

Understanding the Individual Difference Antecedents of Perceived Enjoyment in the Acceptance of Blogging

YI-SHUN WANG

Department of Information Management
National Changhua University of Education
No. 2, Shi-da Road, Changhua 500
TAIWAN

yswang@cc.ncue.edu.tw <http://researcher.nsc.gov.tw/yswang/en/>

HSIN-HUI LIN

Department of Logistics Engineering and Management
National Taichung Institute of Technology
No. 129, Sec. 3, Sanmin Road, Taichung City 404
TAIWAN

brenda@ntit.edu.tw

Abstract: - With the proliferation of Weblogs (blogs) use in university educational contexts, developing a better understanding of university students' knowledge sharing behavior through blogging has become an important topic for practitioners and academics. While perceived enjoyment has been found to have a significant influence on behavioral intentions to use blogs or hedonic systems, few studies have investigated the antecedents of perceived enjoyment in the acceptance of blogging. The main purpose of the present study is to explore the various individual difference antecedents of perceived enjoyment and examine how they influence behavioral intention to blog through the mediation of perceived enjoyment. Based on the previous literature, the Big Five personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience), as well as computer self-efficacy and personal innovation in information technology (PIIT), are hypothesized as potential antecedents of perceived enjoyment in the acceptance of blogging. Data will be collected from respondents in Taiwan to test the research model using structural equation modeling approach. The results of this study will enhance our understanding of students' knowledge sharing behavior through blogging, and provide several prominent implications for e-learning research and practice.

Key-Words: - Weblog, perceived enjoyment, individual difference, Big Five, PIIT, computer self-efficacy

1 Introduction

Weblogs typically describe a personal diary, kept on the Web, which can be edited by an end-user – even one with few Web publication skills (IP and Wagner, 2008). According to Wikipedia [50], a blog (a contraction of the term "Web log") is a Web site usually maintained by a person that includes regular entries of commentary, descriptions of events, or other material such as graphics or video. As a log on the Web, a blog is kept mostly in a reverse chronological order with the latest entry at the top of the web page, and can easily refer to other Internet locations via hyperlinks [22]. The activity of updating a blog is known as "blogging" and someone who keeps a blog is a "blogger."

With the proliferation of social computing, blogs have become one of the most popular social computing applications. Blogs nowadays are

increasingly attracting young people who wish to share their daily activities with their friends and keep up with existing relationships [33]. Thus, there is a need for research to explore the factors affecting users' acceptance of blogging. Prior studies have suggested that perceived enjoyment is a salient predictor of behavioral intention to use blogs or hedonic systems [21][31][32][44]. However, few studies have empirically investigated the antecedents of perceived enjoyment and the mediating role that perceived enjoyment plays in the acceptance of blogging. Benbasat and Barki [11] contend that research should continuously explore the antecedents of beliefs about using information technology (IT) (e.g., perceived usefulness, perceived ease of use, and perceived enjoyment). In fact, previous studies have suggested that individual differences are important antecedents of beliefs about using IT

[3][30][45][46][47]. Further, Hsu and Lin [31] contend that some people may not participate in blogging due to the effort required to start and maintain an active blog, including entering periodic updates. This implies that the behavior of blogging is different from that of reading a blog, and that individual differences and/or personality traits may have a significant influence on perceived enjoyment of and behavioral intentions towards blogging. Therefore, the focus of this study is on understanding the various individual difference antecedents of perceived enjoyment in the acceptance of blogging.

2 Research Model and Hypotheses

The theoretical model underpinning this study is shown in Figure 1. The model suggests that the Big Five personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience), as well as computer self-efficacy and personal innovation in information technology (PIIT) serve as antecedents of the perceived enjoyment of blogging, which in turn is a determinant of the behavioral intention to blog. The following sections elaborate on the constructs that make up the model and the proposed relationships among them.

