Peer-Reviewed Article

# A Cross-Cultural Comparison of Domestic American and International Chinese Students' Social Media Usage

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## Abstract

*This survey of American and Chinese students at a state university in the southern United States measures Social Media (SM) use and attitudes toward SM. The purpose of this study was to investigate student perception and motivation of social media communication and the relationship between student cultural values and their social media participation. The implications of students' social media participation to an international community were also explored in this study. Foregrounded in the analysis is the role that academic services play in domestic and international students' scholastic experience, and what SM functions students' use to engage with these services. The contribution of this study, beyond being one of the first to look at the difference between international and domestic students' SM patterns, includes a call for the further nuancing of the construct of culture, where culture is dynamic and temporal, instead of just country of origin.*

**Keywords:** social media, international student, Chinese student, international community

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In the United States "nearly 4 in 5 active internet users visit social networks and blogs" (Nielsen, 2011, p. 1) and in China there are 195 million social media (SM) users (China News, 2011). The enormous use of SM offers potential opportunities for community construction, such as health (Chou, Hunt, Beckjord, Moser, & Hesse, 2009), museum (Russo, Watkins, Kelly, & Chan, 2006), and academic communities (Dickson & Holley, 2010). More and more academic communities utilize a myriad of SM outlets to connect with students, building community through Facebook, YouTube, and Twitter.

As the number of international students grows each year in America (Institute of International Education, 2012), it becomes more important to understand the SM habits of both American born students and international students. Better understandings of these habits can lead to better resource management from libraries and other campus support programs, allowing for better academic facilitation of these students. David Holmes (2010) posits that interactive new

media can facilitate "universal citizenship" (p. 10) by decentralizing the positions of "the apparatuses of cultural production" (p. 11) in two-way communication. This decentralization then positions internet-based communication as a "culturally neutral medium" (p. 75). SM, in this construction, is then perfectly positioned to be a unifying tool for academic communities.

Conversely, Hawisher and Selfe (2000) contend that "the culturally specific nature of literacy practices clearly influences the use of the . . . Internet in fundamental ways" (p. 2). Some cultural and psychological studies, such as Hofstede's cultural dimensions theory (1984; 1990; 2001) and Schwartz's basic human values theory(1990; 2006), support this argument, as these theories highlight the significance of cultural differences and these differences influence on communication. For example, Miller and Salter (2000) found that global internet-based communication has strengthened and enhanced local, indigenous culture, rather than homogenizing cultures.

With these divergent views of how the internet and culture reciprocally influence human behavior in mind, this study asks: Are there differences in SM use among people with different cultural backgrounds who study at the same university? If there are, to what extent do these differences relate to their cultural values? In an internationalized academic community, what are the implications of the different usage of SM for its academic activities? This manuscript explores these questions through a cross-cultural comparison. The target population of this research is Chinese students and American students at a state university in the southern United States.

## Literature Review

### Social Media and the Academic Community

For this manuscript, social media (SM) is defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content." (Kaplan & Haenlein, 2010, p. 61). SM, then, is the name of multiple types of internet-based applications, such as Wikipedia, blogs and microblogs, YouTube, and social networking sites.

In academic communities, like other communities, SM is broadly used for interactive communication and information seeking. The interactive communication in an academic community includes general communication, interactions between faculty and students, and interactions between library services and students. Studies suggest that student and faculty interaction has a notable impact on students' intellectual and social outcomes (Endo & Harpel, 1982; Zhou, Frey, & Bang, 2001). SM is also thought of as a promoter of high levels of academic participation and collaboration (Robbins-Bell, 2008; Wankel, 2009; Dunlap & Lowoenthal, 2009). Rhoades, Irani, Telg, and Myers (2008) found that college students use SM to work on their class assignments, communicate with professors, conduct research, and access library materials. Keeping with the times, academic libraries have started to reach their patrons by creating portals to library services on Facebook (Farkas, 2007). Furthermore, a growing number of faculty members now use Twitter and Facebook to interact with their students (Sturgeon & Walker, 2009). SM provides the academy more opportunities to build points of identification for students, faculty, and alumni. In other words, while the academy has always been a place, SM extends its footprint and allows it easier access to its community—which may be especially important to international students who face more obstacles in becoming part of their college community than their domestic counterparts (Rienties, Beausaert, & Grohnert, 2012).

