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Full length article

Profile pictures on social media: Gender and regional differences

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ABSTRACT

Several key characteristics of social media through which users create virtual identities affect their psychological experiences. One of the most important ways for doing this is the use of the profile picture. This research is a follow-up study of Wu, Huang, and Yuan's (2015), and it further examines Taiwanese, Chinese and International students' choices of profile pictures and what their motivations are. Gender plays a role in determining the choice of profile picture. The study also found out that Taiwanese students, Chinese students, and International students are drawn towards different type of profile pictures.

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1. Introduction

With the advent of computer-mediated communication, there has been a huge increase in the popularity and use of social networking sites (Boyd & Ellison, 2007). Text, photo, and video posts are the first impressions of social media. Social media users have an online identity that may be different from their actual identity but through which they project online activities (Zhao, Grasmuck, & Martin, 2008). One particular important course of action that is used for projecting the user's online identity is their choice of profile picture (Wu, Chang, & Yuan, 2015). This is because the profile picture is the most prominent part of a user's online profile as it is often used to identify the user and is present in any of their online activities. Some applications, such as WeChat, even utilize a friend's profile picture to verify a user's account in the event of the password being forgotten. Facebook also requests account holders to identify friends' profile pictures in order to verify their own accounts.

Internet usage is spurred on by the desire for people to explore

themselves virtually (Turkle, 1997). Marriott and Buchanan (2014) suggested that people find it easier to express their "true selves" more easily online than in the physical world. McKenna, Green, and Gleason (2002) posited that everyone has two identities, their "true" self and their "actual" self. Introverted people find it easier to express themselves online as opposed to through physical interaction (McKenna et al., 2002). Online, demonstration rather than notification is the primary form of expression (Zhao et al., 2008). This means that users are shaping their own identities by posting photos. Anderson, Fagan, Woodnutt, and Chamorro-Premuzic (2012) found that social media are used more as a complement than as a replacement of non-virtual friends. They are used to strengthen existing relationships and, secondarily, to forge new ones. Social media are also used by students for forming and maintaining social capital (Ellison, Steinfield, & Lampe, 2007). They keep alive relationships with people whom they no longer have physical contact with. Raacke and Bonds-Raacke (2008) discovered that social networking sites have many uses and meet the gratifications of many users.

One of the most popular forms of social networking sites is, of course, Facebook, which was launched on February 4, 2004. Facebook boasts a user base of over one billion people as of 2012, and almost all college and university students are found to possess a Facebook account (Lee, 2012). According to a report by the Market

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Intelligence & Consulting Institute (2014), the utilization rate of Facebook is the highest among different social media in Taiwan. It indicates that the main purposes of the users were to maintain social relationships and, secondly, to fulfill personal interests and preferences. However, the mainstream social media in China are Qzone, RenRen, WeChat, and QQ. A recent investigation by the China Internet Network Information Center (2016) shows that the proportion of the population using cellphones for Internet access increased from 85.8% in 2014 to 90.1% in 2015. The main purposes of users were entertainment and communication. Cellphones were the primary device for achieving this scale of growth. The number of users of WeChat grew from 4 million to 6.5 million between 2014 and 2016, a growth rate ranked as the highest among all the social media in the world (We Are Soical, 2016). Its number of active users is expected to exceed that of Qzone this year and lags only behind that of QQ. WeChat, a social medium for communication based on mobile hosts, was launched on January 21, 2011. WeChat ranks first in mobile instant messaging in the Asia-Pacific region (We Are Soical, 2014). Similar to Facebook, WeChat allows users to create a profile to post their own information, such as a profile picture, place of residence, and a personalized signature. Functions such as text and image sharing, instant messaging, gaming, and financial services are also provided. Users may share feelings, photos, and videos in their circle of friends as well as interact with friends.

