diversity: Community without Propinquity* (Webber, 1963)

Written over four decades ago, Melvin M. Webber prophesied a new sort of urban city not confined in locality, and whose community would thrive through advanced communication technologies. No doubt, Webber did not envision the Internet as this new technology; however, since its inception, the Internet has proved to be fertile ground for growing communities without propinquity, or what are commonly called *virtual communities*.

A virtual community is defined as a geographically disperse group connected through information technology ("Virtual," 2005). Our title is adapted from Bo Wang's famous poem *Seeing Du Shaofu off to His Post in Shu Zhou*, written in the Chinese Tang dynasty. This poem expresses how community can be experienced despite geographic separation, foreshadowing the advent of virtual communities.

A new kind of virtual community has recently emerged: blogs. Blogs, short for weblogs, are webpages whose content are periodic, reverse chronologically ordered posts. The meteoric rise in blogging has been due to several factors. Whereas previously blogs were relegated to the technically savvy, the proliferation of specialized hosting sites and user friendly online publishing tools dedicated to blogging has greatly increased the accessibility of blogging. Blogging has also entered the mainstream consciousness through popular media coverage. For example, bloggers played a major role in fundraising for the recent Howard Dean 2004 U.S. democratic primary campaign (Manjoo, 2003).

Blogs differ from most Internet communication technologies in two ways:

- (1) *Blogging is writer-centric*. The blog writer has full control over content; they may modify comments or restrict access. With the prevalence of free blogging services providing low learning curve tools such as WYSIWYG editing of blog entries in browsers, blog writing is very easy. Thus, as opposed to technologies such as chat rooms which enable reciprocal expression, the blog is primarily the writer's vehicle of expression to which readers respond.
- (2) *Blogs are link-heavy*. They contain both in and out-bound links. Depending on the genre, blogs can average up to 1.89 out-bound links per entry (Herring et al., 2004). *Blogrolls*, usually a side-list of links on the writer's homepage, serve as a sort of hit parade of blogs the writer recommends. Blogs directly facilitate in-bound linking to a writer's entries by providing a stable *permalink* to any specific entry. *Trackback* links allow writers and readers of a blog's entry to see what other bloggers are also discussing with respect to that same issue.

Thus, blogs support the formation and maintenance of a social network of both writers and readers. A blog is an open system for communication as new

information outside of the direct reader/writer contributions are easily accessed to integrate into the discussion. Herring et al. (2004) consider blogs a new Internet genre that fuses multimedia with conventional text-based communication tools.

While there has been a spate of research on blogs, most studies to date have only targeted the English speaking community, or more specifically, U.S. blogs. However, blogging exists globally. For example, the largest Japanese language blogging service, Hatena Diary, as of January 2004, has just more than two million bloggers registered (Nielsen, 2004). Though accurate estimates are lacking, Chinese blogs in 2004 number from 100,000 to over 400,000 (Mao, 2004; Zhao, 2003). In Taiwan, *Cheers* magazine quotes an estimate of 100,000 bloggers for 2004 (“Living,” 2004). Though we could not find a tally of European blogs, LiveJournal’s statistics indicate a total of about 340,000 bloggers in the United Kingdom, Netherlands and Finland (LiveJournal, 2004). From this sample of the world, we can see that blogging has truly become a global phenomenon. Though it has not reached the mainstream consciousness to the same extent as in the U.S. (e.g., a survey of 7765 Japanese Internet users revealed that a scant 6.4% have ever heard of the word blog (CatRep, 2004)), there is no doubt a sizable population of non-U.S. bloggers.

Though now a global phenomenon, blogging in non-American cultures has been relatively ignored by researchers. In a study investigating culture and virtual communities, Becker and Mark (1999) asked whether community characteristics of social binding and social coherence could develop across geographically disperse groups. This question arises again as we look at blogs. If we consider a blog as a community consisting of the writer(s), contributors and readers, then do blogs in different geographic regions have similar community characteristics? On the one hand, we might expect significant differences between blogging communities of different world cultures, and, on the other extreme, we might expect the Internet to have “erased” any such distinctions—instead, a blogging culture that is relatively homogeneous may exist globally. In this paper we ask the research question: Do nationality and geographic region affect how bloggers experience community, or rather do bloggers worldwide experience the same sense of community irrespective of the country or region where they live? Does an Internet culture exist for bloggers that influences a uniform sense of community? Rather than focus on whether blogs are international (different languages in blogs, especially in Asia, limit international participation), our interest is instead whether blog writers around the world have similar community characteristics. We conducted an international study of bloggers to investigate this question.

## Related Work

Due to their recent fame, attention has been given to research on blogs. Herring et al. (2004) describe a study of 203 blogs from blog.gs where most blog authors

were found to be young adult males located in the U.S. who create personal style journals updated almost daily. An average of 0.65 links and 0.3 comments were found per post. Bar-Ilan's more focused analysis of 15 "professional" topic-oriented blogs discovered that the majority of posts describe or quoted embedded links that led to a variety of targets such as other blogs, news items and content sites (Bar-Ilan, 2004). In-depth studies of blogs using ethnographic techniques by Schiano et al. (2004) have shown blogs to have a cornucopia of functions—from diaries of personal expression to travelogue progress reports. A further elaboration by Nardi et al. (2004a) provides an activity theory analysis framework for understanding blogging. Krishnamurthy's work follows the burst of blog activity after 9/11; he creates a taxonomy of blogs, splitting them into four quadrants with two axes: personal vs. topical and individual vs. community (Krishnamurthy, 2002).

