Online social network acceptance: a social perspective

David C. Li
The Hong Kong Polytechnic University, Kowloon, Hong Kong

Abstract
Purpose – Building upon studies of social psychology and information system literature, this study aims to propose and empirically test a research model that incorporates interpersonal motives (sociability and status) and hedonic motive (perceived enjoyment), and the three processes of social influence: compliance, identification and internalisation, to explain one’s intention to use social network (SN) web sites.

Design/methodology/approach – The data were obtained from an online survey of 274 SN web site users. Structural equation modelling analysis was used to validate the proposed model.

Findings – The results indicate that social influence affects intention directly through the compliance process. Social influence, when exerted through the identification and internalization processes, affects intention indirectly via the two interpersonal motives (sociability and status) and perceived enjoyment. The two interpersonal motives affect intention indirectly via perceived enjoyment.

Research limitations/implications – This study advances theory by examining how the social influence processes affect one’s behavioural intention via the interpersonal and hedonic motives.

Practical implications – These findings help online SNs to devise strategies to attract and retain users.

Originality/value – This study provides evidence that social influence processes are also operative in one’s adoption of information technology in non-work settings. It also shows that people have two interpersonal motives in mind when they develop an online relationship with others.

Keywords Social networking sites, Interpersonal motives, Social influence processes, Social behaviour, Social networks, Interpersonal relations

Paper type Research paper

1. Introduction
With the proliferation of Web 2.0 technologies, there has been a remarkable growth of the number of people participating in online SNs. These SN web sites (e.g. Facebook) provide to users a suite of valuable features at no or minimal cost. The essential features of SN web sites include but are not limited to:

- blogging: users can upload materials (e.g. photos, diaries, etc.) which are organised chronologically and others can post their feedbacks;
- grouping: users can join a group of people who have something in common (e.g. same college, company or city);
- networking: users can add or delete friends at any time; and
- instant messaging: users can send instant messages to their friends.

This study was supported by a Departmental General Research Fund (Project No. 1-ZV3M) from The Hong Kong Polytechnic University. An earlier version of this paper was published in the Proceedings of the 10th International Conference on Electronic Business (2010).
A recent survey (Lenhart, 2009) indicates that the percentage of adult Internet users who have an account with one of these SN web sites has grown from 8 per cent in 2005 to 46 per cent in 2009. However, despite the fact that these SN web sites have significant values, half of all new individual users have abandoned their SN web sites soon after the creation of their accounts. The total number of dead, abandoned accounts is estimated to be more than 200 million (Dalton, 2009). For SN web sites’ managers, more active members can attract more advertising and subscription revenues. Thus, it is important for us to understand the driving forces behind the acceptance of these web sites.

SN web site is composed of users who interact with each other in an online community. Hence, users’ behaviour should be influenced not only by their own motivations (e.g. perceived enjoyment), but also by other members within their online SNs. Previous studies investigating the direct effect of social influence (SI) on one’s intention to use these web sites have inconclusive findings (Hsu and Lin, 2008; Sledgianowski and Kulviwat, 2009). In those studies, the SI examined was mainly the compliance process that was typically investigated in workplace settings (Lewis et al., 2003; Venkatesh et al., 2003). This perspective considers people accept SI because they want to comply and conform to the beliefs of important others. However, the SI affecting information technology (IT) usage in non-work settings is somewhat different from those affecting the decision in the workplace. Usually, the IT usage in non-work settings is voluntary and the influence from peers is most important. Kelman’s (1958, 1961) SI theory has posited that there are three SI processes: compliance, internalisation and identification that shape an individual’s behaviour. People accept SI through the internalisation and identification processes when they could attain their goals and maintain a satisfying self-defining relationship with others respectively. Extant research has predominately examined the direct effect of SI on IT acceptance via the compliance process. Accordingly, there has been limited research in investigating how the other two SI processes affect IT acceptance, especially in non-working settings.

Furthermore, although SN web sites facilitate interpersonal interaction, there is a paucity of research that examines how interpersonal motives affect these web sites’ acceptance. Understanding how interpersonal motives affect one’s intention to use SN web sites may shed light on the acceptance of social software in general. Thus motivated, this study will examine the role of two interpersonal motives: sociability and status, as suggested by social psychologists (Bakan, 1966; Horowitz et al., 2006). Sociability motive refers to maintaining relationship with others (Baumeister and Leary, 1995) and status motive refers to seeking power and influence within a social group (Anderson et al., 2001; Locke, 2003).

Building upon studies of social psychology and information systems, a theoretical model as shown in Figure 1 is proposed and empirically tested. We focus our discussion on the social use of the SN web sites rather than organisational use. Our key research questions are:

*RQ1.* How does SI affects behavioural intention directly and indirectly?

