



Strategic self-presentation online: A cross-cultural study

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ABSTRACT

Contemporary social networking sites (SNSs) make idealized self-presentation and image maintenance difficult because users' audiences are becoming more diverse and individual users must negotiate often unanticipated *other-provided information* in the form of text posts and digital images on their profile pages. This cross-cultural study examines how audience-related variables affect a range of strategic self-presentation and image management behaviors online. Results from samples of Singaporean and American SNS users ($N = 411$) show that while Americans update their profiles with text-based wall posts more frequently, Singaporeans share significantly more photos. Audience diversity is positively associated with active management of other-provided information, and females share more photos and actively manage unwanted photo tagging. Cultural identity and the tendency to 'friend' unknown others interact on managing other-provided wall posts; individualistic cultural identity exhibited positive relationships with these reactions for those less likely to friend unknown others but negative ones for those more likely to friend unknown others. Implications for the theoretical understanding of and practical suggestions about self-presentation online are discussed.

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1. Introduction

Self-presentation is “the process of controlling how one is perceived by other people” (Leary, 1995, p. 2) and is key to relationship inception and development. In order to construct positive images, individuals selectively provide information about themselves and carefully cater this information in response to others' feedback (Goffman, 1959).

Internet-based communication tools provide new opportunities for self-presentation, especially via social networking sites (SNSs) which allow users to strategically create custom profile pages. Here, users provide information about themselves via a variety of different modes of communication, ranging from using plain text to report personal information, update status, and write comments on friend's profile pages, to sharing a prolific amount of images. However, individual users are not the only source of information about themselves. Members of their online networks also contribute information to their profile page. These social network 'friends' can publicly comment on an individual's status updates, add text-based posts to their friend's profile pages, and connect individual profile owners with shared digital content like photos, a behavior known as photo tagging. Once an individual user is tagged in a photo, that photo becomes visible to visitors of his or her profile

page. More importantly, these content additions can be made at any time without permission of the profile page owner.

These interactions reduce the profile page owner's control over the information about themselves (Ramirez & Walther, 2009). This is problematic for the pursuit of idealized self-presentation because information provided by others (*other-provided information*,¹ or OPI) may be inconsistent with the strategic image-based goals of profile owners. Compared with information provided by profile owners themselves (*self-provided information*,² or SPI), OPI is less likely to be manipulated, more credible, and thus can have a greater impact on how profile owners are perceived (Walther, Van Der Heide, Hamel, & Shulman, 2009; Walther, Van Der Heide, Kim, Westerman, & Tong, 2008).

The multiple audience problem poses additional challenges (Leary, 1995). Today, users' online networks encompass family members, friends from school and work, as well as total strangers (Hampton, Goulet, Rainie, & Purcell, 2011). This may be problematic because different audience segments have different expectations about one's public image (Binder, Howes, & Sutcliffe, 2009), and SNS users must adjust their public image to expectations of all these segments (Goffman, 1959). As traditional geographic and temporal boundaries in face-to-face communication diminish during online communication, it becomes difficult to manage diverse audience segments simultaneously in closed systems like SNS (Binder et al., 2009; boyd, 2008). This increases the chances

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¹ OPI: other-provided information.

² SPI: self-provided information.

that OPI becomes problematic and thus poses challenges to effective self-presentation.

Audience characteristics and individual cultural identity effect self-presentation online. Culture is a broad concept associated with national identity and gender (Hofstede, 1980; Maltz & Borker, 1982). Scholarship has found cultural- and gender-based differences in self-presentation behaviors on- and offline (Rosen, Stefanone, & Lackaff, 2010). Research also demonstrates that online social network (i.e., audience) characteristics could affect self-presentation behaviors (Binder et al., 2009). However, the relationships between culture, idiosyncratic audience characteristics, and how individuals manage OPI to present themselves in a positive light online, remain unclear.

The purpose of this research is to address these gaps by examining factors that affect how individuals share *self-provided* text- and image-based information in the form of wall posts and photos, and how they manage *other-provided* visual and text-based information on their profiles. Drawing on research about protective self-presentation (Arkin, 1981), the individualism-collectivism dichotomy (Hofstede, 1980), the gender-as-culture argument (Maltz & Borker, 1982), and the analysis of social network structure (Binder et al., 2009), we propose to examine how cultural identity, gender, and specific audience characteristics affect a range of self-presentation behaviors online.

2. Theoretical framework and hypotheses

2.1. Self-presentation

The goal of self-presentation is to make others accept the images individuals claim for themselves (Goffman, 1959). To achieve this goal, individuals must present themselves in accordance with their social roles, and make sure others positively evaluate their images. Thus, individuals need to adjust their public images to audience expectations.