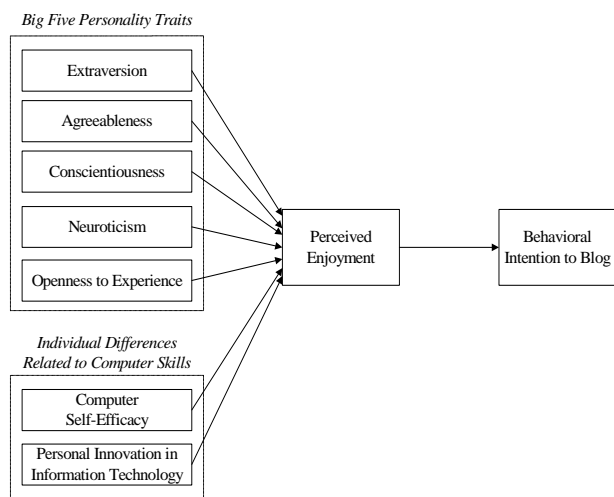


Figure 1: Research model.

2.1 Perceived Enjoyment

Motivation theorists have distinguished between the effects of extrinsic and intrinsic motivation on individual behaviors [18][19]. Intrinsic motivation refers to the pleasure and satisfaction gained from performing a behavior [20], while extrinsic motivation emphasizes performing a behavior to achieve specific goals or rewards [42]. Intrinsic motivators are believed to play an important role in

computer usage. Prior studies have proposed that intrinsic motivators, such as perceived enjoyment can explain the behavioral intention to use information systems[17][44]. Based on Davis et al. [17], perceived enjoyment in this study is defined as the extent to which the activity of blogging is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated.

Prior studies also suggest that perceived enjoyment has a significant influence on behavioral intention to use blogs/hedonic systems [32][43][44]. Given that a blog is a form of a hedonic system, perceived enjoyment is expected to have a salient influence on behavioral intention to blog. Hsu and Lin [31] also provide empirical evidence supporting that perceived enjoyment is positively associated with blog usage intention. Therefore, we posit the following hypothesis:

H1: Perceived enjoyment is positively related to behavioral intention to blog.

While the importance of perceived-enjoyment-related constructs in predicting user intention to utilize IT has been emphasized in prior studies [1][14][17][31][32][39][44], few studies have been conducted to empirically investigate the antecedents of perceived enjoyment in the acceptance of blogging. Furthermore, Agarwal and Karahanna [1] suggest that understanding what causes individuals to hold certain beliefs about the target IT would be of value not only to practitioners responsible for the implementation and deployment of IT, but also to researchers interested in clarifying the paths through which IT use behavior is manifested. Therefore, this study seeks to explore the antecedents of perceived enjoyment and the mediating role that perceived enjoyment plays in the acceptance and use of blogging.

According to the Theory of Reasoned Action (TRA) [8][23] or the Theory of Planned Behavior (TPB) [6][7], external stimuli indirectly influence a person's attitude toward a certain behavior by influencing his or her salient beliefs about the consequences of performing the behavior. Thus, it is believed that external stimuli might influence a person's behavioral intention to blog through the mediation of perceived enjoyment. Individual differences are important external stimuli of the beliefs about using IT [3][30][45][46][47]. Consistent with practice in information systems (IS) research literature [28], individual differences include user factors such as personality and demographic variables, as well as situational variables that account for circumstance-based differences such as experience and training. Individual differences are believed to be most

relevant to both IS success [28] and IT acceptance research [3][30]. Prior research on IT acceptance also supports that individual differences can significantly influence behavioral intention to use IT via beliefs about using IT [30][47][49]. Thus, individual differences are expected to have an indirect effect on blogging intention through their direct effect on perceived enjoyment. Based on the previous literature, this study proposes two categories of individual difference antecedents of perceived enjoyment in the acceptance of blogging: (1) the Big Five personality traits and (2) individual differences related to computer skills. The following sections elaborate on the theoretical foundations and derive hypotheses.