**Defining Culture**

Culture has a multitude of definitions. Some social psychologists, such as Munroe (1980), posit that culture is the composition of contextual factors, including language, social and political institutions, and rules governing interpersonal relations. In contrast, other scholars, such as Segall (1986), argue that culture is not a variable but only a label for a set of independent variables. As such, human behavior cannot be necessarily predicted based on culture. Despite these different definitions of culture, cross-cultural psychological research produce reliable approaches, ranging from basic psychological processes—such as perception and cognition—to behaviors that reflect values, beliefs, and motives (Segall, 1986; Hofstede, 1984; 1990; 2001). In addition to the definition of culture as a group-level or country-level concept, other cross-cultural perspectives define culture via individual-level values tied to behavioral motivations (Schwartz, 2006).

**Group Level and Individual Level Cultural Measures.** Studies show that cultural values have a significant effect on communication. Cultural values influence how people interact and socialize with other members in society (Rokeach, 1973); how they work as determinants for behavior and action in particular situations (Feather, 1995); and how they are a powerful force in the shaping of human motivations, lifestyles, and product choices (Tse, Belk, & Zhou, 1989). Essentially, the most basic and core beliefs of humans are inculcated by their cultural values, and these beliefs largely affect human communication patterns.

Geert Hofstede's (2008) cultural dimensions theory is a systematic framework for assessing and differentiating national cultural values. This theory offers a comprehensive model explaining how and to what degree people differ across five dimensions of values based on country of origin – power distance (equality versus inequality), collectivism (versus individualism), uncertainty avoidance (versus tolerance), masculinity (versus femininity), and long-term orientation (versus short-term orientation).

**Cultural values and cross-cultural studies**

**Cross-cultural studies on organizational outcomes.** Hofstede's cultural theory has inspired numerous empirical studies using Hofstede's cultural value dimensions to examine organizational outcomes, including communication behavior, such as "feedback seeking" (Taras, Kirkman, & Steel, 2010, p 31). Based on a comprehensive quantitative review on Hofstede-inspired empirical research over the past three decades, Taras, Kirkman, and Steel (2010) revealed that for some outcomes, including communication behavior, the predictive power of Hofstede's cultural values was similar to, or even stronger than, other personal factors such as personality, demographics, and general mental ability. They also found that cultural values were more strongly related to outcomes for the elderly, male, and managers. Further, they discovered that the studies using primary data had stronger findings than did those using secondary data.

**Cross-cultural studies on social media-based outcomes.** There have been a few cross-cultural studies on outcomes related to social media in different contexts. These outcomes included motivations for using social network sites (Kim, Sohn, & Choi, 2011), applications of SM for purposes, such as activism, daily life, consuming, and so forth (Harlow & Harp, 2012; Herring et al., 2007; Hjorth and Yuji, 2008; Pookulangara & Koesler, 2011), communication preferences in SM (Pflug, 2011), and relationship or connection holding and its consequences in social networking sites (Choi, Kim, Sung & Sohn, 2011; LaRose, Connolly, Lee, Li, & Hales, 2014). The findings of

these studies included the differences and similarities in motivation, application, communication, and social connection across countries.

Some of these studies adopted country of origin or language concept as a label of culture to conduct the comparison studies (Harlow & Harp, 2012; Hjorth & Yuji, 2008; Herring et al., 2007). Some studies employed Hosftede's theory of cultural dimensions as a framework to explore the relationship between culture and social media-based outcomes without measuring the specific cultural values of individuals based on primary data, to say that there was no examination of the predictive power of cultural values on the outcomes in the studies (Choi, Kim, Sung & Sohn, 2011; Kim, Sohn, Choi, 2011; LaRose, Connolly, Lee, Li, & Hales, 2014). In addition, Hall's (1982; Hall & Hall, 1990) cultural dimension of contextuality was also used as a framework in some studies (Choi, Kim, Sung & Sohn, 2011; Kim, Sohn, Choi, 2011; Pflug, 2011).

Hofstede's cultural values provide support for cross-cultural studies at a group-level, where individuals' group-level or country-level cultural values influence their communication behavior. The effect of individuals' personal psychological factors on their communication behavior also cannot be ignored. Schwartz's human basic values theory offers a complimentary theoretical framework for cross-cultural studies at the individual-level. Schwartz's basic human values theory posits that there are universal individual-level values that cut across cultural boundaries, where the variance in these values is related to personality factors. Schwartz identifies 10 universal individual-level motivational values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. These values are influenced by culture, but they vary from individual to individual within cultures as well, adding nuance to the group-level measures.

