

Using Technology Acceptance Model to Study the User Learning Satisfaction and Knowledge Sharing Willingness in Blog

黃馨誼、晁瑞明

E-mail: 9511066@mail.dyu.edu.tw

ABSTRACT

With the rapid development of information technology and internet, to provide a good e-Learning system and make learners using with satisfaction is one of the successful factors in education. Blog is one of the popular open sources software, because it ' s freedom, sharing and opening have been used in education realm. However, researches about empirically documented the linkage between information technology application and education theory was scant. Therefore, the aim of this research attempts to explore how learner ' s degree of Blog acceptance and knowledge sharing willingness in learning environment. This empirical study involved 127 undergraduate students and conducted to test research model and hypothesis, then tried to get the four conclusions: (1) We offer an assessed model which can be find the key factor effecting learners ' satisfaction and knowledge sharing willingness in Blog learning system. (2) Perceived usefulness is effective key factor of the learning satisfaction. Learning Satisfaction is effective key factor of the knowledge sharing willingness. (3) Moreover, we divided targets into three groups of knowledge sharing types by using cluster analysis, and than utilized the discrimination analysis to identify the validity of cluster analysis. (4) These students of the high learning satisfaction are more willingness of knowledge sharing than students of the normal or low learning satisfaction in Blog learning system.

Keywords : Blog ; Technology Acceptance Model ; Learning Satisfaction ; Willingness of Knowledge Sharing

Table of Contents

封面內頁 簽名頁 授權書	iii	中文摘要	iv	英文摘要	v	誌謝	vi
目錄	vii	圖目錄	xi	表目錄	xii	第一章 緒論	1
1.1 研究背景與動機	1	1.2 研究目的	4	1.3 研究流程	5	1.4 研究範圍與研究限制	6
第二章 文獻探討	7	2.1 Blog相關文獻	7	2.2 科技接受模型	12	2.3 外部變數	16
2.4 學習態度	26	2.5 學習滿意度	29	2.6 知識分享意願	33	第三章 研究方法	38
3.1 研究理論與架構	38	3.2 研究設計	45	3.3 研究假說	49	3.4 變數定義與衡量	53
3.5 統計與分析方法	58	3.6 問卷設計	63	3.7 前測施行與結果分析	66	3.8 確立研究架構	70
第四章 研究結果分析	72	4.1 樣本基本資料分析	72	4.2 因素分析與信度分析	75	4.3 路徑分析與假說檢定	81
4.4 集群分析	92	4.5 區別分析	94	4.6 集群命名	95	4.7 知識分享型態與知識分享意願之分析	97
4.8 學習滿意度與知識分享意願之分析	98	4.9 小節	99	第五章 結論與建議	102	5.1 研究發現與結論	102
5.2 管理與實務意涵	106	5.3 後續研究建議	108	參考文獻	110	附錄	120

REFERENCES

- 1.方興東、劉雙桂(2004)。博客(blog)技術在教育領域的應用研究。2005年10月19日，取自：<http://mail.nhu.edu.tw/~society/e-j/36/36-11.htm>
- 2.王福林(1991)。新制師院學生與師專學生家庭社經地位及其行為、學習成就之調查分析。國立台灣師範大學教育研究所碩士論文，未出版，台北市。
- 3.王保進(2004)。多變量分析套裝程式與資料分析。台北市：高等教育。
- 4.李美慧(2001)。科技接受模式在非同步網路學習系統使用意向之應用。國立中正大學資訊管理學系碩士論文，未出版，嘉義縣。
- 5.李宗哲(2004)。群體共建學習系統上之個人數位筆記本。國立中央大學資訊工程研究所碩士論文，未出版，桃園縣。
- 6.余泰魁、楊淑斐(2005)。線上學習系統使用意向之模式建構與比較分析研究，台灣管理學刊，5(2)，311-338。
- 7.周文賢(2002)。多變量統計分析SAS/STAT使用方法。台北市：智勝。
- 8.林益民、余泰魁(2003)。線上學習行為傾向模式建構與實證，資訊管理學報，10(1)，205-226。
- 9.林克寰(2004)。妳不能不知道的部落格。2005年11月19日，取自 <http://jedi.org/blog/archives/003856.html#entry>
- 10.林淑美(2005)。Blog在課後輔導之應用。國立中央大學資訊工程研究所碩士論文，未出版，桃園縣。
- 11.吳明隆(2003)。SPSS統計應用學習實務。台北市：知城數位。
- 12.吳肇銘(1999)。影響網站使用意向之因素研究—以入門網站為例。國立中央大學資訊管理研究所博士論文，未出版，桃園縣。
- 13.徐暄洵(2004)。以信任、回饋度與知識性質探究知識分享程度關聯性之研究-以高科技知識群聚工作者為例。大葉大學資訊管理