2.2 Big Five Personality Traits

Trait theorists believe that traits result in consistent behavior patterns over time and across situations [51]. Previous research has shown evidence of the ability of traits to predict important behavioral variables without reference to the situation [10]. The Big Five personality factors have been widely accepted in the field of personality research for many years [12][16][34][35], and researchers have argued that no assessment of personality is complete without measuring these five basic factors [5]. Previous research on the relationship between personality traits and Internet use was often based on an examination of the five-factor traits [9][27][36][38][51][26]. As aforementioned, the Big Five personality factors include: (1) extraversion, (2) agreeableness, (3) conscientiousness, (4) neuroticism, and (5) openness to experience. This study extends the exploration of the influence of the Big Five personality traits on perceived enjoyment of blogging. We now briefly describe each trait together with an associated hypothesis.

Extraversion refers to an individual's level of comfort with interpersonal relationships and is characterized by sociability, ambition, warmth, gregariousness, assertiveness and other experiences of positive affect [36]. We suggest that an individual with a high level of extraversion tends to enjoy sharing her/his opinions and life experiences with others, and thus might associate blogging with higher perceived enjoyment than an individual with a lower level of extraversion. Amichai-Hamburger and Ben-Artzi [9] also found that extraversion was positively related to the use of either information or leisure services in the Internet. Thus, the following hypothesis is posited:

H2: Extraversion is positively related to perceived enjoyment of blogging.

Agreeableness refers to an individual's ability to get along with others and is associated with altruism, friendliness, modesty, and the tendencies to be gentle and understanding [36]. Individuals who score high on agreeableness tend to be soft-hearted, trusting, and helpful, whereas those who score low on agreeableness tend to be ruthless, suspicious, and uncooperative [26]. Korukonda [36] also contends that agreeable people tend to be good-natured in their dealings with others, whether they are coworkers, supervisors, or subordinates. Based on the literature, we suggest that individuals with a high level of agreeableness are more likely to enjoy sharing their valuable experiences with others in order to carry out their altruistic behaviors, and thus might associated blogging with higher perceived enjoyment than individuals with a lower level of agreeableness. Therefore, the following hypothesis is proposed:

H3: Agreeableness is positively related to perceived enjoyment of blogging.

Conscientiousness refers to an individual's tendency to be systematic, thorough, careful, responsible, and self-disciplined, as well as to focus on relatively few goals [25]. Thus, individuals who score high on conscientiousness tend to be well-organized, careful, and self-disciplined, as opposed to disorganized, careless, and weak-willed [26]. Landers and Lounsbury [38] found that conscientiousness was significantly and negatively related to the percent of Internet time spent on leisure, whereas it was significantly and positively related to the percent used for academic purposes. This implies that an individual with a high level of conscientiousness tends to avoid spending much time on Internet leisure services such as blogging, and thus might exhibit lower perceived enjoyment of blogging than an individual with a lower level of agreeableness. Thus, the following hypothesis is tested:

H4: Conscientiousness is negatively related to perceived enjoyment of blogging.

Neuroticism refers to an individual's tendency to be worried, temperamental and prone to stress, anger, and hostility (as opposed to its counter-measure of Emotional Stability which implies a tendency to be calm and relaxed) [36]. Individuals who score high on neuroticism tend to be emotionally unstable: they are anxious, insecure, and self-pitying, whereas those who score low tend to be calm, secure, and self-satisfied [26]. Woszczyński et al. [51] suggest that those individuals with a high level of emotional stability are less likely to suffer from computer anxiety, which is characterized by fear, frustration, and nervousness in computer interactions, and further, that individuals who are not anxious in their

computer interactions are more likely to explore how a software package works through a state of flow (playfulness). This implies that neuroticism is negatively related to the perceived enjoyment of using computer software. However, Hamburger and Ben-Artzi [27] found that neuroticism was not related to the use of either social or leisure services in the Internet. Amichai-Hamburger and Ben-Artzi [9] also found that for their entire sample, neuroticism was not related to the use of either social, information, or leisure services in the Internet. Based on these empirical findings, we also argue that neuroticism is not related to perceived enjoyment of blogging, and thus posit the following hypothesis:

H5: Neuroticism is not related to perceived enjoyment of blogging.