Goffman suggests that seeking approval and avoiding disapproval motivate effective self-presentation, which can be achieved through two types of self-presentation: acquisitive and protective (Arkin, 1981). The purpose of acquisitive self-presentation is seeking approval, so presenters emphasize attractive aspects of themselves and construct desirable images. However, protective self-presentation is aimed at avoiding disapproval. Thus, presenters make neutral expressions, conformity, and modest self-disclosure to avoid rejections from the audience. Arkin (1981) argued that humans tended to make acquisitive self-presentation, but three factors could motivate them to switch to protective self-presentation. First, if the target is considered capricious, their expectation of appropriate self-presentation is unclear. This motivates presenters to employ protective strategies to avoid negative outcomes. Second, if information disclosed during an interaction undermines positive images, presenters are motivated to engage in protective self-presentation. Finally, certain internal characteristics render some presenters more motivated to engage in protective self-presentation. Examples of these characteristics include low self-esteem, greater concern over how one's self is perceived, and the tendency toward social comparison.

Based on Arkin (1981), we argue that individuals engage in acquisitive self-presentation by disclosing positive SPI and protective self-presentation through protective tactics discussed later. Further, as Arkin (1981) suggests, these two self-presentation behaviors are affected by both internal (e.g. personality) and external factors (e.g. audience characteristics). However, when self-presentation manifests during computer-mediated communication (CMC), technological features should also be considered.

2.2. Online self-presentation

Traditional CMC scholarship argues that Internet-based communication tools allow individuals to optimize their self-presentation. The hyperpersonal communication model suggests that limited cues and the asynchronous nature of CMC enable selective self-presentation wherein individuals emphasize attractive characteristics and conceal unattractive ones (Walther, 1996). Thus, the technological features of CMC promote acquisitive self-presentation and optimized personal images (Ellison, Heino, & Gibbs, 2006).

However, today's CMC platforms make acquisitive self-presentation challenging. One antecedent of selective self-presentation is that all the information about the presenter is self provided. However, recent technology allows for OPI from SNS users' contacts. This type of information involves identifying people in shared photographs and comments from other network members. As OPI reduces profile owners' control over the information about themselves, it can be inconsistent with the desired image they construct (Ramirez & Walther, 2009). Further, OPI is less likely to be subject to manipulation and therefore judged as more credible (Walther & Parks, 2002). Thus, OPI may have a greater impact on self-presentation than SPI.

Another challenge is the multiple audience problem (Leary, 1995). Increased audience diversity characterizes contemporary online social networks (Hampton et al., 2011). Traditionally, temporal, spatial, and social boundaries between different interactions can segregate the audience so that self-presentation can be target at specific audience members. However, these boundaries are obscured in the contemporary CMC environment (boyd, 2008). As effective self-presentation needs to be adaptive to expectations of different audiences (Goffman, 1959), this may cause undesirable public impressions or relational intensions (Binder et al., 2009; Tokunaga, 2011).

These two challenges increase the chance of protective self-presentation for two reasons, consistent with Arkin (1981). First, the multiple audience problem obscures expectations of the entire audience. Second, OPI undermines optimized public images. Therefore, individuals may be prompted to make protective self-presentation.

Multiple protective tactics in CMC have been discussed. Smock (2010) categorized these tactics into repudiative and subtractive strategies. Repudiative strategies are those tactics used for denial of certain characteristics such as making an innocent defense or compensatory self-presentations. Subtractive strategies are those tactics used to remove undesired information. As self-presentation is influenced by external and internal factors, we focus on audience and individual cultural identities below, examples of external and internal factors respectively.

2.3. Self-presentation and audience

In face-to-face (FtF) communication, audience is those that individuals interact with and can directly observe their behaviors. On SNS, audience refers to users' online network members because they can view both SPI and OPI about those network members. Thus, in the current study we operationalize audience as individual user's network members.

The first audience characteristic that influences self-presentation is size. One main motive for using SNS is relationship maintenance (Smock, Ellison, Lampe, & Wohn, 2011). As online networks increase in size, so does the need to maintain those relationships. One technique of relationship maintenance is self-disclosure. Theories contend that increased self-disclosure can facilitate relationship development (Altman & Taylor, 1973; Burger & Calabrese, 1975). Therefore, users with large networks require

more self-disclosure. Thus, we expect that (H1a) audience size has a positive relationship with the amount of SPI.

As relationship maintenance is a main motive of using SNS, one possible outcome associated with large audiences is more interactions between profile owners and their network (Smock, 2010). As a consequence, individuals with large audiences likely receive more OPI. As the volume of OPI increases, so does the probability that this information is inconsistent with the image the profile owner constructs and maintains, which should motivate protective self-presentation (Arkin, 1981). Based on our argument about the relationship between audience size and OPI, we hypothesize that (H1b) audience size has a positive relationship with engaging in protective self-presentation to manage unwanted OPI.

Audience diversity likely affects self-presentation as well. Nowadays SNS users have increasingly diverse social networks comprised of close friends, family members, acquaintances and strangers (Hampton et al., 2011). Moreover, these social spheres are in the same space where temporal, spatial, and social boundaries are disrupted (boyd, 2008). This makes effective self-presentation more challenging because different social spheres have different expectations about individuals' ideal selves. For example, a photo of an underage individual drinking alcohol may be acceptable to friends, but it would likely be inappropriate for their parents. This phenomenon, known as the multiple audience problem (Leary, 1995), is associated with diverse audiences due to the complexity of balancing expectations of multiple social spheres.