*RQ2.* Why are the two interpersonal motives salient in explaining users’ perceived enjoyment which in turn affects behavioural intention?
2. Literature review

SN web site, which is primarily used for casual social interaction and social relationship maintenance, has received increasing attention recently in IT research. Some studies examined the direct effects of technology acceptance factors, knowledge sharing factors (altruism, reputation, etc.), social influence factors (social norms and community identification), critical mass, playfulness, trust, user satisfaction, self-efficacy, personal outcome expectations, and the indirect effects of performance accomplishment, social persuasion, information quality, source credibility and disconfirmations function on usage behaviour (Hsu and Lin, 2008; Jin et al., 2009; Lu and Hsiao, 2007; Sledgianowski and Kulviwat, 2009). Other studies explored the role of personality traits in one’s usage of these websites (Lu and Hsiao, 2010; Ross et al., 2009). Another area of study is to look into the technological aspect of social software (Du and Wagner, 2006; Gao et al., 2010; Ip and Wagner, 2008).

In related online community research, some studies examined the effects of system characteristics, social factors, social network factors (network cohesion, structure and centrality) on online community’s success (Lin, 2008; Toral et al., 2009). Another study identified effective leader-member exchange relationships, the attractiveness of the group to individuals, and affection similarity as important determinants for promoting knowledge contribution (Yu and Chu, 2007). Chu (2009) explored the antecedents (social capital and community characteristics) and consequences (information sharing and knowledge contribution) of members’ helping behaviour in online communities. Among these studies, the roles of interpersonal motives on social software acceptance are rarely investigated.

Moreover, previous IT studies have inconclusive findings relating to the effect of SI on behavioural intention through the compliance process. For instance, some studies in workplace settings found a positive effect of SI on intention to adopt an IT (Hartwick and Barki, 1994; Karahanna et al., 1999) while other studies found no such effect (Chau and Hu, 2002; Mathieson, 1991). Prior social software acceptance studies have inconclusive results as well. Sledgianowski and Kulviwat’s (2009) study found a significant negative, rather than positive, effect of SI on one’s intention to use SN websites. Other studies (e.g. Hsu and Lin, 2008; Shen et al., 2011; Zhou, 2011) found an insignificant effect on social software usage.

Furthermore, extant IT research, especially in non-work settings, seldom studies the three SI processes. Some recent studies have begun to investigate this issue. For instance, some studies explored the direct effects of the SI processes on use behaviour through the three constructs: subjective norm, group norm and social identity (Shen et al., 2011; Zhou, 2011). This study differs from these two studies in investigating both

![Figure 1. Research model](image-url)
the direct and indirect effects of SI on behavioural intention. Some previous studies in workplace settings have examined the indirect effect of SI on intention through perceived usefulness of IT. Venkatesh and Davis (2000) posits that there are two theoretical mechanisms: internalization and identification, by which subjective norm can influence intention indirectly through perceived usefulness. However, their results were also inconclusive. For instance, one study (Lewis et al., 2003) has not found a positive effect of SI on perceived usefulness while another study (Venkatesh and Davis, 2000) has found such effect. Given there are numerous IT nowadays that require voluntarily usage in both workplace and non-work settings and the compliance process of SI may not be able to fully explain behavioural intention, more research is required to gain an in-depth understanding of the effect of SI on IT usage.

3. Research model and hypotheses
Several intention-based theoretical models have been proposed and tested in the past for understanding technology acceptance – the theory of reasoned action (TRA) (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), the theory of planned behaviour (TPB) (Ajzen, 1985) and the technology acceptance model (TAM) (Davis, 1989). With TRA, the behavioural intention is considered as a function of attitude and subjective norms. Attitude is an individual's feelings about performing a target behaviour, and is determined by an individual's salient beliefs about the consequences of performing the behaviour. Subjective norms or SI capture an individual's assessment of the extent to which important referent individuals desire the performance or non-performance of the behaviour. TPB extends TRA by adding perceived behavioural control, which is an individual's perceived ease or difficulty of performing a particular behaviour. This study has adopted TRA as the theoretical basis for our proposed model. TPB was not chosen in this study because we feel perceived behavioural control is relatively less important given social software are quite user friendly nowadays. TAM, which is derived from TRA, posits that individuals' intention to use an IT is determined by two beliefs: perceived usefulness and perceived ease of use. We have chosen TRA over TAM because of three reasons. First, TRA has been widely accepted in examining the determinants of consciously intended behaviours (Dickinger et al., 2008; Hsu and Lin, 2008; Hu et al., 2003). Second, TAM has not accounted for the impact of SI, which is important in this study. Third, TRA is a general model which allows researcher to include salient beliefs and their antecedents specific to the study context.

3.1 Perceived enjoyment
Since SN web sites usage is partly for pleasure and fun, we include hedonic motive as one of the salient beliefs impacting behavioural intention. Prior studies have suggested some dimensions that could be considered as hedonic motives. For instance, Agarwal and Karahanna (2000) examined enjoyment, focused immersion, curiosity and playfulness in their study of World Wide Web (WWW). Perceived enjoyment (PEJ) is adapted from Davis et al. (1992) and defined as the extent to which the activity of using IT is perceived to be enjoyable. Focused immersion is the total engagement where other attentional demands are ignored (Agarwal and Karahanna, 2000). Curiosity refers to the extent that the experience of using a software arouses an individual’s sensory and cognitive curiosity (Malone, 1981). Computer playfulness is defined as “the degree of cognitive spontaneity in microcomputer interactions” (Webster and
Martochhio, 1992, p. 204). Gallardo et al. (2007) also tested enthusiasm and motivation, which refers to the extent of one’s enjoyment and motivation in a subject matter.

