Understanding intention to continuously share information on weblogs

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Abstract

Purpose – Weblogs, or blogs, have been a significant new development in recent years. Many businesses have begun using blogs to stimulate discussions, garner ideas, and provide further visibility. Thus, blog usage as well as individual motives behind continued usage is an important area of research. This research aims to examine behavioral motivations underlying individual intention to keep using blogs.

Design/methodology/approach – Based on social cognitive theory and related technology adoption literature, this study considered knowledge self-efficacy, subjective norms, feedback, and personal outcome expectations as the determinants of continuing to share information on blogs. The proposed model was empirically evaluated using randomized survey data collected from 155 users of a popular web site in Taiwan (WRETCH blog).

Findings – The results revealed that although both self-efficacy and personal outcome expectations affected directly the intention of sharing information on blogs, personal outcome expectations had stronger impacts on behavioral intention. In addition, social persuasion has no direct but indirect impact via self-efficacy and personal outcome expectations on the intention of sharing information.

Practical implications – This study contributes to a theoretical understanding of the factors that promote the usage of weblogs. For web log service providers, the results help them better develop tools to enhance people’s intention to share information.

Originality/value – The paper verifies the effect of knowledge self-efficacy, personal outcome expectations, and social persuasion on the behavior of blog users. Furthermore, it verifies the determinants of knowledge self-efficacy.

Keywords Worldwide web, Social theories, Information transfer, Expectation, Communication technologies

Paper type Research paper

1. Introduction

Weblogs (or blogs) are a new type of media that have recently become popular among differing groups and users on the World Wide Web. Millions of people use blogs in varying ways, including publishing information, transferring knowledge, and building relationships with other bloggers (users of blogs). Accenture (2004), a global management consulting firm, has said that blogs are interactive websites that allowed bloggers to publish ideas and information. Blogs are web pages that are dynamically created from a database, and can be customized from an end users perspective. This end user flexibility exponentially increases the potential to share ideas in a virtually cost-free environment. In addition, blogs were recently recognized as among the top ten tech trends to watch in 2005 by Fortune Magazine (Vogelstein et al., 2005). Mega-corporations such as IBM and Microsoft have recently begun to accept the value
of blogging, and have encouraged their employees to actively embrace this medium. Several portals (i.e. Yahoo, MSN, etc.) have recently begun providing personalized weblog services in hopes to attract more members.

Du and Wagner (2006) argued that weblog success mainly depends on the content value that a weblog has to provide to its users and/or readers. Posting volume would be a key determinant of content value. Moreover, businesses (portals, and blog service providers) hope that bloggers will not only provide useful information to the virtual community, but will also prove to be a potential for future profit. According to the Long Tail Theory (Anderson, 2006), continuous sharing of less-popular blogs may collectively attract more readers or make more profit than the popular blogs do. In other words, both continuous sharing of less-popular blogs and popular blogs are necessary. Therefore, continued usage decisions or user usage intent becomes an important issue. Currently, existing studies tend to focus only on the adoption of blogging technology. There is little research investigating individual motives behind continued usage. It is premature to recognize an IT adoption as a success until the continuing usage of the IT can be confirmed.

Recently, researchers have attempted to develop and empirically test models to understand the reason why people want to share information/knowledge (Wasko and Faraj, 2005; Bock et al., 2005; Kankanhalli et al., 2005). Through social cognitive theory, user intentions to share information and knowledge can be determined by several factors such as user expectations, social factors (subjective norms), and belief. One goal of this research is to develop and empirically test a model to analyze what factors affect the users’ intention of updating blogs. In addition, knowledge self-efficacy has been shown to significantly influence the degree of sharing information/knowledge (Kankanhalli et al., 2005), however, there is little literature discussing the determinants of knowledge self-efficacy. Thus, in order to enhance understanding of the intention to share information/knowledge, this research also attempts to examine the antecedents of knowledge self-efficacy.

The remainder of this paper is organized as follows: Section 2 presents an overview of social cognitive theory and self-efficacy. Section 3 develops the model and proposes the constructs of interest in the study and the hypotheses, as well as discussing the research context and method. After this, section 5 discusses the results of the model testing using partial least squares, section 6 discusses both theoretical and practical implications from this study. Finally, Section 7 concludes the research, and identifies potential limitations and possible further research.