As diverse audience obscures expectations of appropriate behaviors, individuals should be more motivated to engage in protective self-presentation (Arkin, 1981). One strategy is to only disclose the information acceptable to everyone in their networks, termed as the lowest common denominator (Hogan, 2010), thus reducing the amount of SPI. Additionally, because OPI may violate expectations of certain audience segments, protective tactics may be used (Arkin, 1981). Thus, we expect that (H2a) audience diversity has a negative relationship with the amount of SPI, and (H2b) a positive relationship with protective self-presentation to manage unwanted OPI.

The third audience characteristic which likely affects self-presentation is related to celebrity culture. Stefanone and Lackaff (2009) drew on social cognitive theory and explored the relationship between traditional mass media and new media use in an attempt to explain SNS use. They found that many online behaviors are related to the consumption of reality television programming. Specifically, those whose traditional media diet is dominated by reality television spend more time on social-network profile maintenance, have larger online networks, share more photos, and are more likely to engage in promiscuous friending, defined as creating online profile links to people not met in person. These online behaviors reflect identification with attention-seeking behaviors observed in reality television, characterized by excessive exposure to public attention at a cost of personal privacy. These attention-seeking behaviors are valued in reality television, thus encouraging heavy viewers to replicate them.

Consistent with the celebrity culture young people identify with as described above, we propose that one goal of SNS use is attention seeking. Literature shows that privacy protection can be achieved through regulation of disclosure boundary (Petronio, 2002), and friending behavior is a strategy for such regulation on SNS (Ellison, Vitak, Steinfield, Gary, & Lampe, 2011). Thus, promiscuous friending is a technique to gain more attention. By inflating audience size with unknown others, promiscuous frienders make themselves known to more people. Because attention pursuit is their goal, promiscuous frienders should share more SPI with abstract, mass audiences for increased public exposure. Thus we expect that (H3a) promiscuous friending has a positive relationship with the amount of SPI.

However, large audiences may also present complications for these users. As audience size increases, so does the likelihood of receiving OPI inconsistent with the image users construct online. Thus, one potential cost associated with expansive online audiences is the need to more actively maintain the desired self-image via protective self-presentation (Arkin, 1981). Therefore, (H3b) states that promiscuous friending has a positive relationship with engaging in protective self-presentation to manage unwanted OPI.

2.4. Self-presentation and culture

2.4.1. National identity as culture

Ting-Toomey (1999) defined culture as “a complex frame of reference that consists of patterns of traditions, beliefs, values, norms, and meanings that are shared in varying degrees by interacting members of a community” (p. 10). This definition suggests that culture is a broad concept, referring to not only national culture but social categorizations such as gender.

We first operationalized culture as national identity. It has been established that individual nation states are broadly associated with a more or less individualistic culture, and many researchers have compared countries along the lines of individualism (Hofstede, 1980; Triandis, 2001). For example, western societies are considered higher on the individualism scale, whereas Asian, African and South American societies are considered lower on the individualistic scale (Triandis, 2001).

One useful typology for understanding national cultural differences is proposed by Hofstede (1980). He defines it through four dimensions: individualism/collectivism, power distance, uncertainty, and masculinity. The dichotomy of individualism and collectivism is the most widely used in intercultural communication research. Individualistic and collectivistic cultures differ in how members define their relationships with others, which influences their attitudes towards competition (Hofstede, 1980). Members of individualistic cultures tend to see themselves as self-reliant, so competition is encouraged and personal achievement is valued. On the contrary, members of collectivistic cultures see themselves as interdependent with each other. As a result, they give priority to group achievement and harmony instead of individual success.

Empirical evidence about the relationship between culture and self-disclosure is mixed due to possible moderators (Gudykunst et al. (1996)). Further, most research examines self-disclosure at the dyadic level (Chen, 1995; Ting-Toomey, 1991; Wheless, Erickson, & Behrens, 1986), thus it is less applicable to the present research. Directly related to the current study are findings from Rosen et al. (2010), which show that SNS users with individualistic cultural identities share more digital photos. They argue that because personal achievement is valued in individualistic cultures, these individuals share photos as a means to compete for attention. In contrast, members of collectivistic culture emphasize group harmony, so they do not compete for individual attention. Thus, we hypothesize (H4a) individualistic cultural identity has a positive relationship with SPI, regardless of network size, diversity, or promiscuous friending.

Another focus of this study is how culture affects protective self-presentation online. Evidence about direct relationships is lacking, but as Gudykunst et al. (1996) argued, culture may have an indirect impact on protective self-presentation online. One mediator through which culture likely influences protective self-presentation is public self-consciousness. Fenigstein, Scheier, and Buss (1975) defined public self-consciousness as awareness of self in relation to others. An example of high public self-consciousness is great concern about how one presents self. Research found that individuals with high public self-consciousness engage in more strategic self-presentation to maintain positive self-images (Doherty & Schlenker, 1991; Schlenker, 1980). Further, because individ-

ualistic cultures value personal achievement, people identified with this culture are more concerned about the influence of negative comments on their images. Thus, they exhibit greater public self-consciousness than those from collectivistic culture (Gudykunst, Yang, & Nishida, 1987). We expect that (H4b) individualistic cultural identity has a positive relationship with managing unwanted OPI via protective self-presentation.