We perceive focused immersion to be less relevant in this study because, unlike surfing the WWW with no clear outcome expectation, the tasks of interacting with people may not cause users to be immersed. Reason being these SN web site users usually know what they want to accomplish through using these web sites. To some extent, this argument is supported by Toral et al.’s (2007) study when they found focused immersion was not one of the factors impacting the use of a web-based system. Curiosity is also considered as less pertinent because SN web site users are not trying to obtain new information and knowledge to satisfy their curiosity. Computer playfulness, which is an individual trait, does not fit our study objective as we try to examine one’s beliefs or perceptions affecting SN web site acceptance. The constructs of enthusiasm and motivation and PEJ are similar and thus we did not investigate them separately.

PEJ is included as the salient belief in this study because it is a widely accepted affect factor when studying hedonic IT acceptance (Davis et al., 1992; Heijden, 2004; Hong and Tam, 2006). Users are motivated to use SN web sites if they find them enjoyable. As noted before, SN web sites often have rich entertainment features (e.g. blogging) and users can obtain great enjoyment when using them. We expect PEJ has a direct impact on one’s intention to use SN web sites. Following Davis’s (1989) approach, we have left out attitude in order to make the research model more parsimonious. Thus, the following hypothesis is proposed:

\[ H1. \text{ PEJ will have a positive effect on one's intention toward using a SN web site.} \]

3.2 Social influence

SI is represented by subjective norms in TRA and TPB, and social factors in the Model of PC Utilization (Thompson et al., 1991). SI is also incorporated in the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003) and the Innovation Diffusion Theory (Moore and Benbasat, 1991; Rogers, 1995). While SI has different labels in different models, each of these constructs contains the explicit or implicit meaning that people’s behaviours are affected by their beliefs on how others will view them when they use the IT. Kelman’s (1958, 1961) SI theory has suggested that there are three SI processes: compliance, internalisation and identification that shape an individual’s behaviour.

3.2.1 Compliance process of social influence. The compliance process causes SI to have a positive effect on one’s intention because people hope to achieve a favourable reaction from important others, and the important others have the ability to reward the behaviour or punish non-behaviour (Kelman, 1958, 1961). Prior study (Chau and Hu, 2002) has found that SI affects one’s intention to use IT. Since SN web sites are mostly used by someone to connect to their peers, the SI from peers should have an effect on one’s acceptance of the technology. Thus, the following hypothesis is proposed:

\[ H2. \text{ SI will have a positive effect on one's intention to use a SN web site.} \]

3.2.2 Internalisation process of social influence. The internalisation process occurs when people accept influence because the content of the induced behaviour is perceived as being inherently instrumental to the attainment of their goals or purposes (Kelman, 1958, 1961). In our context, people may accept the opinion of peers to use SN web sites because they think the web sites may help them to achieve their hedonic goal. This
internalisation process is equivalent to informational SI (Deutsch and Gerard, 1955), which occurs when individuals accept information from others as trustworthy evidence of reality and alter their behaviour based on this information. Such process is also suggested by prior research on communication technologies (Fulk, 1993). Drawing upon the social information processing theory (Salancik and Pfeffer, 1978), Fulk (1993) suggests that people’s belief about technology can be influenced by those in their SNs. The hedonic purpose for one to use SN web sites is captured by the construct of PEJ in our research model. Previous studies have verified that SI has a positive effect on PEJ of IT (Cheung et al., 2000; Dickinger et al., 2008). Thus, the following hypothesis is proposed:

**H3.** SI will have a positive effect on the PEJ of a SN web site.

### 3.2.3 Identification process of social influence

The identification process occurs when people accept influence because they want to establish or maintain a satisfying self-defining relationship to another person or group (Kelman, 1958, 1961). The development of interpersonal relationships with others is essential for us to fulfill our needs (Schutz, 1966) and is the foundations of social behaviours (Hinde, 1979). Social psychology literature has suggested that people have two powerful and broad interpersonal motives: sociability and status motives (Bakan, 1966; Horowitz et al., 2006), when they develop a relationship with others.

### 3.3 Sociability

Sociability motive is defined as the degree to which using SN web site is perceived to be effective in maintaining and developing social relationships with others. Human beings need to build beneficial relationships with others (Brewer, 2004) and thus they have a strong need to feel connected (Baumeister and Leary, 1995). In order to connect with others, they will engage in different social activities. Individuals who are more sociable are found to be related positively to the growth of peer network (Asendorpf and Wilpers, 1998) and to the time spent with others in a social setting (Diener et al., 1984). They also have a high self-esteem (Lee and Robbins, 1998) and are very active in seeking support from their SNs (Reis and Patrick, 1996). Using college students as sample, researchers have found that sociability is strongly related to positive affect and life satisfaction (Emmons and Diener, 1986) and to academic achievement (Hojat et al., 1988). Individuals who are less sociable are associated with high level of loneliness (Mounts et al., 2006) and feel anxious about social interactions with others (Collins and Read, 1990). Furthermore, low sociability is associated with low positive emotional intensity, low physiological reactivity and high inhibition control, and correlated with low seeking of social support as a means of coping (Eisenberg et al., 1995).

