

Virtual self construction in social network sites : The interplay between technology and its users*

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ABSTRACT

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Social technologies place individual users at the center of their design and support users in presenting themselves to others in online space. Although presenting one's ideal self to others is a basic human need and the lack of physical constraints makes it easier to do in this online space, not all users show their utmost ideal self. This study finds the reason for this in the technological and social characteristics of technology and investigates how users' activities are performed to reflect ideal selves. It examines social network sites (SNS) as a key social technology and argues that inherent characteristics of SNS present users' actual selves, while users use postings to reflect their ideal selves. The results show that the users of SNS see their constructed virtual selves in SNS as close to their actual selves, but by engaging in postings - particularly relational and collective postings - their ideal selves are also integrated into their virtual selves. Thus the results suggest that virtual selves are shaped by both the inherent characteristics of technology and its users' activities.

Key Words : Actual self, Ideal self, Virtual self, Social technology, Social network sites

< Contents >

I. Introduction	V. Results
II. Theoretical Background : Presenting One's Ideal Self through Virtual Self-presentation	VI. Discussion
III. Hypotheses	VII. Limitations and Future Study
IV. Research Method	VIII. Implications
	<References>
	<국문초록>

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I. Introduction

During the rapid development of information technology (IT), what received most attention was the job efficiency that could be achieved through technology use (Davis, 1989). In this view, the goal of using technology is considered the same for every user, regardless of differences among them; technology users are perceived as homogeneous in their preferences and use patterns, largely ignoring who uses technology in what kind of social context and how (Lamb & Kling, 2003). As technology evolves to support users' everyday lives, however, the group of technologies referred to as social technology has evolved as well.

Social technology is used for communication among individuals and groups and allows people with common interests to find each other, to gather, and to sustain connections over time (Sproull & Faraj, 1995). The important difference between social technology and traditional information systems is that social technology brought users to the center of its construction: who the users are, what kind of social relationships they have, and how they use the technology to fulfill their various needs became the most important factor in the design and use of technology. Social technologies such as social network sites (SNS) and blogs represent this trend well (DiMicco & Millen, 2007; Ellison, Steinfield, & Lampe, 2007; Min & Lee, 2011). This shift suggests that to better understand everyday-life technology use and what motivates people to use such technology, we should start by looking at individuals' social psychological needs that can be assisted by technology use, how those needs are represented and met through activities, and how different the characteristics of such technology can be.

The users' basic social and psychological needs that are reflected in social technology are presenting themselves in mutual space and communicating with other people (DiMicco & Millen, 2007; Min & Lee, 2011). The differences in this online self-presentation from real-world self-presentation are that the former offers users more freedom and control in creating desired self-images. For example, verbal and nonverbal communication, the main means used to convey self-images in the real world, are influenced by physical constraints (Goffman, 1959), as nonverbal expressions such as facial expressions and body gestures are more difficult to control, delivering unintended or even unwanted impressions to other people. Users of social technology, however, can choose what to show and what not to show, ensuring that only their desired images will be shown to others.

This suggests that the self that is created in social technology can be a user's own desired persona that he or she could not deliver under the physical constraints of the real world. According to the self-discrepancy theory (Higgins, 1987; Higgins, Bond, Klein, & Strauman, 1986), individuals have both

actual and ideal self-images. An actual self is the representation of the qualities that one actually expresses to others presently, while an ideal self is the representation of the qualities that one strives to possess. The gap between these two selves can cause individuals significant psychological discomfort, leading them to attempt to narrow that gap through the most effective means (Swann, Griffin, Predmore, & Gaines, 1987) and therefore feel more positive about themselves (Stone, Wiegand, Cooper, & Aronson, 1997). One of these means is creating self-images in online space that are a better version of their self-images in reality. The self-image constructed in online space can be called a virtual self. According to Agger (2008), virtuality is “the experience of being online and using computers; it is a state of being, referring to a particular way of experiencing and interacting with the world” (p. 2), which is an accurate description of how the self constructed in online space can be distinguished from the self in physical world.

How, then, is a virtual self constructed in social technology? Since constructing a virtual self occurs in online space, which is realized by technology, it is under the environmental influence of the particular social technology being used. Each social technology has different technological characteristics. For example, blogs provide enormous writing spaces, while Twitter limits users to 140 characters for writing. Online dating site users inevitably show their real identities in some level (Ellison et al., 2006), while Second Life users can hide their real identities completely. Different social technologies offer their users a different set of options, resources, boundaries, and ways of communicating their virtual selves. Therefore, the idiosyncratic characteristics of particular social technologies are intertwined with the users and their activities.

