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Why do people post and read personal messages in public? The motivation of using personal blogs and its effects on users' loneliness, belonging, and well-being

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ABSTRACT

The purpose of the current paper is to develop a theoretical model that identifies why people blog personal content and explains the effects of blogging in "real life." Data from an online survey are analyzed using maximum likelihood procedures in LISREL 8.75 to test the structural model. Among 531 respondents from *Cyworld*, a popular social network and blogging site in South Korea, a randomly selected group of 251 users was used to develop the model. The other group of 280 users was used to confirm the usefulness of the revised model. Results ($N = 251$; $N = 280$) showed that *impression management* and *voyeuristic surveillance* are two major psychological factors that motivate individuals to post and read messages on personal blogs. Results also showed evidence for blogging's real life consequences, measured by users' perceived social support, loneliness, belonging, and subjective well-being.

1. Introduction

Using weblogs ("Blogging") has become a very popular activity among Internet users (Trammell & Keshelashvili, 2005). Blogging refers to individual activities of adding content to a blog that include *periodically* posting messages/photos about *bloggers' own interests* on the Internet and *receiving comments* about the postings from visitors. According to Pew Internet & American Life Project, blogging is now a "key part of online culture" (Lee, 2005). Its nationally representative telephone survey revealed that 57 million American adults read blogs and twelve million American adults keep a blog (Lenhart & Fox, 2006).

Among various types of blogs, personal blogs have become extremely popular. According to Herring, Scheidt, Bonus, and Wright (2004), 70% of blogs are personal (see also Stefanone & Jang, 2007). In personal blogs, people post personal stories and photos to share with family, friends, and strangers as they would in their personal diaries. Stories and photos in these blogs often involve private matters, yet they are available for everyone to read. It is interesting to note that people post their personal stories and pictures willingly, knowing that anyone (not only family or friends) can access them. An extreme example would be Jessica's blog where Jessica had been posting her personal stories anonymously. In it, she detailed her inappropriate sexual relationships with six current sexual partners at her workplace (Witt, 2004). Unlike a personal diary, her new posting was available to many people and spread rapidly. As a result, she was fired from her job by the day following the posting. In spite that this is an extreme case, it shows a good example that the willingness to self disclose in personal blogs violates traditional theories of interpersonal communication, such as social penetration theory (Altman & Taylor, 1973). What are, then, the psychological factors that may account for these unusual activities on personal blogs? Although the question is very intriguing both academically and practically, few studies have examined the current socio-psychological phenomenon of rapidly increasing personal blog usage theoretically and empirically (see Fullwood, Sheehan, & Nicholls, 2009 for more detailed discussions).

The purpose of the current paper is to develop a theoretical model to explain why people use personal blogs and the "real" (i.e., social) life effects of using personal blogs. There have been relatively few studies that examined both motivations and consequences in one study. Therefore, it is worth investigating two areas of media research that used to be studied separately in one theoretical model. We first identify psychological factors that may account for personal blog use and conceptualize a theoretical model based on three phases: *motivations*, *usage*, and *consequences*, measured by users' perceived social support, loneliness, belonging, and psychological well-being in their social life. Then, we report collected survey data from 531 users of *Cyworld*, a popular Korean site and discuss implications with respect to impression management and perceived social support from using personal blogs.

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2. Theoretical framework

2.1. Motivation

There are two distinctive ways of using personal blogs, namely (1) posting own messages/photos and (2) reading others' messages/photos. Accordingly, two different gratifications or motivations for using personal blogs may also exist (c.f., Uses and Gratifications Theory).

2.1.1. Impression management

According to Goffman (1959), impression management refers to managing one's own impressions in desirable ways because they are related to how a person is evaluated by others and much of social behavior is influenced by the impression others have (Jones & Pittman, 1982). Indeed, self-representation and self-concept are often embedded in relationship schemas, making it essential to get the validation of one's own identity from other people for realizing the self (Baumeister, 1992). In this regard, we define impression management as people's desire to make good impressions to others in our paper.

Using the Internet to develop and strengthen the personal relationship provides individuals with new challenges in terms of self presentation. Although self presentation also takes place offline, online communication environments enable a more active engagement of self-presentation strategies (Walther & Burgoon, 1992). Online self presentation is much more controllable than offline activities because users can easily create, modify, and edit the messages about the self (Burgoon & Walther, 1990). For example, several studies have confirmed that managing impressions through personal home pages is advantageous because the Internet gives individuals greater freedom to express their desired identities through digital stimuli rather than through physical referents (e.g., Papacharissi, 2002; Schau & Gilly, 2003).