To the best of our knowledge, no research has dealt specifically with cultural differences in blogs; however, a number of studies have analyzed the complex interplay between culture/gender and technologies. Teng et al. (1999) compared Eastern (Korea and Singapore) to Western (United Kingdom and United States) IT practices. One of their findings was that Eastern cultures had a more favorable perception of the intensity in decision communications in IT compared with Western cultures. Simon's research on web sites found significant differences across cultures and genders in certain web site perceptions (Simon, 2001). Furthermore, work by Chau et al. (2002) suggests that web site design for Asia should give attention to social communication whereas for the U.S. it should be rather information search. Fogg et al. (2001) show significant differences between Finns and Americans, and for gender, in perceiving web credibility. Researchers have also advocated the careful consideration of culture in computer technologies. Olson and Olson (2003) argue that as distributed collaboration becomes more multicultural, software engineers need to gain a deeper understanding of the cultural norms of their colleagues. Khaslavsky (1998) recommends incorporating cultural models into design practices of consumer products.

Much of the hypotheses conjectured in these papers are based on Hofstede's well-known work, *Culture and Organizations* (1991). Though written nearly a decade ago, it remains the de-facto standard for characterizing cultures. While not dealing specifically with technology per se, Hofstede's book details a large-scale quantitative study at IBM that revealed ten dimensions where cultures differ.

Some research has shown significant differences between subgroups of a virtual community. Roberts (1998) showed that people had a sense of belonging to newsgroups (Usenet), and that the dimensions of community differed along gender lines, with experiences best predicted for women by reading habits and for men by the presence of other females. Kretchmer and Carveth (2001) discuss whether "*cyberspace removes race from human interaction.*" Racial identity is also analyzed by Burkhalter (1998). Donath (1998) discussed that despite the

mask of anonymity in cyberspace, people find ways to assert their own identities (either directly or indirectly) to differentiate themselves from other members.

## The Global Blogging Community Methodology

Though culture has been defined in a multitude of ways (over 150 definitions of the word “culture” exist (Kroeber and Kluckhohn, 1952)), we use *nationality* as the primary criterion in determining cultural identity. Indeed, while shared contexts can form in cultures in a variety of ways, e.g. through a common language found in print, such as newspapers (Anderson, 1991), Hofstede (1991) makes a compelling argument in the use of nationality as a criterion for culture:

...the concept of common culture applies strictly speaking, more to societies than to nations. Nevertheless, many nations do form historically developed wholes even if they consist of clearly different groups and even if they contain less integrated minorities...there are strong forces towards further integration: (usually) one dominant language, common mass media, a national education system, a national army, a national political system, national representation in sports events with a strong symbolic and emotional appeal, a national market for certain skills, products and services.

Though not perfect, this division allows us to group people by common language, proximate geographic region, and/or other common traditions. Though the concept of community has many different aspects, in this paper we have chosen to focus on examining in blogs several dimensions of a community that according to Preece and Maloney-Krichmar (2003) are particularly relevant: activism, reputation, social connectedness and identity. We discuss these facets in the following sections.

### Activism

In the popular media, blogging is perhaps most recognized as an enabler for collective action (Klam, 2004):

Back in 2002, Marshall helped stoke the fires licking at Trent Lott’s feet, digging up old interviews that suggest his support for Strom Thurmond’s racial policies went way back; Marshall’s scoops found their way onto The Associated Press wire and the Op-Ed page of The New York Times...a platoon of right-wing bloggers launched a coordinated assault against CBS News and its memos claiming that President Bush got special treatment in the National Guard; within 24 hours, the bloggers’ obsessive study...migrated onto Drudge, then onto Fox News...

Thus, some bloggers seek to influence events in the world through blogs. Nardi et al. (2004a) noted that bloggers often wrote exhortations that unequivocally expressed a set of steps they wanted their readers to take. Numerous examples of activism can be found during the recent 2004 U.S. presidential campaign. Many blogs sprung into existence as organizing mechanisms, e.g. for boycotting broadcasting sponsors (Davis, 2004). Bloggers will often encourage others to blog:

“*blogging and readers together beget the social activity of blogging*” (Nardi et al. 2004a). We are interested in seeing how activism differs across culture.

## Reputation

In this dimension of community, we ask: how *accountable* are bloggers for their content, and how important is their blog’s reputation to them? Indeed, for some, blogging is mainly for themselves. Nardi et al. (2004b) note that:

Most bloggers are acutely aware of audience...calibrating what they will and will not reveal. Many bloggers explained that they have a kind of personal code of ethics that dictates what goes into their blogs, such as never criticizing friends or pressing political opinions that are openly inflammatory. Not that bloggers eschew controversy...but they typically express themselves in light of their audience.