Previous studies have demonstrated the importance of sociability motive in the use of communication technologies (Leung and Wei, 1998; O’Keefe and Sulanowski, 1995). The networking and instant messaging features of SN web sites can help users to connect with their friends from different geographical locations, and so satisfy their sociability motive. If a social group member requests the other member to use a SN web site for interaction, this may increase his or her sociability motive. On the other hand, if there is no such request, this may decrease his or her sociability motive. Hence, we expect SI will have a positive effect on people’s sociability motive through the identification process because people normally want to establish or maintain a
satisfying self-defining relationship with others (Brewer, 2004). Thus the following hypothesis is proposed:

\[ H4. \] SI will have a positive effect on one’s sociability motive.

Forming social bonds with others generally produces positive emotion, whereas perceiving threats to social bonds generates a variety of unpleasant emotional states (Baumeister and Leary, 1995). Previous studies have found that individuals who are more sociable have positive affect and higher life satisfaction (Emmons and Diener, 1986), while individuals who are less sociable are associated with high level of loneliness (Mounts et al., 2006). SN web sites have the advantage of cultivating one’s sociability motive within their social group which is important for an individual to experience enjoyment. Hence, we expect one’s sociability motive has a positive effect on his or her PEJ of using the web sites. Thus, the following hypothesis is proposed:

\[ H5. \] Sociability motive will have a positive effect on the PEJ of a SN web site.

3.4 Status

Status motive is defined as the degree to which sharing information through SN web sites is perceived to be effective in enhancing social status in one’s social group. Previous studies (Lampel and Bhalla, 2007; Wasko and Faraj, 2005) have suggested that people’s reputation or social status could be enhanced through sharing knowledge in an online community. Hence, we also expect sharing information (e.g. feelings, knowledge, opinions) through SN web sites could potentially enhance one’s social status among their social group members. Having social status means you are being treated with respect, are being taken seriously, and have influence (Baumeister and Leary, 1995; Buss and Kenrick, 1998). Status is conferred to people on the basis of their apparent possession of certain valuable attributes (e.g. competence, generosity) as perceived by other members of their social group (Wegener, 1992). Striving for status within a social group has been proposed as a primary and universal human motive (Hogan and Hogan, 1991). People could be rewarded with higher status when they engage in certain social interactions (Blau, 1964). For instance, providing more help and advice to others than receiving in return can raise one’s status (Flynn, 2003). People may seek status for economic or psychological reasons. For economic reason, prior research suggests that individuals with higher status tend to obtain better terms in negotiations than individuals with lower status (Ball and Eckel, 1996). For psychological reason, there is evidence that individuals who have gained status in social settings will instigate happiness and pride while those who have lost status will result in sadness and shame (Kemper, 1991). Previous research (Steverink and Lindenberg, 2006) using elderly as subjects has also found a positive relationship between status and positive affect.

Individuals often perform under the influence of their social group members so as to maintain or elevate their status within their social group (Hogan and Hogan, 1991). A higher status may help an individual to establish or maintain satisfying self-defining relationships with their social group members. Kelman (1958) refers to this source of influence as identification. Prior study (Lu and Hsiao, 2007) has found that blog users’ personal outcome (e.g. image) expectations will be enhanced by SI. Hence, this study suggests that SI will positively affect status because if one’s social group members believe that he or she should perform a behaviour (e.g. sharing information via a SN
web site), then performing it may raise his or her status within the social group (Blau, 1964). Thus the following hypothesis is proposed:

**H6.** SI will have a positive effect on one’s status motive.

One with a high (low) social status is related to positive (negative) affect (Kemper, 1991; Steverink and Lindenberg, 2006). In the use of SN web sites, if users find information sharing can raise their status within their social groups, they should find enjoyment in using them. Thus, the following hypothesis is proposed:

**H7.** Status motive will have a positive effect on the PEJ of a SN web site.

4. Research method

Data were collected by conducting an online field survey of SN web site users. To collect the data, we utilised the search engines provided by these web sites. The search engines usually allow searching users by locations, high schools, colleges or employers. We chose to search by the names of local high schools and universities in Hong Kong rather than by employers because users would normally input the names of their high schools or universities when they first created their accounts. We tried to select the respondents not just from Hong Kong but also from mainland China. Although the data collected would probably have selection bias, it is impossible to select a random sample of users given a complete directory of SN web sites does not exist. Previous similar studies also conducted online surveys through convenient samples (Hsu and Lin, 2008; Sledgianowski and Kulviwat, 2009). We believe Hong Kong is a suitable place to conduct the study because of its massive number and diversity of SN web site users. Invitation messages, which contained the URL of the online questionnaire, were sent to the selected respondents through the messaging function or online message boards of SN web sites. Examples of these web sites included Facebook, Renren, Xanga and Yahoo!Blog. They were chosen because these web sites are popular among Chinese users.

