

The Impact of Culture and Gender on Attitudes toward Social Media Use for Educational Purposes

Adam Acar

Kobe City University of Foreign Studies, Japan
acar@inst.kobe-cufs.ac.jp

Abstract - This exploratory study was conducted to investigate the relationship between culture, gender, and overall attitudes toward social media use for educational purposes. More than 100 college students from 25 countries filled out an online survey that asked about their opinions on using Facebook for educational purposes and using web-based learning methods for classes they take. The results showed that students from collectivist countries have more positive attitudes toward using Facebook for learning and there is no significant difference between males and females in terms of attitudes toward Facebook use for education and web-based learning. These results may be related to high social media engagement rates in collectivistic countries and high privacy concerns in individualistic countries.

Keywords - Culture, Gender, Cross-Cultural, E-Learning, Social Media, Facebook, Twitter, Hofstede, Collectivism, Individualism

I. INTRODUCTION

Today, a farmer in Peru can sell his handcrafts to a businessman in Berlin via Ebay and a street performer from Shanghai can be an instant celebrity in the US with the help of social media platforms like YouTube and Facebook. More importantly, millions of lessons are now free and available to billions of people thanks to new communication channels that enabled technology to move faster than ever before and levelled the playing

field for everyone. In 2011, a Stanford course offered on Coursera attracted more than 160,000 participants from 190 countries, which would have been unimaginable before social media became widely popular. However, of those 160,000 who registered, only 23,000 of them completed the course (ICEF Monitor). Although the reasons may vary, culture must be one of them, as our literature review explains how culture shapes the way we perceive the world, how we behave, and how we learn. As global educators, we must understand the relationship between social media use and cultural patterns in order to successfully incorporate social media into our lessons and better prepare for the global future.

Currently, there are more than a dozen studies about student attitudes toward eLearning and the relationship between culture, individual characteristics, and eLearning. However most of these studies may be considered outdated, as they do not involve the use of social media, the major online activity of most college students today. What is more, there are only few studies available that sheds light on the relationship between social media use and eLearning that is likely to be impacted by culture. One should note that cultural dimensions like individualism and collectivism and individual characteristics like gender may also explain whether students are willing to use popular social networks for educational purposes or not. This topic is particularly important because recently there has been mounting evidence that social media can be an effective eLearning tool for classes joined by students from all around the world (e.g. MOOCs).

This study aims to close this literature gap by providing data that is necessary to establish a comprehensive “attitudes toward social media in classroom” model and help educators all around the world adjust their teaching style based on individual and cultural characteristics of their students. This study is also particularly important for one more reason, and that is the convergence in society. In every 60 seconds, over 100 thousand tweets are posted, 700 thousand Facebook statuses are updated, and 168 million emails are sent. Social networking is currently the #1 online activity, and as Nagi and Vate U-Lan (2009) pointed out, now societies are transitioning to the Interaction Age from the Information Age. In this new age, teamwork, collaboration, and critical thinking that are closely related with virtual learning environments (Nagi & Vate U-Lan, 2009) are becoming important. Therefore, scholars must understand how social media can contribute to this relationship and how it can be utilized to improve student learning.

II. LITERATURE REVIEW

A. Culture and its Dimensions

Hofstede (2001, p. 9) defines culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another.” According to Hofstede (1980), most of the social scientists after the 50s tried to explain different nature of societal problems with different dimensions of culture ranging from economic evolution to communication context. He also came up with five unique dimensions of the culture after analyzing thousands of responses to his measures from 50 different countries between 1970 and 1980. Follow up studies validated his dimensions and during the initial period of 1980-1993, there were 1036 academic citations referring to his dimensions and his book (Sondergaard, 1994). In this study, we used Hofstede’s cultural values based on the recommendation of Olaniran who stated:

In order to realize eLearning objectives, it is important to pay specific attention to learners’ cultural learning needs and accommodate them

in ways that promote good outcomes for the students. Attention to learners’ cultures requires a look at the dimensions of cultural differences. One useful model in exploring cultural differences includes the dimensions of cultural variability... (p. 183).