In addition, we argue that promiscuous friending may moderate the relationship between individualistic cultural identity and protective self-presentation behavior. Promiscuous friending clearly reflects attention seeking (Stefanone, Lackaff, & Rosen, 2010), and this goal motivates individuals to protect their public images. Although individualistic members may be generally more likely to engage in protective self-presentation due to their cultural background, if attention seeking is not their goal, they would be less active to strategically manage their images. Therefore, (H4c) promiscuous friending moderates the relationship between individualistic culture and the likelihood of engaging in protective self-presentation such that the impact of individualistic cultural identity on protective self-presentation is greatest for heavy promiscuous frienders.

2.4.2. Gender as culture

Another way of understanding culture is to operationalize it as gender. Gender refers to the way that society constructs discourse and behavior around the biological differences of sex. Eagly (1987) proposes that gender-specific behavior is a product of assigned roles based on biological sex. Much of the research on gender as culture focuses on the construction of social and cultural differences between genders, as well as the importance of social practices in expressing identity (Yates, 1997). For example, Maltz and Borker (1982) found gender differences in language use and proposed the gender as culture construct. If gender is understood as a cultural variable, it may also affect online behavior in predictable ways.

Most research about the impact of gender on self-disclosure focuses on dyadic disclosure, thus not applicable to our study. However, scholarship argues that different gender norms result in different communication behaviors. The male role requires unsentimental and emotionally unexpressive behavior, whereas the female roles generally require the opposite (Eagly & Koenig, 2006). Thus, women are generally found to disclose more about themselves both offline (Maltz & Borker, 1982) and online (Barrett & Lally, 1999), engage in more emotional exchanges than men (Gefen & Ridings, 2005), and share more photos online, operationalized as a visual form of self-disclosure (Stefanone & Lackaff, 2009). Therefore, we hypothesize that (H5a) females share more SPI online, opposed to males.

Furthermore, women are more vulnerable to criticism (Gore, Aseltine, & Colten, 1993; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999). As women are socialized for more self-regulation and greater concern with relationships (Leadbeater et al., 1999), they should be more concerned about others' comments on their profiles. Directly related to the present study, literature shows that women are more concerned about violations of privacy online and use more strategies to manage their self-disclosure (Child, 2007; Lewis, Kaufman, & Christakis, 2008). Thus, (H5b) females are more likely to engage in protective behavior in response to unwanted OPI online, opposed to males.

3. Method

3.1. Sample

An online survey was conducted during Spring 2011 at a large northeastern university in the US and a University in Singapore.

Both samples were recruited from introductory communication classes. Although we used convenience samples, it is a valid option for this research because undergraduate students are heavy SNS users.

We received 250 and 162 responses for the American and Singaporean samples, respectively. One response from the American sample was dropped because the participant reported not to use Facebook. In the American sample, 123 (49.4%) were male and 126 (50.6%) were female. There were 84 freshmen (33.7%), 88 sophomores (35.3%), 54 juniors (21.7%), and 23 seniors (9.2%). The majority of the American sample identified as Caucasian (185, or 74.3%), followed by Asian (38, or 15.3%), African American (19, or 7.6%), Hispanic (9, or 3.6%), and native Americans (3, or 1.2%). In the Singaporean sample, 41 (25.3%) were male and 121 (74.7%) were female. There were 56 freshmen (34.6%), 65 sophomores (40.1%), 12 juniors (7.4%), and 29 seniors (17.9%). Most Singaporean participants identified as Asian (159, or 98.1%), and the rest were Caucasian (3, or 1.9%).

Independent sample t-test showed no significant difference in the year of school between samples ($p > .05$, $df = 409$). Chi-square test showed significant gender differences between samples ($\chi^2 < .001$, $df = 1$), but no collinearity problem was detected.

3.2. Measures

Because previous research has demonstrated that SNS users are able to accurately recall the size of their online networks (Stefanone et al., 2010), *online network size* was measured by asking participants "How many total friends do you have?" *Diversity* was operationalized as an additive index of a 16-item scale (McCarty, Killworth, Bernard, Johnsen, & Shelley, 2001) which assesses a range of social categories (e.g., family, co-worker, etc.). Although the original scale was used to measure network size, the same technique of measuring network diversity was replicated and validated by Binder et al. (2009). *Promiscuous friending* was operationalized as the proportion of contacts never met in person in the network. Participants were asked "How many of your social network friends have you *never met face to face*?", consistent with Rosen et al. (2010).

SPI was operationalized as the number of photos respondents shared and the frequency of creating wall posts. Following Rosen et al. (2010), we asked respondents "How many photos have you uploaded to your SNS?" They were also asked to report the frequency of updating wall posts using a 7-point scale where 1 = Never and 7 = Hourly. Although updating wall posts may be a form of social grooming, these posts are used to express personal thoughts, which is a form of self-presentation (Leary, 1995).

Unwanted OPI was operationalized as photo tagging and wall posts that were initiated by someone *other than* the participant in this study and resulted in discomfort. Questions included "Have you ever been unhappy with a photo in which you were tagged?", "Have you ever been unhappy with the content of a wall post that involved you?", and "Have you ever been unhappy with the content of a wall post that someone posted on your wall?" If respondents answered "yes" to any of these questions, they were prompted to report the protective strategy they used from a list of options as shown below.