Subjects were asked to recall their experience with a SN web site that they used most often in the last three months. The three-month period was chosen to ensure the respondents had a clear reminiscence of their experience with the web site. In order to increase the response rate, incentives of cinema coupons were offered as lucky draw prizes. Within a one month period, 279 people completed the online questionnaire. Responses with duplicate IP addresses and email addresses were eliminated. At the end, there were 274 usable responses for further analysis.

The measurement items used to operationalise the constructs were derived with reference to prior studies and the wordings of the items were adjusted to match the present context. New items were added if necessary. The measurement items of PEJ were adapted from Davis *et al.* (1992). The measurement items of intention were modified from Heijden (2004). Following Ajzen (1991), SI was measured by examining the normative beliefs of the referent groups: friends, classmates and people in one’s social group. The measurement items of the sociability construct was modified from O’Keefe and Sulanowski (1995). The measurement items of the status construct was modified from Moore and Benbasat (1991) to reflect the difference that the target behaviour is sharing information online after work rather than using an innovation at work. All items used seven-point Likert scales, anchored from 1: “strongly agree” to 7: “strongly disagree”. The items were originally in English and were translated into
Chinese by a bilingual academic. To obtain a good level of translation, a back-translation (Brislin et al., 1973) was conducted. The Chinese and English versions of the questionnaire were reviewed by three other bilingual academics to ensure that both versions were comparable at a high degree of accuracy. The items are listed in the Appendix (Table A1).

Before conducting the main survey, we performed a pre-test and a pilot study to validate the instrument. The pre-test was conducted using a sample of ten students of a local university, who were also experienced users of SN web sites. Based on their feedbacks, possible misunderstandings of those items were clarified and some items were deleted or modified at the end. A pilot study using a sample of 350 students studying in the same local university was then conducted to test the measurement instrument before the main study was administered.

The data collected was analyzed in two steps, first by an assessment of the measurement model (i.e. assessing the validity of the measurement instruments), and then by an assessment of the structural model (i.e. assessing hypothesised relationships among constructs). Convergent validity was assessed by examining the reliability of items (i.e. loadings of the items to the construct), composite reliability and Cronbach’s alpha, average variance extracted (AVE) and the confirmatory factor analysis (CFA) results. The discriminate validity was assessed by examining the CFA results and the relationships between the square roots of the AVEs and the correlations among constructs (Gefen et al., 2005). PLS-Graph version 3.0 (PLS) (Chin and Frye, 1998) that employs partial least squares as structural equation modelling (SEM) technique was used to test the structural model. SEM was chosen over regression analysis because SEM provides us the flexibility to model relationships among multiple predictor and criterion variables (Chin, 1998). The partial least squares technique has been gaining interest as it places less stringent demands on measurement scale, sample size and distributional assumptions (Chin, 1998). According to Chin (1998), the sample size requirement is the largest of ten times either:

- the largest number of formative items in any construct; or
- the largest number of independent latent variables impacting a dependable variable.

Our effective sample size, which was 350 in pilot study and 274 in main study, satisfied the requirement of PLS.

In the assessment of the validity of the measurement instruments using the data of the pilot study, two sociability items, one status items, three SI items and three intention items were found to fail the validity test. These items were excluded from further analysis and use. In the test of the structural model, the hypothesised paths were supported. Before conducting the main study, several items’ wordings were modified based on the feedbacks from students filling in the questionnaires. The results of the main study are presented in the next section.

5. Results
5.1 Analysis of respondents
The demographic profile of the respondents is shown in Table I. Of the age information 9 per cent was missing, and we estimated them based on the age distribution of the collected data (Tsikriktsis, 2005). 42 percent of the respondents are male and 58 percent
are female. 69 and 16 percent of the respondents have used Facebook and Renren the most often in the last three months respectively. 60 percent age from 12 to 24 years old and 27 percent age from 25 to 30 years old. Only 13 percent or 35 respondents age above 30 years old. We feel the low response rate for those above 30 years old may be caused by the weak incentive given to them in completing the questionnaire. In contrast to those younger users, cinema coupons may not be a strong incentive for those above 30. We feel the age distribution in this study is not unusual as similar distribution was obtained by Hsu and Lin (2008). In their study of blog acceptance, they only have 6 per cent of the respondents age above 36 years old.

5.2 Instrument validity
Convergent and discriminant validity of the measurement instrument were assessed. In the initial test of validity, two PEJ items and one sociability item were found to either have a loading below the threshold level of 0.70 (Barclay et al., 1995) or correlate more highly with other items rather than with the items in their underlying constructs. Final data analysis was conducted after dropping these three items.