Although, a previous study has looked into the motivation behind the use of social media (Ryan & Xenos, 2011) and even the choice of profile picture (Kapidzic, 2013), they have been largely limited in depth where profile pictures are concerned. Previous research has categorized profile pictures into several popular types (Nosko, Wood, & Molema, 2010), but it has not been comprehensive in its categorization. Wu et al. (2015) made the first attempt to investigate the motivations behind the choice of a profile picture and the image of the user conveyed, showing that the choice of profile picture affected the viewer's own future choice of a profile picture. In building on their efforts, it is interesting to investigate whether gender and regional differences exist among viewers. This work is a follow-up study to that by Wu et al. (2015) in further examining the choice of profile picture type chosen, the motivation behind it, and the impression given by said profile pictures. The gender factors and users' backgrounds were largely neglected. This study will seek to explore whether a gender factor and users' background play a role in users' behavior where profile pictures are concerned. It will examine the type of profile picture chosen by students in Taiwan and China and link it with their motivation to see if any differences exist between them.

2. Literature review

Social media are becoming increasingly popular in today's world (Gonzalez, 2011). Various studies have found that people use social networking sites to maintain long-distance relationships and to support physical interactions (Anderson et al., 2012; Tosun & Lajunen, 2010). Madge, Meek, Wellens, and Hooley (2009) suggest that Facebook is more used for communicating to friends about work rather than for doing any actual work. For instance, students utilize Facebook for project discussions rather than for actual work. Rosen and Klumper (2008) found a positive correlation between extroversion and conscientiousness with the level of use of social media. The size of a user's social network can be often determined by the degree of extroversion of the user (Schrammel, Köffel, & Tscheligi, 2009; Selfhout et al., 2010). Back et al. (2010) also suggest that Facebook profiles are a reflection of the user's actual personality and are not just a self-idealization. While almost every user shares some information, the type of information shared is not equal, but is determined by the personality traits of the users

(Matzler, Renzl, Müller, Herting, & Mooradian, 2008).

Anderson et al. (2012) examined the psychological side of using Facebook and whether it has an impact on users' psychological wellbeing. However, Grieve, Indian, Witteveen, Anne Tolan, and Marrington (2013) argued that Facebook actually has a positive impact on depression and anxiety, providing greater satisfaction with life. Karakayali and Kilic (2013) suggested that Facebook users utilize the social network not only to receive "personal information" about other users but also to view relationships between users. But Facebook users are aware that they themselves are subject to scrutiny from others. However, they are more likely to be perturbed by observations of people in their own social circle as opposed to strangers' observations. This is probably because users place more importance on the impressions of their immediate social circles than on those outside them.

The profile picture is an important component of social media. However, the profile picture does not always correspond to the real self (Suh, 2013). This can be explained by the fact that users tend to choose profile pictures that enhance their physical attractiveness without being judged deceptive (Hancock & Toma, 2009). Zhao et al. (2008) employed content analysis on 63 Facebook accounts to investigate how its users establish their identities. They discovered that the way users establish their identities in the environment of Facebook differs from practices in other anonymous online environments. The main requirement of Facebook users is to keep their identities implied and vague, because they do not allow non-friends to browse their profile pictures and cover photos. Kapidzic and Herring (2015) suggested that girls are more likely to choose profile pictures that are seductive in comparison to boys. Narcissism is also found to be an influencing factor in the choice of profile picture, as narcissistic users are more likely to choose profile pictures that accentuate their perceived attractiveness. So important is the profile picture, that it has even been found to have a negative effect on the user's psychological wellbeing when negative perceptions arise regarding their self-image (Aronson, Wilson, & Akert, 2010).

The pivotal role played by the profile picture in the construction of a user's positive identity is known to users, and they can change their change profile pictures frequently to test different identities (Hum et al., 2011). Information about the user, such as the location of the user, the user's companions, and the time when the picture was taken, can be obtained from a picture (Karakayali & Kilic, 2013). Pearson (2010) suggested that only through awareness of and compliance with the implicit rules of conduct relevant to a particular social medium or community can a positive virtual image be created for the user. Factors like aesthetic preferences, color palettes, or subject choice have a huge impact on a viewer's image of the user, for instance, in judging whether they are young, immature, or of similar mind. A wrong choice can have a huge negative impact on the user, causing them to be disregarded. Only through acceptance of the "rules of conduct" can users construct a positive identity for themselves. Pearson (2010) also found that the user's propensity for visual creation, manipulation, and deployment is a vital part of an overall individual and social impression management strategy to create a visual aspect that has value for online impressions. Users sometimes even go to the extent of ensuring that their profile pictures project a professional image to support their future job prospects.