2. Social cognitive theory and self-efficacy

Social cognitive theory (SCT) (Bandura, 1977, 1986) is a widely accepted and empirically validated model of individual behavior, and has been used as the bases of many different types of research models (Compeau and Higgins, 1995b, 1999; Huang and Liaw, 2005; Shih, 2006). According to SCT, three major factors (behavior, environmental situations, cognitive and other personal factors), are affected by each other. Bandura refers to this relationship as a model of triadic reciprocality. SCT incorporates two sets of expectations and advances them as the major cognitive force leading behavior:

(1) outcome expectations; and
(2) expectation related to self-efficacy.
SCT advocates that both expectations basically determine user behavior. Individuals tend to undertake behaviors that they believe will result in a “better” outcome. Additionally, Bandura (1986, p. 391) defines self-efficacy as “People’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses”. Perceived self-efficacy is a very important factor affecting motivation and behavior (Bandura, 1977, 1986).

Bandura (1986) proposed that there are four key sources of self-efficacy, which include: performance accomplishments; vicarious experiences; verbal persuasion; and psychological states. First, performance accomplishment refers to personal judgment based on an individual’s mastery experiences. Past successes raise efficacy assessments, while repeated failures lower overall efficacy assessments (Gist and Mitchell, 1992; Silver et al., 1995). Second, vicarious experience is obtained by seeing or visualizing others successfully performing activities. By learning from what they have observed, people can improve their own performance and generate expectations (Gist and Mitchell, 1992). Third, verbal persuasion refers to activities where people are talked into believing that they will deal with specific tasks successfully. For instance, coaching, counseling, and feedback on performance are general types of social persuasion. Finally, the individual’s physiological state also influences self-efficacy appraisals with regard to a specific task. Emotional reactions, such as anxiety and the affect of high stress situations can result in positive or negative judgments of one’s ability to complete the tasks (Bandura, 1986).

Further, knowledge self-efficacy is the confidence in one’s ability to provide valuable information/knowledge. Researchers have found that people with higher levels of expertise are more likely to provide useful advice on computer networks (Constant et al., 1996). Conversely, individual are less likely to contribute if they feel that they lack information/knowledge that is useful to others (Lee et al., 2006). Additionally, Kankanahalli et al. (2005) also found that knowledge self-efficacy significantly affects the degree of sharing information/knowledge. In summary, according to literature, both outcome expectations and knowledge self-efficacy basically determine user intention to share information/knowledge. Thus, we considered them as important factors in the research model.

3. Conceptual model and research hypotheses
The research model tested in this study is shown in Figure 1. This model is based on social cognitive theory (SCT) (Bandura, 1986) as well as related knowledge sharing and IT adoption literature. The proposed constructs and hypotheses are supported by past research in information systems literature.

3.1 Perceived information creation ability
Bandura (1986) argued that performance accomplishment is the most influential source of self-efficacy. According to Bandura (1986), perceived information creation ability, which refers to people’s judgments of their capabilities to create valuable or interesting information, is an assessment of a person’s performance accomplishments and can affect knowledge self-efficacy.
Nonaka (1994) divides knowledge into two kinds: tacit knowledge and explicit knowledge. Tacit knowledge is personal skills and mental models, and is hard to articulate. In contrast, explicit knowledge can be easily presented in words, numbers, data, graphs and so on. Accordingly, information creation ability refers to transformation of tacit knowledge into explicit knowledge. In addition, Munro et al. (1997) found that user competence is significantly related to self-efficacy. Based on SCT and competence-related literature, people who have more abilities to create knowledge may have more confidence in sharing knowledge. Therefore, we hypothesize that:

H1. Perceived information creation ability will have a positive effect on knowledge self-efficacy.

3.2 Perceived knowledge sharing experience
Knowledge can be shared in many media, such as books, pictures, e-mail, BBS (Bulletin Board System) and so on. Recently, the internet has facilitated mass usage of electronic media (BBS, e-mail, etc.) When an individual makes knowledge self-efficacy judgments, knowledge sharing of past experience becomes a possible source of judging performance accomplishments. Prior experience has been found to have powerful effect on self-efficacy estimations (Wood and Bandura, 1989). Currently, there are many studies that also suggests that prior experience would affect self-efficacy (Compeau and Higgins, 1995a; Igbaris and Iivari, 1995; Potosky, 2002; Johnson, 2005). Hence, knowledge-sharing experience (defined as the experience of sharing valuable or
interesting information with others via the internet) may influence knowledge self-efficacy. Thus, we hypothesize that:

\( H2. \) Perceived knowledge sharing experience will have a positive effect on knowledge self-efficacy.