To study the relationship between user activities in creating a virtual self and the relevant technology characteristics, we need to begin with understanding a specific technology and its idiosyncratic characteristics. This study focuses on social network sites (SNS), which represents all the common characteristics of social technology, such as communication, connection, and sharing interests, and therefore serves as a good place to start in understanding the interaction between user activities and technological characteristics.

Looking more specifically at SNS raises a number of questions. Which self is enriched in the context of SNS? What kind of characteristics does the user's virtual self have in SNS? Are the characteristics of SNS more appropriate for showing a self that is close to a user's ideal or actual self? Given the influence of the technological characteristics of SNS, how do users engage in self-presentation activities to better assist their needs? Thus, the main research questions for this study are the following : (1) Does the virtual self in SNS best represent a user's actual or ideal self-image? (2) How do users of SNS represent their desires in their virtually constructed self?

The following sections first discuss the current literature on self-discrepancy and self-presentation theory and virtual selves that serves as a theoretical background from which the hypotheses of this study are developed. They then present the empirical findings and discussions, followed by their practical and theoretical implications.

II. Theoretical Background : Presenting One's Ideal Self through Virtual Self-presentation

1. Self-discrepancy and Self-presentation Theory

An individual's own perception of who he or she is constructed of various selves (Markus & Wurf, 1987). Among these various selves, self-discrepancy theory notes, there is usually a certain degree of discrepancy between a person's actual and ideal self, and a significant gap between these two selves can cause psychological distress (Higgins, 1987; Higgins et al., 1986). As noted earlier, people therefore constantly look for ways to reduce this gap (Leary & Kowalski, 1990), one of which is through self-presentation.

Self-presentation is managing one's own self-image that is conveyed to other people (Baumeister, 1982; Goffman, 1959; Leary & Kowalski, 1990). When one's self-presentation is successful, one's self-esteem is enhanced (Swann, 1987); when not, decreased self-esteem and negative emotional responses such as distress and even depression can occur (Burke & Stets, 1999). Therefore, people use self-presentation to fill the gap between their ideal and actual self-images (Leary & Kowalski, 1990) and to present their best self to public view (Schlenker, 1980).

To achieve this goal, individuals need the means to engage in effective self-presentation. In the real world, individuals use verbal and non-verbal communication to put forward a certain self-image that they want others to see according to situational demands (Goffman, 1959) and through rather subtle self-presentational means called identity cues (Swann, 1987). Examples of identity cues might be a college logo-engraved mug and favorite baseball team t-shirt used to signal to other people who the individual is and how he or she wants to be perceived. As information technology has become more prevalent, the set of means by which people can present their best self has also expanded, offering individuals more controllability and flexibility in showing their ideal self-images. Thus, technology is

becoming a very useful means of complementing and even changing one's image by providing users with a space for constructing a virtual self.

2. Virtual Self : Presented Self in Social Technology

Social technologies support users in documenting their lives, formulating and presenting their ideas and opinions, and expressing even deeply felt emotions in online space. These activities are variably described as self-expression (Herring, Scheidt, Bonus, & Wright, 2004), personal expression (Rosenbloom, 2004), self-disclosure (Harper & Harper, 2006), and identity management (Schmidt, 2007). Through these activities, people present and manage how they are looked at and perceived by other people in online space (Papacharissi, 2002)—that is, they help people build and present virtual selves.

A virtual self can be characterized by the way it is constructed, which is different than the one in the real world. For example, a brand image can be associated with the virtual self by simply mentioning a particular brand rather than buying or wearing it (Schau & Gilly, 2003), separating self-image association from actual possession through the lack of physical cues and the more controllable and flexible presentational means that technology provides.

Considering that one of the important motives for self-presentation is constructing one's self congruent to one's ideal self (Baumeister, 1982), virtual self-construction appears to aim at representing one's ideal self. The fact that most users' usual virtual self-presentation strategy is making a good impression on others (Vazire & Gosling, 2004) confirms this idea. Although users attempt to build a virtual self that represents their ideal self, not all virtual selves constructed in social technology actually represent the users' utmost ideal self (Ellison et al., 2006).