However, online impression management cannot be entirely deceptive because of others' comments. In this regard, self-monitoring or metaperceptions (i.e., know how others view oneself) is also an important part of impression management because one learns about oneself and modifies the impression-management strategy accordingly by understanding how others respond (see Cooley, 1902 for the concept of "looking glass self"; see also Zhao, 2005). As such, it is important to note that impression management may be related to not only posting activities, but also reading activities in order to confirm others' validation of the digitally constructed self. For example, one may read comments by visitors on one's own postings in order to get the validation of one's opinions or read others' postings that include information about the one in order to see how other people think of the one.

Taken together, posting and reading activities on personal blogs are likely to be related to strategic impression management because personal blogs are periodically updated by their owners in order to construct desired identities and frequently commented on by visitors as a process of validation by other people. Based on above discussion, the following hypothesis is proposed:

Hypothesis 1. Impression management will be positively associated with (a) message posting; and (b) message reading.

2.1.2. Voyeuristic surveillance

The other psychological factor is more likely to be related to reading activities, often described as voyeurism. Calvert (2000) defines voyeurism in the new media era, as a harmless yet guilty pleasure of peeking into others' apparently real and unguarded lives by anyone with television and the Internet. Recently, various entertainment offerings, including popular television programs, known as reality TV (e.g., *Survivor, Apprentice, Big brother, The Bachelor*, etc.), have been broadcast through networks, cable channels, or the Internet. Indeed, cultural changes, technological developments, and lax privacy laws may seduce people into having more pleasure with voyeuristic activities without feeling guilty (Metzl, 2004). A study by Nabi, Biely, Morgan, and Stitt (2003) indicates that viewers in fact watch reality-based television for those voyeuristic reasons. In particular, regular viewers admitted that they enjoyed getting a peek into other people's lives to some degree.

However, the fundamental difference between voyeurism in the "real" (i.e., the social) world versus through media use is whether or not a violation of privacy exists. Reading blogs, visitors may have the pleasure of voyeurism (peeking into someone's life) when they view personal messages and photos on personal blogs secretly, i.e., without letting the owners know who reads what. Nonetheless, the owners' privacy is not violated because contents on the personal blog are intentionally posted by the owners, and exposure to anonymous visitors is expected. In this regard, reading messages and photos on personal blogs is more similar to the surveillance of other people and yet provides readers with some degree of voyeuristic pleasure.

Taken together, we define voyeuristic surveillance as individual tendency to pay attention to other people *with the pleasure of voyeurism* (i.e., peeking into their lives secretly) and *without being guilty of violating other people's privacy* (i.e., being allowed to have a peek). Therefore, voyeuristic surveillance should be strongly related to the number of messages/photos that people read on personal blogs. Based on above discussion, the following hypothesis is proposed:

Hypothesis 2. Voyeuristic surveillance will be positively associated with message reading.

2.1.3. Social comparison

Two psychological factors discussed above (i.e., impression management and voyeuristic surveillance) are context dependent. That is, we could discuss impression management and voyeuristic surveillance only within the context of personal blogs or computer mediated environments. With respect to a more fundamental motivation, social comparison may be the reason why individuals have desires for and are actively participating in impression management and voyeuristic surveillance in personal blogs. Social comparison theory posits that individuals have a "drive to evaluate their opinions and abilities" by comparing themselves with other people (Festinger, 1954; p. 117). Although individual differences exist in the extent to which people engage in social comparison processes, it is believed that the desire or tendency for social comparison is universal (Gibbons & Buunk, 1999). Having said that, reading activities on blogs can provide bloggers with opportunities to compare themselves with others, either by reading original content posted by others or by reading specific replies or comments on their own content. Posting activities, on the other hand, can be a learning process by distinguishing themselves from others through expressing their uniqueness and values in these postings. Those individuals who tend to compare themselves with others more frequently are likely to express their uniqueness (Pavitt, 1994).

It is important to note that social comparison is a general state, whereas impression management and voyeuristic surveillance are task specific. In this regard, the general state of social comparison that can be applied to various contexts is likely to influence impression management and voyeuristic surveillance in the particular context of personal blogs. Thus, we hypothesize that the path would be from social comparison to impression management and voyeuristic surveillance rather than the other way around. Based on above discussion, the following hypothesis is proposed:

Hypothesis 3. Social comparison will be significantly associated with (a) impression management; and (b) voyeuristic surveillance.

2.2. Consequences

2.2.1. Perceived anonymity and social support online

According to the Hyperpersonal Communication Theory, social support and intimacy in online relationships can go beyond what is usually achieved in face-to-face associations (Walther & Parks, 2002). One factor that enables Hyperpersonal Communication is that receivers typically perceive positive and preferred attributions of online partners due to limited availability of cues on the Internet. Thus, perceived anonymity on the Internet may facilitate certain types of online social interactions, especially when the privacy of the activities is likely to be appreciated (e.g., voyeuristic surveillance on blogs, or participation in social support communities for AIDS).