How does accountability and reputation compare in blogs that are based in different world regions? Do the culture and values of a region influence how accountable people feel for their blog content? Or rather, is accountability of content a value that is commonly shared among Internet bloggers irrespective of their local culture?

## Social Connectedness

Many bloggers feel a sense of community and belonging with other bloggers. As mentioned earlier, blogrolls, trackback links and comments reveal a blogger’s connections. In fact, such social-network links are often used by blog ranking services such as the Blogdex aggregator to determine popularity. Nardi et al.’s interviews reveal that people often blog to seek others’ opinions and feedback, as well as updating others’ on their current status (Nardi et al., 2004a). The particular blog lists or blog rings that a blog belongs to are also indicative of their social circle. For example, specialized forums and listings for Asian-American bloggers such as Rice Bowl Journals exist and blog rings such as University of California Irvine’s LiveJournal community cater to students at that university.

In our exploration of blog communities, we are interested in how well connected people feel to others through blogging. How has blogging fostered friendship? How connected are people to other blogs via links and comments? We compare social connectedness across bloggers in different geographic regions.

## Identity

Herring et al. (2004) state that:

...many bloggers include explicit personal information on the first page of their blogs...a full name (31.4%), a first name (36.2%), or a pseudonym (28.7%). More than half (54%) provide some other explicit information (e.g., age, occupation, geographic location)...the identity of the author is apparent to some extent in most blogs.

Donath (1998) describes how in virtual community interactions, the medium provides an affordance to either conceal or reveal identity. Blog writers (and readers) have full control over how to reveal their identity. Blog services will often provide a “profile” page for bloggers to provide information about themselves. Pseudonyms provide an identity while maintaining privacy. Aliases are used not only by bloggers, but also in entry references. Blogs allow one to freely assert their own identity without social stigmatism, e.g. Iranian women use blogs as an outlet for expression in a traditionally conservative society (Hermida, 2002). We compare how blog writers and readers from different cultures reveal identity.

## Methodology

Data for our study was gathered via a web-deployed survey that was targeted for blog *writers*. Participation in the survey was strictly voluntary and all respondents were informed that their responses would be anonymous. Demographic survey questions were adapted from the *GVU Center's WWW Surveys* (2005). Questions related to community dimensions were gleaned from observations of current blogs, conversations with bloggers and research papers (e.g. Nardi et al., 2004b). Our English survey version had 51 questions. Native speakers of (traditional and simplified) Chinese, Japanese and Korean translated the English survey. Afterwards, reverse translation was used to verify that the questions were equivalent to their respective English counterparts. We hosted a website that provided a FAQ, explanation of our research goals and contact information to field inquiries regarding our blog survey. The English language survey was deployed in early summer of 2004, and the Asian language survey was deployed in late summer of 2004. Both were active for a six month period.

To gain an appropriate sample of blog authors, we used several methods to advertise our survey: 1) The first author advertised the survey on a blog, [blogsurvey.blogspot.com](http://blogsurvey.blogspot.com), with trackback features, 2) We registered our survey blog in major blog search databases, 3) Really Simple Syndication (RSS) feeds were augmented to allow readers to be notified of changes (RSS is an XML communication standard that allows a web developer to easily publish updated content in a format easily understood by a number of RSS aggregators), 4) We added blogs who advertised our survey to our blogroll, 5) We sent email asking bloggers to fill out the survey and to also post an entry encouraging readers to fill out (and further propagate a link to the survey in their own blogs), 6) We posted information on blogging forums and IRC chats and 7) word-of-mouth.

During the deployment, we received many insightful comments and criticisms from bloggers. Some pointed out minor mistakes in spelling, while others had high level questions regarding our research. Even some of the more popular “monster” bloggers took time to personally respond and advertise our survey.

## An Overview of International Blogs

From a total of 1404 respondents, we extracted 1232 respondents who were grouped into distinct regions or countries. Over 200 respondents were excluded from our analysis because they did not form a critical mass of respondents that we felt could be classified into a “common” regional culture. Those classified in the Japanese, Chinese and Taiwan groups were only those who lived in these locations and spoke the official language. We did not apply this requirement to respondents of Southeast Asian countries, where English is often fluently spoken. Fig. 1 summarizes the groups used in our analysis. North America consists of U.S. and Canada. Western Europe consists of Denmark, Finland, France, Germany, Iceland, Italy, Ireland, Netherlands, Spain, Sweden, Switzerland and the U.K. Southeast Asia consists of Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. Our response rates could be related to our recruiting efforts in regions. For example, we lacked resources to actively recruit Korean participants and received only 13 responses from Korea.

