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THE INFLUENCE OF SOCIAL PRESENCE ON VIRTUAL COMMUNITY PARTICIPATION: THE RELATIONAL VIEW BASED ON COMMITMENT-TRUST THEORY

(Research-in-Progress)

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Abstract

Virtual communities constitute an online environment that offers not only a new form of communication through which community members share information and interact with each other, but also an arena in which members develop social relationships. Prior research on the conceptualization of social presence, the degree to which a person is perceived as real in a mediated communication, results in two lines of perspectives. The media richness view conceives social presence as a media attribute while the relational view considers social presence as a quality of relational systems, emphasizing the relational aspects of communication. Drawing upon the relational view of social presence, this research incorporates the commitment-trust theory to investigate the influence of social presence on virtual community members’ continual participation. Moreover, this research considers sense of virtual community (SOVC) as the mediator between social presence and virtual community participation. The contributions of this research are three-fold. First, this research contributes to social presence literature by focusing on the social relational aspects of communication that are dependent on the participants rather than on the medium. Second, this research examines the role and importance of social presence in SOVC and virtual community participation. Lastly, it helps clarify how social presence contributes to continual participation in virtual communities.

Keywords: Virtual community, social presence, commitment-trust theory, sense of virtual community, continual participation.
1 INTRODUCTION

The advance of Internet technologies has contributed to the development and proliferation of virtual communities in which Internet users participate to develop personal relationships or to further seek business opportunities (Fernback and Thompson, 1995). Virtual communities also form an arena that offers a new form of communication whereby community members can share information and knowledge for mutual learning or problem solving (Lechner and Hummel, 2002).

To foster computer-mediated communication proficiency in telecommunication systems and online learning (Biocca et al., 1995; Gunawardena and Zittle, 1997; Kehrwald, 2008; Kreijns et al., 2004; Mykota and Duncan, 2007; Richardson and Swan; 2003), social presence emerges as an important determinant of community participation. Social presence is first proposed by Short et al. (1976) and refers to the extent that a medium allows users to experience others as psychologically present (Fulk et al., 1987). This conceptualization results in two lines of social presence research. The media richness view sees social presence as a media attribute that reflects the media’s capacity to convey the mediated experience to be perceived as non-mediated, usually using face-to-face interaction as a benchmark (Kehrwald, 2008; Short et al., 1976). The relational view, in contrast, considers social presence as a quality of relational systems, emphasizing the relational aspects of communication.

The relational view is especially important for the study of virtual communities. Virtual communities differ from conventional communities in that the former focus on nurturing interpersonal relationships on a digital platform, that is, the Internet (Guo et al., 2010). In relationship development, trust and commitment are the most prominent factors in the formation, development, and maintenance of interpersonal relationships (Li et al., 2006). Few studies, however, have linked the commitment-trust theory (Morgan and Hunt, 1994; Rusbult, 1983) with social presence research to investigate virtual community members’ participation behaviors. To address this gap, the investigation of the influence of social presence on virtual community participation, through the relational view of commitment-trust theory, is needed and would contribute to this area of study.

Moreover, to further identify the causal relationship between social presence and participation of virtual community members, this research considers sense of virtual community (SOVC) (Blanchard, 2007; Blanchard, 2008; Koh and Kim, 2003-4) as the mediator between social presence and virtual community participation. Prior research has identified sense of community (SOC) as an important feature of face-to-face communities (Chipuer and Pretty, 1999; McMillan and Chavis, 1986; Obst and White, 2004). While some researchers have considered SOVC in virtual communities (Blanchard and Markus, 2004; Koh and Kim, 2003-4; Roberts et al., 2002), few have carefully examined its role in the development and maintenance of social relationships in virtual communities.

Therefore, to understand the factors that contribute to successful virtual communities, this research intends to investigate the influence of social presence on continual participation in virtual communities by incorporating the commitment-trust theory and the SOVC construct. The aim of this research is not only to investigate the value of social presence in social relationship in virtual communities but also to examine the mediating effect of SOVC between social relationship factors and continual participation in virtual communities. That is, this research argues that social relationship with the presence of social presence enhances SOVC. With stronger and enhanced SOVC, members tend to show higher satisfaction for and deeper participation in virtual communities.