Hofstede’s (2001) five culture dimensions can be summarized as:

Power distance refers to the perception of power gap between different segments of society such as elderly and youngsters, managers and subordinates, and teachers and students. In societies where there is higher power distance, more inequality among people and less even distribution of economic wealth would be common. Hofstede claimed that in societies where a small number of people control the power, subordinates learn not to question the decisions of the authority and tend to act submissively.

Individualism/collectivism continuum represents the degree of individualistic versus collectivist tendencies that exist in each society. Individualistic societies put more value on achieving individual potential and personal freedom. According to Hofstede (2001), members of individualistic societies usually believe equality is less important than freedom, individual decisions are more practical and effective, privacy is something that should be deeply respected, and confrontations are part of a daily life. As the name suggests, individualistic societies tend to emphasize individual autonomy and collectivistic societies stress the importance of group harmony.

Uncertainty avoidance simply means refraining from unambiguous situations. In uncertainty avoiding cultures, people cannot perform well in unstructured and unfamiliar conditions, unlike some other cultures where ambiguity is part of daily life. Although it may sound similar, risk avoidance and uncertainty avoidance are different concepts. Hofstede argued that in countries where high uncertainty is common, people tend to express their emotions openly, have negative attitudes

toward diversity and foreigners, don't want to get involved with politics, and form tight groups and societies.

Masculinity means higher preference for competition and achievement in society. Masculine cultures tend to favor assertiveness and male dominance, whereas feminine cultures value nurturing and caring. Masculine cultures also have clear and well defined gender roles where males usually dominate. People coming from masculine cultures value work, support the strong and powerful, prefer big organizations over small organizations, and tend to be conservative.

Long term orientation is having future focus when making decisions. Just like

collectivist societies, long-term oriented societies value tolerance for others, harmony, and humility. According to Hofstede (2001), long-term orientation is similar to having Chinese values that are highly influenced by Confucianism. In long-term oriented societies, people put special emphasis on perseverance and frugality, while saving one's face and relationships with others come first in short-term oriented societies.

B. Culture and Education

Geert Hofstede (2001) also provided valuable insights on how each cultural dimension impacts education systems all around the world. The following table shows common values that are associated with Hofstede's dimensions:

<p>High Power-Distance (page 107)</p>	<ul style="list-style-type: none"> • “Students dependent on teachers” • “Teacher-centered education” • “Teachers initiate all communication in class” • “Quality of learning depends on excellence of teachers” • “High expectations on benefits of technology”
<p>High Uncertainty-Avoidance (page 169)</p>	<ul style="list-style-type: none"> • “Students seek structured learning situations and seek right answers” • “Children rate self-efficacy low” • “Parents seen as extension of teachers” • “Teachers supposed to have all answers”
<p>High Individualism (page 237)</p>	<ul style="list-style-type: none"> • “Teachers deal with individual pupils” • “Students’ selves to be respected” • “Students expected to speak up in class or large groups” • “Purpose of education is learning how to learn, not how to do”
<p>High Masculinity (page 306)</p>	<ul style="list-style-type: none"> • “Curriculum choices guided by career expectations” • “Boys and girls study different subjects” • “Public praise to reward good students” • “Failing in school is disaster”

C. Culture and E-Learning

Up to date, many scholars have investigated how culture impacts the way individuals adopt and use eLearning methodologies. In a study conducted by Downey et al. (2004), students coming from countries where high-power distance is common took more time to learn an eLearning activity. Adeoye and Wentling (2007) analyzed the use of an eLearning platform by international students from 11 different countries and concluded that high uncertainty avoidance negatively related with memorability, meaning learners from

uncertainty avoiding countries had lower memorability scores. Agerup and Busser (2005) qualitatively analyzed a virtual collaborative learning activity of Japanese students who have collectivistic values and American students who have individualistic values. The findings showed that there were many misunderstandings as the Japanese students found the Americans unstructured and too quick to make a decision, while the Americans thought the Japanese were unemotional and conservative.