## Research Questions and Hypothesis

According to Hofstede's cultural dimension theory (2001), people carry "mental programs" developed in early childhood and reinforced in schools and organizations. These mental programs contain a component of national culture which is embedded in the different values that are found among people from different countries and groups. It is believed that these cultural values tied with individuals' country of origin strongly impact their behaviors. While conflating culture with country is problematic, an individual's country of origin most-likely influences their cultural subjectivity. Therefore, this manuscript explores the likenesses and differences of SM usage based on the country of origin. The first and second research questions, therefore, are:

RQ 1: How are students' SM participation/usage alike and different based on their country of origin (China and America)?

RQ 2: How are students' attitudes toward social media (SM) alike and different based on their country of origin (China and America)?

Hofstede's cultural theory discusses group-level dimensions which can be applied to one country's culture as a whole but not necessarily applied to individuals' personalities. While we note that Hofstede's theory has value and has been employed by thousands of empirical studies, we believe that as the world becomes smaller via technology, this theory will be challenged. In other words, we agree with Signorini, Wiesemes, and Murphy (2009), who take issue with Hofstede's work. Specifically, they contend that Hofstede's definition of culture necessitates an understanding that culture is static and uniform within particular countries due to his "use of averages" (p. 259). They cite other researchers, like Gu and Maley (2008) and Kennedy (2002), who have taken issue with this methodology due to the erasure of individuality. One example is the use of Hofstede's work in higher education where a learner is defined by his/her country of origin, such as a "Chinese

learner" (p. 259). This type of labeling "implies that this group of learners are a homogeneous group, whilst gender, age and locational differences are ignored" (p. 259). While a dynamic view of culture is at odds with Hofstede, his theory does allow for individuals to ascribe to multiple cultures, which he terms "layers of culture" (Signorini, Wiesemes, & Murphy, 2009, p. 260). However, his view is not entirely freeing, as it views these multiple cultures as discrete, losing the "fuzziness of culture" by making these layers "clear and independent" (p. 260).

With these concerns in mind, this study turns to Schwartz's basic human values theory to examine the influence of individual value difference on SM usage. Schwartz's (1990; 2006) ten cross-cultural values are recognized by individuals in all cultures. In this manuscript these ten values are used as individual-level cross-cultural values, providing a personality measure as supplemental data to the group-level cultural values. Thus, the third research question focuses on Schwartz's individual-level measures, while the hypothesis is based on Hofstede's group-level dimensions:

H1: Chinese students will report higher PD, lower ID, and higher LTO than American students.
RQ 3: How are students' individual-level cultural values alike and different in American group and Chinese group?

While Hofstede's cultural value dimensions were more strongly related to organizational behaviors for older than for younger people (Taras, Kirkman, & Steel, 2010), the researchers believe that it is worthwhile to conduct a cross-cultural study on the social media-based behaviors of younger people, such as students, using Hofstede's cultural values. First of all, focusing on students' daily behavior relevant to social media, the manuscript can provide an academic community context which is different from organizational or workplace context. Moreover, the research of this manuscript is based on primary data, and it was found that primary data used for cross-cultural studies supported findings more strongly than did secondary data (Taras, Kirkman, & Steel, 2010).

## Research Method

### Sample

The purpose of this study was to investigate student perception and motivation of SM usage and the relationship between student cultural values and their SM participation, as well as these students' engagement with academic services through SM. The sample of this online survey included 276 American and Chinese students at a state university in the southern United States. Since studies of international students "academic adaptation" are lacking (Zhou, Frey, & Bang, 2011), the researchers selected two student samples from the same university to assess SM-based attitudes and behaviors. In other words, studies that track the integration of international students into their new academic community are sparse—specifically studies that look at SM usage within this community (Zhou, Frey, & Bang, 2011). Since America has had the largest number of international students in the world for the last seventy plus years, this sample is especially apt (Zhou, Frey, & Bang, 2011). Furthermore, this sample is justified given the growing number of Chinese students in America (157,558 in 2011, or 21.8% of the total international students in the US; Institute of International Education, 2012) and the authors' contention that culture is both temporal and dynamic. Additionally, "research has found that cross-cultural transition was less difficult for those international students whose home cultures were similar to the host culture" (Zhou, Frey, & Bang, 2001, p. 78). This sample includes two cultures that are very different in terms of the cultural

dimentions in Hofstede's paradigm, and therefore represent a great opportunity to capture how cultural differences manifest in SM usage.