Studies have demonstrated the positive effects of online communities on emotional support (Turner, Grube, & Meyers, 2001), esteem support (Shaw, McTavish, Hawkins, Gustafson, & Pingree, 2000), informational support (Alexander, Peterson, & Hollingshead, 2003), and network support (Loader, Muncer, Burrows, Pleace, & Nettleton, 2002). A recent PEW Internet and American Life Project report also confirms the "socially beneficial role" of the Internet in person-to-person based social networks and helps build social capital (Boase, Horrigan, Wellman, & Rainie, 2006; p. 2). Thus, online communication such as blogging may affect individuals' perception of social support, which may, in turn, positively influence individuals' psychological well-being in real life (see Miura & Yamashita, 2007). Based on above discussion, we propose the following hypotheses:

Hypothesis 4. Perceived anonymity will be positively associated with voyeuristic surveillance.

Hypothesis 5. Perceived social support will be positively associated with (a) Posting messages/photos; (b) Reading messages/photos.

2.2.2. Belonging, loneliness, and subjective well-being

Baumeister and Leary (1995) have stated that the need to belong is a fundamental, pervasive, and innate human desire adapted by natural selection in order to solve the everyday survival and reproduction problems that humans faced in ancestral environments. Previous studies have demonstrated that the need to belong is so strong that it is highly correlated with human well-being (see Steptoe, Owen, Kunz-Ebrecht, & Brydon, 2004). Specifically, increases in one's belongingness status are associated with positive emotional responses, whereas a decrease of one's belongingness status is associated with negative ones (Baumeister & Leary, 1995). Having close personal relationships or being part of a supportive social network reduces stress, buffers individuals against negative effects of stress (Cohen, Sherrod, & Clark, 1986), and is strongly correlated with happiness in life (Baumeister & Leary, 1995). Conversely, exclusion from social groups is related to depression (Hoyle & Crawford, 1994), and loneliness and perceived lack of companionship, and poor emotional well-being (Steptoe et al., 2004). Creecy and colleagues (1985) suggest that loneliness has a definite effect on well-being. As such, loneliness is often used to assess the negative aspect of well-being (see Dickinson & Gregor, 2006) Therefore, should an individual perceive social support from using personal blogs, it may influence this person's feelings of belonging and subjective well-being positively but affect his or her loneliness negatively. Based on above discussion the following hypotheses are proposed:

Hypothesis 6. Perceived social support from the blog will be positively associated with (a) users' general belonging and (b) psychological well-being positively, but (c) negatively associated with users' loneliness.

Based on previous discussions, we propose a theoretical model to account for motivations, usage, and consequences of using personal blogs (see Fig. 1). The purpose of our theoretical model is to investigate motivational factors for and real life consequences of using personal blogs together in one study, which has seldom been tested.

3. Methods

To test our hypotheses, we have selected a Korean site that provides blog services, *Cyworld*, to collect online survey data from its users. *Cyworld* (http://www.cyworld.co.kr) started its business in 1999 and has become the top blog service provider in Korea. It has over 10 million monthly visits with over 15 million members, which is almost a third of the country's entire population, and 90% of South Koreans in their 20s are the members of *Cyworld* (Kim, 2005). *Cyworld* has all the main features of blogs in that users create their own blogs by posting personal messages and photos (see Jung, Youn, & McClung, 2007 for more information). Like in other major blog sites, in *Cyworld*, anyone can visit others' blogs to read and post messages by simple clicks. Thus everybody can post their personal messages knowing that others can easily access those messages anonymously. Also, they can visit others' blogs to read and post messages by simple clicks. One may also visit blogs without letting other people know about it, as long as this person posts nothing (i.e., lurking).

3.1. Procedure

The snowball sampling method was used to collect data by posting an advertisement for an online survey in several personal blogs in *Cyworld*. First, a total of 73 users of *Cyworld* voluntarily participated in the pilot study. Then, a total of 531 *Cyworld* users participated in the main study, after removing duplicate responses from the same user, verified according to their unique user ID for *Cyworld*. In the case of multiple survey answers from one participant, we took the first survey answer as a valid response. US $2 worth of electronic money was rewarded for each respondent to thank them for their participation in the main study. The average age of the respondents was 30, ranging from 17 to 62 years of age. Among the 531 respondents, 75% were female and 22% were male (3% of the respondents did not answer the gender question). We had more female than male participants, which can be explained by the demographic of *Cyworld* users. *Cyworld* has more female than male members, and at the same time, female members use *Cyworld* more frequently (Kim, 2004).