Most of the past studies focused on power distance and collectivism. Downey et al. (2004) found that students from collectivist cultures showed more satisfaction in their eLearning platform. Djojoputro et al. (2005) observed that students from collectivistic and high-power distant cultures have a hard time adopting to online learning mostly because: a) they tend to hesitate to share their opinion publicly; b) they think the teacher is the main source of information, not their peers; and c) they may post something wrong and lose face. Koh and Lim (2007) also compared high and low-power distance cultures and found that students from low-power distant cultures were more positive about online learning technologies. After reviewing a number of studies, Olaniran (2009) concluded that low-power distance cultures would be more open to ICTs because those cultures value giving the control of learning to learners rather than teachers. These findings make it clear that cultural dimensions can explain how each nation responds to new eLearning technologies. However, there may be some exceptions. For instance, Masoumi and Lindstrom (2012) found that Hofstede's values may not always be reflected in real life, as they found that Iranian students were very interested in openly indicating their own unique opinions in online learning environments, even though Iran is known to be a collectivistic country.

To better understand the commonalities in the findings of the past research, Uzuner (2009) reviewed 27 academic papers about culture and asynchronous learning networks. She confirmed most of the past findings that high collectivism and high-power distance are negatively related with adoption of and satisfaction with online learning. Uzuner (2009) also made the following suggestions to improve cross-cultural teaching:

- Online participation rules must be very clear because students from high uncertainty avoidance cultures do not like classes without clear online participation rules and formal instructions.

- Students from East Asia should be given an opportunity to express their opinions safely and securely because usually they hesitate voice their opinions publicly.

- Students from high context cultures should get to know each other first and share background information (photos, interests, etc.) before using an online platform together.

- Students from collectivist cultures should be asked to form smaller groups and group participation and teamwork in those groups should be monitored carefully.

- Teachers should keep in mind that student from high-power distance cultures may hesitate to contact them or verbally express their expectation for formal feedback. Teachers should keep in mind that some cultures favor constructivist-based pedagogy versus instructivistic-based pedagogy.

Uzuner (2009) emphasized that more studies are needed to improve our understanding of networked learning. In a more recent study McNaught et al. (2011) interviewed with 8 professors who used Web 2.0 technologies and social media platforms to support their teaching in Hong Kong: a country that has Confucianistic and collectivistic values. She found that both students and teachers in Hong Kong were concerned about using student-generated content in social media for grading, and, as indicated by Uzuner, some students were only interested in interacting with their close friends and reluctant to respond to other students' content. To better understand the impact of cultural context on students' reactions to social media, we pose these research questions:

R1: Is there a relationship between Hofstede's individualism dimension and attitudes toward social media use for educational purposes?

R2: Is there a relationship between Hofstede's power distance dimension and attitudes toward social media use for

educational purposes?

D. Gender and Communication

In the book *Human Communication*, Tubbs and Moss (2006) clearly distinguish men and women in terms of language usage, self-attributions, and nonverbal communication behaviors. The authors mention that women in general have lower self-esteem, use more intensifiers and questions, value social relationships more, touch more, smile more, and gaze more compared with men.

Canary and Dindia (1998) compiled the past studies regarding the communication behavior of different sexes and cited that men prefer agentic friendships and women prefer communal friendships (Ch. 2), women are more emphatic communicators (Ch. 3), women detect emotional cues better than men (Ch. 7), femaleness is associated with aesthetic language and maleness is associated with dynamic language (Ch. 6), men provide less emotional support and choose less person-

centric comforting strategies (Ch. 7), men are more persuasive than women (Ch. 11), women talk more about the opposite sex and appearances (Ch. 13), girls are more concerned about communicating in small groups to confirm and reinforce intimacy versus boys who prefer large groups (Ch. 12).

Another major difference between men and women was identified to come from "Gender Linked Language Effect" (Mulac, 1998). As Tannen (2001) pointed out, just like how each culture has a different language and conversation style, the genders also differ dramatically from each other in terms of the language they use and the way they interact (e.g. report talk in men versus rapport talk in women; masculine versus feminine language; direct and personal statements by men versus indirect, elaborate, and affective statements by women). The following table summarizes the verbal and nonverbal communication differences between men and women.