3.3 Subjective norms and feedback
Subjective norms and feedback are possible sources of verbal persuasion (convincing others to believe that they will accomplish specific tasks successfully). As defined by Fishbein and Ajzen (1975), subjective norm describes “the degree to which an individual believes the people who are important to him/her expect him/her to perform the behavior in question”. Compeau and Higgins (1995b) also argued that the encouragement, which is one source of subjective norms, of others who are important to people can be expected to influence outcome expectations. If others encourage the sharing of knowledge, the individual’s assessment of the likely outcome of the behavior will be affected. In addition, feedback can be defined as advice, criticism, or information about the goodness or usefulness of something or somebody’s work is. Feedback is known to not only lead to the achievement of performance goals but also lead to a higher sense of competence (Barr and Conlon, 1994). As noted by self-efficacy related literature (Bandura, 1977, 1986; Compeau and Higgins, 1995b; Igbaris and Iivari, 1995), individuals partly rely on the opinion of others as well as the encouragement and support they receive to judge their own ability. External feedback may determine self-efficacy and outcome expectations. Moreover, people are also likely to increase their abilities to perform a task if assistance is readily available. Consequently, we hypothesize that:

\( H3. \) Subjective norms will have a positive effect on knowledge self-efficacy.

\( H4. \) Feedback will have a positive effect on knowledge self-efficacy.

\( H5. \) Subjective norms will have a positive effect on personal outcome expectations.

\( H6. \) Feedback will have a positive effect on personal outcome expectations.

Some theories suggest that social influence is crucial in shaping user behavior. For instance, according to Theory of Reasoned Action (TRA) (Fishbein, 1975) and the theory of planned behavior (TPB) (Ajzen, 1985), both an individuals’ salient beliefs and their normative beliefs are important predictors of intent. Numerous empirical studies have found that social factors positively impact an individuals’ IT usage (Lucas and Spitler, 2000; Taylor and Todd, 1995; Venkatesh and Morris, 2000). Additionally, empirical studies based on TRA have found that social influences positively affected an individuals’ behavior (Cheung et al., 2000; Karahanna and Straub, 1999; Liao et al., 1999; Liker and Sindi, 1997). Barr and Conlon (1994) also argue that feedback affects the intention to persist at a new behavior. Accordingly, we hypothesize that:

\( H7. \) Subjective norms will have a positive effect on the intention of continuing to update blogs.

\( H8. \) Feedback will have a positive effect on intention of continuing to update blogs.
3.4 Knowledge self-efficacy

Consistent with Constant et al. (1996), the knowledge self-efficacy in the present study describes the confidence in one’s ability to provide interesting or useful information to others. People gain confidence in sharing knowledge and raise self-efficacy when they share useful information to others. Compeau and Higgins (1999) have demonstrated the explanatory power of self-efficacy in models intended to predict technology adoption. This belief can be viewed as a self-motivational force for blog users to share valuable information. If people feel that they cannot contribute useful information to others, they may be less willing to share information (Lee et al., 2006). Studies have manifested that there is a positive association between self-efficacy and the use of web-based systems use (Nahl, 1996, 1997; Vijayasarathy, 2004; Yi and Hwang, 2003; Kulviwat et al., 2004). Hence, we hypothesize that:

\[ H9. \text{ Knowledge self-efficacy will have a positive effect on the intention of continuing to update blogs.} \]

Bandura (1977) argued that:

Individuals can believe that a particular course of action will produce certain outcomes, but if individuals entertain serious doubts about whether they can perform the necessary activities, such information dose not influence their behavior (Bandura, 1977, p. 193).

This statement emphasizes that the users’ cognition of a situation has a great impact on the outcomes of action. If individuals believe they have significant skills or knowledge, they are more likely to expect positive outcomes. Furthermore, previous studies have found that perceived self-efficacy has positive predictive relationship on outcome expectations (Compeau and Higgins, 1995a, b; Compeau et al., 1999; Huang and Liaw, 2005). Thus, we relate knowledge self-efficacy to personal outcome expectations in the model and hypothesize that:

\[ H10. \text{ Knowledge self-efficacy will have a positive effect on personal outcome expectations.} \]

3.5 Personal outcome expectations

According to Compeau et al. (1999), personal outcome expectations refer to expectations of rewards or change in image. Based on SCT, people are more likely to engage in a behavior if they expect to be rewarded. Thompson et al. (1991) also argued that utilization of a PC will be greater if the expected consequences of using a PC are attractive. Similarly, people will continue to share information on the internet if they expect praise or rewards (Lee et al., 2006). Following previous empirical findings, personal outcome expectations are hypothesized to influence the intention of continuing to update blogs (Compeau and Higgins, 1995a, b; Compeau et al., 1999; Shih, 2006).

