รายงานวิจัยฉบับสมบูรณ์

โครงการ

การใช้อินเทอร์เน็ตเพื่อการสื่อสารระหว่างบุคคล: ผลของความแตกต่างทางด้านบุคลิกลักษณะ ต่อความสุข และความพึงพอใจทางสังคม

Internet Use for Interpersonal Communication: The Influence of Individual Differences on Social and Psychological Well-being

โดย ผู้ช่วยศาสตราจารย์ ดร. วิกานดา พรสกุลวานิช

มีนาคม 2554

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มหาวิทยาลัยอัสสัมชัญ

สนับสนุนโดยสำนักงานคณะกรรมการการอุดมศึกษา
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Abstract (บทคัดย่อ)

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Investigator : Assistant Professor Dr. Vikanda Pornsakulvanich, Assumption University

(ชื่อนักวิจัย) ผู้ช่วยศาสตราจารย์ ดร. วิกานดา พรสกุลวานิช มหาวิทยาลัยอัสสัมชัญ

E-mail Address : dr.vikanda@gmail.com

Project Period : 2 years (16 March 2009 – 15 March 2011)

(ระยะเวลาโครงการ) 2 ปี (16 มีนาคม 2552 - 15 มีนาคม 2554**)**

Abstract

The purposes of this study were to explore Internet motives for interpersonal and/or social communication among Thais, and to examine the influence of several variables including dispositions (i.e., unwillingness to communicate, locus of control), Internet communication motives, and the amount of Internet use on social and psychological well-being.

Two studies were conducted in the present study. Study 1 used content analysis and quantitative research to develop the Internet communication motives scale. Study 2 used quantitative research to test hypotheses and answer research questions in examining the relationships among several variables.

The results showed that that locus of control, unwillingness to communicate, Internet communication motives, and the amount of Internet use were associated with social well-being. Those who were internals, felt face-to-face communication to be less rewarding, used the Internet for information searching and sharing and interpersonal communication purposes would feel positive about their social functioning and participating in online communities. Moreover, people who were externals, used the Internet for interpersonal communication and social networking purposes would feel satisfied with their online communication.

Although the Internet communication motives scale has been validated, employing the scale in other contexts should be in consideration. The Internet communication motives scale is in the preliminary stage of the development. Thus, future research should test this scale in different contexts and groups of Internet users to assure the validity and reliability of the scale across contexts and samples.

Keywords : Individual differences, Internet motives, Internet use, social well-being, psychological well-being

บทคัดย่อ

โครงการวิจัยนี้มีจุดประสงค์หลัก คือมุ่งศึกษาแรงจูงใจในการใช้อินเทอร์เน็ตเพื่อการสื่อสารระหว่างบุคคล หรือการสื่อสารในสังคมทั่วไป รวมทั้งศึกษาปัจจัยที่มีอิทธิพลต่อความสุขและความพึงพอใจทางสังคม ปัจจัยเหล่านี้ได้แก่ ลักษณะนิสัยการหลีกเลี่ยงการสื่อสารกับผู้อื่น ความเชื่อในการควบคุมชีวิตตนเอง แรงจูงใจในการใช้อินเทอร์เน็ต และจำนวนชั่วโมงการใช้อินเทอร์เน็ต

การดำเนินการวิจัยประกอบด้วยโครงการย่อย 2 โครงการ โครงการย่อยที่ 1 เป็นการวิเคราะห์เชิงคุณภาพในประเด็นเนื้อหาจากข้อมูลคำถามเปิด และวิเคราะห์เชิงปริมาณจากแบบสอบถามคำถามปิด โดยมีจุดประสงค์เพื่อสร้างเครื่องมือวัดแรงจูงใจในการอินเทอร์เน็ต โครงการย่อยที่ 2 เป็นการวิเคราะห์เชิงปริมาณ โดยมีจุดประสงค์เพื่อทดสอบสมมุติฐาน และคำถามวิจัยเกี่ยวกับความสัมพันธ์ระหว่างตัวแปรต่างๆ

ผลการวิจัยพบว่าปัจจัยทั้งหมด ได้แก่ ลักษณะนิสัยการหลีกเลี่ยงการสื่อสารกับผู้อื่น ความเชื่อในการควบคุมชีวิตตนเอง แรงจูงใจในการใช้อินเทอร์เน็ต และจำนวนชั่วโมงการใช้อินเทอร์เน็ต มีอิทธิพลต่อความสุขและความพึงพอใจทางสังคม ผู้ที่รู้สึกพึงพอใจกับการมีส่วนร่วมในชุมชนออนไลน์ เป็นกลุ่มคนที่เชื่อว่าชีวิตตนเองถูกควบคุมโดยปัจจัยภายใน และเห็นว่าการสื่อสารซึ่งหน้า (face-to-face communication) มีประโยชน์น้อย มีแรงจูงใจในการอินเทอร์เน็ตเพื่อแลกเปลี่ยนข้อมูล และเพื่อพูดคุยกับคนอื่น นอกจากนี้ ผู้ที่รู้สึกพึงพอใจการสื่อสารออนไลน์ ยังเป็นผู้ที่เชื่อว่าชีวิตตนเองถูกควบคุมโดยปัจจัยภายนอก และมีแรงจูงใจในการใช้อินเทอร์เน็ตเพื่อพูดคุยกับคนอื่น

โครงการวิจัยนี้ได้สร้างเครื่องมือวัดแรงจูงใจในการใช้อินเทอร์เน็ต จากการวิเคราะห์เชิงคุณภาพและปริมาณ อย่างไรก็ตาม การนำเครื่องมือวัดไปใช้มีข้อจำกัด เนื่องจากยังจำเป็นต้องทดสอบเครื่องมือวัดทางสถิติกับกลุ่มผู้ใช้อินเทอร์เน็ตที่หลากหลาย และบริบทต่างๆ เพื่อพัฒนาความเที่ยงตรงของเครื่องมือวัดนี้ให้ดียิ่งขึ้นต่อไป

(คำหลัก) ความแตกต่างทางด้านบุคลิกลักษณะ แรงจูงใจในการใช้อินเทอร์เน็ต การใช้อินเทอร์เน็ต ความพึงพอใจทางสังคม ความสุข

Output จากโครงการวิจัยที่ได้รับทุนจาก สกอ. และ สกว.