TABLE II
GENDER AND COMMUNICATION

Source	Verbal / Nonverbal Cues	Males Higher	Females Higher	Sig.
Mulac, 1998	Reference to quantity	x		**
	Judgmental Adjectives	x		**
	Directives	x		**
	Locatives	x		**
	I references	x		**
	Intensive adverbs		x	**
	References to emotions		x	**
	Dependent clauses		x	**
	Sentence initial adverbials		x	**
	Uncertainty verbs		x	**
Hall, 1998	Questions		x	**
	Facial Expressiveness		x	**
	smiling		x	**
	Gestural expressiveness		x	**
	Approaching others	x		**
	Assertiveness	x		**
	Emergence as a task leader	x		**

E. Gender and E-Learning

The relationship between gender and eLearning has been a popular topic, and most of the past studies indicate that males are more willing to adopt and use new digital learning platforms. One of the earliest studies carried on by Abousserie et al. (1992) showed that overall, male students have higher preferences for computer-assisted learning. Similarly, after surveying more than 1000 participants, Broos (2005) concluded that females in general have less ICT experience and more negative attitudes toward the internet and computers. Additionally, the results that are based on a survey conducted among more than 150 business professionals in Taiwan also indicated that males overall have better attitudes toward eLearning and score higher than females in computer-self efficacy (Ong & Lai, 2006). In the same vein, Link and Marz (2006) found that males overall have more positive attitudes toward interactive and multimedia-enhanced learning platforms; however, previous computer experience (computer literacy) and age are better predictors of eLearning adoption.

On the other hand, the gender effect on eLearning is not consistent and seems to be fading away, as most of the recent studies cite a little or no impact. According to Looker and Thiessen (2005), males seem to be more competent in computer technologies, but when it comes to actual usage, there seems to be very little or no gender difference. Tsai and Tsai (2011) found that females actually have higher internet self-efficacy than males. By the same token, Gomez et al. (2012) reported that female students who are taking online classes tend to be more satisfied with the eLearning tool they are using mostly because of extra teacher support and learner autonomy. Ashong and Commander (2012) replicated Gonzalez-Gomez et al.'s findings and suggested that females actually have more positive attitudes toward eLearning especially in the areas of extra teacher support, collaboration opportunities, personal relevance, and learning autonomy.

F. Gender and Social Media

Past studies showed that females are less responsive during online interactions (Herring, 2003) and less likely to use online services (Maldonado et al., 2001). Hoy and Milne (2010) found that females are significantly more likely to be concerned about their privacy and take precautions to protect their privacy on Facebook. Despite their privacy concerns, females use social network channels more (Acar, 2008) and feel more comfortable in using social networking channels as part of eLearning (Tashir, et al., 2011).

Since there are conflicting findings, we propose the following research questions:

R3: Do females have more negative attitudes toward eLearning?

R4: Do females have more negative attitudes toward social media use as part of eLearning?

III. METHODOLOGY

A. Subjects and Procedure

This study employed survey methodology where participants were able to access the questionnaire online. A total of 108 (55 females, 49 males, 4 unidentified (avg. age: 23.8)) graduate and undergraduate students who are enrolled in various courses at 3 different universities in Japan, one private university in Hong Kong, and a public university in Germany participated in the study. The participants were contacted via convenience sampling and given the option of completing the web-based questionnaire in exchange for class credit. Most of the participants in Japan took this survey as part of their classes taught by the principal investigator at a computer lab, so the response rate was 100%. In Germany and Hong Kong, the study was announced by professors who are teaching business classes, however, the response rate is not available for the subjects who participated in the study outside Japan.

The data collection took place in May of 2013, and students from various demographics (e.g., major, gender, year at the school, etc.)

participated in the study. The sample consisted from 25 different countries from all around the world (Afghanistan, Laos, Cambodia, Sri Lanka, Myanmar, Malaysia, Mexico, Venezuela, China, Indonesia, India, Uganda, Bulgaria, France, Hong Kong, Belgium, Thailand, Pakistan, Japan, Italy, USA, Canada, Germany, UK, and Switzerland). Fully 100% (n=108) of the participants indicated that they have a profile listed on a social media platform.