\[ H11. \text{ Personal outcome expectations will have a positive effect on the intention of continuing to update blogs.} \]

4. Research method

4.1 Subjects and data collection

The target population of this study is the bloggers of WRETCH Album and Blog (www.wretch.cc/), which is the second most popular website in Taiwan (based on the
Additionally, the total aggregate network traffic of WRETCH Album and Blog has exceeded that of the total aggregate network traffic of AOL.com and Flickr.com in September 2006. WRETCH Album and Blog provides Web Album, BBS, and Web Log Services, and has more than two million and three hundred thousand members according to the survey of itself in March 2006. These web sites were selected as our target for this research due to the volume of users these sites receive. A total of 1,990 members were selected as subjects for this survey at random by the random selection function of WRETCH Album and Blog, and posted invitations of our on-line questionnaire on their guest books from 1 April 2006 to 15 June 2006. Consequently, a total of 549 responses were received for a response rate of 27.6 percent. Of these, 24 questionnaires were invalid or repeated.

The target subjects of this study are the bloggers who mainly use blogs to share information, such as articles, pictures, audios and so on. On the questionnaire, they can self-report their purpose of using the blog service, choosing between the following: recording personal information or diaries; sharing information with others; adding the RSS of others' blogs (as a browser); or raising individual’s reputation or advertising. Based on the survey conducted, the results are as follows: 366 respondents’ stated blog usage centered around recording personal information or diaries with 82 respondents being male, 155 respondents mainly intended to share information with others with 50 respondents being male, two respondents preferred adding the RSS of others’ blogs (as a browser), and two respondents wanted to raise individual’s reputation or advertising by blogs. Therefore, this study used the 155 responses to test the research model. WRETCH blog has a higher level of female bloggers than the Taiwanese national average of 61 percent (generated through a survey conducted at the Market Intelligent Center in 2005 MIC; http://mic.iii.org.tw). The age composition of the 155 respondents was under 20, 37.4 percent; 20 ~ 29, 47.7 percent; 30 ~ 39, 11.6 percent; 40 ~ 49, 3.2 percent; over 50, 0.0 percent. Detailed descriptive statistics data relating to the respondents are shown in Table I.

### 4.2 Instrument development

The questionnaire contained 18 self-reported items related to eight research constructs. In order to ensure content validity, items selected for the constructs were largely adapted from prior research. All the questionnaire items used a five-point Likert-type scale, ranging form (1) strongly disagree to (5) strongly agree. The scale items for knowledge self-efficacy were taken from Kankanahalli et al. (2005) with the wording slightly modified to fit the requirements of this study. Items for personal outcome expectations were adapted from Compeau and Higgins (1999). Furthermore, subjective norms were measured using the instruments of Venkatesh and Morris (2000) with modified wording to suit the context of blogs. Knowledge-sharing experience was measured by two items developed from Staples et al. (1999) to assess the experience of sharing information via the internet with self-judgment. The items to measure behavioral intention of continuing to update blogs were developed from prior studies (Davis, 1989; Moon and Kim, 2001). Finally, perceived information creation ability and feedback were measured by statements developed specifically for this study.

Both a pre-test and a pilot test were undertaken to validate the instrument. The pre-test involved four respondents who were experts in the field of blogs. Respondents were asked to comment on the length of the instrument, the format, and wording of the
scales. Eventually, after a pilot test that involved 69 respondents, the survey, self-selected from the population of blog users, was conducted.

### 4.3 Data analysis

We used partial least squares (PLS) analysis to conduct the proposed model and hypothesis testing. As in Structural equation modeling (SEM), the PLS approach allows researchers to assess measurement model parameters and structural path coefficients simultaneously. Different from covariance-based SEM, PLS focuses on maximizing the variance of the dependent variables explained by the independent ones in place of reproducing the empirical covariance matrix (Haenlein and Kaplan, 2004). Additionally, PLS makes minimal demands in terms of sample size to validate a model compared to SEM. In our model, because all items are viewed as effects, not causes, of latent variables, they are modeled as reflective indicators. The sample size of PLS requires ten times the largest number of independent variables impacting a dependent variable or the largest number of formative indicators (Chin, 1998). Therefore, our sample size of 155 is more than sufficient for the PLS estimation procedures. We modeled all latent constructs as reflective indicators.