Protective self-presentation strategy includes both repudiative and subtractive strategies, and the items used were developed from related research (Besmer & Lipford, 2010; Smock, 2010). Strategies for managing unwanted photo tagging include, "I asked my friend(s) to remove the photo" and "I untagged my connection with the photo myself."

Strategies for managing unwanted wall posts from others include, "I asked my friend(s) to remove it" and "I added another post to the wall so I could comment about it." Strategies for man-

aging unwanted wall posts posted on the participant's online profile include "I removed it" and "I added another post to the wall so I could comment about it." Because these two questions are similar, they were combined to create a new variable measuring general protective strategies in response to unwanted wall posts.

4. Results

Table 1 presents descriptive findings and zero-order correlations for the scale used in this study. Participants had an average network of 543.12 friends ($SD = 304.48$), and 9% of their network had never actually been met ($SD = .20$). In terms of diversity, these friends fell into an average of 8.64 categories ($SD = 3.13$). Respondents shared 401.67 photos on average ($SD = 452.53$) and reported posting on their friends' wall roughly every few days ($M = 3.94$, $SD = 1.47$).

275 Respondents (66.9%) reported engaging in protective behavior in response to unwanted photo tagging. Most ($N = 239$) untagged the photos themselves. The rest asked their friends to remove the photos or talked to them about the photos. 51 participants used a subtractive strategy by asking their friends to remove posts about them that appeared on *their friends'* profile, and 34 adopted a repudiative strategy by adding another post in self-defense. 142 respondents adopted a subtractive strategy by removing the wall post that appeared on *their own* profile pages, and 18 used a repudiative strategy by adding another post in self-defense. In total, 56.2% of respondents ($N = 231$) reported protective reactions to these unwanted wall posts.

In order to test hypotheses 1 through 5, ordinary least squares (OLS) regression was conducted using the number of photos shared as the dependent variable. In the first model, culture and gender were entered in the first block, followed by audience size, diversity, and PF in the second block, controlling year in school (see Table 2). The final model explained 24.4% of the total variance in the number of photos shared online, $F(6, 309) = 17.96$, $p < .001$. Culture ($\beta = -.25$, $p < .001$), gender ($\beta = .30$, $p < .001$), and audience size ($\beta = .28$, $p < .001$) had significant relationships with the number of photos shared. Thus, hypotheses 1a, 4a and 5a were supported while 2a and 3a were rejected.

The same analysis was replicated to examine the impact culture and audience characteristics had on the frequency of wall posting. The final model explained 7% of the total variance, $F(6, 334) = 5.24$, $p < .001$. Culture ($\beta = .15$, $p < .01$), size ($\beta = .12$, $p < .05$), and diversity ($\beta = .15$, $p < .01$) demonstrated significant relationships with the frequency of wall posting. For wall posting, hypotheses 1a and 4a were supported, while 2a, 3a, and 5a were rejected.

Logistic regression was conducted to test hypotheses 1b through 5b. Protective self-presentation strategies to manage unwanted photo tagging (0 = no reaction; 1 = reacted with protective strategies) were entered as the dependent variable. In the first model, culture and gender were entered in the first block, followed by audience size, diversity, and promiscuous friending in the second block, and the interaction between culture and promiscuous friending in the third, controlling year in school (see Table 3). In

the final model, the χ^2 value was 39.18 ($p < .001$) and the Cox & Snell R^2 was 11%, indicating that the model performed well. Culture ($B = .61$, $p < .05$), gender ($B = 1.01$, $p < .001$), and audience diversity ($B = .11$, $p < .05$) exhibited significant relationships with engaging in protective self-presentation to manage unwanted photo tagging. Thus, hypotheses 2b, 4b, and 5b were supported, but 1b, 3b and 4c were rejected.

The same analysis was replicated to examine the impact of culture and audience characteristics on protective behavior in response to unwanted wall posts. Protective reactions to unwanted wall posts (0 = no reaction, 1 = reacted with protective strategies) were entered as the dependent variable. The χ^2 value for the final model was 33.58 ($p < .001$) and the Cox & Snell R^2 was 9%, indicating that the model performed well. Audience diversity ($B = .14$, $p < .01$) and the interaction between culture and promiscuous friending ($B = -.89$, $p < .05$) exhibited significant relationships with engaging in protective self-presentation to manage unwanted wall posts (see Table 4). Thus, hypotheses 2b, and 4c were supported, but 1b, 3b, 4b, and 5b were rejected.

To highlight how culture and promiscuous friending interact on whether to engage in protective self-presentation to manage unwanted wall posts, we re-centered promiscuous friending by standardizing the variable and creating high and low values of this variable. We then conducted logistic regression. Individualistic cultural identity demonstrated a negative relationship ($B = -3.72$, $p < .05$) with protective self-presentation to manage unwanted wall posts for heavy promiscuous frienders. However, this relationship was positive ($B = 4.96$, $p < .01$) for light promiscuous frienders.