B. Measures

The following table summarizes the items that were used in this study to measure

attitudes toward Facebook use for educational purposes and attitudes toward web-based learning. The scales were adopted from Acar (2013). As a procedure, the respondents were provided these statements and asked to indicate their agreement on a 7-point scale where 1 means strongly disagree and 7 means strongly agree. Additionally, each respondent served as a representative of the country he/she is from and was associated with the five cultural dimension scores that are available on www.geerthofstede.com. These scores were then correlated with individual's attitudes toward Facebook and web-based learning.

TABLE III
SURVEY ITEMS AND RELIABILITY SCORES

Latent Variable	Note for survey Takers	Items	Reliability
Attitudes toward having a Facebook class page		Overall I feel positive about having a Facebook page for each class I take	Cronbach's alpha=.88
		By using Facebook for our classes, we can learn a lot	
		Using Facebook for our classes can be fun	
Attitudes toward online Education	The following questions are related with distance learning without any face to face instruction. It simply means taking a class online (receiving the learning materials online, taking the exam online and so on).	I prefer getting class notes over the internet or via email instead of getting them in the classroom	Cronbach's alpha=.81
		It is a good idea to have an online discussion board for each class we take	
		It is a good idea to have an official class page that has extra videos and applications about the class topics	
		It is a good idea to have a class page that allows us to submit our assignments online	
		Overall, I feel positive about taking classes that are supported by online materials (e.g. videos, class notes, discussion boards, quizzes, etc.)	

IV. FINDINGS

To understand whether males and females differ in their attitudes toward Facebook and

online web-based learning, we ran several different groups of t-tests. As the following table illustrates, males and females are not so different. We could not find any significant

differences between males and females among 7 out of 8 items that we measured. The attitudes toward Facebook use for educational purposes and web-based learning were not different for males and females; however, females scored higher than males for the item “overall I feel positive about using Facebook for educational purposes.”

TABLE IV
COMPARISON OF MALES’ AND FEMALES’ ATTITUDES
TOWARD FACEBOOK AND WEB-BASED LEARNING

	Male		Female		t	df	p
	Mean	SD	Mean	SD			
By using Facebook for our classes we can learn a lot	4.51	1.73	4.74	1.36	-0.80	101	0.428
Using Facebook for our classes can be fun	4.94	1.57	5.15	1.07	-0.80	101	0.428
Overall I feel positive about using Facebook for educational purposes	4.14	1.86	5.05	1.33	-2.90	102	0.005
I prefer getting class notes over the internet or via email instead of getting them in the classroom	4.59	1.77	4.87	1.60	-0.84	101	0.403
It is a good idea to have an online discussion board for each class we take	4.98	1.68	5.09	1.36	-0.38	101	0.707
It is a good idea to have an official class page that has extra videos and applications about the class topics	5.37	1.72	5.65	1.10	-1.00	101	0.321
It is a good idea to have a class page that allows us to submit our assignments online	5.49	1.66	5.50	1.23	-0.04	101	0.972
Overall, I feel positive about taking classes that are supported by online materials (e.g. videos, class notes, discussion boards, quizzes, etc.)	5.35	1.67	5.72	1.05	-1.38	101	0.171
Attitudes toward Facebook use for academic p.	4.53	1.57	4.98	1.15	-1.67	101	0.097
Attitudes toward Web-based Learning	5.16	1.29	5.37	0.98	-0.94	101	0.349

A. Culture and Attitudes toward Facebook and WBL

As a second step, we conducted correlation analyses for cultural dimensions (identified by Geert Hofstede, 1980) and attitudes toward Facebook and online web-based learning (WBL). It was observed that people from individualistic countries were less likely to have positive attitudes toward Facebook ($r = -.33, p < .05$) and web-based learning ($r = -.29, p < .05$). Interestingly, participants from high-power-distance societies tended to have more

positive attitudes for web-based learning. Neither age nor gender had any relationship with attitudes toward Facebook for academic purposes and web-based learning. As one may presume, that duration of using Facebook or number of friends one has may be related with attitudes toward using Facebook for educational purposes, but the correlation coefficients of these variables were insignificant.