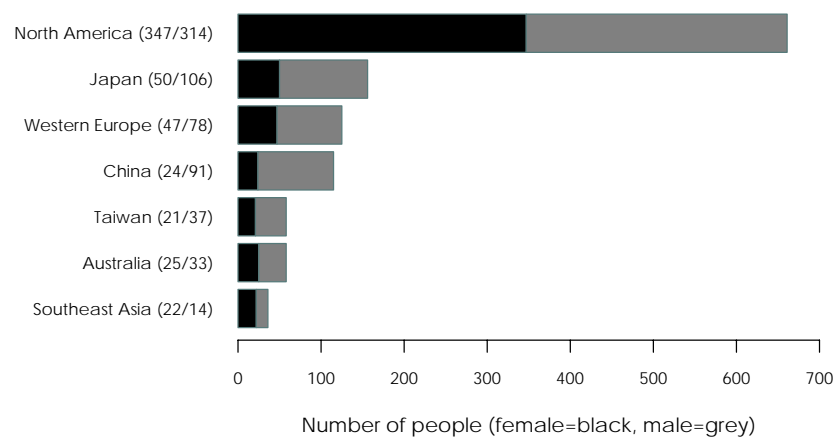


Fig. 1: The regions where valid participants were living at the time they filled out the survey.

Fig. 2a shows bloggers’ reports of the primary content of their web page. Interestingly, Japanese blogs were dominated by hobby and recreational blogs (40%), whereas personal blogs dominated for the other cultures. Australia had a large proportion of political blogs (36%). There was a notable lack of religious blogs across Asian cultures—only Japan had any religious blogs (0.01%). China had a larger proportion of professional/academic blogs (21%) comparatively. Though over half of North American blogs are personal, a large percentage were categorized as political, hobby and religious blogs.

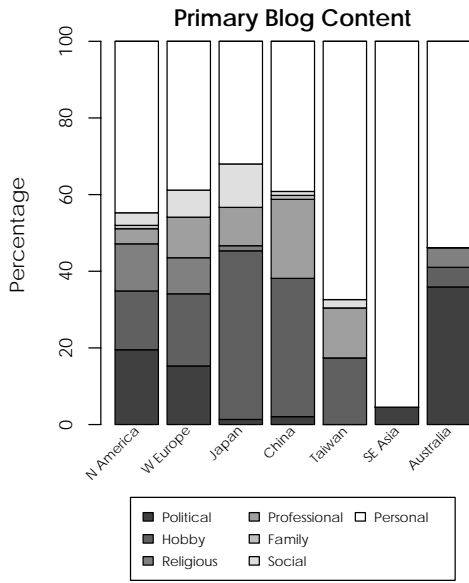


Fig. 2a: The primary content of bloggers.

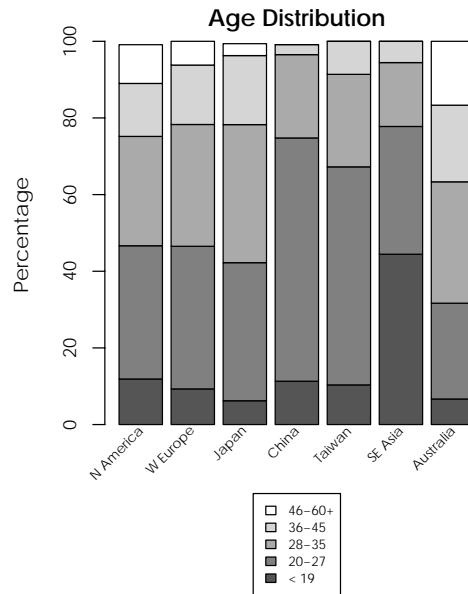


Fig. 2b: Age distribution of bloggers (excluding non-responses).

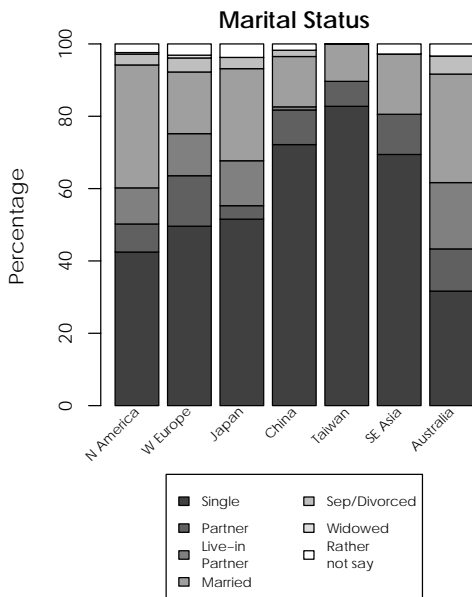


Fig. 3a: The marital status of bloggers.

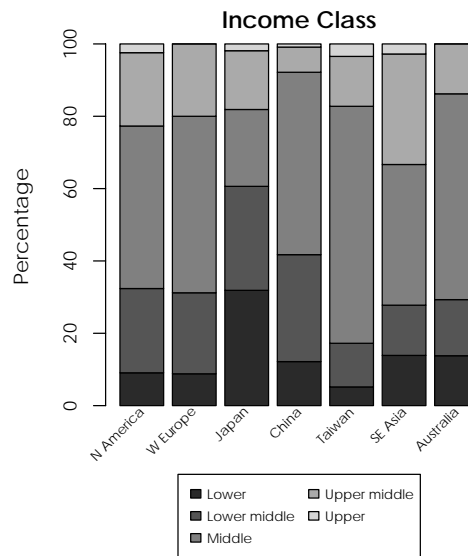


Fig. 3b: The income class of bloggers.