This gap between users' desire and the actualized result can be attributed to the technological characteristics of social technology. For instance, the feedback attached to self-presentation also becomes part of the virtual self, since it builds a user's impression along with the user-created material (Zhao, Grasmuck, & Martin, 2008). This suggests that all kinds of information and activities form an impression about a user and construct his or her virtual self in social technology, which contributes to the gap between a user's desires and actualized results because some features are more amenable to representing one's ideal self while others are more appropriate for showing one's actual self. For example, a profile that shows a user's real-world identity inevitably reveals that user's actual self on some level (Gross & Acquisti, 2005), while postings, which offer more flexible content management, can be better at showing various desired aspects of the self (Min & Lee, 2011). What should be noted is that despite these inherent differences in features and their uses, they in the end together compose

the virtual self as a whole.

Moreover, the social environment engendered by the different characteristics of technology affects how the virtual self is constructed; depending on where it is constructed, a virtual self is likely to be different because the technology features, information flows, and user activities and goals are different among the various types of social technology. For instance, when presenting their virtual selves, bloggers target both known and unknown audiences (Tufekci, 2008), while SNS users address audiences in their existing social networks (DiMicco & Millen, 2007), meaning that different audiences might generate different kinds of virtual selves. That online dating site users present a self intended to help them find an ideal partner (Ellison et al., 2006) and that complete honesty may not be effective for achieving this goal (Gibbs, Ellison, & Heino, 2006) implies a high probability that they will present their virtual self as their ideal self in this context.

In such a manner, technology characteristics do affect the success of social technology use (Du & Wagner, 2006). Yet the current literature has not considered how specific characteristics of technology contribute to the self that is presented. To better understand the construction of virtual selves, it should be studied with an understanding of the technology wherein it is constructed. This paper will begin such an investigation by examining the characteristics of SNS as one such technology.

III. Hypotheses

1. Inherent Characteristics of Virtual Self in SNS

SNS encourage users to fill in personal information such as educational background, photos, job, affiliation, age, relationship partner, and contact information in a profile (Gross & Acquisti, 2005) and uses this information to recommend acquaintances within the user's online social network with whom the user might connect. These acquaintances within the network, then, become the audience for virtual self-presentation and remain as visible audiences through all SNS activities (DiMicco & Millen, 2007; Zhao et al., 2008). These technological characteristics of SNS inherently tend to show a user's actual self.

Along with technological characteristics, social characteristics of SNS engendered by its purpose and features should also be considered in understanding virtual self-construction. As the virtual self constructed in SNS includes a significant amount of real-world information, such as that mentioned above, and the majority of a user's audience already knows who the user really is, users may well be

concerned that significant departures from their actual self could be perceived as exaggeration and even deception (Zhao et al., 2008). When future face-to-face communication is anticipated, users might be more likely to take the strategy of showing their actual selves for reasons of credibility rather than taking the risk of misrepresenting themselves (Ellison et al., 2006). Besides, the user's audience provides feedback in the form of comments, which also constitute part of the virtual self that is constructed in SNS (Zhao et al., 2008). Therefore, technological and social characteristics of SNS will put the virtual self in SNS under the significant influence of the actual self. Therefore, this study hypothesizes the following :

H1 : SNS users' virtual selves are closer to their actual selves than to their ideal selves.

2. Postings as the Way to Narrow the Gap between Ideal and Virtual Selves in SNS

As self-presentation is the act of narrowing the gap between one's actual and ideal self by controlling the self-image to appear closer to one's ideal self (Baumeister, 1982; Leary & Kowalski, 1990; Schlenker, 1980), virtual self-presentation in SNS strives for the same goal (Gonzales & Hancock, 2011) : the users of SNS want their virtual selves to represent their ideal selves. The technological and social environment of SNS, however, is designed to reveal much of the users' personal identity information (Gross & Acquisti, 2005), inherently disclosing users' actual rather than ideal selves. For a presentational means to effectively convey a presenter's ideal self, it has to be under the presenter's control and evoke desired responses from others (Higgins, 1987). In this sense, some features, such as profiles being built around fixed real-world identities, are not good candidates for achieving the intended goal.

There are, however, technological means that can satisfy the conditions of an effective means : postings. Postings are a method of virtual self-presentations in social technology and significantly represent the user's self-concept in its actual and ideal sense (Min & Lee, 2011). Because they are more likely to elicit the expected responses from audiences (Vazire & Gosling, 2004), they thus provide a way to control and present users' desired self-images.