3.2. Measures

All measures were based on items from online-based questionnaires and administered in Korean. We translated the measures used in the study from the source language (i.e., English) to the target language (i.e., Korean). Both the forward and backward translations teams were trained by the principal investigators of the study based on guidelines prescribed in Behling and Law (2000). *Impression management* was measured with eight items modified from the Measures of Self-Presentational Styles (Nezleck & Leary, 2002). Respondents were asked to indicate their level of agreement to the following eight statements: (1) I want the other users in the *Cyworld*.com to perceive me as likable; (2) ... to perceive me as

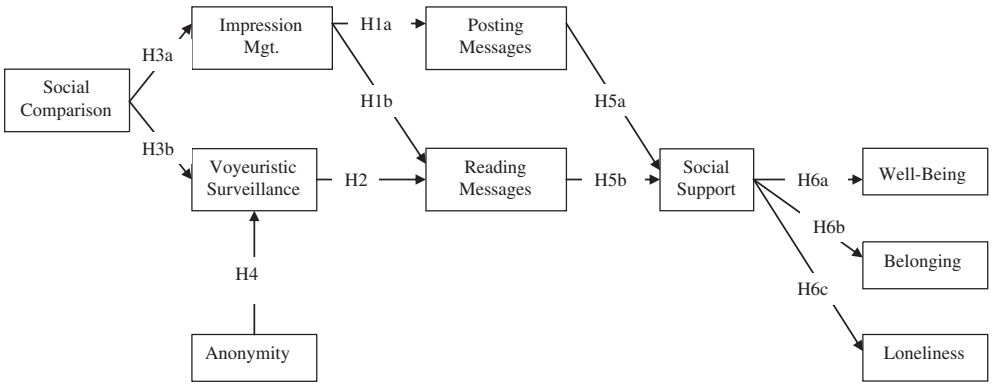

Fig. 1. Structural model for the individual usage of personal blogs.

friendly; (3) ... to perceive me as socially desirable; (4) ... to perceive me as competent; (5) ... to perceive me as skilled; (6) ... to perceive me as intelligent; (7) How much do you think about how the other people in the *Cyworld*.com are evaluating them when you are posting a message? and (8) How nervous do you feel when you are posting your messages? (Cronbach's $\alpha = .91$). The seven-point response scales were anchored by "Not at all (1)" to "Very much (7)." Higher scores indicated a greater desire for making good self-impression to other people in *Cyworld*.

Voyeuristic surveillance was measured by asking respondents to indicate their level of agreement to the following five statements: (1) I use *Cyworld* to learn about some of the problems other people have; (2) ... to learn about what other people are really like; (3) ... to learn about what could happen to me; (4) When I use *Cyworld*, I feel like I am getting a peek into other people's lives; and (5) When I use the *Cyworld*, I get to see a side of people that I would not normally get to see (modified from Abelman, Atkin, and Rand (1997); and from Rubbin (1983); Cronbach's $\alpha = .78$). Higher scores indicated a greater desire for peeking into others' lives secretly in *Cyworld*.

Posting and reading were measured separately by asking the number of messages and/or photos that respondents post to and read from *Cyworld* in a typical week. The common logarithm was computed for normality.

Social comparison was measured with the 11 items of the Iowa-Netherlands Comparison Orientation Measure (Gibbons & Buunk, 1999). The five-point response scales were labeled "Strongly disagree (1)" to "Strongly agree (5)." Higher scores indicated a higher frequency of the individual's comparing oneself with others (Cronbach's $\alpha = .86$).

Perceived anonymity was measured with four items developed for the purpose of this study. Participants were asked to indicate their level of agreement to the following four statements: (1) People cannot identify true-me from my messages in *Cyworld*; (2) People cannot locate me in real life based on my information and messages in *Cyworld*; (3) I cannot recognize the users of *Cyworld* when we are passing by in real life; and (4) I can control the level of my anonymity in *Cyworld*. The seven-point response scales were anchored by "Strongly disagree (1)" to "Strongly agree (7)." Higher scores indicated more perceived anonymity in *Cyworld* (Cronbach's $\alpha = .75$).

Perceived social support from the blog was measured with the nine items modified from the Computer Mediated Social Support Measures by Nahm, Resnick, and Gaines (2004). The five-point response scales were anchored by " None of the time (1)" to "All of the time (5)." Higher scores indicated a stronger feeling of perceived social support from *Cyworld* (Cronbach's $\alpha = .91$).

Loneliness was measured with the UCLA Loneliness Scale (Version 3). The scale has been tested in many studies and is regarded to be highly reliable in terms of internal consistency (coefficient α ranging from .89 to .94) and test–retest reliability over a 1-year period ($r = .73$) (Russell, 1996, p. 20). Higher scores indicated a stronger sense of loneliness (Cronbach's $\alpha = .90$).

General belonging was measured with the four items adopted from the Subjective Belonging Measure by Matei and Ball-Rokeach (2001). The five-point response scales were anchored by "Strongly disagree (1)" to "Strongly agree (5)." Higher scores indicated a greater sense of belonging (Cronbach's $\alpha = .74$).