Gender was not found to be a factor when it comes to virtual identity construction via the profile picture. Agreeableness has an influence on the likelihood that a user is befriended by others (Selfhout et al., 2010) and, as such, on profile pictures. Hence, research by Wang, Moon, Kwon, Evans, and Stefanone (2010) suggested that the level of attractiveness of a profile picture combined with the gender of the user influence the likelihood of a user being

befriended. However, the amount of attention attracted by both genders is not equal, with female users attracting more attention than male users (Seidman & Miller, 2013). Strano (2008) found that profile pictures are chosen based on their level of attractiveness or perceived fun, and that most profile pictures are that of the user alone. This is probably because a profile picture is obviously used to identify the owner of a profile. Yang and Li (2014) conducted a study on Chinese college student's self-image on social network sites and founds that gender difference exists in online image-based self-presentation. Döring, Reif, and Poeschl (2016) applied content analysis to explore the influence of gender-stereotyping on selfies. Ultimately, they discovered a marked difference between the genders, which is greatly influenced by magazine advertisements.

3. Methods

3.1. Participants and procedures

This study conducted a pilot study on 20 graduate students before the final questionnaire was distributed to the subjects. In order to ensure that the results could be compared and interpreted, a gender-matched sample of students from Taiwan and China was used in this study. In Taiwan, the research object of this study was a group of students using Facebook. Participants, comprising university students, graduate students, and doctoral students, were drawn from 24 universities. They were recruited to participate in a paper or online survey with the similar method. There were 479 valid questionnaires collected. The gender distribution of the respondents was 50.3% male students and 49.7% female students. WeChat users comprised the research sample in China. The Chinese sample constituted graduate students and university students from a national university in southeast China. A total of 231 valid questionnaires were collected. The gender distribution of the sample was 43.7% male students and 56.3% female students. Hence, the sample consisted of 710 students in total (Table 1). A chi-squared test was employed to investigate whether there was any gender similarity between the sample in Taiwan and the one in China. The results indicated no significant gender difference between the samples at the 5% level of significance. The sample was classified into Taiwanese students, Chinese students, and International students. The gender and regional differences in the motivation behind their choice of profile pictures were compared.

The average time taken to fill the questionnaire was around 10 min. As shown in Fig. 1, this study attempted to categorize the most commonly used profile pictures into 11 categories based on previous research (Nosko et al., 2010; Strano, 2008). Prior to assessing their own profile pictures, the participants were asked to

evaluate the 11 categories of profile pictures. This could help participants to understand the relationship between their profile picture and the image categories (Fig. 1). In the second part of the study, the participants evaluated their own social media profile pictures to better understand their motivations behind their choice of picture. The study ended with the participants recording their country of origin and gender.

3.2. Questions design and measures

The first part of the questionnaire contained 11 pictures representing each picture category, with the aim of discovering the image that it sent out, the perceived motivations behind its choice, and the extent to which it was liked without being affected by the viewer's familiarity with the user. Profile picture evaluations were conducted with a single choice multiple options method, where the participants chose the option that they considered to be most relevant. The extent to which each profile picture was liked by the participants was measured using a five point Likert scale ("strongly disagree" to "strongly agree"). A five point Likert scale was used to gauge the extent to which each picture category was liked. A question including picture selection and its corresponding picture descriptions was designed to ensure picture validity and test for discrepancies between participants' picture selection and intended picture category. In addition, a chi-squared test was employed to test for internal consistency. The results indicated no significant gender difference in picture selection discrepancy at the 5% level of significance. The second part of the study was designed to make the participants think about the motivation behind their own choice of profile picture and the category to which they belonged. Own profile picture evaluations were conducted using the same method as in part one.