More specifically, there are three types of postings that can be characterized by which aspect of the self in one's self-concept they represent. Self-concept refers to the understanding of the existence and properties of a separate self and its characteristics (Harter, 1983) and is composed of three levels of self : personal, relational, and collective (Brewer & Gardner, 1996). The personal self emphasizes an individual's uniqueness, values self-interest, and pursues personal preferences, freedom, and

independence; the relational self values responsiveness to others and harmony in relationships; and the collective self emphasizes the self as a social being and values group welfare and group norms (Brewer & Chen, 2007). Using these terms, then, we can identify three different types of postings : personal postings present the self in a manner related to the presenter's personal self; relational postings present the self with respect to how the presenters are related to others; and collective postings, which usually target a broader audience than personal and relational postings, present the presenter's self-concept as a social being (Min & Lee, 2011).

Since the locus of self-presentation of the personal self, as noted earlier, is on an individual's uniqueness, values, freedom, and independence, personal postings freely describe the self in users' own terms (Brewer & Chen, 2007). Therefore, they are a direct way for users to tell about themselves to others, offering more control over representing the users' self in the way they want. Therefore, personal postings can fit well into the goal of constructing a virtual self resembling an ideal self; more personal postings mean less of a discrepancy between one's virtual and ideal self. To verify this, this study separates those users whose level of ideal-virtual discrepancy is low from those whose level of ideal-virtual discrepancy is high to examine whether the former show more personal postings, as in the following hypothesis :

H2a : The group of SNS users whose level of ideal-virtual discrepancy is low shows more personal postings than the group of SNS users whose level of ideal-virtual discrepancy is high.

The relational and collective selves represented in relational and collective postings see and present themselves in terms of their relations with others and groups and emphasize their existence as social beings (Andersen, 2002). When individuals display and control their self-images, they use the summarization of one's relation to the world as the source of the descriptions about themselves (Higgins, 1996), implying that relational and collective postings, which represent their self in a social context, are effective in controlling their self-images in SNS. Furthermore, the shared relational and collective values represented in relational and collective selves are an important source of building ideal self (Brewer & Chen, 2007). This observation leads to the following two hypotheses :

H2b : The group of SNS users whose level of ideal-virtual discrepancy is low shows more relational postings than the group of SNS users whose level of ideal-virtual discrepancy is high.

H2c : The group of SNS users whose level of ideal-virtual discrepancy is low shows more collective

postings than the group of SNS users whose level of ideal-virtual discrepancy is high.

The reason for distinguishing among the type of postings is that individuals do not randomly show their self-images but strategically select and manage them depending on situational demands (Goffman, 1959; Leary & Kowalski, 1990). Particularly, where social desirability significantly penetrates an environment such as SNS (Walther, Heide, Hamel, & Shulman, 2009), individuals' wish to be seen as socially desirable leads to careful selection of self-images and results in effortful self-presentation that demands more resources for controlling these self-images (Vohs, Baumeister, & Ciarocco, 2005). Thus this study will also investigate how individuals choose certain types of postings over others to control the delivery of their ideal self-images to minimize their presentational efforts and the level of ideal-virtual self-discrepancy in the SNS context.

Relational and collective postings are effective forms of constructing a user's best self in his or her relations with others. At the same time, however, they limit the users' freedom of virtual self-presentation because their ideal relational and collective selves are negotiated and defined in terms of the relationships the users have with other people; that is, they are granulated not only in their own but also others' social reality (Andersen, 2002). Personal postings, in contrast, do not necessarily borrow from other's perceptions and social roles in describing themselves and thus do not necessarily ground users in their social reality (Brewer & Chen, 2007). This difference suggests that among the three types of postings, personal postings are the most effective means for constructing virtual selves that reflect users' ideal selves. Therefore, this study hypothesizes as follows :

H3a : The group of SNS users whose level of ideal-virtual discrepancy is low shows more personal postings than relational postings.

H3b : The group of SNS users whose level of ideal-virtual discrepancy is low shows more personal postings than collective postings.