1. ผลงานตีพิมพ์ในวารสารวิชาการนานาชาติ (ระบุชื่อผู้แต่ง ชื่อเรื่อง ชื่อวารสาร ปี เล่มที่ เลขที่ และหน้า)

Pornsakulvanich, V. (2010). Internet communication motives: The scale development. *Journal of Communication Arts, 28*(4), 169-182. (see Appendix I)

2. การนำผลงานวิจัยไปใช้ประโยชน์

เชิงวิชาการ โดยจะมีการนำผลที่ได้จากการวิจัยนี้ไปพัฒนาการเรียนการสอน และในอนาคต จะนำหัวข้อนี้ไปขยายผลในการทำวิจัยเจาะลึกบางตัวแปร เพื่อให้เข้าใจตัวแปรมากขึ้น และเพื่อสร้างนักวิจัยรุ่นใหม่

3. อื่นๆ (เช่น ผลงานตีพิมพ์ในวารสารวิชาการในประเทศ การเสนอผลงานในที่ประชุมวิชาการ หนังสือ การจดสิทธิบัตร)

Pornsakulvanich, V. (2010, July). *Internet Communication Motives and Internet Affinity: The Study in Thailand.* Paper presented at the annual meeting of the International Association for Media and Communication Research, Braga, Portugal.

Internet Use for Interpersonal Communication:
The Influence of Individual Differences on Social and Psychological Well-being

Introduction and Rationale for the Study

The latest evidence shows that there are 26.3 million Internet users in Thailand (Internet World Stats, 2010). One of the important reasons Thai people used the Internet was to communicate interpersonally and socially with friends and family (Pornsakulvanich, 2007). It is supported by the evidence showing that the most fast growing Internet websites in Thailand was social networking websites such as *Facebook* (National Electronics and Computer Technology Center, 2008).

In general, people communicate to fulfill their interpersonal needs for inclusion, affection, and control (Schutz, 1966). They have their basic needs to belong, to be part of a group, and to be loved by others (Baumeister & Leary, 1995). The advent of various Internet functions such as instant messaging, blogs, social networking sites allows people to conveniently communicate with others interpersonally and socially. The Internet has been a valuable tool for people to communicate, form relationships, build networking, and share opinions (e.g., Ellison, Steinfield, & Lampe, 2007; McKenna & Bargh, 1999; Parks & Floyd, 1996; Parks & Roberts, 1998; Pornsakulvanich, 2008; Utz, 2000; Walther, 1992, 1994, 1996).

Research on Internet usage has examined how people use the Internet for relational communication and how they form, develop, and maintain relationships in Internet settings in which physical and nonverbal cues are restricted (Walther, 1992, 1996). Some research looked at the relationships among individual differences, Internet use, and communication outcomes (e.g., Papacharissi & Rubin, 2000; Pornsakulvanich, Haridakis, & Rubin, 2008; Sun, Rubin, Haridakis, 2008). Moreover, most research conducted in the United States and European countries.

In Thailand, few research examined motivation to use the Internet in general (Pornsakulvanich, 2007). Little is known on the linkage among variables including individual differences, Internet communication motives, and Internet use, and social and psychological well-being. Katz, Blumler, and Gurevitch (1974) suggested that people are different in their social and psychological conditions, which may affect how and why they use media to fulfill their needs. Thus, there is an urgent need to explore how and why Thai people use the Internet for interpersonal and social communication, what their Internet communication motives are, and how Thai people's dispositions and Internet communication motives affect their Internet usage and social and psychological well-being. This would help extend our knowledge in new media technologies and interpersonal communication areas in Thailand. Also, the results would help us understand Internet usage patterns and its consequences among Thai people.

Purposes of the Study

The purposes of this study were (1) to explore Internet motives for interpersonal and/or social communication among Thais, (2) to examine the influence of several variables including dispositions (i.e., unwillingness to communicate, locus of control), Internet communication motives, and the amount of Internet use on social and psychological well-being.

Theoretical Framework

In this study, uses and gratifications (U&G) was used as a theoretical framework to explain the interrelationships among dispositions, Internet communication motives, Internet use, and social and psychological well-being. The main premise of U&G is that people differ in their social and psychological conditions, which may affect how and why they use media to fulfill their needs and the outcomes of using media (Katz et al., 1974). U&G emphasizes individual

differences in media use and choice; people communicate to gratify their felt needs, which emanate from social and psychological conditions. These needs produce motives that affect communication behaviors, which result in cognitive, affective, and behavioral outcomes (Katz et al., 1974; Rubin & Rubin, 1992). U&G has helped explain uses and effects of interpersonal and mediated communication channels (Rubin & Bantz, 1989; Rubin & Rubin, 1989; Rubin, Perse, & Barbato, 1988), as well as uses and effects of new media technologies such as videocassette recorders (VCRs) and CMC (e.g., Flaherty, Pearce, & Rubin, 1998; Papacharissi, 2002; Papacharissi & Rubin, 2000; Rubin & Bantz, 1989).

According to Rubin (2002), contemporary U&G, theory rests on several assumptions: people are active, goal-directed, and motivated in selecting media; people select and use the appropriate channels of communication to gratify their needs and wants; different people have diverse communication behaviors, which are based upon social and psychological factors; social and psychological situations influence how well media can satisfy people's needs and wants; media can be functional alternatives to other channels of communication; and people are usually more influential than media, but not always.

In the next section, the empirical evidence of the relationships among variables including individual differences, Internet communication motivation, the amount of Internet use, and social and psychological well-being were presented.

Literature review

Individual Differences

Locus of Control

Locus of control is a disposition that reflects a person's beliefs about his or her control over life and environment (Rotter, 1966). Internal locus of control people believe that they can control what happen in their lives and are responsible for their

own behaviors. External locus of control people believe that their lives and behaviors are shaped by factors beyond their control such as luck and environment (Rotter, 1966). Locus of control found to impact media use, media effects, and communication satisfaction. For example, Rubin (1993) found that externals were less satisfied with communication and showed more ritualistic communication motives than internals. Hoffman, Novak, Schloser (2003) found that externals tended to use the Internet for ritualistic purposes, whereas internals tended to use the Internet for instrumental purposes. Haridakis (2006) reported that externals were positively related to media violence. Pornsakulvanich (2008) found that externals spent more time on the Internet and were more likely to use certain Internet functions including instant messaging/chat rooms than were internals.

Unwillingness to Communicate

Unwillingness to communicate (UC) is a communication disposition (Daly, 2002) that reflects ‘‘a chronic tendency to avoid and/or devalue oral communication” (Burgoon, 1976, p. 61). The UC construct contains two dimensions: (a) Approach–avoidance (UC-AA), which is the extent to which a person participates in his/her interpersonal interaction; and (b) reward (UC-RW), which is a person’s perceptions about his/her interpersonal interaction (Burgoon, 1976). People with greater levels of unwillingness to communicate tend to exhibit communication avoidance and anxiety behaviors and feel less rewarded in interpersonal communication.

The evidence shows that people who avoid face-to-face communication and feel it is less rewarding are more likely to use the Internet or other media to compensate for felt interpersonal communication deficiencies (Armstrong & Rubin, 1989; Papacharissi & Rubin, 2000) and for personal relationship formation (McKenna & Bargh, 2000). Scealy, Phillips, and Stevenson (2002) found a link between

communication avoidance behavior and CMC motives. Those who avoided face-to-face communication tended to use CMC for more leisurely and recreational purposes.