4. Results

4.1. Gender

Table 2 depicts a comparison between the types of profile pictures chosen according to gender. There is a significant difference between the choice of profile picture on Facebook between males and females (Chi-square = 43.641, $P < 0.001$). We can see that while the picture category of "user alone posing" has the highest percentage in both genders, males are more likely to choose a profile picture of themselves alone compared to females (27.78% in males to 24.73% in females). Similar to the findings of Döring et al. (2016), men prefer a standing pose when taking selfies. An interesting point to note here is that the second highest percentage of profile picture category for females is "face/head shot of the user" at 14.95%, whereas for males it has only a percentage of 10.82%.

The comparison of the motivation behind the choice of profile pictures between genders is shown in Table 3. The motivation behind the choice of profile pictures for men and women reached a 5% level of significance (Chi-square = 20.465, $P < 0.05$). The main motivations for men are to look attractive, show themselves having fun, and share special moments. The main motivations for women are to look attractive, share special moments, protect their anonymity, show themselves having fun, and show their interests. This suggests that the motivations behind the choice of profile pictures of women are more diverse relative to men. The attractiveness of the profile pictures was observed to be the most important factor influencing students' choices. This is inconsistent with the investigation results of Manago, Graham, Greenfield, and Salimkhan (2008), which showed that only women emphasize attractiveness. In addition, women are particularly keen on choosing photos of special moments as their profile pictures. This implies that

Table 1

Samples.

Nationalities		Gender		Total
		Male	Female	
Taiwanese students	Count	188	200	388
	% within Region	48.5%	51.5%	100.0%
	% within Gender	55.0%	54.3%	54.6%
Chinese students	Count	92	122	214
	% within Region	43.0%	57.0%	100.0%
	% within Gender	26.9%	33.2%	30.1%
International students	Count	62	46	108
	% within Region	57.4%	42.6%	100.0%
	% within Gender	18.1%	12.5%	15.2%
Total	Count	342	368	710
	% within Region	48.2%	51.8%	100.0%
	% within Gender	100.0%	100.0%	100.0%

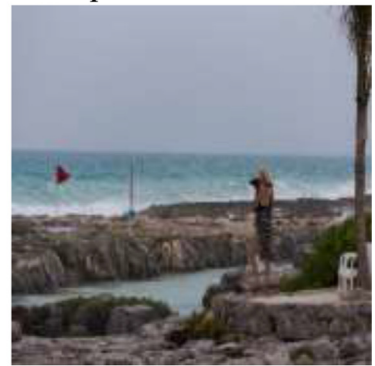
1. Socializing



2. Romantic Picture



3. Unique Location



4. Supporting Cause



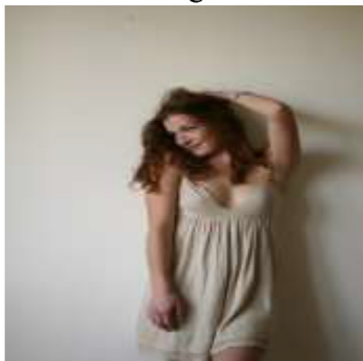
5. Face Shot



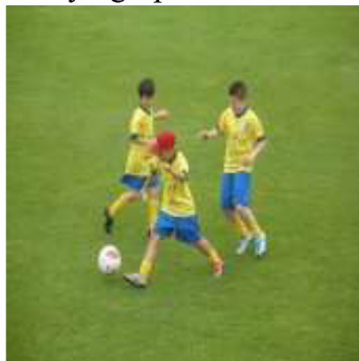
6. Special Occasion



7. Alone Posing



8. Playing Sports



9. Family



10. Interests



11. Humorous Shot



Fig. 1. Picture category. (Pictures are in compliance to creative commons).

Source: Wu et al. (2015). Socializing <https://flic.kr/p/7aeAb2> Romantic <https://flic.kr/p/8LmBp1> Unique location <https://flic.kr/p/nrfNs9> Supporting cause <https://flic.kr/p/3Pk6Zp> Face Shot <https://flic.kr/p/9WVeSo> Special Occasion <https://flic.kr/p/9CPU4N> Alone posing <https://flic.kr/p/9BczC5> Playing Sports <https://flic.kr/p/eKsV6> Family <https://flic.kr/p/8JcsAy> Object of Interest <https://flic.kr/p/4y4NXZ> Humorous shot <https://flic.kr/p/4mYJmK>.