學系碩士論文，未出版，彰化縣。 14.晁瑞明、包冬意、黃馨誼、孫皖傑、陳潔瑩(2006)。Blog輔助情境學習下學習滿意度及知識分享意願之研究 以科技接受模型及自我效能探討之，第二屆台灣數位學習發展研討會，頁42-51，台南市。 15.陳泳成(2003)。以修正後的科技接受模式探討影響「使用者自建系統接受」之因素。國立中山大學 資訊管研究所碩士論文，未出版，高雄市。 16.張春興(1999)。教育心理學：三化取向的理論與實際。台北市：東華書局。 17.張春興(1989)。張氏心理學辭典。台北市：東華。 18.黃恒(1980)。國中教室師生關係現況及其影響因素。國立台灣師範大學教育研究所碩士論文，未出版，台北市。 19.楊惠合(2004)。以科技接受模型探討數位學習滿意度之研究。大葉大學資訊管理學系碩士論文，未出版，彰化縣。 20.楊棍智(2002)。知識分享之研究-以社會交換之觀點。私立義守大學管理研究所碩士文，未出版，高雄縣。 21.鄒景平(2003)。eLearning 心法第126 講：讓blog 為我們加值。2005年10月29日，取自 http://elearning.uline.net/guestbook/dir_show.asp?file=950&mana=0&page=1&area=1 22.蘇崇鉉(2002)。探討自我狀態、自我效能及信念對知識移轉過程影響之研究。大葉大學資訊管理 學系碩士論文，未出版，彰化縣。 23.藝立協(2003)。BLOG 部落格線上出版、網路日誌實作。台北市：上奇科技。 24.Adamson, I. & Shine, J. (2003). Extending the New Technology Acceptance Model to Measure the End User Information Systems Satisfaction in a Mandatory Environment: A Bank ' s Treasury. *Technology Analysis & Strategic Management*, 15(4), 441-455. 25.Anderberg, M. (1973). *Cluster Analysis for applications*. New York: Academic Press. 26.Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. 27.Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior, Action-Control: From Cognition to Behavior. Heidelberg: Springer. 28.Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215. 29.Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147. 30.Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall. 31.Barua, A., Chellappa, R. & Whinston, A. B. (1995). Creating a Collaboratory in Cyberspace: Theoretical Foundation and an Implementation. *Journal of Organizational Computing & Electronic Commerce*, 5(4), 417-442. 32.Barger, J. (1997). Weblog Resources FAQ, Robot Wisdom Weblog. Retrieved April 23, 2005, From <http://www.robotwisdom.com/weblogs/> 33.Binner, P. M., Dean, R. S. & Millinger, A. E. (1994). Factors underlying distance learner satisfaction. *The American Journal of Distance Education*, 4, 232-238. 34.Bhattacharjee, A. (2000). Acceptance of Internet applications services: the case of electronic Brokerages. *IEEE Transactions on systems, Man, and Cybernetics - Part A: Systems and Humans*, 30(4), 411-420. 35.Bock, G. W., Zmud, R. W. & Kim, Y. G. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 29(1), 87-111. 36.Brown, I. T. J. (2002). Individual and Technological Factors Affecting Perceived Ease of Use of Web-based Learning Technologies in a Developing Country. *Electronic Journal of Information Systems in Developing Countries*, 9(5), 1-15. 37.Cao, M., Zhang, Q. & Seydel, J. (2005). B2C e-commerce web site quality: an empirical examination. *Industrial Management & Data Systems*, 105(5), 645-661. 38.Chan, S. C. & Lu, M. T. (2004). Understanding Internet Banking Adoption and Use Behavior: A Hong Kong Perspectiv. *Journal of Global Information Management*, 12(3), 21-43. 39.Compeau, D. R., Higgins, C. A., & Huff, S. (1999). Social cognitive theory and individual reactions to computing technology: A longitudinal study. *MIS Quarterly*, 23(2), 145-158. 40.Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334. 41.Davenport, T. H., & Prusak, L. (1998). *Working Knowledge: How Organizations Manage What They Know*. Boston:Harvard Business School Press. 42.Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003. 43.Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. 44.Du, H. S. & Wagner, C. (2005). Learning with Weblogs: An Empirical Investigation. *Proceedings of the 38th Hawaii International Conference on System Sciences* (pp.1-9). Hawaii. 45.Doll, W. J., & Torkzadeh, G. (1988). The measurement of end-user computing satisfaction, *MIS Quarterly*, 12(2), 259-274. 46.Dougherty, V. (1999). Knowledge is about people not databases. *Industrial and Commercial Training*, 31(7), 262-266. 47.Fishbein, M., & Ajzen, I. (1972). Attitudes and normative beliefs as factors influencing behavioral intentions. *Journal of Personality & Social Psychology*, 21, 1-9. 48.Fishbein, M., & Ajzen, I. (1980). *Understanding Attitudes and Predicting Social Behavior*, New Jersey: Prentice Hall. 49.Fishbein, M. & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley. 50.Flammger, D. M. (1991). Nontraditional students and postsecondary school satisfaction. Master ' s project State University College, Buffalo.(ERIC Document Reproduction Service No.ED:362 077). 51.Fujita-Stank, P. J. & Thompson, J. A. (1994). The effects of motivation and classroom environment on the satisfaction of noncredit continuing education student. ERIC Document Reproduction Service No.ED:3730646. 52.Gefen, D., Karahanna, E. & Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model, *MIS Quarterly*, 27(1), 51-90. 53.Goodhue, D. L., & Thompson, R. L.(1995). Task-Technology Fit and Individual Performance. *MIS Quarterly*, 19(2), 213-236. 54.Hendriks, P. (1999). Why Share Knowledge? The Influence of ICT on Motivation for Knowledge Sharing. *Knowledge and Process Management*, 6(2), 91-100. 55.Hernandez-Ramos, P. (2004). Web Logs and Online Discussions as Tools to Promote Reflective Practice. *The Journal of Interactive Online Learning*, 3(1), 1 56.Herzberg, F. (1959). *The motivation to work*. New York: Wiley. 57.Hegarty, S. (1999). Characterising the Knowledge Base in Education. In *OECD/NSF Seminar on Measuring Knowledge in Learning Economics and Societies*. 58.Hong, K.-S., Ridzuan, A. A., & Kuek, M.-K. (2003). Students' attitudes toward the use of the Internet for learning: A study at a university in Malaysia. *Educational Technology & Society*, 6(2), 45-49. 59.Huang, H. M. & Liaw S. S. (2005). Exploring users ' attitudes and intentions toward the web as a survey tool. *Computers in Human Behavior*, 21(5), 729-743. 60.Hu, P. J. H., Clark, T. H. K. & Ma, W. W. (2003). Examining technology acceptance by school teachers: a longitudinal study. *Information & Management*, 41(2), 227-241. 61.Hsu, M. & Chiu, C. (2004). Predicting electronic service continuance with a decomposed theory of planned behaviour. *Behaviour & Information Technology*, 23(5), 359-373. 62.Hiltz, S. R. (1997). Impacts of College-level course via asynchronous Learning Networks: Some Preliminary Results. *Journal of Asynchronous*