5. Discussion

The purpose of this study is to better understand how audience characteristics and cultural identity influence self-presentation behavior. Two challenges for effective self-presentation are discussed: increasing amounts of OPI and the multiple audience problem. OPI can undermine the images individuals strategically construct (Walther et al., 2008, 2009), and the multiple audience problem can obscure audience expectations and increase the chance of receiving problematic OPI (Arkin, 1981; Leary, 1995). These two challenges can motivate SNS users to engage in protective self-presentation to maintain positive images. As both internal and external factors influence self-presentation, we examined how cultural identity and audience characteristics influence self-presentation behaviors in two dimensions: disclosing SPI and managing OPI. Specifically, we investigated how gender, national identity, audience size and diversity, and promiscuous friending affect the two dimensions of online self-presentation. These findings help us understand online self-presentation behaviors in new technological and multi-cultural environments.

5.1. Audience characteristics and self-presentation

Our research began by examining how audience influences self-presentation. We consistently found positive relationships be-

Table 1
Descriptive statistics and zero-order correlations for variables; means (standard deviation) presented along the diagonal.

| | Culture | Year in school | Size | Diversity | Promiscuous friending | N of photos | Freq. wall post |
|-----------------------|---------|----------------|-----------------|-------------|-----------------------|-----------------|-----------------|
| Culture | – | –.01 | –.03 | .04 | .08 | –.29** | .17** |
| Year in school | | 2.07 (1.00) | –.15** | –.01 | .01 | –.03 | –.10 |
| Size | | | 543.12 (304.48) | .33** | –.02 | .29** | .21** |
| Diversity | | | | 8.64 (3.13) | –.09 | .06 | .21* |
| Promiscuous friending | | | | | .09 (.20) | .00 | –.06 |
| N of photos | | | | | | 401.67 (452.53) | .20** |
| Freq. wall post | | | | | | | 3.94 (1.47) |

Note: ** $p < .01$; Singapore = 0, American = 1.

Table 2
OLS model explaining the number of photos shared and the frequency of wall posting.

| | N of Photos shared | | | | Frequency of wall posting | | | |
|-----------------------|---------------------------|-------|---------------|--------|---------------------------|-----|---------------|-----|
| | Before β entry | | Final β | | Before β entry | | Final β | |
| | β | SE | β | SE | β | SE | β | SE |
| Culture | -.26*** | 51.27 | -.25*** | 49.15 | .14** | .16 | .15** | .16 |
| Gender | .29*** | 48.83 | .30*** | 47.07 | .01 | .16 | .04 | .16 |
| Year in school | -.04 | 24.18 | .00 | 23.38 | -.12* | .08 | -.10 | .08 |
| Incremental R^2 | .17*** | | | | .03** | | | |
| Size | | | .28*** | .08 | | | .12* | .00 |
| Diversity | | | -.00 | 7.85 | | | .15** | .03 |
| Promiscuous friending | | | .04 | 108.33 | | | -.05 | .36 |
| Incremental R^2 | .07*** | | | | .07*** | | | |
| F, Adj. R^2 | F(6, 309) = 17.96, .24*** | | | | F(6, 334) = 5.24, .07*** | | | |

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; Singapore = 0, American = 1; Male = 0, Female = 1.

Table 3
Standard beta coefficients for logistic regression explaining protective self-presentation in response to unwanted photo tagging.

| | Protective self-presentation in response to unwanted photo tagging | | | | | | | |
|---|--|-----|-------|--------------------|---------------|------|-------|------------------------|
| | Before β entry | | | | Final β | | | |
| | B | SE | Wald | Exp, [CI] | B | SE | Wald | Exp, [CI] |
| Constant | .27 | .37 | .53 | 1.31 | -1.34* | .59 | 5.12 | .26 |
| Culture | .73** | .26 | 8.00 | 2.07, [1.25, 3.44] | .61* | .30 | 4.09 | 1.85, [1.02, 3.34] |
| Gender | .84** | .25 | 11.08 | 2.32, [1.41, 3.82] | 1.01*** | .27 | 14.00 | 2.74, [1.62, 4.65] |
| Year in school | -.17 | .12 | 2.06 | .84, [.66, 1.07] | -.15 | .13 | 1.49 | .86, [.67, 1.10] |
| Incremental $\chi^2 = 18.58***$ | | | | | | | | |
| Size | .00 | .00 | 3.34 | 1.00, [1.00, 1.00] | .00 | .00 | 1.83 | 1.00, [1.00, 1.00] |
| Diversity | .11* | .04 | 5.91 | 1.11, [1.02, 1.21] | .11* | .05 | 5.92 | 1.12, [1.02, 1.22] |
| Promiscuous friending | -.18 | .59 | .10 | .83, [.26, 2.64] | 4.10 | 2.71 | 2.28 | 60.29, [.30, 12304.41] |
| Incremental $\chi^2 = 14.01**$ | | | | | | | | |
| Interaction, culture* Promiscuous friending | | | | | -1.05 | .58 | 3.36 | .35, [.11, 1.08] |
| Incremental $\chi^2 = 6.60^*$ | | | | | | | | |

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; model $\chi^2 = 39.18***$; CI = confidence interval; male = 0, female = 1; no reaction = 0, reacted with protective tactics = 1.