When people build their self-images in the presence of others, they tend to reflect the values they believe others would want them to have (Schlenker & Leary, 1982). As noted earlier, in SNS in which the presence of others is designed to be felt (Tufekci, 2008), relational and collective postings that present selves in their relations, roles, groups, and social positions can inherently embrace the others' point of view, making both types of postings good presentational means in SNS. There is, however, a difference in the target audience of the two : the one for relational postings is specific others in

existing relationships, while the one for collective postings is a relatively more general public (Min & Lee, 2011). That SNS activities are usually directed toward the group of people the users personally know (DiMicco & Millen, 2007) suggests that the feeling of the presence of others, which is part of SNS design to encourage use, is augmented when constructing a virtual self with relational postings. Therefore, the following hypothesis is posed :

H3c : The group of SNS users whose level of ideal-virtual discrepancy is low shows more relational postings than collective postings.

IV. Research Method

1. Measurements

A survey was conducted to test the hypotheses. First, how each respondent perceived his or her actual, ideal, and virtual self was measured using the Big Five dimensions of personality. To prevent fatigue among respondents, a ten-item personality inventory was adopted (TIPI) (Gosling, Rentfrow, & Swann, 2003). To calculate the discrepancy respondents feel between their ideal and virtual selves, the study used the method of comparing the extent rating of each self-attribute as suggested by Higgins, Shah, and Friedman, (1997). Each item related to the ideal self was subtracted from the corresponding item on the virtual self and all the differences in scores as absolute values were summed for ideal-virtual discrepancy. For personal, relational, and collective postings, items developed by Min and Lee (2011) were used. All items are measured by a seven-point Likert scale with responses that ranged from “strongly disagree” to “strongly agree.”

2. Data Collection

Cyworld (www.cyworld.com) was chosen as the site for collecting data using a survey method. Users of Cyworld can make their profile with personal information and keep a profile history. They can use friend recommendations, link friends, and check their status and updated news, and friends can leave messages on their postings and also on their main page to provide a short introduction by a friend. The functions for postings provide a rich environment for making postings. Users of Cyworld

can write whatever they want without any space limitations, categorize and tag postings, and use specific features such as photolog, permalink, and diary.

Cyworld is a dominant SNS in Korea. It has over 21 million users for its SNS service, and ninety-six percent of all Koreans in their 20s are known to use Cyworld, forming the majority of Cyworld users. To reflect the demographic characteristics of Cyworld in the study, 124 college students were recruited under the administration of a classroom instructor. After removing two responses with missing values, 122 responses were used for further analysis. Table 1 shows the demographic profile of the respondents.

<Table 1> Demographic information of respondents

Item	Category	Frequency (Percentage)
Gender	Male	82 (67.2%)
	Female	40 (32.8%)
Age	Less than 20 years	2 (1.6%)
	20 - 25 years	85 (69.7%)
	25 - 30 years	34 (27.9%)
	30 - 35 years	1 (0.8%)
Average time of usage per day	Less than 10 minutes	42 (34.4%)
	10 - 30 minutes	43 (35.2%)
	30 minutes - 1 hour	26 (21.3%)
	1 - 2 hours	8 (6.6%)
	2 - 3 hours	3 (2.5%)
Average usage period	Less than 1 month	2 (1.6%)
	1 - 6 months	5 (4.1%)
	6 months - 1 year	5 (4.1%)
	1 - 2 years	20 (16.4%)
	2 - 5 years	82 (67.2%)
	Equal to or more than 5 years	8 (6.6%)
Average number of updates per week	Less than 1 time	69 (56.6%)
	1 time	19 (15.6%)
	2 - 3 times	23 (18.9%)
	4 - 6 times	5 (4.1%)
	7 times	5 (4.1%)
	Equal to or more than 8 times	1 (0.8%)

3. Scale Validation

All dimensions of the Big Five measures were aggregated to calculate a composite measure for each self. Since different items measured different dimensions of personality, a summated measure was used for a composite measure to reduce measurement error and represent multiple facets of a construct. For posting constructs, since each posting is a reflective construct that consists of three items, reliability and exploratory factor analysis was conducted with Varimax rotation before transforming them into a composite measure. The Cronbach's Alpha is 0.870 for personal postings, 0.854 for relational postings, and 0.848 for collective postings, indicating a convergent validity of constructs. The exploratory factor analysis ensured the discriminant validity of constructs as indicated in Table 2. Then items were averaged to obtain a single dependent measure for each construct. The mean value of each construct is presented in Table 3.