In the test of convergent validity, all items shown in Table II have loadings exceeding the 0.70 threshold, which indicate they are reliable. Table III shows the composite reliabilities of the constructs range from 0.87 to 0.95, which are all above the

<table>
<thead>
<tr>
<th>Measures</th>
<th>Items</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>114</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>160</td>
<td>58</td>
</tr>
<tr>
<td>Age</td>
<td>12-18 year old</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>19-24 years old</td>
<td>144</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>25-30 years old</td>
<td>75</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>&gt; 30 years old</td>
<td>35</td>
<td>13</td>
</tr>
<tr>
<td>Education</td>
<td>High school</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Degree/Diploma</td>
<td>190</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Post-graduate</td>
<td>60</td>
<td>22</td>
</tr>
<tr>
<td>SN web site used most often</td>
<td>Facebook</td>
<td>189</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Renren</td>
<td>44</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Xanga</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td>Experience in using the SN web site</td>
<td>&lt;1 year</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>1 year</td>
<td>55</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>2 years</td>
<td>95</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>&gt;2 years</td>
<td>98</td>
<td>36</td>
</tr>
<tr>
<td>Average usage time in one visit</td>
<td>&lt;1 hr</td>
<td>76</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>1 hr</td>
<td>89</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>2 hrs</td>
<td>51</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>&gt;2 hrs</td>
<td>58</td>
<td>21</td>
</tr>
<tr>
<td>Days of using the web site per week</td>
<td>1-5 days</td>
<td>67</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>6 days</td>
<td>46</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>7 days</td>
<td>161</td>
<td>59</td>
</tr>
</tbody>
</table>

Table I. Respondents' characteristics
Similarly, the Cronbach's alpha values range from 0.71 to 0.92, which exceed the minimum threshold 0.6 for acceptable reliability (Nunnally, 1967). Table III shows the AVEs of each construct are all above the minimum threshold 0.5, with the lowest being 0.77, which indicate convergent validity of the constructs (Chin, 1998). In addition, Table II shows all loadings exceed the threshold 0.71 to be considered as excellent convergent validity (Tabachnick and Fidell, 2007). The factor analysis results in Table II show the loadings of the items on their corresponding constructs are much higher than their loadings on the other constructs, which indicates satisfactory discriminant validity. High discriminant validity also occurs if the square root of a particular construct's AVE is greater than the construct's correlations with the other constructs (Chin, 1998; Fornell and Larcker, 1981). Table III shows that the correlation between any pair of constructs is much lower than the square roots of AVEs for the pair of constructs, which indicates satisfactory discriminant validity.

### Table II.
Item loadings and factor analysis results

<table>
<thead>
<tr>
<th>Items</th>
<th>Loadings</th>
<th>ST</th>
<th>SI</th>
<th>PEJ</th>
<th>INT</th>
<th>SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST1</td>
<td>0.809</td>
<td>0.809</td>
<td>0.329</td>
<td>0.268</td>
<td>0.232</td>
<td>0.330</td>
</tr>
<tr>
<td>ST2</td>
<td>0.871</td>
<td>0.871</td>
<td>0.357</td>
<td>0.318</td>
<td>0.252</td>
<td>0.321</td>
</tr>
<tr>
<td>ST3</td>
<td>0.894</td>
<td>0.894</td>
<td>0.431</td>
<td>0.424</td>
<td>0.332</td>
<td>0.341</td>
</tr>
<tr>
<td>ST4</td>
<td>0.923</td>
<td>0.923</td>
<td>0.450</td>
<td>0.406</td>
<td>0.302</td>
<td>0.314</td>
</tr>
<tr>
<td>SI1</td>
<td>0.934</td>
<td>0.411</td>
<td>0.933</td>
<td>0.350</td>
<td>0.545</td>
<td>0.438</td>
</tr>
<tr>
<td>SI2</td>
<td>0.944</td>
<td>0.415</td>
<td>0.944</td>
<td>0.356</td>
<td>0.523</td>
<td>0.495</td>
</tr>
<tr>
<td>SI3</td>
<td>0.902</td>
<td>0.436</td>
<td>0.904</td>
<td>0.368</td>
<td>0.520</td>
<td>0.466</td>
</tr>
<tr>
<td>PEJ1</td>
<td>0.945</td>
<td>0.347</td>
<td>0.382</td>
<td>0.939</td>
<td>0.427</td>
<td>0.352</td>
</tr>
<tr>
<td>PEJ2</td>
<td>0.932</td>
<td>0.429</td>
<td>0.343</td>
<td>0.938</td>
<td>0.390</td>
<td>0.326</td>
</tr>
<tr>
<td>INT1</td>
<td>0.905</td>
<td>0.303</td>
<td>0.547</td>
<td>0.401</td>
<td>0.912</td>
<td>0.344</td>
</tr>
<tr>
<td>INT2</td>
<td>0.898</td>
<td>0.280</td>
<td>0.479</td>
<td>0.384</td>
<td>0.890</td>
<td>0.384</td>
</tr>
<tr>
<td>SC1</td>
<td>0.896</td>
<td>0.371</td>
<td>0.473</td>
<td>0.363</td>
<td>0.383</td>
<td>0.905</td>
</tr>
<tr>
<td>SC2</td>
<td>0.863</td>
<td>0.273</td>
<td>0.407</td>
<td>0.263</td>
<td>0.319</td>
<td>0.852</td>
</tr>
</tbody>
</table>

Notes: All loadings are significant at the 0.01 level; ST: status; SI: social influence; PEJ: perceived enjoyment; INT: intention; SC: sociability; Figures in italics highlight the factor analysis results that the loadings of the items on their corresponding constructs are much higher than their loadings on the other constructs, which indicates satisfactory discrimination validity.