Openness to experience refers to a person's receptivity to new ideas and experiences [36]. Individuals who score high on openness to experience are imaginative, prefer variety, and independent, whereas those who score low are down-to-earth, prefer routines, and tend to be conformers [26]. Woszczynski et al. [51] suggest that openness to experience is positively related to both optimum stimulation level (OSL) and cognitive spontaneity in microcomputer interactions, which, in turn, are positively related to the state of flow. This implies that that openness to experience is positively related to the perceived enjoyment of using computer software.

Guadagno et al. [26] contend that blogging is both a form of self-expression as well as a form of online behavior, so it is reasonable to assume that creative individuals who are willing to try new things are also likely to blog. They also found that openness to experience was significantly and positively related to blogging. Based on the above-mentioned results, we suggest that individuals with a high level of openness to experience are more likely to enjoy initial attempts at blogging and thus exhibit higher perceived enjoyment of blogging as compared to individuals with a lower level of openness to experience. Therefore, we test the following hypothesis:

H6: Openness to experience is positively related to perceived enjoyment of blogging.

2.3 Individual Differences Related to Computer Skills

Computer self-efficacy and PIIT appear to be the most researched individual difference antecedents of the beliefs about using IT in the field of information systems [1][30][41][48][49]. Thus, the influences of computer self-efficacy and PIIT on perceived enjoyment of blogging are examined in this study.

Computer self-efficacy refers to individuals' judgment of their capabilities to use computers in diverse situations [15]. Previous IT acceptance research results have confirmed the critical role that computer self-efficacy plays in understanding individual responses to information technology [4][13]. We contend that an individual with a high level of computer self-efficacy is more likely to express confidence in blogging and thus exhibit a higher level of enjoyment perception of blogging than an individual with a lower level of computer self-efficacy. Previous research also suggests that computer self-efficacy/skill is an antecedent of the perceived-enjoyment-related constructs [14][24][29][37][40]. Therefore, we expect computer self-efficacy to have a positive influence on perceived enjoyment of blogging and posit the following hypothesis:

H7: Computer self-efficacy is positively related to perceived enjoyment of blogging.

Personal innovation in information technology (PIIT) is "the willingness of an individual to try out any new information technology" [2]. Agarwal et al. [4] suggest that individuals who score high on PIIT are more likely to seek out stimulating experiences, and demonstrate more confidence in their capacity to use a new technology. Agarwal and Karahannal [1] also contend that individuals who have an innate propensity to be more innovative with computers are more likely to be predisposed to experience episodes of cognitive absorption. Based on the definition of PIIT, we suggest that individuals with a high level of PIIT are more likely to enjoy initial blogging experiences and thus have higher perceived enjoyment of blogging than individuals with a lower level of PIIT. Thus, we test the hypothesis:

H8: PIIT is positively related to perceived enjoyment of blogging.

3 Conclusion

With the proliferation of Weblogs (blogs) use in educational contexts, developing a better understanding of university students' knowledge sharing behavior through blogging has become an important topic for practitioners and academics. This study is to investigate the influence of the Big Five personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) and individual differences (e.g., computer self-efficacy and personal innovation in information technology) on perceived enjoyment of blogging and behavioral intention to blog. The findings of this study can enhance our understanding

of students' knowledge sharing behavior through blogging, and provide several prominent implications for e-learning research and practice.