Based on the above discussion and motivation, the research question is described as “how social presence, through social relationship development of commitment and trust, enhances SOVC and further contributes to the continual participation of community members?” The contributions of this research are three-fold. First, prior research has investigated social presence in the context of computer-mediated conferencing (Gunawardena and Zittle, 1997; Gunawardena, 1995), distributed or online learning (Hughes et al., 2007; Kreijns et al., 2004; Richardson and Swan, 2003), and virtual team collaboration and productivity (Andres, 2002). In the online context, however, the issues
examined primarily center on online shopping and website design (Fortin and Dholakia, 2005; Gefen and Straub, 2004; Hassanein and Head, 2005-6; Holzwarth et al., 2006) and on trusting beliefs or behavior of community members (Hess et al., 2009; Chen et al., 2008). Yet, the investigation into the effect of social presence on continual participation of virtual community members, through social relationship development and the mediation of SOVC, is scarce. This research fills this gap by examining the role and influence of social presence in the virtual community context.

Second, this research contributes to social presence research by focusing on the relational aspects of communication that are dependent on the participants rather than on the medium. As described earlier, earlier researchers conceive social presence as a media attribute (e.g., Daft and Lengel, 1986; Short et al., 1976; Daft et al., 1987), in which media are compared with one another and determined to be more or less rich to support communicative tasks. Although some researchers investigate social presence from the perspective of relational aspects of communication (e.g., Shin, 2002), few address the issue of continual participation in virtual communities from this viewpoint. The incorporation of the commitment-trust theory contributes to the understanding of the relational aspects of social presence in virtual communities.

Lastly, the research model helps clarify how social presence contributes to continual participation of virtual community members. Moreover, SOVC have gained attention in research on virtual communities, yet most research focuses on its antecedents (e.g., Blanchard, 2008; Koh and Kim, 2003-04) or the comparison with SOC (e.g., Blanchard and Markus, 2004; Obst, Zinkiewicz, and Smith, 2002b). This research focuses on the mediating role of SOVC between social presence and the behavioral consequences, therefore further advances this line of research.

This paper is structured as follows: Section 2 discusses theoretical background of this research, covering social presence theory, commitment-trust theory, and relevant literature on SOVC. Section 3 presents the research model and Section 4 describes the research methodology. The expected contributions of this research are described in Section 5.

2 THEORETICAL BACKGROUND

2.1 Social Presence

Social presence derives from the concept of presence, which is defined as the perceptual illusion that “a mediated experience is not mediated” (Lombard and Ditton, 1997) or the extent to which mediated communications seem unmediated (Kumar and Benbasat, 2002; Selverian and Hwang, 2003). Social presence represents “the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” (Short et al., 1976, p. 65). Following this conceptualization, prior research regards social presence as a subjective quality of the communications media (e.g., Fortin and Dholakia, 2005; Gefen and Straub, 2003; McGrath, 1990) that reflects the media’s ability to approximate the characteristics of face-to-face interactions (Hackman and Walker, 1990).

The above conceptualization of social presence represents the media richness view, which focuses on the ability of media to convey necessary information for the mediated communication to be perceived as real or unmediated. In this view, face-to-face interaction is the benchmark form of interaction that possesses the highest level of social presence. A rich medium, which is perceived to be higher in social presence, has better ability in substituting face-to-face interactions and still achieves the desired collaborative outcome (Stein and Wanstreet, 2003). The implication of this media richness view is that users are aware of the degree of social presence of each medium and tend to avoid interactions that require a higher sense of social presence in media which lack such capacity (e.g., Carlson and Davis, 1998; D’Ambra et al., 1998; Daft et al., 1987).