Consistent with previous studies (Herring et al., 2004), most bloggers are young, single (Fig. 2b and 3a) and male. China, Southeast Asia and Taiwan—presumably countries where blogging and the Internet itself is still a budding technology—seem to have a larger proportion of younger bloggers versus Western Europe, North America, Japan and Australia. We combined countries

into two groups based on length of Internet usage: the first included Southeast Asian, China and Taiwan, and the second included Western Europe, North America, Japan and Australia. An ANOVA between these two groups revealed significant differences in age:  $F(1,1230) = -7.63, p < 0.001$ . As illustrated in Fig. 3b, Japanese respondents reported being significantly lower in income compared to other countries:  $F(1,1229) = -14.52, p < 0.001$ . All cultures had over 50% who reported that they had previously written a diary: Japan–54%, Australia–57%, Western Europe–57%, Southeast Asia–64%, North America–65%. China (70%) and Taiwan (73%) had the highest proportion of respondents reporting keeping a diary prior to blogging.

## Analysis of Community

Questions were grouped according to the dimensions of community described earlier: activism, reputation, social connectedness and identity. Cronbach's alpha was used to measure the internal consistency of questions in each category. This is the total proportion of a scale's total variance that can be attributed to a common source (DeVellis, 2003). Questions whose addition to the category brought alpha below 0.60 were dropped. Question scores were then linearly combined, with their weights determined by principal component's analysis (PCA), which calculates the best linear combination that accounts for the most variance in the items. Thus, we obtained a single score from a combination of survey question scores related together. See the Appendix for question groupings. Statistical significance was determined via the ANOVA and Kruskal-Wallis (nonparametric) tests, the latter used when the data was not normally distributed. Posthoc tests were conducted via pairwise t-tests and Mann-Whitney (nonparametric) tests with Hommel's correction for post-hoc tests. Hommel's method is an extension of the Bonferroni adjustment which assumes independence between tests (Hommel, 1988). Table 1 lists each principal component and their statistics. The R statistical programming language was used. Next we describe our results for each community dimension.

<i>Dimension</i>	<i>Cronbach's <math>\alpha</math></i>	<i>% Total Variance Explained</i>	<i>Eigenvalues</i>
Reputation	0.64	52.02	5.28
Activism	0.84	85.96	5.10
Social Connectedness	0.79	39.38	8.58
Identity	0.61	77.57	8.58

Table 1: Principle Component Values

## Activism

A Kruskal-Wallis rank sum test revealed significant differences ( $H(6,1218) = 23.5, p < 0.001$ ) across all groups in the activism dimension. Fig. 4a shows only the significant results found in post-hoc tests with the principal component scores. Post-hoc tests (Fig. 4a) showed significant differences between Japan and Taiwan, China, North America and Western Europe.

Fig. 4b depicts a box plot diagram. The horizontal line represents the median, and the diamond represents the mean. The bottom and top of the box represent the first and third quartile, respectively. Points that lie outside of the whiskers (the end points of the lines) are not within the 1.5 interquartile range. Each box plot corresponds to the principal component scores for a particular country.

Most groups were close to the midpoint of the activism score. However, Japan was significantly different compared to all other regions. The results suggest that Japanese bloggers have less concern with activism compared to other cultures.

<i>Significant Contrasts</i>	<i>p-value</i>
Japan–Taiwan	***
Japan–China	***
Japan–N America	**
Japan–W Europe	*

\*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$

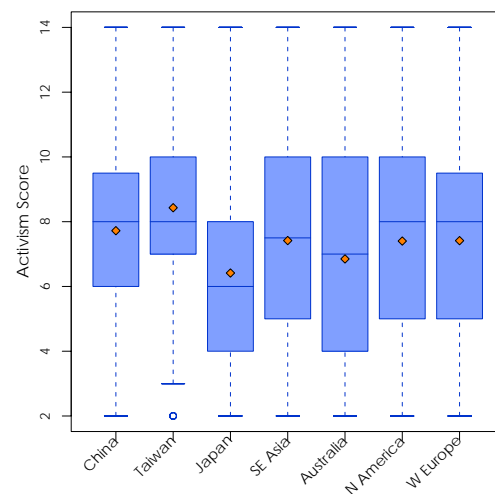


Fig. 4a: Significant contrasts on activism.

Fig. 4b: Box plots of activism. High values indicate more concern with activism.

## Reputation

All cultures differed significantly in the reputation dimension, ( $F(6,1191) = 8.40, p < 0.001$ ). Post-hoc tests (Fig. 5a) with pairwise t-tests found statistical significance between China and North America, Western Europe, Australia and Japan. Taiwan was significantly different from North America, Japan, Australia and Western Europe. Though most of the countries had similar comparable medians in the reputation score (Fig. 5b), China and Taiwan reported placing more value on their blog's reputation compared to other countries.

<i>Significant Contrasts</i>	<i>p-value</i>
China–N America	***
Japan–China	***
Taiwan–N America	**
Taiwan–Japan	**
China–W Europe	**
China–Australia	**
Taiwan–Australia	**
Taiwan–W Europe	*

\*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$

Fig. 5a: Significant contrasts on reputation.