TABLE V
CORRELATIONS BETWEEN CULTURAL DIMENSIONS AND ATTITUDES TOWARD FACEBOOK
USE FOR EDUCATIONAL PURPOSES AND WEB-BASED LEARNING

	1	2	3	4	5	6	7	8	9	10
1. Power Distance	1									
2. Individualism	-.740**	1								
3. Masculinity	-.330*	.299*	1							
4. Uncertainty Avoidance	-0.147	0.095	.342*	1						
5. Attitude twd Facebook	0.191	-.337*	0.006	-0.171	1					
6. Attitude twd WBL	.329*	-.295*	-0.14	-0.115	.537**	1				
7. Number of Facebook friends	-0.042	-0.006	.343*	0.254	0.082	0.004	1			
8. Number of years using Facebook	.374*	-.352*	-0.17	-0.127	0.067	0.01	-0.065	1		
9. Female Gender	-0.074	0.112	-0.08	-0.103	0.164	0.093	0.094	-0.114	1	
10. Age	0.212	-0.274	-0.09	0.179	-0.183	0.089	-0.058	0.184	-0.163	1

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

---Structural equation modelling was not conducted because of the small sample size.

V. CONCLUSIONS

This exploratory study was conducted to assess the effects of gender and culture on attitudes toward social media use for educational purposes. The results indicated that gender has almost no influence on one's attitudes toward using Facebook for classes or taking web-based classes. However, cultural factors, especially collectivism and power distance, seem to impact overall attitudes toward social media use and attitudes toward web-based learning. The findings indicated that people who are from collectivistic countries in general have more positive attitudes toward social media use in the classroom and using the internet to enhance their learning experience. On the other hand, individuals from high-power distance societies (countries where senior members of the society (e.g. teachers, parents, bosses, the elderly) are superior and way more influential than young people or people with low social status) had more positive attitudes toward

web-based learning but not Facebook learning. The finding that gender has no significant impact on attitudes toward Facebook use for academic purposes and web-based learning makes sense for several reasons. As explained in the literature review, most of the studies that proposed a negative relationship between female gender and intentions to adapt eLearning are from the 90s. By the same token, most of the recent studies found mixed results regarding gender and technology use for learning. This may have to do with the mass adoption of the broadband internet, tablets, and smart phones all around the world. Females, who may be stereotyped as less tech savvy than males, perhaps nowadays feel more comfortable using the internet technologies because of the ubiquity of new communication tools such as tablets and smart phones. After analyzing the users from 19 different countries, Zenith Optimedia (2013) found that in a large part of the world, smart phone penetration is around 35%. Considering the fact that young people and college-educated people have a

higher rate of smart phone usage, we can easily conclude that both males and females are commonly exposed to smart phones and are thus familiar with operating basic web applications. Furthermore, females are known to be more relationship oriented (Tubbs & Moss, 2006), and they may be interested in using social media to develop or maintain relationships with their friends and teachers despite some privacy and security concerns. In the light of these findings, we recommend teachers to break the stereotype of males being better at using new communication tools for eLearning.

Lastly, culture, which is the main focus of this study, obviously plays an important role when it comes to attitudes toward new media use for learning. Although one may expect people from Western countries (which are known to be more individualistic (Hofstede, 2001)) to have more positive attitudes toward using social media for learning, the results were the opposite. It may have to do with the importance of education in each society. People from collectivistic societies had more positive attitudes toward both using Facebook for learning and using web-based technologies for classes. People from collectivistic societies (which tend to be less developed countries (Hofstede, 2001) may expect that education can significantly improve their life standards and accepting any form of education is good. On the other hand, members of developed countries may be concerned about their privacy and may not have expectations from new educational methods, thus not necessarily display very positive attitudes toward technology use for learning. Additionally, it has been found that collectivistic societies spend more time using social media (Acar, in press) and individualistic societies are more concerned about privacy (Thomson & Ito, 2012). Therefore, these results may also be related to high social media engagement rates in collectivistic countries and high privacy concerns in individualistic countries. On the other hand, all of these findings should be taken with a pinch of salt because of the small sample size.