Subjective well-being was measured with the five items from the short from of the Mental Health Index (MHI) – 5 (Davies, Sherbourne, Peterson, & Ware, 1988). The six-point response scales were anchored by "None of the time (1)" to "All of the time (6)." The internal consistency of the original MHI is reliable, ranging from .93 to .96 ($n = 5089$). The correlation between the scores of the MHI-5 and the 38-item MHI is .95, which recommends the use of the short form (Davies et al., 1988). High scores indicated an absence of psychological distress and experience of subjective well-being during the past month (Cronbach's $\alpha = .76$).

3.3. Data analysis

The pilot model was tested using maximum likelihood procedures in LISREL 8.57 in order to answer the research question of measuring media exposure (see Fig. 2). In the main study (see Tables 1 and 2 for the means and standard deviations), the hypothesized structural model was tested using maximum likelihood procedures in LISREL 8.75. Firstly, the initial structural model ($N = 251$) was tested and revised by adding new paths and deleting a non-significant path, based on modification indices in a step-by-step manner (see Table 3 for a more detailed description about model revisions). Finally, the revised model was tested with a new group of respondents ($N = 280$) using the same maximum likelihood procedures in LISREL 8.75.

4. Results

4.1. Tests of the overall model

Table 1 and Table 2 show a full correlation matrix of the measured variables in the main study respectively. The chi-square statistic was significant for the hypothesized model, $\chi^2(34, N = 251) = 277.70$, $p < .01$, which indicates a poor fit of the overall model to the data. The ratio of chi-square to degrees of freedom was not acceptable at 8.17 in spite that the ratio of chi-square to degrees of freedom less than 5 is conventionally accepted as a good fit due to the sensitivity of Likelihood Ratio test to sample size and degrees of freedom (see Byrne, 1998). For other indices, the Goodness of Fit Index (GFI) was .82, the Adjusted Goodness of Fit Index

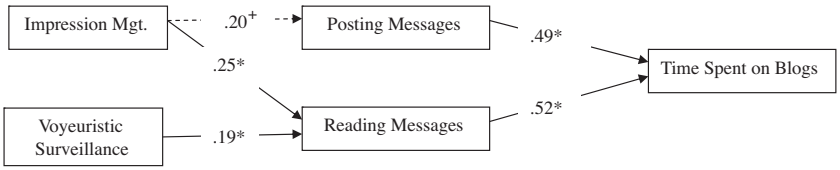

Fig. 2. LISREL results for the pilot study. *Note*: $\chi^2 = 3.44$, $p > .3$. RMSEA = .046. Numbers are standardized coefficients. $^{*}p < .05$, two-tailed. $^{+}p < .07$, two tailed.

Table 1
Means, standard deviations, and correlation matrix of ten measured variables for model building.

Measured variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1. Social comparison	3.39	0.61	–	.25**	.27**	−.10	.14*	.21**	.10	−.05	.16**	−.03
2. Impression management	4.85	1.23		–	.25**	.16*	.17**	.18**	.19**	.10	.03	−.10
3. Voyeuristic surveillance	3.90	1.20			–	.31**	.14*	.19**	.14*	.09	.02	−.16*
4. Perceived anonymity	3.12	1.34				–	.02	−.06	.00	.18**	−.12	−.13*
5. Posting messages/photos[a]	0.74	0.54					–	.66**	.30**	.06	−.03	.06
6. Reading messages/photos[b]	1.13	0.56						–	.26**	−.04	−.02	.05
7. Perceived social support	3.26	0.70							–	−.32**	.19**	.17**
8. Loneliness	2.20	0.41								–	−.41**	−.45**
9. Belonging	3.07	0.77									–	.17**
10. Perceived well-being	4.03	0.67										–

* $p < .05$, two-tailed.
** $p < .01$, two-tailed.
[a] The number of messages/photos posted in a typical week was transformed by taking the common logarithm of the original data.
[b] The number of messages/photos read in a typical week was transformed by taking the common logarithm of the original data.

Table 2
Means, standard deviations, and correlation matrix of ten measured variables for model testing.

Measured variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1. Social comparison	3.34	0.58	–	.45**	.36**	.04	.13*	.11	.08	.03	.22**	−.10
2. Impression management	4.82	1.34		–	.30**	.03	.26**	.18**	.19**	.04	.16**	−.03
3. Voyeuristic surveillance	3.74	1.29			–	.18**	.11	.11	.22**	0.1	.13*	−.06
4. Perceived anonymity	2.98	1.32				–	−.03	−.05	−.06	.23**	.00	−.14*
5. Posting messages/photos[a]	0.73	0.56					–	.64**	.39**	−.14*	.17**	.11
6. Reading messages/photos[b]	1.11	0.54						–	.34**	−.17**	.09	.15*
7. Perceived social support	3.25	0.69							–	−.24**	.15*	.10
8. Loneliness	2.16	0.41								–	−.20**	−.43**
9. Belonging	3.00	0.72									–	.14*
10. Perceived well-being	4.09	0.77										–

* $p < .05$, two-tailed.
** $p < .01$, two-tailed.
[a] The number of messages/photos posted in a typical week was transformed by taking the common logarithm of the original data.
[b] The number of messages/photos read in a typical week was transformed by taking the common logarithm of the original data.