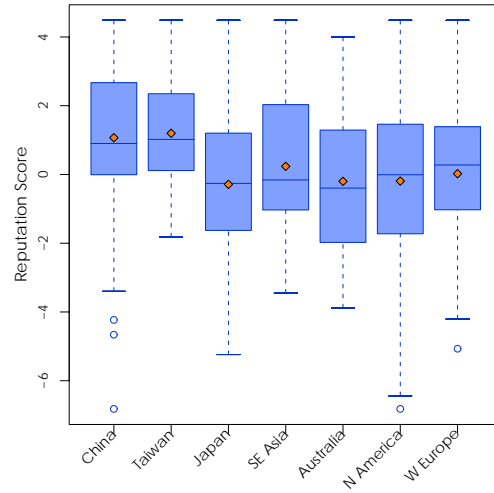


Fig. 5b: Box plots of reputation. High values indicate more concern with reputation.

### Social Connectedness

All cultures also showed significant differences ( $F(6,1191) = 18.94, p < 0.001$ ) in their social connectedness. Post-hoc tests (Fig. 6a) showed Japan was significantly different than North America, Western Europe, Australia and Southeast Asia.

<i>Significant Contrasts</i>	<i>p-value</i>
Japan–N America	***
Japan–W Europe	***
Japan–Australia	***
China–N America	***
Taiwan–W Europe	***
China–W Europe	***
Japan–SE Asia	***
Taiwan–Australia	**
China–Australia	**
Taiwan–SE Asia	*
China–SE Asia	*

\*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$

Fig. 6a: Significant contrasts on social connectedness.

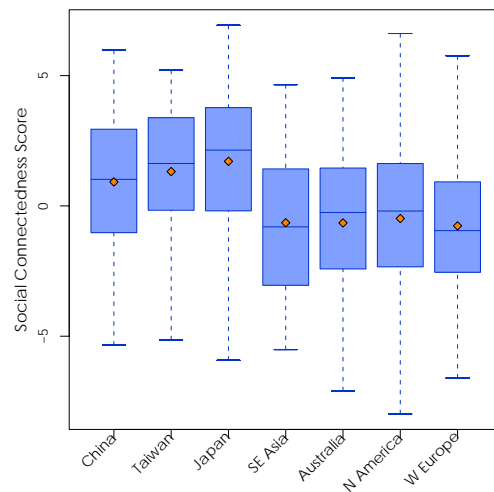


Fig. 6b: Box plots of social connectedness. High values indicate lower social connections.

China had statistically significant differences with the same countries as Japan. Taiwan, while similar to China in showing significant differences with Europe, Australia and Southeast Asia, was not significantly different than North America. Fig. 6b shows that Japan, China and Taiwan (East Asian regions) appear to be less socially connected to others through their blogs compared to Western Europe, Southeast Asia and Australia.

## Identity

A Kruskal-Wallis rank sum test revealed significant differences ( $H(6,1215) = 221.15, p < 0.001$ ) in identity across all groups. Post-hoc tests (Fig. 7a) showed significant differences between Japan and all other regions. China and Taiwan showed significant differences with North America. Fig. 7b shows most countries were on the negative side of the scale, indicating that they were not likely to hide their identities and/or personalities. In stark contrast, Japan had significant differences with all other countries and is high on the positive side, indicating a strong preference for privacy and possibly for the use of alternative identities in blogs. The non-overlapping box plots show high confidence in this difference.

<i>Significant Contrasts</i>	<i>p-value</i>
Japan–China	***
Japan–N America	***
Japan–W Europe	***
Japan–Australia	***
Japan–SE Asia	***
Japan–Taiwan	***
China–N America	**
Taiwan–N America	**

\*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$

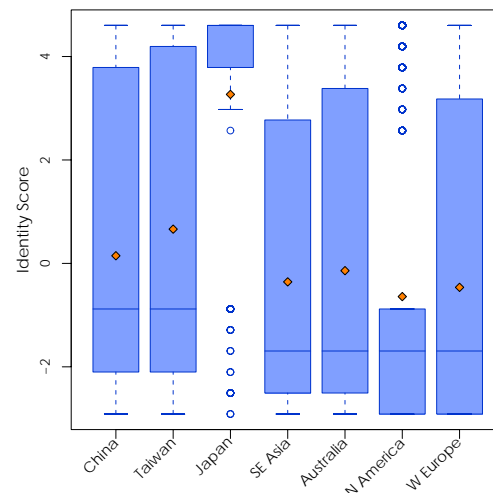


Fig. 7a: Significant contrasts on identity.

Fig. 7b: Box plots of identity. High values indicate one who reveals less of his or her identity.

## Other Analyses Relating to Community

In addition to the four community dimensions, we also examined how different cultures viewed blogging as an outlet for private expression. Fig. 8a depicts answers to the survey question: *I would express things in my blog that I would not*

*express to my closest companion(s)*. From hereon, we refer to this question as depicting *entrustment*. A Kruskal-Wallis rank sum test revealed significant differences ( $H(6,1217) = 208.39, p < 0.001$ ) across all groups. Post-hoc tests (Fig. 8b) showed significant differences between Taiwan, Japan and China with North America, Western Europe and Australia. Southeast Asia had significant differences with North America and Western Europe. We see here a noticeable divide between East and West, with East Asian countries (including Southeast Asia) reporting that they were more willing to express things on their blog than to their closest associates.