**Survey**

The online survey included four parts. The first part of questionnaire asked for demographic data such as age, gender, nationality (citizenship), GPA, and SM usage (such as time spent on SM, type of SM platform used, etc.). The second part measured attitudes toward, perceptions of, and motivations for SM use via 44 Likert style scale questions with answers ranging from 1 (Strongly Disagree/Very Little/Never/Quite Different/None) to 5 (Strongly Agree/Outmost/Very Often/Quite the Same/Many). For example, to measure attitudes toward SM, questions and statements included: "How important is social media in your life?" and the statement "Exposure to social media has many more benefits than downsides." Measures of motivation for SM usage included questions and statements surrounding SM usage for fun/entertainment, maintaining current social networks, making new friends, information seeking, and academic discussion. SM academic resource usage was measured more specifically with questions surrounding communication with librarians, classmates, professors, etc. More general SM behaviors were measured with questions about the types of activities performed on SM—such as reading tweets or sending tweets on Twitter and sending message or responding to others on Facebook. All these questions measured respondent SM usage or behavior which can reflect participant psychological characteristics such as perception and motivation in SM participation.

Part 3 of the survey consisted of 21 statements with 5-point Likert style response options to measure group-level cultural values based on Hofstede's five dimensions of cultural values. This section was based on CVSCALE developed by Yoo, Donthu, and Lenartowicz (2011) to measure these five cultural dimensions at the individual level. In SM participation, higher Collectivism (CO) was reflected by the tendency of respondents to engage in social or group-level discussion, communicate with family or friends, use of SM for real time news, and link to organization's SM sites or websites. Higher Masculine (MAS) value, the cultural dimension of competition, was reflected by the tendency of respondents to engage in academic activities and information seeking. Social network maintenance and the consistency of communication role in both of real world and SM environment were related to Long term orientation (LTO). In addition, the caring about SM security and communication with professors or family (parents) reflected Uncertainty Avoidance (UA) and Power Distance (PD) values separately. In this study, Alpha reliabilities of five group-level cultural values averaged .70, ranging from .529 (CO) to .784 (PD).

Finally, the modified Schwartz's Portrait Values Questionnaire (PVQ) was used to measure 10 individual-level psychological values of participants. The original questionnaire was designed for different genders, therefore in this study, the questions were modified to be unisex—e.g. "he/she", "his/her", and "him/her." The 10 values included Conformity (CO), Tradition (TR), Benevolence (BE), Universalism (UN), Self-Direction (SD), Stimulation (ST), Hedonism (HE), Achievement (AC), Power (PO), and Security (SE), were measures to encompass the entirety of the PVQ. The PVQ included short verbal descriptions of different people, displaying their goals, aspirations, or wishes. These portraits implicitly highlighted the importance of a single value type. For instance, "It is important to him/her to be rich. He/she wants to have a lot of money and expensive things" described a person who cherished power. For each portrait, respondents rated their answers to the question "How much like you is this person?" using 6-point, Likert-style scale, ranging from 1 (very much like me) to 6 (not like me at all). In this study, Alpha reliabilities of the values with this modified version of PVQ averaged .673, ranging from .574 (Benevolence) to .724 (Conformity).

## Results

### Demographics

An online, English-language survey was administrated to convenience samples of Chinese students (n = 71) and American students (n = 205). The total sample included 109 males and 167 females, who were between 19 to 24 years old.

The data were gathered at a state university in the southern United States from February to March, 2012. Overall, 71 Chinese participants were recruited through different Chinese organizations, including a Chinese student association and a Chinese church. The sample consisted of 17 freshmen, 9 sophomores, 9 juniors, 3 seniors, 32 graduate students and 1 other student. 50.7% of the overall participants were males. 205 American participants (73 males and 132 females) were recruited from the participation pool of the College of Communication and Information Sciences and university libraries. The sample consisted of 76 freshmen, 63 sophomores, 30 juniors, 19 seniors, 13 graduate students and 4 others.