References:

- [1] Agarwal, R., Karahanna, E., 2000. Time flies when you're having fun: cognitive absorption and beliefs about information technology usage. *MIS Quarterly*, 24(4), 665-694.
- [2] Agarwal, R., Prasad, J., 1998. A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research*, 9(2), 204-215.
- [3] Agarwal, R., Prasad, J., 1999. Are individual differences germane to the acceptance of new information technologies? *Decision Sciences*, 30(2), 361-391.
- [4] Agarwal, R., Sambamurthy, V., Stair, R.M., 2000. Research report: The evolving relationship between general and specific computer self-efficacy -- an empirical assessment. *Information Systems Research*, 11(4), 418-430.
- [5] Aguilar, M.L., Kaiser, R.T., Murray, C.B., Ozer, D.J., 1998. Validation of an adjective Q-sort as a measure of the Big Five personality structure. *Journal of Black Psychology*, 24(2), 145-163.
- [6] Ajzen, I. 1985. From intentions to actions: a theory of planned behavior, in: Kuhl, J., Beckmann, J. (Eds.), *Action Control: From Cognitive to Behavior*. New York: Springer-Verlag, 11-39.
- [7] Ajzen, I., 1998. *Attitudes, Personality and Behavior*. Chicago, Illinois: The Dorsey Press.
- [8] Ajzen, I., Fishbein, M., 1980. *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- [9] Amichai-Hamburger, Y., Ben-Artzi, E., 2003. Loneliness and Internet use. *Computers in Human Behavior*, 19(1), 71-80.
- [10] Barrick, M.R., Mount, M.K., 1991. The Big Five personality dimensions and job performance: a meta-analysis. *Personnel Psychology*, 44(1), 1-26.
- [11] Benbasat, I., Barki, H., 2007. Quo Vadis TAM? *Journal of the Association for Information Systems*, 8(4), 211-218.
- [12] Benet-Martinez, V., John, O.P., 1998. Los Cinco Grandes across cultures and ethnic groups: multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75(3), 729-750.
- [13] Chau, P.Y.K., 2001. Influence of computer attitude and self-efficacy on IT usage behavior. *Journal of End User Computing*, 13(1), 26-33.
- [14] Chung, J., Tan, F.B., 2004. Antecedents of perceived playfulness: an exploratory study on user acceptance of general information-searching websites. *Information & Management*, 41(7), 869-881.
- [15] Compeau, D.R., Higgins, C.A., 1995. Computer self-efficacy: development of a measure and initial test. *MIS Quarterly*, 19(2), 189-211.
- [16] Costa, P.T., McCrae, R.R., 1992. *NEO PI-R Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- [17] Davis, F.D., Bagozzi, R.P., Warshaw, P.R., 1992. Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111-1132.
- [18] Deci, E.L., 1975. *Intrinsic Motivation*. New York: Plenum.
- [19] Deci, E.L., Ryan, R.M., 1985. *Intrinsic Motivation and Self-determination in Human Behavior*. New York: Plenum.
- [20] Deci, E.L., Ryan, R.M., 1987. Accessibility and stability of predictors in the theory of planned behavior. *Journal of Personality and Social Psychology*, 63(5), 754-765.
- [21] Dickinger, A., Arami, M., Meyer, D., 2006. Reconsidering the adoption process: enjoyment and social norms – antecedents of hedonic mobile technology use. *Proceedings of the 39th Hawaii International Conference on System Sciences*.
- [22] Du, H.S., Wagner, C., 2006. Weblog success: exploring the role of technology. *International Journal of Human-Computer Studies*. 64(9), 789-798.
- [23] Fishbein, M., Ajzen, I., 1975. *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- [24] Ghani, J., Supnick, R., Rooney, P., 1991. The experience of flow in computer-mediated and in face-to-face groups, *Proceedings of the 12th International Conference on Information Systems*, 229-237.
- [25] Griffin, R.W., 1999. *Management*. Boston, MA: Houghton-Mifflin.
- [26] Guadagno, R.E., Okdie, B.M., Eno, C.A., 2008. Who blogs? Personality predictors of blogging. *Computers in Human Behavior*, 24(5), 1993-2004.
- [27] Hamburger, Y.A., Ben-Artzi, E., 2000. The relationship between extraversion and neuroticism and the different uses of the