Finally, we also ran a two-way ANOVA on culture and a blog's primary content category (Fig. 2a). There were *no* significant effects from the interaction between culture and blog content on any of the aforementioned dimensions or questions.

<i>Significant Contrasts</i>	<i>p-value</i>
Japan–N America	***
China–N America	***
Japan–W Europe	***
Taiwan–N America	***
China–W Europe	***
Taiwan–W Europe	***
SE Asia–N America	***
Japan–Australia	***
SE Asia–W Europe	***
China–Australia	*
Taiwan–Australia	*

\*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$ , \*:  $p < 0.05$

Fig. 8a: Significant contrasts on “I would express things in my blog that I would not express to my closest companion(s).”

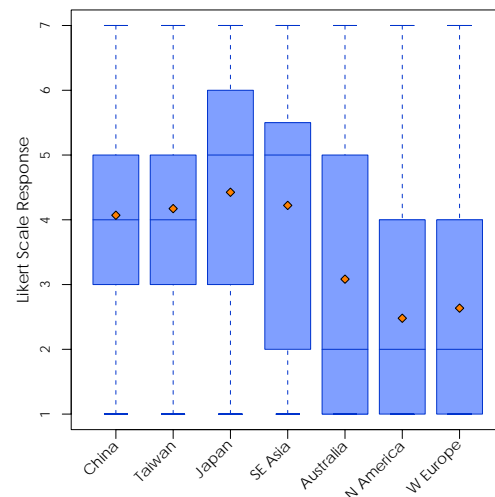


Fig. 8b: Box plots of the statement in the caption of Fig. 8a. High values indicate more agreement with this statement.

## Discussion

In this study, we asked whether bloggers in different world regions might be more influenced by local culture or by a “universal” Internet culture in how they experience community. Our results suggest that 1) overall, bloggers around the world share quite a bit in common in how they experience community through their blogs and 2) some differences do exist, possibly related to local cultural influences. We first discuss the latter point.

Our data showed that “Western” cultures often grouped together, as did “Eastern” cultures. This trend was noticed by Hofstede (1991) in his culture dimensions such as power distance (PDI) and his long-term orientation index (LTO). For example, Asian cultures tended to have a higher power distance; in other words, they expected and accepted unequal power distributions in society. On the other hand, the U.S., Great Britain and some European countries were on the lower end of the PDI spectrum. This same grouping repeats itself in our study, albeit with some variations, in the social connectedness and entrustment dimension. For all dimensions, North America, Western Europe and Australia showed no statistically significant differences between each other. It is possible that Australia’s long history of British administration may in part give its culture a European flavor.

Southeast Asia also shares a history of British influence and colonialism since the 1800’s. Even today, primary schools in these countries still teach British English. On the other hand, due to three mass migrations from China to Southeast Asia (“Indonesian,” 2005), a sizable community of Chinese live side by side with their indigenous neighbors in Southeast Asia. This unique mix may explain why on some of our dimensions, Southeast Asians tended to group with Eastern cultures (e.g., entrustment), whereas on other dimensions, they grouped with Western cultures (e.g., social connectedness).

Recent articles (Honan, 2004) have dealt with how the political environment in China has shaped and affected bloggers’ practices. On the outside, its communist based government seems to be diametrically in contrast with Taiwan’s democratic government. However, despite this cultural-historical backdrop, we found not one significant difference between bloggers from China and Taiwan across our dimensions. In fact, in looking at their response distributions, it is remarkable how similar they are. We can offer several plausible explanations. First, blog content in Taiwanese and Chinese blogs were dominated by personal blogs. In China, the perception of blogging as a personal outlet may have been influenced by the large media coverage of a blogger named Zimei Mu. Mu wrote nonchalantly about her sexual encounters, thus inciting controversy, and at the same time, gaining a massive readership of 20 million users (Honan, 2004). This was how many Chinese first learned of the word “blog.” This personal side of blogging is further evidenced by the large number of Chinese bloggers who were diarists. Second, the majority of the Chinese and Taiwanese populations are of the Han ethnicity. Both the traditional and simplified Chinese languages stem from a single unique creation of the Han ethnicity that unifies these diverse groups. Third, deep-rooted traditional Chinese values associated with Confucianism, art (paintings and calligraphy), holidays and architectural styles are pervasive throughout every facet of life in both Chinese and Taiwanese cultures. For example, Chinese culture places a great deal of importance on the concept of face (Hofstede, 1991); losing face is humiliating, often in a public context. This may help explain why Taiwanese and Chinese bloggers indicated a high value for reputation. Finally, our demographics

show a preponderance of young, middle class writers in the both the Taiwanese and Chinese blogging community. Far from the previous stance of self-imposed isolation imposed by the Chinese government, the late economic success of Taiwan has necessitated the redefinition of Chinese culture as not only transferring from China to Taiwan but also from Taiwan to China. Tu (1994) writes that *huaren* (people of Chinese origin), as opposed to *Zhongguoren* (citizens of the Chinese state) for Chinese intellectuals best describes the modern “cultural China”—one with no geopolitical emphasis. An example of this intellectual unity is that both Chinese and Taiwanese, with the commonality of *huaren*, worked together in the 1970s in the Diaoyutai Movement to protest Japanese encroachments on disputed islands (Tu, 1994).