### SM Usage and Attitudes: Research Questions 1 and 2

The first research question asks: *How are students' SM participation/usage alike and different based on their country of origin (China and America)?*

The majority of participants (98.6%) used SM. T-tests showed a significant difference between the two groups on each SM participation variables (Table 1). American participants spent more time on average per day using SM, with the Chinese students averaging 1.78 hours per day versus 3.44 hours for the American participants (t = 4.52, df = 243, p<.0001). American participants had stronger motivations for SM participation, including information seeking (IS) and to maintain current social networks (MCSN), for entertainment (FUN), and for academic discussion (AD). Moreover, American participants tended to be more active using Facebook and Twitter to send (SF&ST) or receive (RF &RT) information. In contrast, Chinese participants were relatively more active in Blog participation, including content creation (WB) and interactive communication (CB). Not surprisingly, both Chinese and American participants were more likely to be information receiver rather than information creator.

The results also showed that American participants were more active in using SM for academic activities (DA). In contrast, although neither group was active in interaction with librarians (LB) on SM, Chinese participates tended to be relatively more active with librarians. Moreover, Chinese participants were relatively more active in using university library websites and SM. American participants had more frequent communication with friends or family/parents (FF), classmates (CL), and professors/supervisors/group leaders (PSL), while Chinese participants were more likely to communicate with strangers (STR) on SM. In addition, American participants tended to post more personal relationship information (PRI) on SM than their Chinese counterparts.

The second research question asks: *How are students' attitudes toward social media (SM) alike and different based on their country of origin (China and America)?*

T-tests showed a significant difference between two groups on some variables of attitude toward SM (Table 2). American students demonstrated that they had more positive attitudes toward SM usage and more likely perceived SM as important and beneficial tool providing them with useful information and convenience in interactive communication than their Chinese counterparts.

Table 1

*T-test Comparison between Chinese and American Respondents' SM participation*

|  | Chinese | | | Americans | | | | |
| Variable | *M* | *SD* | *N* | *M* | *SD* | *N* | *T* | *Df* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hour | 1.78 | 1.41 | 67 | 3.44 | 2.86 | 178 | 4.52*** | 243 |
| Purpose | | | | | | | | |
| FUN | 3.66 | 0.86 | 67 | 3.98 | 0.84 | 201 | 2.72** | 266 |
| MCSN | 3.4 | 0.87 | 67 | 3.94 | 0.88 | 201 | 4.29*** | 266 |
| IS | 2.88 | 0.98 | 67 | 3.42 | 1.01 | 199 | 3.79*** | 264 |
| AD | 2.42 | 1.02 | 66 | 2.83 | 1.02 | 199 | 2.83** | 263 |
| Interaction | | | | | | | | |
| WB | 2.36 | 0.94 | 69 | 1.89 | 1.16 | 201 | -3.1** | 268 |
| CB | 2.75 | 0.83 | 69 | 1.77 | 1.06 | 201 | -7.0*** | 268 |
| RT | 2.33 | 1.28 | 70 | 3.58 | 1.49 | 201 | 6.28*** | 269 |
| ST | 2.2 | 1.21 | 69 | 3.26 | 1.51 | 201 | 5.27*** | 268 |
| RF | 3.06 | 0.99 | 70 | 4.16 | 0.96 | 201 | 8.21*** | 268 |
| SF | 2.93 | 0.87 | 69 | 3.96 | 1.05 | 201 | 7.37*** | 269 |
| Topic | | | | | | | | |
| DG | 2.64 | 0.9 | 70 | 3.04 | 1.11 | 201 | 2.73** | 269 |
| DI | 3.01 | 0.88 | 69 | 3.32 | 1.05 | 200 | 2.17* | 267 |
| DA | 2.39 | 0.91 | 70 | 2.94 | 1.06 | 201 | 3.94*** | 269 |
| TN | 2.6 | 0.95 | 70 | 2.92 | 0.99 | 201 | 2.32* | 269 |
| Interaction object | | | | | | | | |
| FF | 3.49 | 1.06 | 67 | 4.26 | 0.92 | 200 | 5.64*** | 265 |
| PSL | 1.97 | 0.85 | 67 | 2.31 | 1.03 | 199 | 2.44* | 264 |
| LB | 1.74 | 0.92 | 66 | 1.25 | 0.56 | 199 | -5.22*** | 263 |
| CL | 3.21 | 0.98 | 67 | 3.68 | 1.04 | 200 | 3.25** | 265 |
| STR | 2.04 | 0.91 | 67 | 1.6 | 0.89 | 200 | -3.53*** | 265 |
| Information seeking | | | | | | | | |
| PI | 2.54 | 0.94 | 67 | 2.94 | 1.13 | 199 | 2.67** | 264 |
| OUI | 3 | 0.85 | 67 | 3.46 | 1.02 | 199 | 3.29 ** | 264 |
| LLWS | 2.42 | 1.16 | 67 | 1.81 | 1.19 | 200 | -3.65*** | 265 |
| Trust | | | | | | | | |
| FFP | 3.45 | 1.132 | 67 | 4.21 | 1.03 | 201 | 5.1*** | 266 |
| PRI | 3.06 | 1.013 | 67 | 3.51 | 1.13 | 200 | 2.89** | 265 |