A. Limitations and Future Studies

This study did not measure cultural dimensions by individually asking each respondent about his or her beliefs and values, but instead used the country index scores from Hofstede (2001). In other words, culture was measured on the country level, not individual level. This may be misleading, as not there may be a huge individual variation when it comes to online behaviour. Recognizing this as a limitation, we recommend future researchers to conduct similar studies with individual level measurements. Additionally, the sample size and the demographics of the respondents are two serious limitations to this study. Although the sample consisted of only college students, the mean age was 24, and there were many graduate students with real life working experience in the sample, these findings should be just considered exploratory in nature and replicated with larger samples and more rigorous analysis methods such as SEM or canonical correlation analysis. Lastly, attitudes toward eLearning and social media may be highly impacted by socioeconomic status and should be evaluated in conjunction with other predictive elements (e.g. personal income, family background etc.).

B. Note

- Despite the fact that the questionnaire in his study only included questions about Facebook, we generalized the results to “social media,” as Facebook has most of the features of common social media platforms (e.g. video posting (YouTube) , following a member (Twitter), sharing files and posting long comments (Wordpress) etc.).

- Although a total of 108 subjects participated in this study, only 46 participants were included in the correlation analyses because a) a maximum number of 5 people from each country were selected in order to make sure no country is over represented in the sample; b) cultural index scores for some countries (e.g. Laos, Cambodia, Mongolia) are not currently available.

REFERENCES

(Arranged in the order of citation in the same fashion as the case of Footnotes.)

- [1] Abouserie, R., Moss, D., and Barasi, S. (1992). "Cognitive style, gender, attitude toward computer-assisted learning and academic achievement". *Educational Studies*, 18, (2), pp. 151-160.
- [2] Acar, A. (2008). "Antecedents and consequences of online social networking behavior: The case of Facebook". *Journal of Website Promotion*, 3(1-2), pp. 62-83.
- [3] Acar, A. (2013). "Attitudes toward Blended Learning and Social Media Use for Academic Purposes: An Exploratory Study". *Journal of e-Learning and Knowledge Society*, 9(3), pp. 107-126.
- [4] Acar, A. (In Press). "Social Media and Culture".
- [5] Adeoye, B. and Wentling, R.M. (2007). "The relationship between national culture and the usability of an eLearning system". *International Journal on ELearning*, 6(1), pp. 119-146.
- [6] Agerup, K. and Büsser, M. (2004). "A case study on collaborative learning in distributed, cross-cultural teams". In *International Conference on Engineering Education*, Gainesville, FL.
- [7] Andersen, P.A. (1998). "Researching sex differences within sex similarities: The evolutionary consequences of reproductive differences". In D. J. Canary & K. Dindia (Eds.), *Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Lawrence Erlbaum Associates, pp. 83-100.
- [8] Aries, E. (1998). "Gender differences in interaction: A reexamination". In D. J. Canary & K. Dindia (Eds.), *Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Erlbaum, pp. 65-81.
- [9] Atkinson, R.C. and Shiffrin, R.M. (1968). "Human memory: A proposed system and its control processes". *The psychology of learning and motivation: Advances in research and theory*, 2, pp. 89-195.
- [10] Bate, B. (1988). "Communication and the Sexes". New York. Harper & RowScholarship. *Journal of Computer-Mediated Communication*, 13(1).
- [11] Canary, D. and Dindia, K. (1998). "Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction". Mahwah, NJ: Erlbaum.
- [12] Djojoputro, L., Nguyen, L., and Peszynski, K. (2005). "Cultural dimensions in online learning". In *Proceedings of the 16th Australia Conference of Information Systems*.
- [13] Downey, S., Wentling, R.M., Wentling, T., and Wadsworth, A. (2005). "The relationship between national culture and the usability of an eLearning system". *Human Resource Development International*, 8(1), pp. 47-64.
- [14] Gómez, M., Roses, S., and Farias, P. (2012). "A Descriptive Study of the Academic Use of Social Networks among University Students". *Communicar*, Reprinted Version. <<http://www.revistacomunicar.com/pdf/p reprint/38/En-14-PRE-13426.pdf>>. Accessed 5 February 2012.
- [15] Hall, J.A. (1998). "How big are nonverbal sex differences?". *The case of smiling and sensitivity to nonverbal cues*. In D. J. Canary and K. Dindia (Eds.), *Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Erlbaum, pp. 155-177.
- [16] Hofstede, G.H. (2001). "Culture's consequences". SAGE Publications, Incorporated.
- [17] ICEF Monitor. (2012). "Coursera shakes up higher education, adds 12 US and European institutions". <<http://monitor.icef.com/2012/07/courser>