Table 4
Standard beta coefficients for logistic regression explaining protective self-presentation in response to unwanted wall posts.

| | Protective self-presentation in response to unwanted wall posts | | | | | | | |
|---|---|-----|-------|--------------------|---------------|------|-------|----------------------|
| | Before β entry | | | | Final β | | | |
| | B | SE | Wald | Exp, [CI] | B | SE | Wald | Exp, [CI] |
| Constant | -.18 | .35 | .27 | .83 | -1.88** | .55 | 11.80 | .15 |
| Culture | .32 | .24 | 1.84 | 1.38, [.87, 2.19] | .24 | .25 | .91 | 1.27, [.78, 2.08] |
| Gender | -.02 | .23 | .01 | .98, [.63, 1.54] | .07 | .24 | .10 | 1.08, [.67, 1.72] |
| Year in school | -.13 | .11 | 1.32 | .88, [.70, 1.10] | -.14 | .12 | 1.40 | .87, [.68, 1.10] |
| Incremental $\chi^2 = 3.41$ | | | | | | | | |
| Size | .00 | .00 | 3.29 | 1.00, [1.00, 1.00] | .00 | .00 | 1.86 | 1.00, [1.00, 1.00] |
| Diversity | .14** | .04 | 11.25 | 1.15, [1.06, 1.24] | .14** | .04 | 10.99 | 1.15, [1.06, 1.25] |
| Promiscuous friending | -.42 | .59 | .50 | .66, [.21, 2.11] | 2.47 | 1.51 | 2.70 | 11.87, [.62, 227.00] |
| Incremental $\chi^2 = 21.69***$ | | | | | | | | |
| Interaction, culture* Promiscuous friending | | | | | -.89* | .36 | 6.02 | .41, [.20, .84] |
| Incremental $\chi^2 = 8.49**$ | | | | | | | | |

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; model $\chi^2 = 33.58***$; male = 0, female = 1; no reaction = 0, reacted with protective tactics = 1.

tween audience size and SPI. This relationship was strong, even after controlling for gender, culture, network diversity and promiscuous friending. Besides functioning as a technique for self-presentation (Leary, 1995), self-disclosure is also the central mechanism for relationship development (Altman & Taylor, 1973). As one purpose of using SNS is relationship maintenance, SNS users keep their contacts informed about themselves. If they have large audiences, more self-disclosure is needed.

Audience diversity is another predictor of self-presentation behavior. As hypothesized, audience diversity demonstrated a po-

sitive association with engaging in protective self-presentation to manage unwanted OPI, providing empirical support for the multiple audience problem (Binder et al., 2009; Leary, 1995). A diverse audience increases the probability that OPI may be contradictory with expectations of different social spheres in their network, so protective self-presentation is needed.

Surprisingly, audience diversity had a positive association with the frequency of updating wall posts. The content of wall posts may account for this finding. Arkin (1981) and Hogan (2010) contend making neutral self-disclosure which is acceptable to every

audience member is the key to solve multiple audience problem. This is perhaps what our participants did, and future research can conduct content analysis to test whether this strategy is actually used. This conjecture suggests a strategy for effective self-presentation on SNS. Recall that our results show that users have an average of about 543 contacts in their networks. With large networks, reducing the amount of self-disclosure as a preventative measure is very difficult given the need for relationship maintenance. Thus, disclosing a lot of benign information may be an effective self-presentation tactic which balances the amount and content of self-disclosure.

We did not find any association of promiscuous friending with photo sharing and wall post updating. One explanation may be the mixed nature of these behaviors. Take photo sharing for example. Miller and Edwards (2007) proposed two modes of online photo sharing: traditional sharing with an existing network of family and friends, and public sharing with strangers and online acquaintances. These modes differ in their purposes: the former for relationship development and maintenance, and the latter for attention seeking. Likewise, although SNS users disclose their thoughts while updating wall posts, the primary purpose of wall post exchanges is development and maintenance of relationships. Promiscuous friending should demonstrate a positive relationship with broadcasting SPI to a large, anonymous audience for attention seeking, but no or even a negative association with sharing SPI for relationship maintenance because promiscuous frienders do not know many of their audience. As both possibilities exist, it makes their relationship complicated. Further, this also explains the absence of relationship between promiscuous friending and engaging in protective self-presentation to manage unwanted OPI. As personal interaction is lacking between promiscuous frienders and their audience members, they may not receive many photo taggings or wall posts from their network. Future research should not treat these disclosive and exchange behaviors on SNS as homogeneous, but distinguish these two modes based on whom SPI is shared with.

5.2. Cultural identity and self-presentation

5.2.1. National identity

The second focus of the present research is to examine the relationship between cultural identity and online self-presentation. We first operationalized culture as national identity, and tested the relationship between culture and self-disclosure. Different from previous research that investigated self-disclosure between dyads, we examined this behavior to large audiences. We found that Americans updated wall posts more frequently, thereby evidencing that members from individualistic culture tend to disclose themselves more at a different communication level. However, opposite to our prediction, Singaporeans shared more photos than Americans. One explanation is the mixed nature of photo sharing: for relationship maintenance and attention seeking. Because collectivistic culture values in-group harmony, Singaporeans might share photos with family and friends for relationship maintenance purposes. Future research can compare whether users from these two cultures differ in the audience they share photos with.