Table 2

The choice of profile picture between genders.

	Male		Female		χ^2	p
	Count	%	Count	%		
Alone posing	95	27.78%	91	24.73%	43.641	0.000
Socializing	9	2.63%	10	2.72%		
Supporting cause	28	8.19%	6	1.63%		
Special occasion	26	7.60%	26	7.07%		
Romantic picture	20	5.85%	4	1.09%		
Humorous shot	19	5.56%	20	5.43%		
Unique location	24	7.02%	33	8.97%		
Face shot	37	10.82%	55	14.95%		
Playing sports	17	4.97%	10	2.72%		
Family	14	4.09%	17	4.62%		
Interests	27	7.89%	48	13.04%		
Others	26	7.60%	48	13.04%		
Total	342	100.00%	368	100.00%		

Table 3

The motivations behind choice of profile picture between genders.

	Male		Female		χ^2	p
	Count	%	Count	%		
To look attractive	97	28.36%	100	27.17%	20.456	0.025
To show having fun	44	12.87%	41	11.14%		
To look humorous	31	9.06%	27	7.34%		
Romantic relationship	16	4.68%	6	1.63%		
Highlight friendship	16	4.68%	6	1.63%		
Special moment	41	11.99%	63	17.12%		
Family-oriented	9	2.63%	14	3.80%		
To show my interests	34	9.94%	37	10.05%		
To support for a cause	18	5.26%	15	4.08%		
To protect anonymity	27	7.89%	42	11.41%		
Other	9	2.63%	17	4.62%		
Total	342	100.00%	368	100.00%		

women emphasize emotional expression (Döring et al., 2016). The men like to show that they are having fun. Users of this type of picture hope to gain the attention of their friends through fun and humor; thus their pictures show them as “being popular among friends” (Zhao et al., 2008). The largest gender differences found are in sharing special moments and protecting anonymity.

4.2. Regions

Table 4 compares the choice of profile picture types of Facebook between regions. There is a significant difference between the choice of profile picture between Taiwanese, Chinese and International students (Chi-square = 105.006, $P < 0.001$). It is observed that a large number of Taiwanese students choose “Alone Posing”

(36.86%) and “Face Shot” (15.21%) for their profile pictures. This shows that Taiwanese students often use solo shots as profile pictures, to differentiate themselves from others. Döring et al. (2016) reasoned that “Alone Posing” seems to have been influenced by peers and magazine advertisements. Chinese students like to upload profile pictures that display their interests (20.56%). This can be explained by the desire to attract people with similar interests and to hide their identities. The profile pictures of international students are more diverse, since our samples came from all over the world. International students’ profile pictures involved social activities or were sports-related (14.81%). Allen, Drane, Byon, and Mohn (2010) highlighted that students from Western countries use sports as a vehicle to gain social capital. By combining samples from Taiwan and China, we found that “Alone Posing” pictures comprised the majority of the samples, which is very different from the diversity found among international students. In comparison with Asians, Western students will upload a photo with more friends to social media (DeAndrea, Shaw, & Levine, 2010). Different social and cultural backgrounds can be used as predictors of mindset and behavior (Döring et al., 2016).

Table 5 depicts the Chi Square Tests on motivations behind choice of profile picture between regions. From the table we can see that there is a significant difference between the motivations behind the choice of profile picture between Taiwanese, Chinese and International students (Chi-square = 47.744, $P < 0.001$). Table 5 also demonstrates that the greatest motivation is to look attractive. According to Vacharkulksemsuk et al. (2016), an open posture will attract double the attention that a closed position receives. The primary motivations of Taiwanese students when selecting their profile pictures are to look attractive (34.28%), to display special moments (16.24%), and to show that they are having fun (13.40%). The primary motivations of Chinese students are to look attractive (19.16%), to show their interests (14.02%), and to display special moments (13.08%). The primary motivations of international students are to look attractive (21.30%), to show that they are having fun (13.89%), and to display special moments (12.04%). Generally, the Chinese participants used profile pictures that showed their interests, while the Taiwanese and international participants captured an element of fun in their profile pictures. This shows that the culture of fun and play is now deeply rooted in the psyche of Taiwanese and international students.