However, some studies found that people who enjoyed face-to-face communication would feel close with their online partners or perceived satisfaction with their online relationships than those who avoided face-to-face communication (Pornsakulvanich et al., 2008). Other studies found no differences between UC-AA and UC-RW in the amount of Internet use (Ma & Leung, 2006).

Internet Communication Motives

In this study, Internet communication motives refer to reasons why people use the Internet for interpersonal and/or social communication. Katz et al. (1974) suggested that motivation influences communication choices, strategies, and behaviors. The study of media motivation provides us a better understanding of people's communication choices and behaviors and their reasons to use the Internet for interpersonal and/or social communication.

Previous studies examined motives for using various types of new media technologies such as VCRs (Rubin & Bantz, 1989), the Internet (Charney & Greenberg, 2002; Kaye & Johnson, 2002; Papacharissi & Rubin, 2000; Pornsakulvanich, 2007; Wolfradt & Doll, 2001), Short Message Services (Leung, 2007; Pornsakulvanich & Dumrongsiri, 2007), social networking sites (Dumrongsiri & Pornsakulvanich, 2010a). For instance, Wolfradt & Doll (2001) investigated Internet motivation among German adolescents and specified three Internet motives: information, entertainment, and interpersonal communication. Pornsakulvanich et al. (2008) examined Internet motivation among Americans and found four Internet motives: self-fulfillment, information-seeking, affection, and interpersonal involvement. Dumrongsiri and Pornsakulvanich (2010a) developed a scale to assess

motives for using social networking sites among Thai people. They specified four social networking site motives: new friendship, relationship maintenance, passing time, and peer pressure.

Some studies found the linkage between motives and other variables such as disposition, amount of Internet use, and communication outcomes. For example, Wolfradt and Doll (2001) found that visiting chatrooms was positively related to interpersonal communication motivation, but negatively related to information motivation. Pornsakulvanich et al. (2008) found that those who used the Internet for self-fulfillment purposes would feel satisfied with their online communication.

Amount of Internet Use

Amount of Internet use refers to the number of minutes that the Internet function is used each day. The evidence suggests that the amount and types of Internet use is related to dispositions, motivation, and social and psychological well-being (e.g., Dumrongsiri & Pornsakulvanich, 2010b; Papacharissi & Rubin, 2000; Pornsakulvanich et al., 2008; Wolfradt & Doll, 2001; Wright, 2000). For instance, Pornsakulvanich (2008) found that externals would spend more time than internals using a particular Internet function: instant messaging/chat rooms. However, Dumrongsiri and Pornsakulvanich (2010b) studied Internet use for social support in Thailand and found that internals were more likely to spend time on the Internet seeking and providing support than those who where externals.

Moreover, some evidence indicated that types of Internet use were related Internet motives. Wolfradt and Doll (2001) found that interpersonal communication motivation contributed to chatroom and e-mail use. Entertainment motivation predicted playing computer games. Papacharissi and Rubin (2000) found that information-seeking motivation positively predicted WWW browsing and negatively

predicted e-mail use. Relating to the relationship between amount of Internet use and people's well-being, Wright (2000) found older adults who spent more time communicating on the Internet were more satisfied with their online support network.

Social and Psychological Well-Being

Social well-being refers to "the appraisal of one's circumstance and functioning in the society" (Keyes, 1998, p. 122). Keyes proposed 5 dimensions of social well-being: social integration, social acceptance, social contribution, social actualization, and social coherence. Social integration refers to the extent to which people feel belong to their communities. Social acceptance refers to the extent to which people trust others and think that others are generally kind. Social contribution is to what extent people feel that they are valued to the society. Social actualization is the extent to which people feel hopeful about the future of society. Social coherence is the extent to which people understand society and what is happening around them (Keyes, 1998). This study examined 5 dimensions of social well-being to understand people's feeling toward online participation and their functioning in online communities.

In this study, psychological well-being refers to the overall satisfaction with online communication. Hecht (1978) defined communication satisfaction as the positive reinforcement that is related to the fulfillment of positive communicative expectations. Past research found that dispositions and Internet use affected the outcomes of Internet use and well-being such as Internet satisfaction and relationship closeness (Papacharissi & Rubin, 2000; Pornsakulvanich et al., 2008). For instance, Papacharissi and Rubin (2000) found that UC-RW and information-seeking motivation predicted CMC satisfaction. Pornsakulvanich et al. (2008) found that those

felt face-to-face communication to be rewarding would be satisfied with their online communication.

Research Questions and Hypotheses

According to the review of the literature, research indicates the linkage among several variables: locus of control, unwillingness to communicate, Internet communication motives, the amount of Internet use, and social and psychological well-being. Most data was from the Western cultures such as the United States and Europe. In Thailand, little research has been conducted to understand Internet motivation, particularly why and how people use the Internet for interpersonal and/or social communication, and the relationships among people's dispositions, motivation, Internet use, and well-being. It is noteworthy to investigate these relationships to understand Internet users' behaviors in Thailand. Thus, research questions and hypotheses were posed:

RQ1: What were motives for Internet communication among Thais?
RQ2a: How did dispositions (i.e., locus of control, unwillingness to communicate), Internet communication motives, amount of Internet use explain social well-being?
RQ2b: How did dispositions (i.e., locus of control, unwillingness to communicate), Internet communication motives, amount of Internet use explain psychological well-being?
H1: Locus of control positively predicted the amount of Internet use.
H2: Unwillingness to communicate positively predicted the amount of Internet use.
H3a: Amount of Internet use predicted social well-being.
H3b: Amount of Internet use predicted psychological well-being.

Method

Study 1 conducted to explore Internet communication motives and test the reliability and validity of the scale. Study 1 contained two phases. The first phase employed qualitative research with content analysis to develop Internet

communication motives scale and the second phase used quantitative approach to test validity and reliability of the scale.

Study 1 Phase 1

Sample and Procedure

This study employed a cross-sectional design to collect the data from Internet users in Thailand. The first phase used qualitative research to explore Internet communication motives. Content analysis was performed to categorize Internet communication motives obtaining from open-ended questions. The purposive sampling was used to select the sample from Thai people who regularly used the Internet (e.g., e-mail, chatrooms, instant messaging, blogs, and social networking sites). Participants completed the self-administered questionnaire that consisted of three sections: Internet communication motives, Internet usage, and demographics. Participants were informed to ensure about the confidentiality of their responses.

In this study, there were 184 participants. They were 118 females (64.1%) and 97 males (34.8%). Majority of participants (73.9%) ranged in age from 18 to 25 years old. Majority of them were students (84.8%), followed by private company employees (10.3%). Majority of them (89%) had income less than 25,000 Baht. They spent approximately 113 minutes on instant messaging, 63 minutes on blogging and social networking sites, 45 minutes on e-mailing and general WWW sites 104 minutes.