### Table III.
Means and standard deviations, Cronbach alpha, composite reliability, average variance extracted and their square roots, and correlations among constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>SD</th>
<th>CBA</th>
<th>CR</th>
<th>AVE</th>
<th>ST</th>
<th>SI</th>
<th>PEJ</th>
<th>INT</th>
<th>SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST</td>
<td>3.2</td>
<td>1.7</td>
<td>0.90</td>
<td>0.93</td>
<td>0.77</td>
<td>0.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>2.4</td>
<td>1.4</td>
<td>0.92</td>
<td>0.95</td>
<td>0.86</td>
<td>0.454</td>
<td>0.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEJ</td>
<td>2.5</td>
<td>1.0</td>
<td>0.86</td>
<td>0.94</td>
<td>0.88</td>
<td>0.413</td>
<td>0.386</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>1.9</td>
<td>0.9</td>
<td>0.77</td>
<td>0.90</td>
<td>0.81</td>
<td>0.324</td>
<td>0.571</td>
<td>0.436</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>1.9</td>
<td>0.7</td>
<td>0.71</td>
<td>0.87</td>
<td>0.77</td>
<td>0.371</td>
<td>0.503</td>
<td>0.361</td>
<td>0.402</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Notes: SD: Standard Deviations; CBA: Cronbach alpha; CR: Composite Reliability; AVE: Average Variance Extracted; square root of the AVE are the italic diagonal values

The suggested minimum benchmark 0.7 for acceptable reliability (Barclay et al., 1995). Similarly, the Cronbach's alpha values range from 0.71 to 0.92, which exceed the minimum threshold 0.6 for acceptable reliability (Nunnally, 1967). Table III shows the AVEs of each construct are all above the minimum threshold 0.5, with the lowest being 0.77, which indicate convergent validity of the constructs (Chin, 1998). In addition, Table II shows all loadings exceed the threshold 0.71 to be considered as excellent convergent validity (Tabachnick and Fidell, 2007). The factor analysis results in Table II show the loadings of the items on their corresponding constructs are much higher than their loadings on the other constructs, which indicates satisfactory discriminant validity. High discriminant validity also occurs if the square root of a particular construct's AVE is greater than the construct's correlations with the other constructs (Chin, 1998; Fornell and Larcker, 1981). Table III shows that the correlation between any pair of constructs is much lower than the square roots of AVEs for the pair of constructs, which indicates satisfactory discriminant validity.
5.3 Model testing results
The PLS results of path coefficients, path significance, and variance explained ($R^2$) for the dependent variable are as shown in Figure 2. All the hypotheses are supported and the hypothesised paths are significant at the 0.01 level or above. The model does a good job of explaining variance in one's intention (38 per cent), PEJ (24 per cent), sociability (25 per cent) and status (21 per cent).

6. Discussion
Motivated by the need to better understand how SI and interpersonal motives affect one's intention to use social software, this study proposed and tested a research model using SN web sites as study context. An online survey was conducted using SN web site users as respondents and 274 usable responses were generated for further analysis. Our findings suggest that SI, through its direct effect on intention and its indirect effects through other constructs, has an important role in SN web site acceptance. PEJ and SI are the two significant determinants of one's intention to use SN web sites. The direct effect of SI through the compliance process is stronger, with path coefficient at 0.473. PEJ exerts a weaker effect, with path coefficient at 0.253. One possible explanation is that since the main purpose of the SN web site is to interact with others, users are more driven by others’ opinions rather than by their own hedonic motivation. In other words, the nature of system use could potentially affect the predictive importance of behavioural intention’s determinants, and such argument is consistent to Heijden (2004)'s study.

Furthermore, the path coefficient from status to PEJ is 0.269, which is stronger than the effect of sociability. This suggests that sociability has significant, but weaker impact on users in forming the perception of enjoyment. Users tended to judge whether using a SN web site is enjoyable more on the basis of status enhancement. The effects of SI on the status and sociability motives through the identification effect are roughly the same, suggesting that others’ opinions exert similar weight on driving users to gain status and connect with others. Finally, the effect of SI through the internalization process is relatively weaker when compared to that through the compliance and identification processes. This finding indicates users tend to comply and identify with others in SN web sites usage and place lesser weight on other’s information that may lead them to achieve their hedonic goal.

6.1 Implications for research
First, contrary to previous findings (Sledgianowski and Kulviwat, 2009; Hsu and Lin, 2008; Zhou, 2011) in SN web site research, we have found that SI has a direct positive...
effect on an individual’s intention to use these web sites through the compliance process even in non-work settings. One possible explanation is that this study has adopted friends and peers as referents in exerting SI, whereas the previous studies have adopted important others as referents, which renders the relationships between SI and intention insignificant under non-work settings. In addition, this is one of the early studies that have examined all the three processes of SI in non-work settings. Prior study (Venkatesh and Davis, 2000) in workplace settings has found that SI, when exerted through the internalization process, has an indirect positive effect on intention via one’s utilitarian belief: perceived usefulness of IT. This study extends findings of prior study by demonstrating that SI, when exerted through the internalization process, also has an indirect effect on intention via PEJ in non-work settings. Although prior studies (Cheung et al., 2000; Dickinger et al., 2008) have found similar effect, they have not clearly addressed the theoretical base to support the argument. Furthermore, we have also found that SI, when exerted through the identification process, has a significant indirect effect on intention via the two interpersonal motives and PEJ. Hence, our findings confirm the importance of SI in hedonic use of social software.