As technologies evolve, researchers have also noted the limitation of defining social presence as a media attribute (Johansen et al., 1988; Rafaeli, 1988; Walther, 1992) and focus on it’s value in
relational systems (Shin, 2002). From the perspective of the relational view, social presence is defined as “an individual’s ability to demonstrate his/her state of being in a virtual environment and so signal his/her availability for interpersonal transactions” (Kehrwald, 2008, p. 94). A number of studies have adopted this view and investigated the issues of the sense of one’s ability to perceive others through mediated interactions (Collins and Murphy, 1997), the degree of ‘tangibility and proximity’ of others within a communicative context (McLeod et al., 1997), affective connection in computer-mediated communications (Swan and Shih, 2005), comparison of relational effects in computer-mediated and face-to-face communications (Walther, 1995), and ability of learners to project themselves socially and affectively into a community of inquiry (Rourke et al., 2001).

With the growing importance of the online environment, researchers have drawn on social presence theory to investigate the effects of infusing a sense of human warmth and social interaction in the Web environment (Hassanein and Head, 2005-6; Hess et al., 2009; Holzwarth et al., 2006; Li et al., 2006). Other topics investigated cover the effect of social presence on the usage of telecommuting systems (Venkatesh and Johnson, 2002), on information sharing in computer-mediated communication (Miranda and Saunders, 2003), and on customer trust and satisfaction in e-commerce (Gefen and Straub, 2004; Holzwarth et al., 2006; Kumar and Benbasat, 2002). Shen and Khalifa (2008) have also conceptualized social presence as a multidimensional construct and integrate social presence theory with motivational theory to explain virtual community participation.

2.2 Commitment-Trust Theory

Among the various forms of online participation on the Internet, virtual communities have provided social outlets for Internet users to develop new or strengthen existing interpersonal relationships. The commitment-trust theory of Morgan and Hunt (1994) focuses on the joint roles of commitment and trust in building and maintaining successful relationships. According to Morgan and Hunt (1994), relationship commitment is “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it” (p. 23). Trust exists “when one party has confidence in an exchange partner’s reliability and integrity” (p. 23). Morgan and Hunt’s (1994) conceptualization of trust is similar to the definition of “a willingness to rely on an exchange partner in whom one has confidence” (Moorman, Deshpandé, and Zaltman, 1993, p. 82). The only difference is that Moorman et al. (1993) argue that behavioral intention of “willingness” is a critical facet of trust, while Morgan and Hunt (1994) assert that such willingness to act is implicit in their conceptualization because the confidence in another party’s reliability would imply one’s intention to rely on him/her.

Morgan and Hunt (1994) have developed the key mediating variable (KMV) model, which position commitment and trust as key mediators between five antecedents (relationship termination costs, relationship benefits, shared values, communication, and opportunistic behavior) and five outcomes (acquiescence, propensity to leave, cooperation, functional conflict, and decision-making uncertainty). Highly committed individuals tend to express a long-term orientation toward the relationship to be developed (Li et al., 2006). Trust has a positive impact on and is a major antecedent of relationship commitment (Morgan and Hunt, 1994; Walter et al., 2000). It exists when one believes that the other party is trustworthy and is confident about that party’s future behavior (Li et al., 2006; McAllister, 1995). Commitment and trust are important in the formation, development, and maintenance of interpersonal relationships and are necessary for pro-relationship behaviors and motivations (Morgan and Hunt, 1994; Rusbult et al., 1999).

For interaction with a website, commitment to and trust in the website are especially important to understand why a user sticks to the website (Li et al., 2006). A relational view that aims to examine social and psychological factors (such as trust) in online interactions or relationship development has also emerged in e-commerce research literature (e.g., Gefen and Straub, 2003; Gefen and Straub, 2004; Hassanein and Head, 2005-6; Mukherjee and Nath, 2007). Moreover, Chen et al. (2008) and Guo, Shim, and Otondo (2010) specifically focus on trust issues in virtual communities and social networking service websites. Based on the relational view of online interactions, this research extends
from past studies by incorporating the commitment-trust theory to examine the influence of social presence on virtual community participation.