〈Table 2〉 Factor loading and cross-loading scores

	Personal posting	Relational posting	Collective posting
Personal posting 1	0.852	0.241	0.176
Personal posting 2	0.870	0.143	0.144
Personal posting 3	0.821	0.191	0.235
Relational posting 1	0.346	0.764	0.046
Relational posting 2	0.133	0.909	0.180
Relational posting 3	0.136	0.840	0.280
Collective posting 1	0.248	0.147	0.804
Collective posting 2	0.187	0.205	0.879
Collective posting 3	0.103	0.127	0.843

〈Table 3〉 Descriptive statistics of actual, ideal, and virtual self

	Actual self	Ideal self	Virtual self	Personal posting	Relational Posting	Collective Posting
Mean	4.3352	5.3984	4.3418	4.2951	4.3770	3.2131
Std dev.	0.56009	0.55566	0.59347	1.42598	1.26836	1.42975

V. Results

To test H1, a paired t-test was conducted to compare the mean value of each self. The result of the paired t-test showed that the difference between actual and virtual selves was not significant ($t=-0.138$, $p=0.891$), while the difference between ideal and virtual selves was significant ($t=17.590$, $p<0.001$), supporting H1.

To compare the differences in posting behavior between two groups to test H2a, H2b, and H2c, first a nonhierarchical clustering using the ideal-virtual discrepancy score was used and then an Analysis of Variance (ANOVA) was conducted. The test of difference in posting behavior between the high ideal-virtual discrepancy group and the low ideal-virtual discrepancy group showed that the two groups actually behave differently in using relational postings and collective postings, supporting H2b and H2c as shown in Table 4.

<Table 4> Descriptive and F statistics of high and low ideal-virtual discrepancy groups

		Personal posting	Relational Posting	Collective Posting
High ideal-virtual discrepancy group (n=44, discrepancy mean = 20.32)	Mean	4.038	3.894	2.856
	Std dev.	1.580	1.443	1.400
Low ideal-virtual discrepancy group (n=78, discrepancy mean = 14.22)	Mean	4.440	4.650	3.415
	Std dev.	1.320	1.076	1.415
		F(1,120) = 2.262 (p=0.135)	F(1, 120) = 10.793** (p<0.001)	F(1, 120) = 4.413* (p<0.05)

To test H3a, H3b, and H3c, three sets of paired t-tests were conducted to compare personal and relational postings, personal and collective postings, and relational and collective postings. The results showed no significant difference between personal and relational postings ($t=-1.509$, $p=0.135$), and thus H3a was not supported. However, the difference between personal and collective postings and the difference between relational and collective postings were significant ($t=6.263$, $p<0.001$, and $t=6.968$, $p<0.001$ respectively), thus supporting H3b and H3c.

In addition, whether there is a difference between the two groups in their self-esteems, amount of

usage per day, and the length of usage period was also tested. There was no significant difference found except in the amount of usage per day ($F(1,120)=9.626$, $p<0.01$). The results show that the group with a lower level of ideal-virtual discrepancy spent more time in SNS, which was rather anticipated because the users in this group engage in relational and collective postings more than the users of the group with higher ideal-virtual discrepancy. The more they are engaged in posting activities, the more time they spend in SNS. The additional test also suggests that the factors that affect the discrepancy between the ideal self and virtual self in SNS are not users' own traits or their experience in SNS but their posting activities, particularly relational and collective postings.

VI. Discussion

The results show that, in general, SNS users' virtual selves presented in SNS resemble their actual selves more than their ideal selves. Because presenting one's ideal self is a basic and universal need (Baumeister, 1982), the study was intended to see which activities can contribute to decreasing the gap between one's virtual and ideal self. The results suggest that users of SNS choose to post relational and collective postings as effective presentational means to build their ideal self into their virtual self, thereby decreasing this gap.

Contrary to the proposed hypothesis, however, the results show that there is no significant difference in personal postings among SNS user groups regardless of the level of their ideal-virtual discrepancy. The possible explanation for this is that since SNS focus on building a network of people, the activity of representing their own ideals in terms likely to be acceptable to people in their relationships and the world around them can make a significant difference in users' building their ideal virtual selves rather than focusing on themselves as separate individuals. In other words, presenters are aware that there are audiences with which they have relationships and therefore may perceive that presenting their ideals with respect to their audiences is a better strategy than presenting their ideals without relating them to those of these audiences. When this activity is successfully realized in relational and collective postings, users may feel that their virtual self well represents their ideal self.