### 4.4 Construct validity

Construct validity, including convergent and discriminant validity, is widely used to validate measurement model in MIS research. Convergent validity can be assessed by examining composite reliability and average variance extracted from the measures (Hair et al., 1995). Many researches employing PLS have used 0.5 as threshold reliability of the measures, but 0.7 is a recommended value for a reliable construct (Chin, 1998). Table II shows that all measures displayed high factor loadings, which are

<table>
<thead>
<tr>
<th>Measure</th>
<th>Items</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>50</td>
<td>32.3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>105</td>
<td>67.7</td>
</tr>
<tr>
<td>Age (years)</td>
<td>&lt;20</td>
<td>58</td>
<td>37.4</td>
</tr>
<tr>
<td></td>
<td>20-29</td>
<td>74</td>
<td>47.7</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>18</td>
<td>11.6</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>&gt;50</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Education</td>
<td>High school or less</td>
<td>53</td>
<td>34.2</td>
</tr>
<tr>
<td></td>
<td>Some college or Bachelor’s degree</td>
<td>85</td>
<td>54.8</td>
</tr>
<tr>
<td></td>
<td>Graduate degree</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Occupation</td>
<td>Students</td>
<td>97</td>
<td>62.6</td>
</tr>
<tr>
<td></td>
<td>Home makers</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Office worker</td>
<td>32</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>Self-employment</td>
<td>13</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>8</td>
<td>5.2</td>
</tr>
<tr>
<td>The frequency of updating blogs</td>
<td>At least once a day</td>
<td>40</td>
<td>25.8</td>
</tr>
<tr>
<td></td>
<td>At least once a week</td>
<td>77</td>
<td>49.7</td>
</tr>
<tr>
<td></td>
<td>At least once two weeks</td>
<td>20</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>At least once a month</td>
<td>13</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>Once more than a month</td>
<td>5</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Table I.

Profile of respondents
greater than 0.7, on their respective constructs. As shown in Table III, our composite reliability values range from 0.912 to 0.951, exceeding the threshold of 0.7 (Nunally, 1978). Table III also shows that the average variances extracted from the constructs ranged from between 0.776 to 0.907, which are above the acceptability value 0.5 (Fornell and Larcker, 1981). Hence, the results demonstrate that the measurement items were reasonably convergent on their respective constructs.

As recommended by Fornell and Larcker (1981), the result in Table IV confirms the discriminant validity; the square root of the average variance extracted for each construct exceeded the squared correlation between any pair of distinct constructs. The smallest average variance extracted from the constructs (0.776) is apparently greater than the largest squared correlation between constructs (0.339). To sum up, the measurement model demonstrated adequate reliability, convergent validity and discriminant validity.