In many of our comparisons, Japanese bloggers were exceptions. In activism, Japan was the only country that was significantly different than the other countries. Japanese tended to care less whether their blog would influence others. We noticed a slight lack of importance placed on reputation and on the degree of social connectedness in Japanese blogs. The dominance of hobby/recreational oriented blogs may explain a Japanese perception of blogging as entertainment. Though purely speculative, news articles (Watanabe, 2004) have reported that Japanese blogs are fancier and geared towards entertainment.

Perhaps the most striking difference between Japan and the other world regions was in their view of identity. Compared to other cultures, the Japanese score was highly skewed towards not revealing identities, even with the use of aliases. Similarly, Japanese blog writers noted that they used blogs, rather than their closest friends, to express themselves (Fig. 8a and 8b). This presents a paradox in that, on the one hand, Japanese view blogs as an entertainment medium, whereas on the other hand, Japanese express personal matters and are extremely private. We can resolve this by viewing blogs as a tool for anonymous entertainment and expression. One such place does in fact exist for Japanese, 2ch.net, a very loosely organized online forum where anonymity is the norm. Onishi (2004) states: “*In a society in which subtlety is prized above all, face-to-face confrontation is avoided, insults can be leveled with verbal nuances and hidden meanings are found everywhere, there is one place where the Japanese go to bare their souls and engage in verbal combat: Channel 2 [2ch.net]*”. Perhaps blogs provide this same sort of medium for Japanese to assert their identity in a traditionally collectivist culture (Hofstede, 1991), while allowing a more controlled way for organizing and controlling their content.

Despite these differences, however, the crux of our paper’s findings is that while statistically significant differences and groupings did occur, the *magnitude* of difference in data distributions of the dimensions across cultures was more often than not small. Moreover, the wide range of different blog content categories themselves had no significant effects on our dimensions across culture (see the previous section).

## Limitations of our Study

Results from our survey can potentially suffer from self-selection bias. We did not randomly sample our respondents by demographic region. As a result, systematic bias can be introduced, and thus we can only say that our sample represents those blog writers motivated to fill out our survey. While we cannot say these results are wholly representative of blog authors in general, we believe that our data is, nevertheless, a good contribution to a deeper understanding of the international blogging community. Another limitation is that our classifications of countries may have been at the wrong granularity (e.g., by not separating Southeast Asia into individual countries). We feel, however, that the cultural similarity within the groups that we created was far higher than similarity across our groups.

## Conclusions

We envision that blogging will only increase in popularity and we hope that our study will open up a new research direction examining the international blogging trend. Certainly, geographically defined cultures do play a role in technology—Indonesian cell phone users pointing their phones to Mecca to pray is but one case (Goto, 2004). However, as our study suggests, a distinct culture of media practice that connects distributed cultural regions does emerge. How does such a culture develop in the blogging community? In addition, it is unclear whether cultural-historical explanations can adequately account for the few differences we did find. Addressing these concerns can lead the designer to decide what local cultural aspects, if any, should be taken into account. Indeed, preconceived notions of the effects of culture on IT practices may too easily sway the designer to make unnecessary commitments.

Our results indicate that bloggers on the whole perceive a shared sense of community in the blogosphere. Notwithstanding the social, political, and economic differences between the regional cultures of our participants, bloggers painted a remarkable picture of congruity in their experiences with activism, reputation, social connectedness and identity. Thus, we can posit that bloggers themselves represent a unique culture that permeates through regional boundaries. Though we did find trends that *may* be explained by cultural differences, these differences were overshadowed by the overall consonance of the data. It is indeed heartening to see that despite the large seas that separate our lands, the global blogger, our “bosom buddy”, nevertheless brings these distant lands near.

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## Appendix: Dimensions of Community

### Reputation

- The reputation of my blog is important to me.
- It is important to me that my friends/colleagues/acquaintances offline know of my blogs' reputation.
- It is important to me that I regularly create meaningful blog entries.
- The appearance of my blog is important to me. (e.g. no typos, consistent format, color scheme, easy to browse).

### Activism

- It is important to me that I influence others through the opinions stated on my blog.
- It is important to me that my blog can influence events in the world.

### Social Connectedness

- About how many blogs do you directly link to from your main blog page (i.e., not including blog entries and comments)?
- How often do you currently comment on other blogs?
- How many people do you think read your blog per day (your best estimate)?
- How often do you receive comments on your blog?
- How often do you get e-mails regarding your blog?
- Since starting a blog, I have become more connected with people like me.
- How long have you been reading blogs (your best estimate)?
- How long have you been writing your blog (your best estimate)?
- How many different blogs do you regularly read during a week?

### Identity

- As a blog writer, do you actively try to conceal your real-world identity (maintain anonymity)?
- How often do you use aliases (nicknames) instead of real names in your blog entries (e.g. when you refer to other people)?