Measurement

Internet communication motives. Internet communication motives were operationalized as the reasons why people used the Internet for interpersonal and/or social communication. To solicit exhaustive reasons, the open-ended question, *"I use the Internet…,"* asked participants to write three reasons why they used the Internet,

particularly instant messaging, chatrooms, blogs, and social networking websites (see Appendix A).

Amount of Internet use. The amount of Internet use was operationalized as the number of minutes each Internet function was used yesterday and on the average day. The scale was adapted from Pornsakulvanich et al.'s (2008) Amount of Internet Use Scale (see Appendix B). Participants indicated how many minutes they used each of several types of Internet functions (i.e., instant messaging/chat rooms, blogs, social networking websites, e-mail, and general WWW) both yesterday and on an average day. The responses were summed and averaged to develop an index of the daily amount (in minutes) of each type of use: instant messaging/chatrooms, blogs/social networking websites, e-mail, and general WWW.

Demographic information. Participants also responded to general demographic information including gender, age, occupation, income, and education

Results

Content analysis was conducted to develop categories that emerged from the reported reasons. All participants (N = 184) reported their first reason of why they used the Internet, whereas 93.4% and 66.9% of participants reported their second and third reasons, respectively. A total of 495 reported reasons were analyzed by two coders to develop categories of Internet communication motives emerged from the qualitative data.

Content analysis was performed to analyze the Internet communication motive statements based on two criteria: clarity and content (Dillard, 1989). The reported reasons that were not clearly stated or were not relevant to Internet communication motives were excluded. Fifty-six reported reasons were excluded. Two coders independently analyzed a random sample of about 50% of the reported reasons. After

discussions, eight motives emerged: (1) Information searching and sharing, (2) Interpersonal relationships, (3) Entertainment, (4) Networking, (5) Convenient, (6) Economical, (7) Passing time, and (8) Self-expression (see Table 1).

After obtaining the eight categories of the Internet communication motives, the two coders independently analyzed the reported reasons. Approximately, 87.3% of the entire reasons could be classified into the eight categories. The reasons that were not classified into any motive categories were such as "*to do the report," "for business purposes,"* and *"for gossiping."* Based on a random sample of 20% of the data, the intercoder reliability assessed by Scott's (1955) *pi* was .88. Then, the eight motive categories were verified for their statistical existence. Several statements from the participants' responses were selected to represent each motive and developed into a 5-point Likert scale for factor analysis in Study 2.

Table 1

Categories of Motives for Using the Internet

Motive Categories	Reported Reasons *n* (%)	Examples
Information seeking & searching	132 (30.0)	To search for information
Interpersonal communication	150 (34.2)	To talk with family and friends
Entertainment	46 (10.5)	For entertainment
Networking	38 (8.7)	To create social networking
Convenience	24 (5.5)	Because it is convenience.
Economical	21 (4.8)	Because it is cheap.
Passing time	16 (3.6)	Because there is nothing else to do
Self-expression	12 (2.7)	To write the diary about my life's experience

Notes. N = 184. The total number of reported reasons was 439. Fifty-six reported reasons (12.7%) were not classified using the eight motive categories.

Study 1 Phase 2

Sample and Procedure

The second phase used a quantitative approach to verify whether the emerging Internet communication motives existed statistically. Purposive sampling was used to collect the data from Thai people who used the Internet (e.g., e-mail, chatrooms, instant messaging, blogs, and social networking sites). Participants completed the questionnaire that consisted of three sections: Internet communication motives, amount of Internet use, and demographics. Also, participants were informed to ensure about the confidentiality of their responses.

In the second phase, there were 257 participants. They were 174 females (67.7%) and 83 males (32.3%). Majority of participants (64.6%) ranged in age from 18 to 25 years old, followed by 33-39 (21.4%), more than 39 (5.8%), and 26-32 (4.6%). Majority of them were students (68.1%) and private company employees (12.1%). Majority of them (68.9%) had income less than 20,000 Baht. They spent approximately 91 minutes on instant messaging, 62 minutes on blogging and social networking sites, 57 minutes on e-mailing and general WWW sites 83 minutes.

Measurement

Internet communication motives. Internet communication motives were operationalized as the reasons why people used the Internet for interpersonal and/or social communication. The Internet communication motives scale developed in Study 1 Phase 1 was used to measure a degree to which people rated their reasons for using Internet (see Appendix C). It consisted of 26 items on a 5-point Likert scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (5). For example, the items were: *I use the Internet… "to contact friends and family," "to create social networking," and "to find a new friends."*

Amount of Internet use. Five items were developed to measure participants' Internet use in the amount and types of use. The first item asked about the number of minutes of the overall Internet use on the average day. Then, the next items asked the number of minutes each Internet function (e.g., instant messaging/chat rooms, blogs/social networking sites, e-mail, and WWW) used on the average day.

Demographic information. Participants also responded to general demographic information including gender, age, occupation, income, and education.

Results

Internet Communication Motive Structure

First, the KMO and Bartlett tests were performed to determine sampling adequacy for conducting factor analysis and multivariate normality. The KMO value of .84 indicated that the correlation matrix was sufficient for factoring (George & Mallery, 2003). The significant Chi-Square (.000) showed that the data did not produce an identity matrix and approximately multivariate normal for further factor analysis. Then, factor analysis was conducted to verify the existence of the Internet communication motives. All 26 items were computed in a principal component analysis with a varimax rotation. A factor was retained based on the .50/.30 rule and when an eigenvalue was greater than 1.0. The factor analysis generated seven factors that accounted for 64.00% of the total variance with 23 items retained.

Motives 1: Social Networking, accounted for 24.57% of the total variance (eigenvalue = 6.39). This factor reflected using the Internet for social networking, to find new friends, and to express themselves to others (Cronbach $\alpha = .77$).

Motive 2: Convenience, accounted for 13.02% of the total variance (eigenvalue = 3.38). This factor reflected using the Internet because it is fast, convenience, and easy (Cronbach $\alpha = .80$).

Motive 3: Passing time, accounted for 7.72% of the total variance (eigenvalue = 2.01). This factor reflected using the Internet for passing time when there is nothing else to do, and for recreation (Cronbach α = .76).

Motive 4: Interpersonal communication, accounted for 5.62% of the total variance (eigenvalue = 1.46). This factor reflected using the Internet for interpersonal communication (Cronbach α = .75).

Motive 5: Entertainment, accounted for 4.76% of the total variance (eigenvalue = 1.23). This factor reflected using the Internet to listen to music, to play games, and to watch movies (Cronbach α = .65).

Motive 6: Economical, accounted for 4.22% of the total variance (eigenvalue = 1.10). This factor reflected using the Internet because it is free and economical (Cronbach α = .60).

Motive 7: Information searching and sharing, accounted for 4.11% of the total variance (eigenvalue = 1.10). This factor reflected using the Internet for searching information and sending and receiving messages (Cronbach α = .50).