### 2.3 Sense of Virtual Community

As the Internet revolution leads to the proliferation of virtual communities, which provide a new form of communication whereby community members interact to share information and knowledge for mutual learning or problem solving (Lechner and Hummel, 2002), sense of virtual community (SOVC) has gained researchers’ attention. SOVC derives from sense of community (SOC) (McMillan and Chavis, 1986; McMillan, 1996) and is defined as “the individual’s feelings of membership, influence, and immersion toward a virtual community” (Koh and Kim, 2003-4, p. 77). Drawing from McMillan and Chavis’ (1986) conceptualization of SOC, Koh and Kim (2003-4) define the three dimensions of SOVC, namely membership, influence, and immersion. Each of these dimensions represents the affective, cognitive, and behavioral aspects of SOVC, respectively. Blanchard (2008), however, argues that Koh and Kim’s (2003-4) inclusion of the immersion dimension makes the final measure different and is not used in any other conceptualizations of SOC or SOVC. In contrast, Blanchard (2007) develops a SOVC measure that demonstrates the increased content validity and sensitivity over the traditional measure of face-to-face SOC in virtual communities. Blanchard (2008) further uses the eighteen items developed by Blanchard (2007) to test a model that includes group norms as the mediator between the antecedents (i.e., supporting and identifying each other in the virtual communities) and the members’ SOVC.

Through a qualitative study, Roberts et al. (2002) find that participants who use text objects to interact in a chat room setting experience SOVC. Blanchard and Markus (2004) examine SOVC in Multiple Sports News Group (MSN). Besides demonstrating that SOVC had developed in MSN, they find similarities to and differences in the dimensions of McMillan and Chavis’ (1986) SOC, compared with those found in non-virtual communities. Because of the differences between electronic and face-to-face communication, three important aspects of MSN’s SOC, creation of identity, identification of other members, and relationships with individual community members, do not figure in McMillan and Chavis’ (1986) framework. With respect to the behavioral processes that contribute to SOVC, the exchange of support process is similar to that found in non-virtual communities, while the other two processes, creation of identity/making of identifications and the production of trust, seem to be specific to virtual communities.

SOVC has been an important topic for virtual community researchers. For example, Xu et al. (2009) investigate the antecedents of SOVC in the context of QQ group, which is a virtual community network based on QQ, the most popular instant messaging system in China. They indicate that perceived usefulness, perceived ease of use, and perceived enjoyment lead to membership and influence, and perceived enjoyment and exchanging support contribute to immersion. Perceived ease of use, however, negatively impacts immersion. Huang et al. (2009) indicate the moderating effects of SOVC on the relationship between perceived influence of electronic word of mouth (eWoM) and online members’ intention to disseminate word of mouth (WoM). Moreover, Ellonen et al. (2007) explore the presence and development of feelings of membership in an active virtual community called Baby and Pregnancy community (BAP). Through a qualitative case study, they find needs, similarity with other members, and impersonal trust as three main antecedents of SOVC.

### 3 RESEARCH MODEL

Focusing on the relational aspect of social presence, the research model incorporates the commitment-trust theory to investigate how social presence influences SOVC, which further leads to continual participation in virtual communities, directly and indirectly through satisfaction with the virtual community. The research model of this research is shown in Figure 1.
Trust and commitment are two important factors in the formation, development, and maintenance of interpersonal relationships (Morgan and Hunt, 1994; Rusbult et al., 1999). Therefore, following the commitment-trust theory, the research model incorporates trust and commitment as two important factors determining SOVC. The commitment-trust theory suggests that trust and commitment are key factors mediating successful relationship marketing. It is believed that when one has trust on a virtual community and is willing to commit to the relationship with that community, his or her SOVC will be stronger. The enhanced SOVC further leads to increased satisfaction toward and continual participation in the community. Empirical studies such as Li et al. (2006) have also confirmed the relational perspective in the online environment. Support for the relational view of online interaction motivates this research to investigate how social presence fosters virtual community participation through social relationship development of trust and commitment.