### Table II.
Results of confirmatory factor analysis

<table>
<thead>
<tr>
<th>Scale items</th>
<th>PICA</th>
<th>KE</th>
<th>SN</th>
<th>FB</th>
<th>KSE</th>
<th>POE</th>
<th>USAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICA1</td>
<td>0.8675</td>
<td>0.3356</td>
<td>0.3332</td>
<td>0.2861</td>
<td>0.3754</td>
<td>0.1730</td>
<td>0.2548</td>
</tr>
<tr>
<td>PICA2</td>
<td>0.9515</td>
<td>0.2993</td>
<td>0.4265</td>
<td>0.3172</td>
<td>0.4748</td>
<td>0.2185</td>
<td>0.2985</td>
</tr>
<tr>
<td>PICA3</td>
<td>0.9479</td>
<td>0.3537</td>
<td>0.3899</td>
<td>0.3437</td>
<td>0.4202</td>
<td>0.2391</td>
<td>0.3537</td>
</tr>
<tr>
<td>KE1</td>
<td>0.3786</td>
<td>0.9557</td>
<td>0.4647</td>
<td>0.3524</td>
<td>0.5258</td>
<td>0.2243</td>
<td>0.3796</td>
</tr>
<tr>
<td>KE2</td>
<td>0.3032</td>
<td>0.9641</td>
<td>0.4765</td>
<td>0.4004</td>
<td>0.5576</td>
<td>0.2200</td>
<td>0.3532</td>
</tr>
<tr>
<td>SN1</td>
<td>0.4239</td>
<td>0.4663</td>
<td>0.9342</td>
<td>0.5263</td>
<td>0.4087</td>
<td>0.3048</td>
<td>0.3147</td>
</tr>
<tr>
<td>SN2</td>
<td>0.3612</td>
<td>0.4538</td>
<td>0.9406</td>
<td>0.5646</td>
<td>0.4812</td>
<td>0.2702</td>
<td>0.2965</td>
</tr>
<tr>
<td>FB1</td>
<td>0.3250</td>
<td>0.3095</td>
<td>0.5253</td>
<td>0.9255</td>
<td>0.2902</td>
<td>0.2969</td>
<td>0.3334</td>
</tr>
<tr>
<td>FB2</td>
<td>0.3196</td>
<td>0.4195</td>
<td>0.5663</td>
<td>0.9535</td>
<td>0.4401</td>
<td>0.3837</td>
<td>0.2861</td>
</tr>
<tr>
<td>KSE1</td>
<td>0.3759</td>
<td>0.4284</td>
<td>0.4017</td>
<td>0.2918</td>
<td>0.8134</td>
<td>0.1705</td>
<td>0.2233</td>
</tr>
<tr>
<td>KSE2</td>
<td>0.4333</td>
<td>0.5209</td>
<td>0.4441</td>
<td>0.3747</td>
<td>0.9360</td>
<td>0.1238</td>
<td>0.2895</td>
</tr>
<tr>
<td>KSE3</td>
<td>0.4242</td>
<td>0.5533</td>
<td>0.4274</td>
<td>0.3852</td>
<td>0.9213</td>
<td>0.1814</td>
<td>0.3839</td>
</tr>
<tr>
<td>POE1</td>
<td>0.2395</td>
<td>0.2422</td>
<td>0.2690</td>
<td>0.3434</td>
<td>0.1669</td>
<td>0.9662</td>
<td>0.4268</td>
</tr>
<tr>
<td>POE2</td>
<td>0.2371</td>
<td>0.1542</td>
<td>0.2835</td>
<td>0.2991</td>
<td>0.1307</td>
<td>0.9646</td>
<td>0.3878</td>
</tr>
<tr>
<td>POE3</td>
<td>0.1523</td>
<td>0.2504</td>
<td>0.2805</td>
<td>0.3831</td>
<td>0.2003</td>
<td>0.8438</td>
<td>0.2517</td>
</tr>
<tr>
<td>USAGE1</td>
<td>0.3039</td>
<td>0.3909</td>
<td>0.3966</td>
<td>0.3195</td>
<td>0.3206</td>
<td>0.3503</td>
<td>0.8726</td>
</tr>
<tr>
<td>USAGE2</td>
<td>0.2861</td>
<td>0.2538</td>
<td>0.2072</td>
<td>0.2483</td>
<td>0.3082</td>
<td>0.2778</td>
<td>0.3965</td>
</tr>
<tr>
<td>USAGE3</td>
<td>0.2818</td>
<td>0.3368</td>
<td>0.2556</td>
<td>0.2979</td>
<td>0.2778</td>
<td>0.3695</td>
<td>0.9364</td>
</tr>
</tbody>
</table>

Notes: PICA: Perceived information creation ability; KE: Knowledge-sharing experience; SN: Subjective norms; FB: Feedback; KSE: Knowledge self-efficacy; POE: Personal outcome expectations; USAGE: Intention of continuing to update blogs

### Table III.
Analysis of convergent validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>SD</th>
<th>Composite reliability</th>
<th>Average variance extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>PICA</td>
<td>3.75</td>
<td>0.74</td>
<td>0.940686</td>
<td>0.841164</td>
</tr>
<tr>
<td>KE</td>
<td>4.19</td>
<td>0.75</td>
<td>0.951201</td>
<td>0.906944</td>
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<td>0.71</td>
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<td>0.867347</td>
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<td>FB</td>
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<td>0.931269</td>
<td>0.871404</td>
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<tr>
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<td>0.916130</td>
<td>0.785167</td>
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<tr>
<td>POE</td>
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<td>0.87</td>
<td>0.943240</td>
<td>0.847574</td>
</tr>
<tr>
<td>USAGE</td>
<td>4.37</td>
<td>0.63</td>
<td>0.912210</td>
<td>0.776267</td>
</tr>
</tbody>
</table>
4.5 Structure model

This study employed PLS to test the research model with respect to proposed hypotheses testing. Consistent with recommendations (Chin, 1998), bootstrapping was performed to determine the statistical significance of each path coefficient using $t$-tests. The results of the analysis are presented in Figure 2 with non-significant paths as dotted lines, and the standardized path coefficients and $t$-tests results are between constructs. Consistent with $H1$ and $H2$, perceived information creation ability and

![Model test results](image)