- a-shakes-up-higher-education-adds-12-us-and-european-institutions/>. Accessed 1 August 2012.
- [18] Kunkel, A.W. and Burleson, B.R. (1998). "Social support and the emotional lives of men and women: An assessment of the different cultures hypothesis". In D. J. Canary & K. Dindia (Eds.), *Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Erlbaum, pp. 101-125.
- [19] Low, B.S. (2006). "Biological Bases of sex differences". In Ember, C.R. & Ember, M (Eds), *Encyclopedia of Sex and Gender*. Springer, pp. 27-33.
- [20] Masoumi, D. and Lindström, B. (2012). "E-Learning as a Cultural Artifact". An empirical study of Iranian Virtual Institutions. *Proceedings Cultural Attitudes Towards Technology and Communication 2012*, Murdoch University, Australia.
- [21] McNaught, C., Lam, P., Kwok, M., and Ho, E.C.L. (2011). "Building institutional capacity for the use of social media". In B. White, I. King & P. Tsang (Eds.). *Social-media tools and platforms in learning environments: Present and future*. Heidelberg: Springer. DOI 10.1007/978-3-642-20392-3_8, pp. 137-152.
- [22] Mulac, A. (1998). "The gender-linked language effect: Do language differences really make a difference?". In D. J. Canary, & K. Dindia (Eds.), *Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Erlbaum, pp. 127-153.
- [23] Meyers-Levy, J. (1989). "Gender differences in information processing: A selectivity interpretation". in *Cognitive and Affective Responses to Advertising*, edited by Patricia Cafferata and Alice Tybout, Lexington, MA: Lexington, pp. 219-260.
- [24] Nagi, K. and Vate-U-Lan, P. (2009). "Using emergent technologies for facilitating engaged learning in a virtual learning environment". *International Journal of the Computer, the Internet and Management*, 17(1), pp. 61-66.
- [25] Olaniran, B.A. (2009). "Discerning culture in eLearning and in the global workplaces". *Knowledge Management & ELearning: An International Journal (KM&EL)*, 1(3), pp. 180-195.
- [26] Oliver, M.B. (2002). "Individual differences in media effects". In J. Bryant & D. Zillmann (Eds.), *Media effects: advances in theory and research (2. Aufl.)*. Mahwah: Lawrence Erlbaum Associates, pp. 507-522.
- [27] Ong, C.S. and Lai, J.Y. (2006). "Gender differences in perceptions and relationships among dominants of eLearning acceptance". *Computers in Human Behavior*, 22(5), pp. 816-829.
- [28] Putrevu, S. (2001). "Exploring the origins and information processing differences between men and women: Implications for advertisers". *Academy of Marketing Science Review*. <<http://www.amsreview.org/amsrev/theory/putrevu10-01.html>>.
- [29] Sagrestano, L.M., Heavey, C.L., and Christensen, A. (1998). "Theoretical approaches to understanding sex differences and similarities in conflict behavior". In D. J. Canary & K. Dindia (Eds.), *Sex differences and similarities in communication: Critical essays and empirical investigations of sex and gender in interaction*. Mahwah, NJ: Erlbaum, pp. 287-302.
- [30] Tannen, D. (2001). "You Just Don't Understand: Women and Men in Conversation". New York: Quill.
- [31] Tubbs, S. and Moss, S. (2006). "Human Communication: Principles and contexts (9th ed)". New York: McGraw-Hill.
- [32] Thomson, R. and Ito, N. (2012). "The effect of relational mobility on SNS user behavior: A study of Japanese dual-users of Mixi and Facebook". *The Journal of International Media, Communication and Tourism Studies*, 14(1), pp. 3-22.
- [33] Uzuner, S. (2009). "Questions of culture

in distance learning: A research review”.
The International Review of Research in
Open and Distance Learning, 10(3).

- [34] Zenith Optimedia. (2013). “Zenith
Optimedia publishes new media
forecasts”.
<<http://www.zenithoptimedia.com/zenith/zenithoptimedia-publishes-new-media-forecasts/>>. Accessed 23 June 2013.