It is worth noting that the results show that the mean of personal postings is higher than 4.0 in both groups and statistically higher than the mean of collective posting. This implies not that personal posting is not an effective means for self-presentation, but instead that self-presentation is intended not only for an audience but also for controlling one's own impression of oneself; personal posting,

therefore, can be regarded as an impression management activity not only for an audience but also for oneself.

VII. Limitations and Future Study

The study has several limitations. First, the majority of the respondents were in their 20s, suggesting the possibility that the results came from the biographical characteristics of users. However, as noted earlier, the demographical characteristics of Cyworld users are not different from the sample in this study. Second, only self-esteem was used for the user's own trait variable because the goal of the study was investigating SNS activities related with constructing a virtual self rather than finding idiosyncratic personal factors that affect SNS activities. Future studies may consider how to find and embrace users' personal characteristics in developing SNS as individuals' influences on social technology increase more than ever. Third, as an early attempt to understand the construction of virtual selves, this study tested how the virtual self is constructed only in a SNS context. As noted earlier, this would undoubtedly be different in contexts with different technological and social characteristics. For example, although SNS users are highly engaged in personal postings, personal postings did not contribute to representing their ideal self in the context of SNS. In the social environment of technology that does not provide high social presence as in SNS, however, the result may be opposite. Future study needs to be conducted in various kinds of social technology to further identify how different social technologies direct and enrich different behaviors.

VIII. Implications

1. Implications for Practice

The findings of this study offer several implications for practitioners. First, although the different kinds of social technology have different purposes and provide different usage environments, users' need to represent their ideal self to others is universal; communicating with others through their true self is part of people's inherent nature (McKenna, Green, & Gleason, 2002). Therefore, social

technology providers, including SNS providers, should consider how to embrace users' ideal selves in their technology's design and purpose. This might be the key to distinguishing a provider from similar competitors. Where many different kinds of social technologies compete for users' limited resources and their services are not entirely exclusive, it is crucial to offer services that attract and motivate users to stay in their technologies.

Second, the findings provide the insight that virtual self-construction is actualized by two different set of functions, one that requires users to put much effort into managing self-presentation and one that does not. For example, postings require relatively more effort to manage and control than does making a profile. This is worth noting not only because it is important to know how users distribute their resources across the particular functions but also because the one that requires less effort will play a dominant role in determining which self the technology inherently enriches; the self that is represented in functions that require less effort significantly affects how the virtual self is shown unless users make further efforts. Therefore, when developing a set of features and services, social technology providers should be mindful that the functions that can capture users' core needs should be easy to use and in line with the purpose of social technology.

Finally, the findings suggest that posting activities satisfy users' needs and make them stay in social technology. From the perspective of social technology providers, posting activities also create additional value as a result. For example, user recommendations in SNS have been highlighted as a new source of information search and propagation because it is generated targeting user's own network and thus highly trustable. Therefore, more posting means a more abundant source of information and more chances for information propagation. For a similar reason, advertising in SNS has gotten increasing attention as a new way to draw customers. The findings of this study show that the more users post, the longer they stay in SNS, which in turn suggests that the longer they stay, the more they will be exposed to an advertisement. Furthermore, SNS such as Facebook have the feature to show what users like to people in their network, meaning that one user liking the advertisement leads to exponentially increased exposure of that advertisement. The findings of this study suggest that providing more flexible and manageable features to represent users' ideal self in postings may be the way to enrich posting activities.

2. Implications for Theory

This study offers important theoretical implications. First, it attempts to see user activities in social technology from the perspective of constructing and presenting the self. Although the more immediate

purpose of social technology is building a network and bonds among people, all the activities for this purpose start with constructing who a user is and presenting it to others. Therefore, this study delves into the users' basic needs and provides a way to understand user activities regarding them. This approach will help us understand the deeper meaning of social technology use.

Second, the findings also suggest that SNS provides its own technological and social environment for users and guides their activities explicitly and implicitly. For example, in the context of SNS in which much personal information is revealed and strong social presence exists, users' activities that require less effort may operate to show their actual self while those requiring greater effort may be more effective at showing their ideal self. Although this behavioral pattern will be different in different kinds of social technologies since they provide different set of technological and social characteristics, this study provides a first step in investigating the link between certain kinds of technological and social environments and certain user activities.