**Table IV.** Analysis of discriminant validity

<table>
<thead>
<tr>
<th></th>
<th>PICA</th>
<th>KE</th>
<th>SN</th>
<th>FB</th>
<th>KSE</th>
<th>POE</th>
<th>USAGE</th>
</tr>
</thead>
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<td>KE</td>
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<tr>
<td>SN</td>
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<td>0.241</td>
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<tr>
<td>FB</td>
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<td>0.155</td>
<td>0.339</td>
<td>0.871</td>
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<tr>
<td>KSE</td>
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<td>0.226</td>
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<tr>
<td>POE</td>
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<td>0.095</td>
<td>0.139</td>
<td>0.033</td>
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<td>0.112</td>
<td>0.108</td>
<td>0.118</td>
<td>0.144</td>
<td>0.776</td>
</tr>
</tbody>
</table>

**Notes:** Diagonal elements are the average variance extracted. Off-diagonal elements are the squared correlation between two distinct constructs.

**Figure 2.** Model test results

*Note:* *p<0.1; *p<0.05; **p<0.01; ***p<0.001
knowledge-sharing experience had a strong positive effect on knowledge self-efficacy. Contrary to performance accomplishments, subjective norms have less significant effect on knowledge self-efficacy and feedback did not significantly affect knowledge self-efficacy. As expected, $H_5$ and $H_6$ were supported in social persuasion, but feedback has stronger effect on personal outcome expectations. Notably, subjective norms and feedback do not statistically significantly affect intention of continuing to update blogs directly. As a result, $H_7$ and $H_8$ were not supported. However, there still exist indirect relationships between those variables. According to the path diagram of Figure 2, those two variables affect personal outcome expectation and then influence the intention indirectly. Moreover, both knowledge self-efficacy and personal outcome expectations have significant and positive effects on intention of continuing to update blogs, confirming $H_9$ and $H_{11}$, respectively. Nevertheless, $H_{10}$ was not supported, that is, knowledge self-efficacy does not influence personal outcome expectations. Overall, the research model explained 24.3 percent of the variance in intention of continuing to update blogs.

5. Discussion
The goal of the present study was to examine the role of SCT in intention of continuing to update blogs. The results revealed that knowledge self-efficacy and personal outcome expectations significantly and directly affected bloggers’ intention to update blogs. Different from the findings of previous studies (Lucas and Spitler, 2000; Taylor and Todd, 1995), the results indicate that perceived subjective norms and feedback do not motivate bloggers to update their blogs directly. One of possible reasons may be that the direct effect of social persuasion (subjective norms and feedback) becomes insignificant after bloggers have used for a period of time (Venkatesh and Morris, 2000). According to the path diagram of Figure 2, the bivariate relations between social persuasion and intention may be come from the paths SP (Social Persuasion) → POE → Intention and SP → KSE → Intention. Hence, we infer that most bloggers who intend to share information on blogs were influenced indirectly by social persuasion.

Knowledge self-efficacy was validated to be an important determinant to predict intentions of users, as mentioned in past research (Nahl, 1996, 1997; Vijayasarathy, 2004; Hasan, 2006). In this research, performance accomplishment, including perceived information creation ability and knowledge-sharing experience, significantly and directly affected knowledge self-efficacy. Our findings indicated that feedback does not dominate users’ knowledge self-efficacy. Similar to Bandura (1986), performance accomplishments provide the most influential source of knowledge self-efficacy and explained about 43 percent of the variance in intention of continuing to update blogs.

Personal outcome expectation is another important predictor of intention to update blogs. The results showed that personal outcome expectations had stronger effects on behavioral intention. People may continue to use blogs while they expect rewards or change in image. These results are consistent with findings reported in other studies (Compeau and Higgins, 1995a, b; Compeau et al., 1999; Shih, 2006). Additionally, feedback played a critical role in determining personal outcome expectations and explained about 15 percent of the variance in it. Conversely, knowledge self-efficacy did not have significant influence on personal outcome expectations.
6. Implications

6.1 Implications for academic researchers
For academic researchers, this study contributes to a theoretical understanding of the factors that promote the usage of weblogs whose concepts and technologies contribute to Web 2.0. Web 2.0 is defined in Wikipedia (2006) as “a second generation of services available on the Worldwide Web that lets people collaborate and share information online. In contrast to the first generation, Web 2.0 gives users an experience closer to desktop applications than the traditional static web pages”. Web 2.0 related IT differs from the systems examined in prior studies and is a new IS context.

