



## Gratifications for using CMC technologies: A comparison among SNS, IM, and e-mail

Yi-Cheng Ku<sup>a,1</sup>, Tsai-Hsin Chu<sup>b,\*</sup>, Chen-Hsiang Tseng<sup>a</sup>

<sup>a</sup> Dept. of Computer Science and Information Management, Providence University, 200 Chung Chi Rd., Taichung 43301, Taiwan, ROC

<sup>b</sup> Dept. of E-Learning Design and Management, National Chiayi University, 85 Wunlong Village, Minsyong, Chiayi, Taiwan, ROC

### ARTICLE INFO

#### Article history:

Available online 19 September 2012

#### Keywords:

CMC technology  
Uses and gratifications theory  
Usage motives  
E-mail  
Instant messaging  
Social networking sites

### ABSTRACT

Why and how people choose to use a particular computer-mediated communication (CMC) technology is a major concern. This study seeks to address the issues by applying the uses and gratifications theory, and attempts to explore the general and specific gratifications sought from the use of three CMC technologies. Three separate empirical surveys were conducted to investigate the gratifications sought from social networking sites, instant messaging, and e-mail. Then factor analysis was undertaken to extract the gratifications sought from each CMC technology. The extracted gratifications sought were then compared among the three technologies for concluding the general and specific gratifications. Four general gratifications were extracted among the three CMC technologies, including relationship maintenance, information seeking, amusement, and style. Two gratifications were specific: the sociability gratification sought from using instant messaging and social networking sites; and the gratification of kill time sought from using instant messaging. Moreover, the important levels of gratifications sought from the three CMC technologies were found to be different. Our findings provide evidence to explain why not all traditional CMC technologies are replaced by innovative and advanced ones. The results of this study may be applied to CMC technology design and provide implications for future research.

© 2012 Elsevier Ltd. All rights reserved.

### 1. Introduction

Computer-mediated communication (CMC) technologies have become popular communication media in people's daily lives. The driving force behind the current evolution in communication technologies is the Internet. Since the first Internet-based e-mail system was implemented on ARPANet by Raymond Samuel Tomlinson in 1971, the computer-based interpersonal communication application has advanced from e-mail, bulletin board systems (BBSs), forum, instant messaging (IM) (Lo & Leung, 2009) to social networking sites (SNSs). Although CMC technology has continued to advance, studies report that some conventional communication technologies are not being replaced by new ones (e.g. Baym, Zhang, & Lin, 2004; Okazaki & Romero, 2010; Quan-Haase, 2007). Rather, users are observed to embrace multiple CMC technologies as part of their communication repertoire (Quan-Haase & Young, 2010), and purposefully use these technologies based on different communicational needs (Dimmick, Kline, & Stafford, 2000; Markus, 1994). These studies collectively indicate that advanced CMC technology does not completely replace the old technologies, at least at present. That is, each CMC technology may satisfy specific user

needs that another type of CMC technology cannot completely fulfill. This implies that even though some CMC technologies are designed to satisfy similar communicative objectives, different motives drive people's use of CMC technologies. This observation also raises an important research question: what are the motives that drive people's choice of different CMC technology use?

Previous studies have applied a number of lenses to explain why and how people choose to use a particular CMC technology (e.g. Chen, Yen, & Huang, 2004; D'Ambra, Rice, & O'Connor, 1998; Hiltz & Johnson, 1990; Hung, Huang, Yen, & Chang, 2007; Mennicke, Valacich, & Wheeler, 2000; Shirani, Tafti, & Affisco, 1999). Most of these studies consider either technology features (e.g. studies based on media richness theory) or contingency (e.g. studies based on task-technology fit (TTF) theory) to explain the reasons for adopting a particular CMC technology. In media richness theory, it is assumed that people tend to use the richer CMC technology for communication because it includes more cues to enhance communication performance. For example, people who use IM can outperform those who communicate via e-mail (Hung et al., 2007). IM provides multi-media features, such as instant voice, animations, and affective symbols. Compared with email, which contains texts and graphs, these multi-media features of IM can provide richer cues, and can improve a recipient's understanding more quickly as well as enhance communication performance (Hung et al., 2007). Furthermore, the TTF-based research suggests that people's selection of CMC technology is contingent

\* Corresponding author. Tel.: +886 5 2263411x1525; fax: +886 5 2062328.

E-mail addresses: [ycku@pu.edu.tw](mailto:ycku@pu.edu.tw) (Y.-C. Ku), [thchu@mail.ncyu.edu.tw](mailto:thchu@mail.ncyu.edu.tw) (T.-H. Chu), [zoomba@webmail.mlc.edu.tw](mailto:zoomba@webmail.mlc.edu.tw) (C.-H. Tseng).

<sup>1</sup> Tel.: +886 4 26328001x18120; fax: +886 4 26324045.

on the task which is intended to be performed. For example, Wilson and Sheetz (2008) proposed that a user can enhance his/her productivity by using the CMC technology whose features fit the task characteristics. Collectively, these studies propose that people's use of a particular CMC technology is dependent on the technological property of richness or external constraints (i.e. utilitarian characteristics). In this light, the underlying assumption of these studies is aligned with the technological determinism perspective, which suggests that the characteristics of a technology can derive social outcomes, regardless of user's intention (Markus, 1994; Markus & Robey, 1988).