- Internet. *Computers in Human Behavior*, 16(4), 441-449.
- [28] Harrison, A.W., Rainer, R.K., Jr., 1992. The influence of individual differences on skill in end-user computing. *Journal of Management Information Systems*, 9(1), 93-111.
- [29] Hoffman, D.L., Novak, T.P., 1996. Marketing in hypermedia computer-mediated environment: conceptual foundations. *Journal of Marketing*, 60(3), 50-68.
- [30] Hong, W., Thong, J.Y.L., Wong, W.-M., Tam, K.Y., 2002. Determinants of user acceptance of digital libraries: an empirical examination of individual differences and system characteristics. *Journal of Management Information Systems*, 18(3), 97-124.
- [31] Hsu, C. L. and Lin, J. C., 2008. Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation, *Information & Management*, 45(1), 65-74.
- [32] Hsu, C.L., Lu, H.P., 2007. Consumer behavior in on-line game communities: a motivational factor perspective *Computers in Human Behavior*, 23, 1642-1659.
- [33] IP, R.K.F., Wagner, C., 2008, Weblogging: a study of social computing and its impact on organizations. *Decision Support Systems*, 45(2), 242-250.
- [34] John, O.P., Donahue, E.M., Kentle, R.L., 1991. *The Big Five Inventory--version 4a and 54*. Berkeley: University of California, Berkeley, Institute of Personality and Social Research.
- [35] John, O.P., Srivastava, S., 1999. The Big Five trait taxonomy: history, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Springer.
- [36] Korukonda, A.R., 2007. Differences that do matter: a dialectic analysis of individual characteristics and personality dimensions contributing to computer anxiety. *Computers in Human Behavior*, 23(4), 1921-1942.
- [37] Koufaris, M., 2002. Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*, 13(2), 205-223.
- [38] Landers, R.N., Lounsbury, J.W., 2006. An investigation of Big Five and narrow personality traits in relation to Internet usage. *Computers in Human Behavior*, 22(2), 283-293.
- [39] Moon, J., Kim, Y., 2001. Extending the TAM for a world-wide-web context. *Information & Management*, 38(4), 217-230.
- [40] Novak, T.P., Hoffman, D.L., Yung, Y.-F., 2000. Measuring the customer experience in online environments: a structural modeling approach. *Marketing Science*, 19(1), 22-24.
- [41] Thatcher, J.B., Perrewé, P.L., 2002. An empirical examination of individual traits as antecedents to computer anxiety and computer self-efficacy. *MIS Quarterly*, 26(4), 381-396.
- [42] Vallerand, R.J., 1997. Toward a hierarchical model of intrinsic and extrinsic motivation. *Advance Experiment Social Psychology*, 29, 271-360.
- [43] Van der Heijden, H. 2003. Factors influencing the usage of websites: the case of a generic portal in The Netherlands. *Information & Management*, 40, 541-549.
- [44] Van der Heijden, H., 2004. User acceptance of hedonic information systems. *MIS Quarterly*, 28(4), 695-704.
- [45] Venkatesh, V., 2000. Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*, 11(4), 342-365.
- [46] Venkatesh, V., Davis, F.D., 1996. A model of the antecedents of perceived ease of use: development and test. *Decision Sciences*, 27(3), 451-481.
- [47] Wang, H.-Y., Wang, Y.-S., 2008. Gender differences in the perception and acceptance of online games. *British Journal of Educational Technology*, 39(5), 787-806.
- [48] Wang, Y.-S., 2003. The adoption of electronic tax filing systems: an empirical study. *Government Information Quarterly*, 20(4), 333-352.
- [49] Wang, Y.-S., Wang, Y.-M., Lin, H.-H., Tang, T.-I., 2003. Determinants of user acceptance of Internet banking: an empirical study. *International Journal of Service Industry Management*, 14(5), 501-519.
- [50] Wikipedia, 2008. Blog. Retrieved October 22, 2008, from <http://en.wikipedia.org/wiki/Blog>
- [51] Woszczynski, A.B., Roth, P.L., Segars, A.H., 2002. Exploring the theoretical foundations of playfulness in computer interactions. *Computers in Human Behavior*, 18(4), 369-388.