Table 3
Summary of model revisions: model building.

	χ^2 (df)	AGIF (GIF)	RMSEA	χ^2_{diff}/df (*p*-Value)
Hypothesized model	277.70	.71	.17	196.46/11[a]
	(34)	(.82)		($p < .001$)
Revision 1 (a new path added)	114.58	.86	.10	163.12/2[b]
Well-being → loneliness	(32)	(.92)		($p < .001$)
Revision 2 (a new path added)	76.03	.90	.08	38.55/1[c]
Loneliness → belonging	(31)	(.94)		($p < .001$)
Revision 3 (a non-significant path deleted)	77.48	.90	.08	1.45/1[c]
Social support → belonging	(32)	(.94)		(*n.s.*)
Revision 4 (a new path added)	66.01	.91	.07	11.47/1[c]
Loneliness → anonymity	(31)	(.95)		($p < .001$)
Revision 5 (errors allowed to co-vary)	54.55	.92	.06	11.46/2[c]
Read and social support	(29)	(.96)		($p < .001$)

Note: GFI = the Goodness-of-Fit Index; AGFI = the Adjusted Goodness-of-Fit Index; RMSEA = the Root Mean Square Error of Approximation.
[a] The chi-square difference test with the null model.
[b] The chi-square difference test with the hypothesized model.
[c] The chi-square difference test with the previous model before the revision.

(AGFI) was .71, and the Root Mean Square Error of Approximation (RMSEA) was .17. In addition, the standardized Root Mean Square Residual (RMR) was .14. Overall, these statistics indicate a poor fit of the set of hypotheses to the data although the chi-square difference test between the hypothesized model and the null model showed a significant difference (see Table 3).

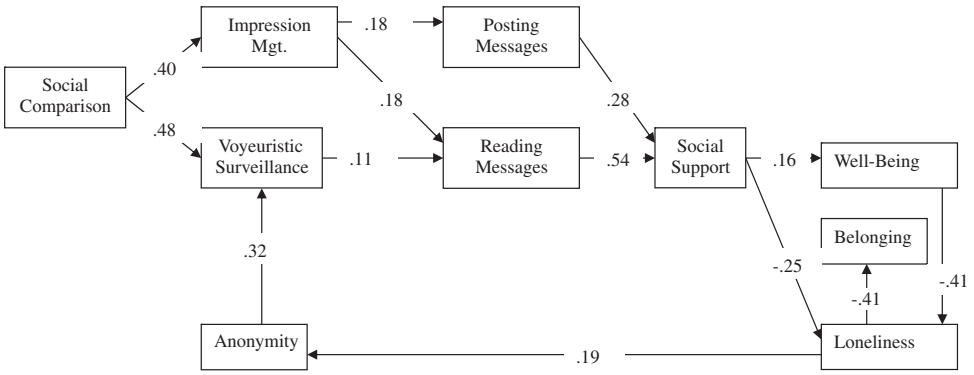

Fig. 3. LISREL results for the final model: Model building ($N = 251$). *Note*: $\chi^2 = 54.55$, df = 29, $p < .01$. RMSEA = .06. Numbers are standardized coefficients significant at .05 level.

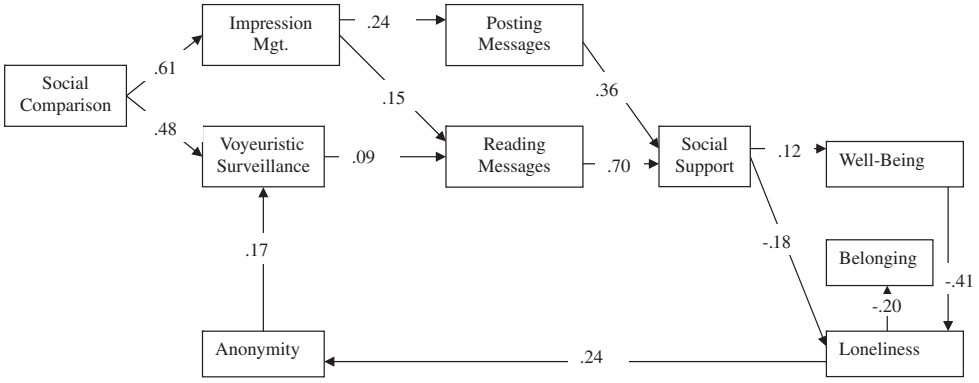

Fig. 4. LISREL results for the final model: Model testing ($N = 280$). *Note*: $\chi^2 = 43.34$, df = 29, $p < .05$. RMSEA = .04. Numbers are standardized coefficients significant at .05 level.