*Note.* *= p < .05, **= p < .01, ***= p < .0001.

Despite the differences between the groups, both the Chinese and American participants held positive attitudes toward SM. Also among the four items of SM benefits, both Chinese and American participants tended to perceive two SM usages as most beneficial (Informative and Interactive communication). The results showed that SM is valued in interactive communication and information providing.

Table 2

*T-test Comparison between Chinese and American Participants' Attitude toward and Perception of SM Usage*

| *Variable* | Chinese | | | Americans | | | | |
|---|---|---|---|---|---|---|---|---|
| SM is… | *M* | *SD* | *N* | *M* | *SD* | *N* | *t* | *df* |
| Important | 3 | 0.93 | 71 | 3.32 | 0.91 | 205 | 2.51* | 274 |
| Beneficial | 3.41 | 0.88 | 66 | 3.53 | 0.84 | 201 | 2.78** | 268 |
| Informative | 3.58 | 0.85 | 69 | 4.12 | 0.83 | 200 | 4.58*** | 267 |
| Interact | 3.7 | 0.85 | 69 | 4.11 | 0.85 | 200 | 3.47** | 267 |
| Wasteful | 2.97 | 1.02 | 70 | 2.59 | 1.08 | 200 | -2.62** | 268 |
| Secure | 2.93 | 1.01 | 70 | 2.38 | 0.96 | 199 | -4.03*** | 267 |
| Funct | 2.4 | 0.88 | 70 | 1.72 | 0.76 | 201 | -6.20*** | 269 |

*Note.* *= p < .05, **= p < .01, ***= p < .0001.

## Group-Level and Individual-Level Differences: Hypothesis and Research Question 3

**Hypothesis.** The Hypothesis states: Chinese students will report higher PD, lower ID (higher CO), and higher LTO than American students.

Table 3

*T-test Comparison between Chinese and American Respondents' group-level cultural values*

| Value | Chinese | | | American | | | | |
|---|---|---|---|---|---|---|---|---|
| | *M* | *SD* | *N* | *M* | *SD* | *N* | *t* | *df* |
| CO | 3.02 | 0.54 | 70 | 3.3 | 0.52 | 201 | 3.86*** | 269 |
| LTO | 3 | 0.68 | 70 | 3.5 | 0.62 | 201 | 5.74*** | 269 |
| PD | 3.27 | 0.71 | 67 | 2.7 | 0.77 | 200 | -5.24*** | 265 |

*Note.* ***= $p < .0001$.

Between Chinese and American participants, a *t*-test (Table 3) indicated a significant difference in three group-level cultural values including Collectivism (CO), Long-term Orientation (LTO), and Power Distance (PD). There were no significant differences in Masculinity (MAS) and Uncertainty Avoidance values (UA) between two groups of participants. Participants' CO value was reflected from their engaging in group/individual discussions, communication with family/friend, real time news sharing, links to community SM, and posted pictures with family and friends. Participants' LTO value was reflected in their professional information seeking/discussion and current social network maintenance. Participants' PD value was reflected from their communication with family, professors, supervisors and/or group leader.