5. Discussion and conclusion

From this study we can see that even though every user try to portray the best impression in online virtual identity and are aware of the vital role played by profile pictures in giving a positive impression (Hum et al., 2011), they do not all do so in the same way. The study of Wu et al. (2015) proposed that gender has a significant

Table 4

The choice of profile picture between regions.

	Taiwanese		Chinese		International		χ^2	p
	Count	%	Count	%	Count	%		
Alone posing	143	36.86%	30	14.02%	13	12.04%	105.006	0.000
Socializing/sport	20	5.15%	10	4.67%	16	14.81%		
Supporting cause	16	4.12%	12	5.61%	6	5.56%		
Special occasion	22	5.67%	18	8.41%	12	11.11%		
Romantic partner/family	21	5.41%	19	8.88%	15	13.89%		
Humorous shot	23	5.93%	9	4.21%	7	6.48%		
Unique location	25	6.44%	22	10.28%	10	9.26%		
Face shot	59	15.21%	21	9.81%	12	11.11%		
Interests	27	6.96%	44	20.56%	4	3.70%		
Others	32	8.25%	29	13.55%	13	12.04%		
Total	388	100%	214	100%	108	100%		

Table 5

The motivations behind choice of profile picture between regions.

	Taiwanese		Chinese		International		χ^2	p
	Count	%	Count	%	Count	%		
To look attractive	133	34.28%	41	19.16%	23	21.30%	47.744	0.000
To show having fun	52	13.40%	18	8.41%	15	13.89%		
To look humorous	25	6.44%	23	10.75%	10	9.26%		
Romantic relationship/friendship	16	4.12%	14	6.54%	14	12.96%		
Special moment	63	16.24%	28	13.08%	13	12.04%		
To show my interests	31	7.99%	30	14.02%	10	9.26%		
To support for a cause	15	3.87%	13	6.07%	5	4.63%		
To protect anonymity	34	8.76%	23	10.75%	12	11.11%		
Other	19	4.90%	24	11.21%	6	5.56%		
Total	388	100%	214	100%	108	100%		

effect on self-personality reflection. Moreover, other recent studies have also identified the role of gender and culture in social media behavior (Dong, Wu, Gu, & Stockton, 2012; Narasimhamurthy & Block, 2014; Oberst, Renau, Chamarro, & Carbonell, 2016). Therefore, the present study sought to explore whether participants' gender and background play a role in determining the type of profile picture they choose and whether any differences exist in their motivations.

The findings of this study demonstrated that gender plays a role in determining the choice of profile picture. According to previous research, masculine and feminine traits have changed over the past 40 years in China, with increasingly more women now tending to adopt masculine traits and an androgynous personality (Dong et al., 2012). However, masculine, feminine, or androgynous styles are preferred in a given context (Arrindell et al., 2013). In this research context, we also found the common motivations between men and women. The picture category of “user posing alone” occupies the highest percentage in both genders. Users opting to pose alone in their profile picture are associated with being self-confident (Kaya & Bicen, 2016; Strano, 2008). Tobi, Ma'on, and Ghazali (2013) also suggested that the use of social network can build user confidence.