All the individual parameter estimates were statistically significant, as tested by two-tailed *t*-tests with $\alpha = .05$, except for the path from *reading* to *perceived social support* that was marginally significant (standardized coefficient = .12, $t = 1.91$). Taken together as a whole, the evaluation of model fit based on the criteria of the model and the parameter estimates suggests revising the hypothesized model.

4.2. Post hoc analysis: model building

Fig. 3 represents the results for the LISREL analysis of the final revised model. The chi-square statistic was still significant for the hypothesized model, $\chi^2(29, N = 251) = 54.55$, $p < .01$. However, the ratio of chi-square to degrees of freedom was acceptable at 1.88, which indicates a good fit. For other indices, the GFI was high at .96, the AGFI was also high at .92, the RMSEA was .06, and the standardized RMR was .06. Overall, these statistics indicate a good fit of the observed covariance matrix to that implied by the final model. Although there was still room for improvement, we stopped fitting the model here due to the potential overfitted model problem (see Byrne, 1998 for a more detail discussion). After the final revision, all individual parameter estimates were statistically significant, including three new paths added to the final model (see Fig. 3).

4.3. Model testing

The revised structural model was tested with a new group of 280 respondents using the same maximum likelihood procedures in LISREL 8.75. Although the chi-square statistic was significant for the hypothesized model, $\chi^2(29, N = 280) = 43.34$, $p < .05$, the ratio of chi-square to degrees of freedom was acceptable at 1.49, which indicates a good fit. For other indices, the GFI was high at .97, the AGFI was also high at .94, the RMSEA was .04, and the standardized RMR was .04. All the individual parameter estimates were statistically significant, as tested by two-tailed *t*-tests with $\alpha = .05$. Overall, these statistics indicate a good fit of the observed covariance matrix to that implied by the final model (see Fig. 4).

5. Conclusions

The current study investigated psychological factors that might account for the usage of personal blogs and consequences of using personal blogs in social life. The results confirmed our hypotheses derived from the proposed theoretical model. First of all, impression management was positively associated with posting and reading activities on personal blogs. These findings imply that individuals who have a greater desire for managing good self-impression to others deliberately post and check text/picture messages on personal blogs, in order to create the desired selves in the digital world. In other words, individuals strategically construct their desired identities by actively posting their own personal messages and photos to personal blogs. It is important to note that impression management was also significantly associated with reading activities. This implies that (1) users strategically tailor their impressions to other people by reading what and how others think and do; and (2) users get the validation of their desired identities from others by reading replies from them. To summarize, users who have a greater desire for impression management are highly motivated to post and read more messages for creating and managing their desired identities. However, we did not measure whether respondents read comments on their own messages or original postings by other bloggers. We suggest that future research needs to pay more attention to reading and measure

different types of reading in order to provide a clearer understanding about the reading activity.

A similar pattern was found for the effects of voyeuristic surveillance. Users who tended to pay more attention to other people when both their own and others' privacy were not violated actually read others' messages and photos more often. The results imply that voyeuristic surveillance can also explain the reason why individuals read other people's messages and photos online in addition to the explicability of impression management. It is interesting to note that the association between voyeuristic surveillance and reading was not as strong as one would expect. In fact, the association seems to be weaker than the one between impression management and reading. One plausible explanation would be that people may want to read the personal blog of their friends rather than total strangers not only because they are curious about how their friends are doing, but also because they are interested in how their information appears in the personal blog of their friends. Stories by others usually get more interesting when they contain identifiable personal information such as my name or photo. Although more people read messages than post, studies have focused on the general use of personal blogs, which calls for more research.

Social comparison was positively related to impression management and voyeuristic surveillance. It is important to note that both impression management and voyeuristic surveillance are activity-oriented states that alone cannot be explained or understood outside of a specific context or domain. Therefore, individuals who have a greater desire for voyeuristic surveillance on personal blogs do not necessarily enjoy peeking others' lives in general. Similarly, individuals who have low interest in impression management on personal blogs could care about managing their impression on other people in their social life. Nevertheless, their positive relationship with a more general trait of social comparison implies that a general tendency toward learning about oneself through comparisons with others affects specific desires to manage good impression on others and to pay attention to what other people post on personal blogs.