T-tests (Table 3) showed that American participants tended to be more collective and had a longer-term orientation. This result implied that Chinese participants were likely to be more individualistic and had a shorter-term orientation. The results of Collectivism and Long-term

Orientation were inconsistent with Hofstede's results, lending evidence to Taras, Kirkman, and Steel's (2010) claim that the long-term orientation dimension of Hofstede's theory lacks clear support, and in opposition to the hypothesis. In his studies, Chinese culture has a higher Collectivism and higher Long term orientation than American culture (Hofstede, 2008) results in which American participants tended to be less collectivist and had a shorter-term orientation than Chinese participants.

*T*-test (Table 3) showed that Chinese participants were more likely to expect and accept the unequal distribution of power in society or organization (PD), which is consistent with the hypothesis and prior research (Hofstede, 2008).

**Research Question 3.** The third research question asks: *How are students' individual-level cultural values alike and different in American group and Chinese group?*

Table 4

*T-test Comparison between Chinese* (n = 67) *and American (*n = 201) participants' *individual-level cultural values.*

| Value | Chinese | | Americans | | |
|-------|---------|---------|---------|---------|---------|
| | *M* | *SD* | *M* | *SD* | *T* |
| CONF | .46 | 1.06 | .09 | .56 | 2.724** |
| TR | .26 | .79 | -.02 | .65 | 2.548* |
| BE | -.70 | .60 | -.23 | .55 | -5.632*** |
| SD | -.32 | .70 | -.05 | .65 | -2.775** |
| ST | -.22 | .82 | .12 | .64 | -3.183** |
| PO | .44 | .78 | .18 | .55 | 2.564* |

*Note.* *= $p < .05$, **= $p < .01$, ***= $p < .0001$, *df* = 266.

T-tests indicated that there were significant differences in 6 individual-level cultural values between two groups of participants. American participants tended to think and act more independently (SD) and were more likely to preserve and enhance the welfare of those with whom they were in frequent personal contact (BE). American participants also tended to enjoy novelty and challenge in life (ST). In contrast, Chinese participants were more likely to respect, and accept the traditional customs and ideas (TR). They were also more likely to have restraint of their actions and avoid the violation of social expectations or norms (CON). In addition, Chinese participants were more likely to control or dominate over people and resources (PO). There were no significant differences between two groups of participants in Achievement, Security, Hedonism, and Universalism values.

## Discussion and Conclusion

This study revealed significant differences in students' SM participation based on the country of origin. The study showed that students' SM participation reflected some of their group-level cultural values. For instance, Chinese students rarely interacted with their parents using SM, which may be attributed to their higher Power Distance value than American students. These different SM participation patterns also had significant correlations with certain individual-level cultural values.

The fact that Chinese students were more likely to interact with librarians on SM implied that SM has potential opportunities to help international students in their academic and cultural immersion. This finding is consistent with previous qualitative research showing the preferred sources of knowledge acquisition for international students were internet resources and librarians; and that email and Web 2.0 tools were among the top three most used and useful methods (with face-to-face interactions) for knowledge acquisition for international students (Wiorogórska & Rehman, 2012). Both Chinese and American students tended to expect that SM could provide useful academic and professional information. This implied that SM has a potential opportunity to help students make achievements both on campus and in society. However, academic activities on SM were not found to be of major use yet, revealing a potential growth opportunity for academic services to international students. Considering international students' desire for using SM for academic activities, the fact that they rarely use SM for searching academic information and communication with classmates, bolsters this implication that academic services need to engage and promote SM as a channel to their services.

As an important component of an academic community, library information services also have a potential opportunity in SM communication. There was a contradiction between relatively inactive library SM communication and students' desire for it and their potential needs for information searching using SM. This implied that library should play a more important role in the communication of an academic community.

Two other important findings in this study were the unsupported components of the hypothesis where Chinese students showed higher individualism and shorter-term outlooks than their American counterparts. As stated above, these findings run counter to Hofstede's work but support the work of others who have demonstrated the lack of consistency with the long-term orientation dimension (Taras, Kirkman, & Steel, 2010). However, the authors believe these findings support a more dynamic view of culture, where culture is malleable and temporal. Put bluntly "Hofstede's model appears to be unable to account for the complexity of culture" (Signorini, Wiesemes, & Murphy, 2009, p. 260). Signorini, Wiesemes, and Murphy (2009) posit that individual and group activities which operate in different cultures demonstrate a "two-way process" that allows for "cultural change" (p. 260). This is applicable to everyday interactions as people operate in numerous cultures daily. However, "this bi-directional relationship between [cultural] values and other components of culture" (p. 260) is especially pertinent to individuals thrust into completely new surroundings and cultures. Therefore, this study is a first step in understanding how the dynamic nature of culture affects international students. The counter-findings of higher individualism and long-term outlooks in Chinese students are exemplars of this dynamic nature. While Hofstede's work predicts the inverse of these findings, the researchers do not contend that these findings call into question Hofstede's findings. Instead, these findings are viewed as evidence of the type of cultural adaptation necessary for international students to survive and thrive in a different country.—lending support for the need for a more dynamic and temporal view of culture.