We also found Americans engaged in more protective self-presentation to manage unwanted photo tagging, compared with Singaporeans. This provides support to previous study that individualistic cultural members are more active in strategic management of public impressions (Gudykunst et al., 1987). One reason can be their higher public self-consciousness, which future research can test.

These findings suggest the relationship between culture and self-disclosure should be mediated and moderated by other variables. This is because culture has a direct and indirect influence

on communication (Gudykunst et al., 1996). On the one hand, culture affects norms guiding communication behaviors. On the other hand, culture influences how individuals perceive them and others, which then influences communication behaviors. Future research should test these potential mediators and moderators.

The most promising finding regarding the impact of culture on self-presentation is the interaction effect between culture and promiscuous friending on engaging in protective self-presentation to manage unwanted wall posts. Individualistic cultural identity demonstrated opposite relationships with protective management of unwanted wall posts among heavy and light promiscuous frienders: negative in the former but positive in the latter. This finding first evidences that among light promiscuous frienders (or regular SNS users), individualistic cultural members are more active in strategic management of public impressions, as discussed above. More importantly, the negative relationship among heavy promiscuous frienders suggests that promiscuous frienders in different cultures may have different motivations for self-presentation online. For American promiscuous frienders, their primary goal of online self-presentation is attention seeking. In order to draw more attention, they can sacrifice positive images. On the contrary, Singaporean promiscuous frienders may be more concerned about how they are perceived. They manage their public images more cautiously to maintain positive public images while gaining public attention.

This finding points to an important implication for self-presentation research. Given that American promiscuous frienders do not care whether they are perceived in a positive light, self-presentation may not always aim at constructing positive public images. It is functional, depending on specific goals in different contexts. Sometimes a negative public image such as being weak can help them request help and achieve their goals (Bolino & Turnley, 1999). Future research needs to investigate how self-presentation strategies are used for a greater range of different purposes on SNS.

5.2.2. Gender as culture

In the current research, we operationalized biological sex as a form of culture. We found females shared more SPI and were more likely to react protectively to unwanted photo tagging, offering support to the gender-as-culture hypothesis (Maltz & Borker, 1982). Our findings first added evidence to the literature that females tend to engage in more self-disclosure online (Rosen et al., 2010). More importantly, we examined self-disclosure to large audiences, rather than between dyads. Thus, this result confirms gender difference in self-disclosure at a different communication level.

Additionally, we found that females made more efforts to manage visual images. This may be because females are more vulnerable to criticism, as found in previous research (Gore et al., 1993; Leadbeater et al., 1999). More importantly, given that we did not find gender difference in management of unwanted wall posts, it may be reasonable to argue that females are more vulnerable to criticism about their physical appearance, due to the social norm that emphasizes physical attractiveness of women (Park, DiRaddo, & Calogero, 2009).

5.3. Limitations, implications and future research

There are several limitations with this research. First, single-item measures were used for the number of photos shared and audience size. Although single-item measures can be unreliable, Bergkvist and Rossiter (2007) and Wanous and Hudy (2001) evidence that single items can function similarly to multiple items in terms of reliability and predictive validity when precise and singular objects are measured.

Another limitation lies in our operationalization of culture. Using nationality to measure cultural identification and treating it as dichotomous does not allow the assessment of cultural differences within countries (Green, Deschamps, & Páez, 2005). Although this operationalization is justified by being consistently used and supported in intercultural communication research, a more accurate operationalization would involve measuring participant identification with more specific cultural dimensions (Rosen et al., 2010).

In spite of these limitations, this research provides practical implications for effective self-presentation tactics. For instance, in order to manage the multiple audience problem, SNS users can choose private communication channels, block certain audience members from seeing some content, or make neutral disclosures.

This study presents many directions for future research. First, the impact of culture on self-presentation behaviors is not linear and can be moderated by behaviors like promiscuous friending. Future research should explore potential moderators. Second, SNS features can differ in their nature. For instance, photo sharing is a means for both self-disclosure and relationship maintenance. The nature of these features depends on the content and the intended audience. Future research should address nuances of these variables. Third, although network diversity has been measured by an established scale, there has been no research testing its reliability and validity, which is an important area for future research. In addition, given that promiscuous friending is an indicator of attention seeking, a special motive of using SNS (Stefanone et al., 2010), future research should investigate the antecedents and consequences of attention seeking behavior on SNS. Most research follows the traditional theoretical framework of uses and gratifications, but has not yet acknowledged that certain SNS features may provide opportunities for new categories of gratification (Sundar & Limperos, 2010). Future research should investigate how attention seeking behavior affects online self-presentation. Finally, we suggested that promiscuous friending may present different implications in different cultures. Thus, why promiscuous friending varies in different cultures is another question of interest future research can explore.

6. Conclusion

This research contributes to understanding of online self-presentation in an intercultural context characterized by an abundance of OPI generated by large, diverse audiences. Culture has been found to influence self-presentation behaviors, together with audience characteristics. Our findings provide evidence that self-presentation is a function of self-audience interaction, and that cultural norms that guide offline interaction persist online and continue to guide how individuals present themselves.

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