Despite the wide acceptance of McMillan and Chavis’ (1986) framework, prior research has shown differences in the components of SOC. For example, research has indicated that influence may not be as important in SOVC as in SOC (Blanchard and Markus, 2004; Obst, Smith, and Zinkiewicz, 2002c). Such difference may come from the specific nature of interaction in the online environment (Blanchard and Markus, 2004). For example, because of the anonymity feature in the online environment, virtual community members may be less likely to be aware of their own influence or the influence of others and tend to recognize specific individuals and develop relationships with them to feel a SOVC (Blanchard, 2008). This motivates this research to investigate the role of SOVC in virtual community participation.

4 RESEARCH METHODOLOGY

4.1 Online Survey

This research will follow a survey approach, targeting at those who have experiences in virtual community participation. The sampling frame covers Internet users who are currently users of one or more virtual communities.

This research plans to conduct online surveys for data collection. The online mode of data collection is selected because of its expediency in data collection, ease of data tabulation, and ability to reach a wide population of users (Bhattacherjee, 2002). The announcement for the online survey will be posted in the major virtual communities in Taiwan (a ranking list of these websites is available from http://blog.awoo.com.tw/2010/03/website100/). In order to increase the number of participants in this survey, those who finish filling in the questionnaire will be entitled to enter a lottery. To avoid
duplicate registration in the survey, the IP address as well as identity information of each respondent need to be recorded to filter out attempts at opportunism.

4.2 Pretest and Pilot Test

To ensure face validity and content validity of the questionnaire, the draft version will be reviewed by field experts (i.e., operators of virtual communities) and virtual community participants. The purpose of this pretest phase is to ensure the appropriateness and readability of the final questionnaire. Modifications in semantic wording or expression will proceed if suggested. Based on the comments and suggestions, the questionnaire will be improved in terms of clarity and readability and adopted for the online survey. After the questionnaire is finalized, a pilot test will be carried out. The pilot test can be used to test the quality of the instrument. The identities of the pilot test participants will also be recorded to avoid duplicate participation in the final survey.

To test the quality of the instrument, several analyses will be carried out. Confirmatory factor analysis will be performed to examine the measurement model. Internal consistency can be assured by examining the composite reliability of the constructs (Fornell and Larcker, 1981). All composite reliability values must surpass the suggested threshold value of 0.7 (Hair et al., 1998; Nunnally, 1978). Convergent validity refers to the degree to which multiple items measure one construct and can be evaluated by checking (1) whether the average variance extracted (AVE) values are larger than 0.5 (Fornell and Larcker, 1981) and (2) whether the factors loadings of the all items are significant and higher than 0.5 (Nunnally, 1978). Finally, discriminant validity tests whether the measures of constructs are different from each other. Discriminant validity can be assessed by examining whether the square root of AVE of each construct is larger than the correlation between constructs (Chin, 1998; Fornell and Larcker, 1981).

5 EXPECTED CONTRIBUTIONS

This research investigates the influence of social presence on continual participation of virtual community members. The uniqueness of this research is the incorporation of the commitment-trust theory to reflect the relational nature of social presence in determining continual participation in virtual communities. This research makes the following contributions. First, it sheds light on social presence research by focusing on the relational view and its influence on virtual community participation. The media richness view of social presence fails to recognize the relational component in virtual community participation. This research fills this vacancy by introducing the commitment-trust theory to address the issue of social relationship development in virtual communities.

Second, although prior research has attempted to investigate social presence in the online context, few specifically focus on the issue of continual participation in virtual communities. Shen and Khalifa (2008) may be an exception, but their primary concern is the multidimensional structure of social presence. As virtual communities differ from other computer-mediated communication tools in terms of the modes of social interaction, it warrants the value of this research in addressing the role and importance of social presence.

Third, as described earlier, most research on SOVC focuses on its antecedents or the comparison with SOC. This research advances the line of research on virtual community by illustrating the mediating role of SOVC between social presence and continual participation of virtual community members. This research contributes to the literature by providing an integrated view of the influences of social presence, the social relationship development, and the participants’ SOVC on the success of virtual communities.
References