Heuristically, these findings can be explained through the idea that international students are on their own in a new country and therefore must adopt an individualistic worldview to survive through an accelerated acculturation process. Furthermore, studying overseas lends itself to long-term goal setting, as scholarship is clearly a focal point for these students and also just a step to bigger destinations. Other research supports this type of reading. For example, Zhou, Frey, and Bangs (2011) found that international students "generally owned high learning motivations and positive learning attitudes" (p. 86). As described above, these motivations and attitudes can be partially explained by the population itself, as the barriers to becoming an international student are vast and require high motivation and positive attitudes toward learning. As Signorini, Wiesemes, and Murphy (2009) say "international students might be from privileged backgrounds [and/or] high achievers" (p. 260). These findings call for future cross-cultural research with international students in America. They also call for future research where culture is no longer a nominal category, and instead one that accounts for the dynamic and multifaceted nature of culture.

Benedict (1934) discusses the variations between cultures in terms of the integration degree. Some cultures tend to be very tightly integrated while others are very loosely integrated. Based on the findings of cultural differences, researchers have started to study the influence of different cultural values on the attitudes and reactions to the Internet (Collis, 1999). These researchers emphasize the implications of different Internet use caused by cultural differences.

Studies by Hofstede (1991), Triandis (1972), and Hall and Hall (1990) reveal that cultural value orientations differ significantly across cultures and countries. Links between communication differences and cultural value differences have been found across various countries including America (Caillat & Mueller, 1996), China (Cheng & Schweitzer, 1996), Brazil (Tansey, Hyman, & Zinkhan, 1990), Japan (Mueller, 1987), Mexico (McCarthy & Hattwick, 1992), and Sweden (Martenson, 1987). Based on these findings, country-specific cultural values have been applied to create adaptive communication strategy to make advertising more effective (Gregory & Munch, 1997). They also have been used for the study of internet-based communication (Fock, 2000; Simon, 2001). Adding the current study to this literature highlights the need for more than just country-specific studies. Instead, as globalization continues, we need nuanced views of culture that allow for change.

Regarding the research design of this study, the limitations of the study should be acknowledged. Due to the heterogeneities in two cultural groups' demographic characteristics, the results and conclusions of this study have certain limitation in their validity and generalization. Moreover, while this study adopted primary data to measure individuals' cultural values, the predictive power of the values on social media-based outcomes have not been examined. The next step of this study is to explore the reason leading to the inconsistency between individuals' active SM participation and the negative correlation related to their individual cultural values. Additionally, future research should take more demographic information to add nuance to country of origin, such as region of origin, socioeconomic status, family status, population density of region of origin, etc. The investigation of these additional demographic data would allow for these data to either be eliminated as mitigating factors, or revealed as such. Furthermore, a combination group-level and individual-level measures can function as a constellation of culture in future studies. Finally, the sample of this study creates certain limitations. First, both groups of this study are technology-savvy, limiting the generalizability of these findings to similarly savvy populations. Second, the Chinese population in this study is skewed older than the American sample. The reasons for this skewing are the actual demographics of these samples on campus. However, this fact does muddy the picture because the older students may take their studies more seriously.

Future studies should consider these limitations and perhaps add a second dyad with domestic Chinese students and international American students.

Despite this study's limitations, the findings suggest that the SM needs of international Chinese students and domestic American students are different and that those differences cannot be fully chalked-up to stereotypical cultural norms. These findings suggest that each population of international students have unique needs and therefore interventions need to be developed to understand these different needs as international students begin the acculturation process. In other words, technological tools, including SM, developed by universities for international students should be tailored based on needs assessments of each cohort.

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