Finally, this study further suggests that technology use is a symbolic action that its users employ to make sense of their environment. In this study, the interaction between users and technology determined how their virtually constructed self enlightened others in online space. SNS inherently provides a technological and social environment that is more tailored to showing one's actual self, although users' attempts to use technology to represent their ideal selves can change this inherent characteristic of SNS. Therefore, the direction of the dynamic is not one-directional but bi-directional as the interplay between technology and users determines their online activities. We are living in an era in which information technology is everywhere, and the way people perceive technology has changed. Information technology is used not only in organizations to improve the task performance but also in cars, televisions, even shoes; it is changing how we live our daily lives. Social technology, in particular, is changing how we communicate with others. With it, we communicate what used to belong to the realm of the private, such as what we think, feel, and do, in a larger and more open space, diluting the boundaries between personal and social, physical and virtual, and private and public. It becomes as symbolic a complement of our daily communication as gestures and fashion. To the question of whether this change in our daily life is a result of the technology that enables it or the people who actually use and control it, the findings of this study suggests it is the ultimate result of an active and changing interplay between technology and people.

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국문초록

소셜 네트워크 사이트에서의 가상의 자신 구현 : 사용자와 정보 기술 간의 상호작용 연구

민 진 영

소셜 네트워크 사이트로 대표되는 소셜 기술(Social Technology)은 그 디자인에서부터 개개의 사용자를 중심에 놓고 온라인 공간에서 사용자가 자신을 보여주고 드러내는 것을 지원하게끔 만들어져 있다. 개개인이 자신의 이상적인 모습을 다른 사람들에게 보여주고 싶어하는 것은 인간의 기본적인 욕구임에도 불구하고 현실 세계에서는 표정, 몸짓 같은 여러 가지 환경적 제약조건으로 이것이 용이하지 않다. 온라인 공간에서는 이러한 물리적 제약조건이 현저히 줄어들므로 자신의 이상적인 모습을 보여주는 것이 용이하다고 알려져 있으나 실제로 모든 사용자가 자신의 가장 이상적인 모습을 드러내는 활동을 하지는 않는 이론과 현실의 괴리를 보이고 있다. 따라서 본 연구는 이러한 현상의 근원을 소셜 기술의 사회적, 기술적 특징에서 구하고자 한다. 더불어 이러한 소셜 기술의 특징 하에서 사용자가 어떤 활동을 통해 자신의 이상적인 모습을 보여주고자 하는지도 살펴보았다. 이를 위해 본 연구에서는 소셜 네트워크 사이트(SNS)를 소셜 기술의 연구 대상으로 삼고 SNS의 내재적 특징은 사용자의 현재의 모습을 보여주는 데 더 적합하도록 되어 있으나 사용자는 각종 포스팅 활동을 통해 자신의 이상적인 모습을 반영하려 한다고 가정하였다. 본 연구의 결과는 SNS 사용자들이 실제로 SNS에서 구현된 가상의 자신이 자신의 현재 모습과 더 가깝지만 포스팅 활동을 통해 자신들의 이상적 모습을 SNS 상에서 가상의 자신 속에 통합하는 것으로 드러났다. 특히 사람들 간의 관계에서의 역할을 중시하고 그것에 대해 포스팅 하는 관계적 포스팅과 사회적 존재로서 대중의 이해를 반영하는 집단적 포스팅은 이상적 모습을 보여주는 중요한 수단으로 사용됨을 보여주었다. 이러한 연구 결과는 소셜 기술에서 구축되고 각종 활동의 주체이자 접점이 되는 가상 세계에서의 사용자 모습이 단순히 기술만을 통해서 실현되지도 않고 사용자 활동으로만 전적으로 구축되지도 않으며 기술과 사용자 두 주체의 상호작용에 의해서 만들어진다는 것을 시사한다. 더불어 사용자는 가능한 자신이 생각하는 이상적인 모습으로 온라인 공간에서 존재하고 싶어하기 때문에 사용자 개개인과 접합성이 고려되지 않은 SNS에서의 일괄적인 광고 노출 및 연결은 오히려 거부감을 낳을 수 있다는 것을 제언한다.

주제어 : 현재의 자신, 이상적 자신, 가상의 자신, 소셜 기술, 소셜 네트워크 사이트