The most salient Internet communication motives among Thais were information searching and sharing, convenience, interpersonal communication, passing time, entertainment, economical, and social networking respectively.

Study 2

Sample and Procedure

This quantitative study was conducted to examine the relationships among variables. The study used a cross-sectional design in which data were collected at one point in time among Thai people who resided in Bangkok and adjacent areas. The purposive sampling method was used to select the samples who were the Internet users. They were ensured about confidentiality of their responses and completed a set

of questionnaire measuring locus of control, unwillingness to communicate, Internet communication motives, the amount of Internet use, social well-being, psychological well-being, and demographics.

Measurement

Locus of Control

A shortened version of Levenson's (1974) scale was used to measure participants' locus of control. It was used reliably in prior studies (e.g., Haridakis, 2006, Pornsakulvanich, 2008). Participants indicated their degree of agreement with 12 statements on a 5-point Likert scale, ranging from *Strongly Disagree* (1) to *Strongly Agree* (5). The statements represent powerful others control (e.g., "I feel like what happens in my life is mostly determined by powerful others", chance control (e.g., "To a great extent my life is controlled by accidental happenings", and internal control (e.g., "My life is determined by my own actions". Powerful others and chance control represent external control (see Appendix D). Responses to external control items were recoded. Higher scores indicated greater internal control. The mean index was 3.41 (*SD* = 0.45, Cronbach α = .68).

Unwillingness to Communicate

Unwillingness-to-communicate (UC) Scale (Burgoon, 1976) was used to measure participants' perception of two communication dimensions: Approach–avoidance (UC-AA) and reward (UC-RW). Each dimension consists of 10 items. Participants indicated their degree of agreement with each statement using a 7-point Likert scale, ranging from *Strongly Disagree* (1) to *Strongly Agree* (7) (see Appendix E). The responses were summed and averaged for each dimension: *M* = 3.45, *SD* = 0.44, Cronbach α = 0.71 for UC-AA; *M* = 2.63, *SD* = 0.42, Cronbach α = 0.80 for UC-RW.

Internet Communication Motives

Internet Communication Motives Scale that was developed in Study 1 was used to measure the reasons why people use the Internet for interpersonal and/or social communication. The scale contains 26 items on a 5-point Likert scale, ranging from *Strongly Disagree* (1) to *Strongly Agree* (5). The statements reflect motivation to use the Internet for information searching and sharing, interpersonal communication, economical, entertainment and passing time, and social networking (see Table 2).

Amount of Internet Use

The amount of Internet use was operationalized as the number of minutes each Internet function (e.g., e-mail, instant messaging/chat rooms) is used daily. The scale was adapted from Pornsakulvanich et al.'s (2008) Internet use scale. Participants indicated how many minutes they used each of several types of Internet functions (i.e., e-mail, instant messaging/chat rooms, blogs/social networking, WWW) both yesterday and on an average day. The responses were summed and averaged to develop an index of the daily amount (in minutes) of each type of use: e-mail *(M* = 57.69, *SD* = 102.09); instant messaging/chat room *(M* = 103.73, *SD* = 136.77); blogs/social networking *(M* = 91.80, *SD* = 114.16); WWW (*M* = 102.61, *SD* = 105.50).

Social Well-Being

The Social Well-being Scale (Keyes, 1998) was used to measure participant's evaluation of circumstance and functioning in the communities. The scale was adapted to reflect social well-being when participating in online settings. It contains 15 items, tapping 5 dimensions of social well-being: social integration, social acceptance, social contribution, social actualization, and social coherence, with a 7-point Likert-type scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (7) (see Appendix F). The responses were summed and averaged for each dimension. Higher

scores indicated a greater degree of social well-being. The mean index was 3.19 (*SD* = 0.56, Cronbach α = .60).

Psychological Well-Being

Psychological well-being was operationalized as the fulfillment of positive communicative expectations in online settings. Hecht's (1978) Interpersonal Communication Satisfaction Inventory was adapted to online settings. It consists of 6 items with a 7-point Likert scale from *Strongly Disagree* (1) to *Strongly Agree* (7) (see Appendix G). The responses were summed and averaged. Higher scores indicated a greater degree of psychological well-being. The mean index was 3.05 (*SD* = 0.56, Cronbach α = .50).

Demographic information. Participants also responded to general demographic information including gender, age, occupation, income, and education (see Apeendix H).

Results

Study 2 examined the interrelationships among dispositions, Internet communication motives, Internet use, and social and psychological well-being. Research Question 1 asked what motives for Internet communication among Thais were. In this study, Internet communication motive scale items developed in Study 1 were factor analyzed. The KMO and Bartlett tests were performed to determine sampling adequacy for conducting factor analysis and multivariate normality. The KMO value was .90 and the Bartlett's test of sphericity coefficient was significant at *p* = .000. Then, factor analysis was performed using principal components analysis with oblimin rotation. The criteria for retaining a factor were an eigenvalue equal to or greater than 1.00 and a 0.50/0.30 rule for primary and secondary factor loadings.

The factor solution yielded five interpretable factors explaining 60.80% of the total variance. *Motive 1, information searching and sharing* (eigenvalue = 7.58), accounted for 34.4% of the total variance after rotation. This factor reflected using the Internet to search and seek information conveniently (*M* = 3.92, *SD* = 0.75, Cronbach α = 0.90). *Motive 2, interpersonal communication* (eigenvalue = 2.19), accounted for 9.9% of the variance. This factor reflected using the Internet for interpersonal and social communication (*M* = 3.16, *SD* = 0.88, Cronbach α = 0.71). *Motive 3, economical* (eigenvalue = 1.43), accounted for 6.5% of the variance. This factor reflected using the Internet because it is free and economical (*M* = 3.41, *SD* = 0.88, Cronbach α = 0.69). *Motive 4, entertainment and passing time* (eigenvalue = 1.17), accounted for 5.3% of the variance. This factor reflected using the Internet for the ritualistic purposes (*M* = 3.58, *SD* = 0.62, Cronbach α = 0.75). *Motive 5, social networking* (eigenvalue = 1.01), accounted for 4.6% of the variance. This factor reflected using the Internet for social networking, to know others, and to share pictures with friends (*M* = 3.58, *SD* = 0.62, Cronbach α a = 0.64) (see Table 2).

Research question 2a asked how dispositions, Internet communication motives, and the amount of Internet use explained social well-being including social integration, acceptance, contribution, actualization, and coherence. The predictors were entered in three conceptual blocks based on the U&G theoretical framework, which suggested that dispositions, motives, and Internet use contributed to communication outcomes.