In addition, different categories of profile picture appeal to men and women at different levels. Previous studies have shown that women tend to be rational thinkers, delicate and sensitive, and like to reveal their emotional experiences; therefore, they are considerably more concerned than men are about their physical appearance, even in virtual networks (Meier & Gray, 2014; Oberst et al., 2016; Okdie, Guadagno, Bernieri, Geers, & McLaren-Vesotski, 2011). In line with their research, the present study explored and confirmed this gender difference. For example, the secondary motivations of men and women are “to show themselves having fun” (12.87%) and “to share a special moment” (17.12%), respectively. Women emphasize emotional expression in their profile pictures, whereas men like to show that they are having fun. Women use social network sites as a productivity tool whereas men primarily use them as a form of entertainment (Dong et al., 2012). Strano (2008) stated that profile pictures are chosen on the basis of perceived fun or their level of attractiveness. Women often emphasize their emotional needs when uploading and sharing pictures (Yang & Li, 2014). Furthermore, they tend to adopt a different approach compared with men when selecting their online images and they tend to reveal more skin in their online avatars (Lomanowska & Guitton, 2012). In summary, our research findings show that men and women select profile pictures for different purposes.

The study also found out that Taiwanese students, Chinese students, and International students are drawn towards different type of profile pictures. This is connected to differences in their motivations behind choice of profile pictures. Underlying their

motivation is their personal background, such as their personality and culture, and culture in particular shapes individuals' beliefs, values, and behaviors (Hofstede & Hofstede, 2001). This is also true in the context of social media use. Previous research (Kim, Sohn, & Choi, 2011) showed that even when the major motives are similar, the weight assigned to them differs, and Eastern people seem to give more emphasis to social support. Eastern people, particularly Chinese people, tend to focus on collectivism, high context, and interdependent self-construal (Hofstede & Hofstede, 2001). Therefore, Chinese people may strive to control their emotions and be less self-oriented and more considerate of others (Badger, Nelson, & Barry, 2006), which will affect their social media use. For instance, self-presentation and perceived risk were emphasized by Chinese users (Ng, 2016). By contrast, because Western people focus on individualism, low context and independent self-construal (Hofstede & Hofstede, 2001), they engage in different behaviors. These differences were investigated and confirmed in our study, in which the Taiwanese and Chinese participants were more likely to choose a profile picture of them “posing alone” (28.73%), which was driven by their motivation to look attractive. Conversely, international students are more likely to choose profile pictures of them in “Socializing/Sport” (14.81%) which is driven by their motivation to gain social capital and to show them having fun. In comparison with Taiwanese students and Chinese students, international students are also more likely to use photos with more friends as profile picture, conforming with DeAndrea et al. (2010).

Differences were observed in the choice of profile picture between males and females and among users with different regional backgrounds. The first important factor which influences men and women's use of social media is a desire to build their confidence. Moreover, different categories of profile picture appeals to male and female in different levels, which give rise to their motivation. Furthermore, the motivation is shaped by the culture as shown by the fact that the international students' social media behavior is different from Chinese and Taiwanese students'.

5.1. Implications

Intercultural research focuses more on the differences in people's behaviors in gender and cross-cultural contexts (Hofstede & Hofstede, 2001; Markus & Kitayama, 1991). Theoretical research attempts to distinguish cross-cultural differences in attitude, motivation, values, and behavior through various methods. In virtual networks, people may be more comfortable with expressing their “true selves” (Marriott & Buchanan, 2014). Therefore, we can effectively enhance the research validity of exploring different cultures by analyzing people's online behaviors and the underlying motivations of such behaviors. The present study contributes to the literature by elucidating human motivation and behavioral

differences resulting from gender differences and differences in cultural background.

On the theoretical level, this study contributes to the extant literature by exploring the differences in choice of profile picture and the motivation behind its choice between males and females. It indicates that differences exist in the choice of profile picture between males and females. Furthermore, this study discovers that users of regional backgrounds differ in their choice of profile picture, driven by differences in motivation when they select their social media profile picture. On practical level, by understanding these influencing factors, this study brings another level of understanding into the workings of cross-platform with regards to choice of Profile Picture.

5.2. Limitations and future researches

A limitation of this study is that comparison was conducted based only on the participant's national background and not according to their ethnicity. For instance, an Asian-American raised with different values and culture may exhibit different behaviors to a Caucasian American, even though they are both from the same country. Future studies can explore whether any differences exist in the choice of profile pictures and the motivation behind their choice between participants of different ethnicities. In addition, as this study focused only on students, future studies can expand into other social groups, such as adolescents, working professionals, children, and retirees, for example.

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