Second, our results demonstrate that both interpersonal motives: sociability and status motives, have a positive effect on PEJ, which in turn affects the acceptance of SN web sites. The significant role of the sociability and status motives in our model indirectly confirms the suggestions of previous social psychology studies (Bakan, 1966; Horowitz et al., 2006) that people have the sociability and status motives in mind when they develop a relationship with others. Our proposed model complements the TRA by including interpersonal motives as antecedent factors of attitudinal belief: PEJ.

6.2 Implications for practice
Our results suggest that SN web site hosting companies should strive to provide features that are enjoyable. One key factor that brings enjoyment to users is the web site content. SN web sites could improve the publishing tools for users to organise different contents on their homepage. For the features to be perceived as enjoyable, they should satisfy users’ interpersonal motives. For satisfying the sociability motive, SN web sites could allow users to send greeting cards to others and to search people by living districts. For satisfying the status motive, SN web sites could strengthen the information sharing capability of their web sites. Last but not least, our findings indicate that SI is very important for one to use SN web sites. Therefore, SN web sites could consider giving out incentives to existing users for inviting their friends to join the web sites.

6.3 Limitations and future research
In interpreting the results, one must consider a number of limitations. First, the sample is self-selected and therefore a bias existed. Second, we did not differentiate respondents’ behavioural orientation since some of them might use the web sites for searching information rather than sharing information with others. Third, the subjects are Chinese and SI may operate differently in other cultures. Hence, caution needs to be taken when generalising the results to other user groups with different cultures. Fourth, we did not include non-adopters in our sample. Fifth, given the survey measures were collected at the same point in time, causality can only be inferred. Sixth, the explained variance of one’s intention to use a SN web site is only 38 per cent, although this amount of explained variance is comparable to other similar studies (e.g. Heijden, 2004).
Future research could examine other factors such as security, trust, reliability and group affiliation to improve the explanatory power. In addition, the sample could include non-adopter as they may be driven by different factors. Future research could also use respondents from different cultures in order to improve the generalisation of the results. One could also distinguish the SI process for two different online behaviours: searching and reading other’s postings versus sharing information with others through the web sites.

7. Conclusion
In sum, this study examined how SI and the two interpersonal motives (sociability and status) affected behavioural intention to use SN web sites. The empirical findings show that SI affects intention directly through the compliance process. SI, when exerted through the identification and internalization processes, affects intention indirectly via the two interpersonal motives and PEJ. Hence, SN web site hosting companies should consider the SI processes, the two interpersonal motives and users’ PEJ when they devise strategies to encourage adoption and retain existing users.

References


(The appendix follows overleaf.)
### Appendix

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>I can stay in touch with others using the web site</td>
</tr>
<tr>
<td>SC2</td>
<td>I can find out what is going on with others using the web site</td>
</tr>
<tr>
<td>SC3</td>
<td>I can maintain friendship with others using the web site&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Sharing things (e.g. feelings, knowledge, opinions) with others through the web site</td>
</tr>
<tr>
<td>ST1</td>
<td>improves my image among them</td>
</tr>
<tr>
<td>ST2</td>
<td>improves my status among them</td>
</tr>
<tr>
<td>ST3</td>
<td>makes me becoming a more valued member of my social group. (new)</td>
</tr>
<tr>
<td>ST4</td>
<td>increases my popularity among them (new)</td>
</tr>
<tr>
<td>PEJ1</td>
<td>I have fun using the web site</td>
</tr>
<tr>
<td>PEJ2</td>
<td>Using the web site provides me with a lot of enjoyment</td>
</tr>
<tr>
<td>PEJ3</td>
<td>I enjoy using the web site&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>PEJ4</td>
<td>It is boring for me to use the web site&lt;sup&gt;a&lt;/sup&gt; (reverse coded)</td>
</tr>
<tr>
<td>SI1</td>
<td>My friends think that I should use the web site</td>
</tr>
<tr>
<td>SI2</td>
<td>My classmates think that I should use the web site</td>
</tr>
<tr>
<td>SI3</td>
<td>The people in my social group think that I should use the web site</td>
</tr>
<tr>
<td>INT1</td>
<td>I intend to use the web site again shortly</td>
</tr>
<tr>
<td>INT2</td>
<td>I predict that I will use the web site again in the short term</td>
</tr>
</tbody>
</table>

**Notes:** SC: Sociability; ST: status; PEJ: Perceived Enjoyment; SI: Social Influence; INT: Intention;<sup>a</sup> Item dropped

---

**Corresponding author**

David C. Li can be contacted at: afdavidl@inet.polyu.edu.hk

---

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com

Or visit our web site for further details: www.emeraldinsight.com/reprints