Table 2

Factor Loadings for Internet Communication Motives

Scale Items	Factor Loadings				
	1	2	3	4	5
Factor 1:Information Searching and Sharing (α = .90)					
To obtain news information	**.77**	.07	-.09	-.08	-.08
To search for information.	**.77**	-.14	-.04	.00	.13
Because it is easy to communicate.	**.72**	.05	.15	-.08	-.01
To receive and send information.	**.70**	-.11	-.04	-.06	.12
To get entertained.	**.67**	-.14	-.00	-.26	.14
Because it is convenient.	**.64**	.12	.30	.00	-.13
Because it is a fast tool for communication.	**.64**	.39	.01	-.01	-.15
To send and receive information and news from a group of friends.	**.58**	.02	.18	.00	.23
Factor 2: Interpersonal Communication (α = .71)					
To create my web page or web blog.	-.07	**.75**	.08	-.08	.04
To create social networking.	.22	**.65**	.07	.00	.13
To find new friends.	-.07	**.62**	-.04	-.23	.19
Factor 3: Economical (α = .69)					
Because it is free.	-.19	-.05	**.78**	-.21	.00
Because it is cheap.	.19	.07	**.72**	.01	-.14
To save my phone bill.	.11	.07	**.71**	.10	.18
Factor 4: Entertainment and Passing Time (α = .75)					
To play games.	-.07	.21	.00	**-.72**	-.13
Because there is nothing else to do.	.00	-.10	.21	**-.67**	.03
Because I am bored.	.04	-.00	-.02	**-.62**	.12
To listen to music.	.35	-.02	-.05	**-.59**	-.02
To watch television programs and movies	.20	-.06	.06	**-.51**	.11
Factor 5: Social Networking (α = .64)					
To know a lot of people.	.10	.20	.02	-.00	**.69**
To share pictures with friends.	.09	-.12	.15	-.18	**.65**
To write the diary about my life's experience.	-.06	.35	-.11	.04	**.61**
Mean	**3.92**	**3.16**	**3.41**	**3.13**	**3.13**
SD	**.75**	**.88**	**.88**	**.62**	**.84**

Notes. N = 485. The Kaiser-Meyer-Olkin (KMO) coefficient was .90. The Bartlett's test of sphericity coefficient was significant (.000).
Means were computed from a 5-point scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (5) like the participants' own reasons for using the Internet.

After all variables were entered, the final regression accounted for 23.2% of the variance in social well-being (see Table 3). More specifically, when analyzing each dimension of social well-being, the results showed that interpersonal communication motives (β = .16, p < .01) positively predicted social integration. Interpersonal communication motives (β = .13, p < .01), instant messaging/chat rooms (β = .11, p < .05) positively, UC-RW (β = -.25, p < .001), entertainment and passing time motives (β = -.15, p < .01) negatively predicted social acceptance. Locus of control (β = .15, p < .01), interpersonal communication motives (β = .19, p < .001) positively, and entertainment and passing time motives (β = -.22, p < .001) negatively predicted social contribution. Locus of control (β = .16, p < .01), information searching and sharing motives (β = .25, p < .001) positively, UC-RW (β = -.20, p < .001), economical motives (β = -.13, p < .01), and e-mail use (β = -.10, p < .05) negatively predicted social actualization. Locus of control (β = .16, p < .01), interpersonal communication motives (β = .11, p < .05), instant messaging/chat rooms (β = .11, p < .05) positively, and UC-RW (β = -.11, p < .05), entertainment and passing time motives (β = -.20, p < .001), and blog/social networking sites use (β = -.11, p < .05), negatively predicted social coherence.

Overall, the results revealed that locus of control, unwillingness to communicate, Internet communication motives, and the amount of Internet use were associated with social well-being. Those who were internals, felt face-to-face communication to be less rewarding, used the Internet for information searching and sharing and interpersonal communication purposes would feel positive about their functioning and participating in online communities.

Table 3

Hierarchical Regression Analysis for Unwillingness to Communicate, Locus of Control, Motives, and Amount of Use Predicting Social Well-Being (N = 480)

Dependent Variable	Predictors	*B*	*SE B*	β
Social Well-Being	Step 1			R^2 = .16***
	UC-AA	.13	.05	.14**
	UC-RW	-.24	.05	-.24***
	Locus of Control	.10	.04	.11*
	Step 2			ΔR^2 = .21***
	UC-AA	.07	.05	.07
	UC-RW	-.19	.05	-.19***
	Locus of Control	.09	.04	.10*
	Information Searching & Sharing Motive	.09	.03	.16*
	Interpersonal Communication Motive	.09	.02	.20***
	Entertainment & Passing Time Motive	-.01	.02	-.04
	Economical Motive	-.10	.03	.20***
	Social Networking Motive	.03	.02	.07
	Step 3			ΔR^2 = .21***
	UC-AA	.07	.05	.08
	UC-RW	-.19	.05	-.19***
	Locus of Control	.09	.04	.10*
	Information Searching & Sharing Motive	.09	.03	.16*
	Interpersonal Communication Motive	.10	.02	.20***
	Entertainment & Passing Time Motive	-.02	.02	-.04
	Economical Motive	-.11	.03	-.21***
	Social Networking Motive	.03	.02	.06
	Instant Messaging/ Chat Rooms	.00	.00	.07
	Blog/Social Networking	.00	.00	.00
	E-mail Use	.00	.00	-.05
	WWW Browsing	.00	.00	-.06

Note. *$p < .05$, **$p < .01$, ***$p < .001$

Research question 2b asked how dispositions, Internet communication motives, the amount of Internet use contributed to psychological well-being. After all variables were entered, the final regression accounted for 19.8% of the variance in psychological well-being. Interpersonal communication (β = .22, $p < .001$), social networking motives (β = .17 $p < .001$) positively, locus of control (β = -.09, $p < .05$)

negatively predicted psychological well-being (see Table 4). Those who were externals, used the Internet for interpersonal communication and social networking purposes would feel satisfied with their online communication.

Hypothesis 1 posed that locus of control positively predicted amount of Internet use. Hypothesis 1 was supported. The results showed that internal locus of control spent more time using SNSs (β = .12, p < .001), and general WWW (β = .10, p < .05) than external locus of control.

Hypothesis 2 posed that unwillingness to communicate positively predicted the amount of Internet use. Hypothesis 2 was supported. UC-AA positively predicted the overall Internet use (β = .12, p < .05), chatroom/instant messaging use (β = .10, p < .05), and SNSs (β = .17, p < .001). People who avoided face-to-face communication would spend more time using chatroom/instant messaging and SNSs than those who felt face-to-face communication rewarding.

Hypothesis 3a expected that the amount of Internet use predicted social well-being. H3a was supported. The results showed that the overall Internet use explained social well-being $F(4, 476) = 2.39$, $p = 0.5$. When analyzing each dimension of social well-being, blog/social networking sites use (β = .12, p < .05) positively, and e-mail use (β = -.14, p < .01) negatively predicted social actualization. Those who used the Internet function: blog/social networking sites tended to feel positive about their social functioning in online communities.