Although these studies are able to provide a preliminary explanation of people's use of CMC technologies, they cannot fully explain the various and complex nature of people's behaviors with respect to CMC technologies. Emphasizing media richness helps to provide insight into designing richer CMC technologies which contain more communicational cues and to yield more acceptances to users. However, it cannot explain why not all of the advanced features are utilized by users when a CMC technology provides rich features. For example, although some instant messaging applications provide video connection enabling users to communicate "face-to-face" online, not all users take advantage of this feature when they are chatting. Moreover, perception of a sense of richness may differ for people in diverse situations (Wilson & Sheetz, 2008). While a particular CMC technology may be perceived as the rich media by some users and for particular tasks, it may be regarded as a poor medium by other users and for other tasks (Kock, 2004; Lee, 1994). TTF-based research goes beyond the concern of technology features by suggesting contingencies; however, it is hard to apply it to the compound tasks in which people use CMC technology beyond the work context (Pedersen & Ling, 2003). In daily life a CMC technology is usually used for a number of tasks in various situations. For example, many people use e-mail to communicate business and personal issues whenever they are on and off line. In contrast to the work context where a specific task (or tasks) can be identified, however, it is difficult to relate users' use of a CMC technology to a single task in daily life. More importantly, these studies fail to explain users' enactment behavior, suggesting that technology use can be an improvisation based on the user's subjective justification in a situation (Orlikowski, 2000). People's use of technology is situated and can be a subjective choice determined by their communication needs. It may also be shaped by consideration of the opportunities and/or social consequences arising from technological communication, rather than being predetermined by technology features or tasks characteristics (e.g. Markus, 1994). To illustrate this point, Markus (1994) observes that instead of face-to-face communication, people may choose to communicate via e-mail (i.e. the poorer richness media) to prevent embarrassment or to avoid upsetting others.

This study seeks to improve our understanding of people's selection and use of different CMC technologies. By applying the theory of uses and gratifications (U&G) (Katz, 1959), this study investigates how and why people use a CMC technology (or multiple CMC technologies) to satisfy their needs. U&G theory suggests that individuals are aware of their social and psychological needs, and seek particular gratifications for media use to fulfill these needs (Katz, 1959; Katz, Blumler, & Gurevitch, 1974). The U&G theory approach helps us to understand the motives for people's selection of CMC technology. Specifically, we seek answers to the two following research questions: Q1: *What are the gratifications sought from the use of a specific CMC technology?* In this study, SNS, IM and e-mail are selected because they receive considerable attention in the CMC literature (e.g. Ellison, Steinfield, & Lampe, 2007; Lo & Leung, 2009; Raacke & Bonds-Raacke, 2008). Q2: *Are there general or specific gratifications sought across the use of different CMC technologies?* Although many studies have investigated users' gratifica-

tion sought from the use of different CMC technologies (e.g. Leung, 2001; Leung & Wei, 2000; Lo & Leung, 2009; Quan-Haase & Young, 2010; Stafford, Stafford, & Schkade, 2004; Wei, 2008), only a few investigate "general gratifications sought" among CMC technologies. The second goal of this study is to explore the general and specific gratifications sought from using different CMC technologies, and thereafter, to suggest a general framework for further CMC technology use studies and highlight the special niches of each CMC technology investigated in this study.

The paper is organized in the following way: we begin with a review of the features of CMC technologies and a brief introduction of the U&G theory as the theoretical foundation in the next section. In Section 3, we then describe the research method, including instrument design, data collection and analysis. The Research Findings section reports our results and discusses the findings to extend our understanding to people's choice and use of the CMC technology. Finally, we summarize our research results and implications for researchers and practitioners in Section 5, and make a brief conclusion and directions for future research in Section 6.

## 2. Literature review

### 2.1. Computer-mediated communication technologies

CMC technology plays an important role in our daily lives. CMC is defined as "any human symbolic text-based interaction conducted or facilitated through digitally-based technologies" (Spitzberg, 2006, p. 630). Although CMC technology can have various applications under the above definition, this study is concerned with the CMC technologies which can mediate or enhance interpersonal communication and the information exchanging process through computer-based application. Under this definition, CMC technologies broadly include e-mail, BBS, instant messaging (IM), videoconferencing, chat rooms, blog and social networking sites (SNSs), etc. (Ellison et al., 2007; McQuail, 2005; Spitzberg, 2006; Thurlow, Lengel, & Tomic, 2004). Compared with traditional media users, users of CMC technology are more active and are media content providers.

Three popular CMC technologies, i.e. IM, e-mail, and SNS, are selected to examine our research questions because of their high penetrating rates in developed countries (Ku & Zhang, 2009; Lo & Leung, 2009; Wei, 2008) and the considerable attention they receive in the CMC literature (e.g. Ellison et al., 2007; Lo & Leung, 2009; Raacke & Bonds-Raacke, 2008). IM is a synchronous communication system that enables real-time communications between two or more people based on typed text, symbol, voice, and video (Guan & Alkinkemer, 2002; Hung et al., 2007). Many IM applications are provided by commercial companies, such as AOL Instant Messenger, MSN Messenger, Yahoo! Messenger, ICQ, and Skype. IM provides many functions that can enrich the user's communication, such as the presence feature, user state (e.g. on-line, off-line, at lunch, and busy), chat room, file sharing, voice-chat, and video telephone.

In addition, e-mail is an asynchronous computer-mediated system that enables the writing, sending, receiving and saving of messages over the computer network (Hung et al., 2007; Sproull & Kiesler, 1986). Compared with IM, e-mail is efficient for broadcasting messages to a group of recipients. It allows the sender to review message content carefully before sending the mail (Boneva, Kraut, & Frohlich, 2001). In addition to sending messages, a sender can deliver files to recipients via e-mail by attaching files. Recently, SNS has been a popular CMC technology. This is evidenced by the rapid growth in SNS, such as Facebook, MySpace, Friendster, and others. People are able to use SNS to build online communities in which members share interests, news, and knowledge with other

Download English Version:

<https://daneshyari.com/en/article/351170>

Download Persian Version:

<https://daneshyari.com/article/351170>

[Daneshyari.com](https://daneshyari.com)