In the present study, social persuasion was found not to be significant antecedent of the behavioral intention to update weblogs. In addition, the empirical results confirmed that the individual confidence in sharing knowledge enables bloggers to increase their intention to update, and demonstrated that personal outcome expectation is an important variable affecting user intention. Furthermore, while the past study (Kankanhalli et al., 2005) of self-efficacy has demonstrated a significant relationship between knowledge self-efficacy and system acceptance intention, it did not validate which variables would affect knowledge self-efficacy. The result revealed that performance accomplishments are more important predictors of knowledge self-efficacy than social persuasion.

6.2 Implications for weblog service providers
Our findings have practical implications. First, the results demonstrate the roles of social persuasion in determining the intention. While most weblog service providers believe that the feedback or the reputation system is one of the major tools to enhance people’s intention to share information, the results remind that there is no direct impact of social persuasion on intention. Social persuasion affects the intention via personal outcome expectations. When users’ personal outcome expectations are enhanced by others’ opinion or thinking, they would have more desire to share information. Therefore, weblog service providers can develop tools to facilitate opinion sharing to increase the intention. Second, results of this study reveal that performance achievements have impact on intention via knowledge self-efficacy. Thus, it is another means to increase intention by developing tools to enhance performance achievements. Finally, the effect on performance achievements may be more important than the effect on social persuasion to enhance the knowledge self-efficacy, according to the standard coefficient of the paths PA → KSE and SP → KSE. This finding is also helpful for weblog service providers to re-allocate their limited resources to develop different tools.

7. Conclusions, limitations and further research
The purpose of this study was to develop and empirically test a model to analyze what factors influence users’ intention to update blogs. The proposed model enhances the understanding of continued blog usage. We verified the effect of knowledge self-efficacy, personal outcome expectations, and social persuasion on the behavior of blog users. The research found that knowledge self-efficacy and personal outcome expectations are important determinants of the intention to update blogs. In addition, while most past studies found that subjective norms and feedback affect behavioral
intention to use directly, we found that those two factors influence the intention indirectly. Furthermore, we verified the determinants of knowledge self-efficacy.

A number of possible limitations of this study should be considered. First, the model was not meant to include all possible factors affecting the continuous usage of blogs. Some intrinsic motivation, such as affect or anxiety, can be examined in future research. Second, the samples of this study are mostly personal users of blogs. It is not appropriate to infer similar findings for organizational use of blogs. For instance, the motivation of using organizational blogs may be different. More studies are needed to explore the differences in the future. Third, this study was cross-sectional, so we cannot measure user reactions over time. Our findings need additional research efforts to evaluate the validity of the model. Longitudinal evidence would help predict behavior over time and enhance our understanding of the causality and interrelationships between variables. Fourth, the investigation of continuing to use blogs is relatively new to IS researchers. The discussed findings and their implications were acquired from one single study that targeted a specific user group, the users of the WRETCH blog. Therefore, further research is needed to generalize our findings. Fifth, non-response bias may exist because most those who responded are active members. Inactive members are less likely to fill out questionnaires due to less frequency of use. Finally, knowledge-sharing experience was measured by a two-item scale, and required users to self-estimate and fill out questionnaires regarding their previous internet experience. Though the objectivity of the questionnaire may be questioned, the numerous methods of knowledge sharing in this situation create an impossible task of finding a truly objective methodology.

References


Further reading


Appendix. Research constructs and scale items

*Perceived information creation ability*

- I am able to create some valuable or interesting information.
- I am good at creating some valuable or interesting information.
- I often create some valuable or interesting information.

*Knowledge self-efficacy*

- I have confidence in my ability to provide information on the internet that can solve others’ problem or is entertaining.
- I have confidence in my ability to provide information on the internet which others are interested in or consider useful.
- I am confident that most information which I provide can attract others’ attention.

*Knowledge-sharing experience*

- I have much experience in sharing valuable or interesting information with others via the internet.
- I usually share valuable or interesting information with others via the internet.

*Subjective norms*

- My friends expect me to share information on my blogs.
- People who I contact expect me to share information on my blogs.

*Feedback*

- I get some feedback (advice or criticism) about my blogs from my friends.
- I get some feedback (advice or criticism) about my blogs from the people who I contact.
Personal outcome expectations

- If I provide information on my blogs, I will improve my image within others.
- If I provide information on my blogs, I will improve others’ recognition of me.
- If I provide information on my blogs, I will be given praise from others.

Behavioral intention to update

- I will add some new information to my blogs on a regular basis in the future.
- I will frequently update my blogs in the future.
- I will maintain the information on my blogs regularly.

About the authors

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