Table 4

Hierarchical Regression Analysis for Unwillingness to Communicate, Locus of Control, Motives, and Amount of Use Predicting Psychological Well-Being (N = 480)

Dependent Variable	Predictors	*B*	*SE B*	β
Psychological Well-Being	Step 1			R^2 = .05***
	UC-AA	.13	.07	.10
	UC-RW	-.27	.07	-.20***
	Locus of Control	-.17	.06	-.14**
	Step 2			ΔR^2 = .18***
	UC-AA	.01	.07	.01
	UC-RW	-.12	.07	-.09
	Locus of Control	-.11	.06	-.09
	Information Searching & Sharing Motive	.06	.05	.08
	Interpersonal Communication Motive	.14	.03	.22***
	Entertainment & Passing Time Motive	-.04	.03	-.06
	Economical Motive	.04	.04	.06
	Social Networking Motive	.11	.03	.17***
	Step 3			ΔR^2 = .17***
	UC-AA	.01	.07	.00
	UC-RW	-.12	.07	-.09
	Locus of Control	-.12	.06	-.09*
	Information Searching & Sharing Motive	.06	.05	.09
	Interpersonal Communication Motive	.14	.03	.22***
	Entertainment & Passing Time Motive	-.04	.03	-.67
	Economical Motive	.04	.04	.05
	Social Networking Motive	.11	.03	.17***
	Instant Messaging/ Chat Rooms	.00	.00	-.02
	Blog/Social Networking	.00	.00	.04
	E-mail Use	.00	.00	-.03
	WWW Browsing	.00	.00	.02

Note. *$p < .05$, **$p < .01$, ***$p < .001$.

Hypothesis 3b expected that the amount of Internet use predicted psychological well-being. H3b was also supported. The results showed that the amount of Internet use was related to psychological well-being $F(4, 475) = 2.39$, $p = 0.5$. Blog/social networking sites use ($\beta = .14$, $p < .05$) positively, and e-mail use ($\beta = -.10$, $p < .05$) negatively predicted psychological well-being. People who used blog/social networking sites would feel satisfied with their online communication.

Discussion

The purpose of this study were to develop Internet communication motives scale and to examine the interrelationships among variables including dispositions, Internet communication motives, the amount of Internet use, social and psychological well-being. The results revealed five emerging Internet communication motives among Thais including information searching and sharing, interpersonal communication, economical, entertainment and passing time, and social networking.

The results of the present study provide insight into the understanding of how and why Thai people use different Internet functions to fulfill their needs differently and help us understand Internet motives for interpersonal and social communication in the non-Western context better. The Internet communication motives structure that was developed in this study was fairly consistent with other studies that conducted in the Western context (e.g., Papacharissi & Rubin, 2000; Pornsakulvanich et al., 2008). Nevertheless, it is not surprised that new Internet motives have emerged such as social networking and information searching and sharing. Internet functions like social networking sites provide the new platform for people to be able to create their own contents and communicate with their networks conveniently and economically.

Mostly, the results of this study support the main premise of the U&G perspective on the relationships among dispositions, motivation, the amount of use, and communication outcomes. Among all predictors, locus of control and interpersonal communication motives were the significant predictors of both social and psychological well-being. Moreover, the results also revealed that people who avoided face-to-face communication would spend more time using chatroom/instant messaging and SNSs than those who felt face-to-face communication to be rewarding. This result was consistent with prior studies suggesting that those who avoided face-

to-face communication were more likely to use the Internet or other media to compensate for felt interpersonal communication deficiencies (Armstrong & Rubin, 1989; Papacharissi & Rubin, 2000) and for personal relationship formation (McKenna & Bargh, 2000).

Limitations and Future Directions

This study aimed to serve as a preliminary examination to develop the Internet communication motives scale and understand how individual differences, the Internet use and motivation affected social and psychological well-being. Nevertheless, there are several limitations that should be considered. First, Internet communication motives in the study best reflected Internet motivation in the Thai context. Although the scale has been validated, employing the scale in other contexts should be in consideration. The Internet communication motives scale is in the preliminary stage of the development. Thus, future research should test this scale in different contexts and groups of Internet users to assure the validity and reliability of the scale across contexts and samples.

Second, using a single-item scale measuring psychological well-being in this study might be less reliable than applying a multi-item scale. As Ryff and Keyes (1995) suggested, psychological well-being is a complicated concept and has little evidence explaining its theoretical grounding. They also suggested that core dimensions of psychological well-being should be best explained in the multi-dimensional perspective. Future research should take into consideration the different aspects of psychological well-being to understand this construct better.

Appendix A

Internet Communication Motives
(Open-ended Questions)

1. Please identify the reasons why you used the Internet, particularly chat rooms, instant messaging, blogs, social networking sites, and/or e-mail.

   "I use the Internet because….."

   1._____

   2._____

   3._____

Appendix B

Amount of Internet Use
(Adapted from Pornsakulvanich, Haridakis, Rubin, 2008)

Please identify the number of minutes you used the Internet in each function yesterday and on the average day.

	Chat rooms/ Instant messaging *(e.g., MSN, Yahoo)*	Blogs/ Social networking sites (e.g., *Hi5, Facebook, YouTube OKNation*)	Email	General WWW
Minutes Used Yesterday				
Minutes Used on the Average day				

Appendix C

Internet Communication Motives
(Pornsakulvanich, 2010)

The statements below are the reasons why people used the Internet (e.g, chatrooms, instant messaging, blogs, social networking sites.). Please indicate the degree to which the statement is applied to your reason for using the Internet.

Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
(1)	(2)	(3)	(4)	(5)

I use the Internet…

1	To write the diary about my life's experience.	1	2	3	4	5
2	To search for information.	1	2	3	4	5
3	To get entertained.	1	2	3	4	5
4	To know a lot of people.	1	2	3	4	5
5	To share pictures with friends.	1	2	3	4	5
6	For recreation.	1	2	3	4	5
7	Because it is free.	1	2	3	4	5
8	Because there is nothing else to do.	1	2	3	4	5
9	To contact friends and family.	1	2	3	4	5
10	To send and receive information and news from a group of friends.	1	2	3	4	5
11	To save my phone bill.	1	2	3	4	5
12	To receive and send information.	1	2	3	4	5
13	To watch television programs and movies	1	2	3	4	5
14	Because I can talk with many friends at the same time.	1	2	3	4	5
15	Because I am bored.	1	2	3	4	5
16	To obtain news information.	1	2	3	4	5
17	Because it is easy to communicate.	1	2	3	4	5
18	Because it is cheap.	1	2	3	4	5
19	Because it is convenient.	1	2	3	4	5
20	To play games.	1	2	3	4	5
21	To create my web page or web blog.	1	2	3	4	5
22	To create social networking.	1	2	3	4	5
23	Because it is a fast tool for communication.	1	2	3	4	5
24	To listen to music.	1	2	3	4	5
25	To find new friends.	1	2	3	4	5
26	To talk with friends and family.	1	2	3	4	5

Note. This scale was developed in Study 1.