As hypothesized, perceived anonymity was significantly associated with voyeuristic surveillance. This finding provides empirical evidence that perceived anonymity can facilitate certain types of online social interaction, especially when the social interaction may benefit from concealed privacy (e.g., reading messages anonymously for voyeuristic surveillance), which is in line with online disinhibition effect (Suler, 2004) and the relationship between anonymity and self-disclosure (Qian & Scott, 2007). This finding also helps us understand the protest from the users of Facebook against a new feature that automatically alerts users about their friends' activities on Facebook ("Hanging with the in-crowd," 2006). Obviously, users on Facebook do not want anyone to know what they are doing on the site (i.e., to enjoy voyeuristic surveillance). In this regard, perceived anonymity may facilitate lurking activities that reflect users' preference for voyeuristic surveillance (see also Preece, Nonnecke, & Anderews, 2004).

When it comes to the effect part of the structural model, perceived social support was significantly associated with active use of personal blogs such as posting and reading. This implies that active users are more likely to benefit from using personal blogs with respect to social support. Indeed, perceived social support from personal blogs was also positively associated with a sense of belonging and psychological well-being and with loneliness negatively in the users' social life. The results suggest a balanced view of utopian and distopian perspectives for the effects of new media. The mere use of personal blogs (e.g., lurking) would not automatically lead to positive results in terms of psychological well-being in "real" life. In other words, real life consequences are likely to depend on *how* individuals use personal blogs.

Finally, newly added paths in the final model were all significant. Specifically, all three newly added relationships are related to loneliness: Loneliness is negatively related to a sense of belonging and psychological well-being, and positively related to perceived anonymity. This is very plausible as perceived social support from personal blogs negatively affects loneliness, which, in turn, positively influences a sense of belonging or vice versa. In a similar vein, psychological well-being is positively related to perceived social support from personal blogs, thus may influence loneliness negatively. For instance, a user who perceives social support from blogging may report more positive well-being and feel less lonely in 'real' life and, consequently, can increase his or her sense of belonging. On the other hand, the feeling of loneliness in social life can influence perceived online anonymity positively. That is, a lonely individual is likely to perceive more anonymity during his or her use of blogs. Although the increased perception of anonymity due to loneliness can lead to greater tendency for voyeuristic surveillance, this may not result in the increased perception of online social support unless people at least actively engage in reading activities. Although this recursive path requires more research, it implies that we cannot separate one's "online life" from "real life" or vice versa. Online activities result in "real-life" consequences, and such "real-life" activities influence how one uses the Internet. This finding reconfirms the recursive path reported in a study by Caplan (2003, 2010).

6. General discussion and limitations

In summary, the results elucidate psychological reasons why people post their own personal stories and photos and read others' postings online. The increased tendency for impression management and voyeuristic surveillance facilitates specific activities of posting and reading vis-à-vis the usage of personal blogs. In other words, personal blogs have successfully provided users with a virtual space where they strategically construct their desired identities (i.e., *posting*) by comparing themselves with and being validated by other people (i.e., *reading*).

The two separate processes of data analysis (i.e., model building and testing) confirm the usefulness of the theoretical model by (1) providing a more thorough understanding of the motivation; and (2) adding empirical evidence for the perceived social support from personal blogs and its "real-life" consequences. Active usage, rather than minimal, results in greater perceived social support from personal blogs, which, in turn, decreases the feeling of loneliness and supports a sense of belonging and well-being in "real" (social) life. In addition, the results emphasize the impact new media may have on its users by embracing both utopian and distopian views of new technologies. Taken together, our study successfully investigated two areas of motivation and consequence that have been examined separately in traditional media-effect research by integrating the two areas in one theoretical model.

6.1. Limitations

The theoretical model was tested using the snowball sampling method, instead of the random or stratified sampling method. Although the results supported the hypotheses derived from the proposed model, one needs to be cautious not to (over-)generalize the findings. Besides, the operationalization of new concepts such as voyeuristic surveillance needs further research to confirm its validity although the measure items used in this study were not created from the scratch. With respect to the limitation of generalizability, there is another limitation in that the current study was conducted on one specific site for personal blogs (*Cyworld*) in one country (South Korea). Although the results from two different

data analyses confirmed the usefulness of the theoretical model to explain both motivations and consequences, there may be cultural factors that affect both the motivation and the consequences of using personal blogs. This limitation, however, opens up new research opportunities in the field of international or intercultural communication. Future studies should examine the usage of personal blogs on various sites in different countries, and compare them to the findings reported here in order to investigate those possible cultural factors. We also suggest that future research measures the usage of personal blogs in a more objective way instead of relying on self-report data.

Nevertheless, we believe that the theoretical model presented here could also be used to understand the motivation for and the effects of other computer mediated activities with only slight modifications, such as playing massively multiplayer online games (see Chan & Vorderer, 2006), engaging in online dating, or podcasting, to name just a few. With the rapid development of new technologies and the dramatic reduction in the costs of using them, more and more new forms of computer mediated communication are still to come. We can only hope that our model sheds some light on our understanding not only of the usage of personal blog but also of various computer-mediated-communication tools.

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