Appendix D

Locus of Control
(Levenson, 1974)

Please indicate the degree to which each statement applies to you by circling the number that best represents your opinion.

Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)

1	I feel like what happens in my life is mostly determined by powerful others.	1	2	3	4	5
2	My life is determined by my own actions.	1	2	3	4	5
3	Getting what I want requires pleasing those people above me.	1	2	3	4	5
4	It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	1	2	3	4	5
5	When I make plans, I am almost certain to make them work.	1	2	3	4	5
6	My life is chiefly controlled by powerful others.	1	2	3	4	5
7	Often there is no chance of protecting my personal interest from bad luck happenings.	1	2	3	4	5
8	I can pretty much determine what will happen in my life.	1	2	3	4	5
9	To a great extent my life is controlled by accidental happenings.	1	2	3	4	5
10	When I get what I want, it's usually because I'm lucky.	1	2	3	4	5
11	I am usually able to protect my personal interests.	1	2	3	4	5
12	People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.	1	2	3	4	5

Note. Item 1, 3, 4, 6, 7, 9, 10, and 12 are reverse-scored.

Appendix E

Unwillingness-to-Communicate
(Burgoon, 1976)

Below are a series of statements about communication. There are no right or wrong answers. Indicate the degree to which each statement applies to you.

Strongly Disagree (1)	Disagree Somewhat (2)	Disagree (3)	Neutral (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)

1	I am afraid to speak up in conversation.	1	2	3	4	5	6	7
2	I talk less because I'm shy.	1	2	3	4	5	6	7
3	I like to get involved in group discussions.	1	2	3	4	5	6	7
4	I talk a lot because I am not shy.	1	2	3	4	5	6	7
5	I have no fears about expressing myself in a group.	1	2	3	4	5	6	7
6	I avoid group discussions.	1	2	3	4	5	6	7
7	I am afraid to express myself in a group.	1	2	3	4	5	6	7
8	During a conversation, I prefer to talk rather than listen.	1	2	3	4	5	6	7
9	I find it easy to make conversation with strangers.	1	2	3	4	5	6	7
10	I feel nervous when I have to speak to others.	1	2	3	4	5	6	7
11	My friends and family don't listen to my ideas and suggestions	1	2	3	4	5	6	7
12	I think my friends are truthful with me.	1	2	3	4	5	6	7
13	I don't ask for advice from family or friends when I have to make decisions.	1	2	3	4	5	6	7
14	I believe my friends and family understand my feelings.	1	2	3	4	5	6	7
15	My family doesn't enjoy discussing my interests and activities with me.	1	2	3	4	5	6	7
16	My friends seek my opinions and advice.	1	2	3	4	5	6	7
17	Other people are friendly only because they want something out of me.	1	2	3	4	5	6	7
18	My friends and family listen to my ideas and suggestions.	1	2	3	4	5	6	7
19	Talking to other people is just a waste of time.	1	2	3	4	5	6	7
20	I don't think my friends are honest in their communication with me.	1	2	3	4	5	6	7

Note. Item 1, 2, 6, 7, 10, 11, 13, 15, 17, 19, and 20 are reverse-scored.
Approach-Avoidance (items 1-10). Reward (items 11-20).

Appendix F

Social Well-being
(Adapted from Keyes, 1998)

Please indicate the degree to which you agree or disagree that each statement describes your feeling toward online participation and society.

Strongly Disagree (1)	Disagree Somewhat (2)	Disagree (3)	Neutral (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)

1	I don't feel belong to anything I'd call an online community.	1	2	3	4	5	6	7
2	I feel close to other people in my online community.	1	2	3	4	5	6	7
3	My online community is a source of comfort.	1	2	3	4	5	6	7
4	People who do a favor expect nothing in return.	1	2	3	4	5	6	7
5	People do not care about other people's problems.	1	2	3	4	5	6	7
6	I believe that people are kind.	1	2	3	4	5	6	7
7	I have something valuable to give to the world.	1	2	3	4	5	6	7
8	My daily activities do not produce anything worthwhile for my online community.	1	2	3	4	5	6	7
9	I have nothing important to contribute to online society.	1	2	3	4	5	6	7
10	The world is becoming a better place for everyone.	1	2	3	4	5	6	7
11	Online society has stopped making progress.	1	2	3	4	5	6	7
12	Online society isn't improving for people like me.	1	2	3	4	5	6	7
13	The world is too complex for me.	1	2	3	4	5	6	7
14	I cannot make sense of what's going on in the world.	1	2	3	4	5	6	7
15	I find it easy to predict what will happen next in society.	1	2	3	4	5	6	7

Note. Item 1, 5, 8, 9, 11, 12, 13, and 14 are reverse-scored.

Appendix G

Interpersonal Communication Satisfaction Inventory
(Hecht, 1978)

The purpose of this questionnaire is to investigate your reaction to online conversations you have with others via the Internet. Please indicate the degree to which you agree or disagree that each statement describes your conversations on the Internet.

Strongly Disagree (1)	Disagree Somewhat (2)	Disagree (3)	Neutral (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)

1	I feel that I can present myself well through online conversations.	1	2	3	4	5	6	7
2	People express a lot of interest when talking with me on the Internet.	1	2	3	4	5	6	7
3	I feel I can talk about anything on the Internet.	1	2	3	4	5	6	7
4	I have something else to do rather than talking on the Internet.	1	2	3	4	5	6	7
5	I am very satisfied with online conversations.	1	2	3	4	5	6	7
6	Nothing is accomplished when communicating through the Internet.	1	2	3	4	5	6	7
7	I would like to have more online conversations like I had.	1	2	3	4	5	6	7
8	I do *not* enjoy online conversations.	1	2	3	4	5	6	7
9	My online conversations usually flow smoothly.	1	2	3	4	5	6	7

Note. Item 6, 8 are reverse-scored.

Appendix H

Demographic Information

1. What is your gender?
   ☐ Male ☐ Female

2. What is your age?
   ☐ Less than 18 years ☐ 18 – 25 years ☐ 26 – 32 years
   ☐ 33 – 39 years ☐ 40 – 46 years ☐ More than 47 years

3. What is your occupation?
   ☐ Student ☐ Employee (Public company)
   ☐ Employee (Government) ☐ Business owner
   ☐ Others (Specify)_____

4. What is your range of income?
   ☐ Less than 10,000 Baht ☐ 10,001 – 20,000 Baht
   ☐ 20,001 – 30,000 Baht ☐ 30,001 – 40,000 Baht
   ☐ 40,001 – 50,000 Baht ☐ More than 50,000 Baht

5. What is your highest education level?
   ☐ High school ☐ Vocational degree ☐ Bachelor's degree
   ☐ Master's degree ☐ Doctoral degree ☐ Others (Specify)_____

Appendix I

Published Article

Pornsakulvanich, V. (2010). Internet communication motives: The scale development. *Journal of Communication Arts, 28*(4), 169-182.

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