Learn Networks, 1, 1-19. 63.Igbaria, M., & Iivari, J. (1995). The effects of self-efficacy on computer usage. *Omega*, 23(6), 587-605. 64.Ikart, E. M. (2004). A New Theoretical Foundation for the Study of Executive Information Systems Usage in Organisations. WP 04-01, University of Wollongong, Information System Working Paper Series. 65.Justyna, R., & Gregory, R. M. (2001). A Framework for Effective User Interface Design for Web-Based Electronic Commerce Applications. *Proceedings of Information Science*, 462-470. 66.Karahanna, E., Straub, D. W., & Chervany, N. L. (1999). Information technology adoption across time: A cross-sectional comparison of pre-adoption and post-adoption beliefs. *MIS Quarterly*, 23(2), 83-213. 67.Knowles, M. S. (1970). The modern practice of adult education: Andragogy versus eaning and the learning organization : examining the connection between the individual and the learning environment. *Human Resource Development Quarterly*, 9(4), 365-375. 68.Koohang, A. A. (1989). A study of attitudes toward computers: anxiety, confidence, liking, and perception of usefulness. *Journal of Research on Computer in Education Computing Research*, 22(2), 237-250. 69.Lee, J.-S., Cho, H., Gay, G., Davidson, B., & Ingraffea, A. (2003). Technology Acceptance and Social Networking in Distance Learning. *Educational Technology & Society*, 6(2), 50-61. 70.Liaw, S. S. (2002). Understanding user perceptions toward World Wide Web environments. *Journal of Computer Assisted Learning*, 18(2), 139-150. 71.Long, H. B. (1986). Contradictory expectations? Achievement and satisfaction in adult learning, *Journal of Continuing Higher Education*. 33(3), 10-12. 72.Luszczynska, A., Scholz, U. & Schwarzer, R. (2005). The General Self-Efficacy Scale: Multicultural Validation Studies. *The Journal of Psychology*, 139(5), 439-457. 73.Maslow, A. H. (1954). *Motivation and Personality*. New York: Harper & Brothers. 74.Marlow, C. (2004). Audience, structure and authority in the weblog community. *International Communication Association Conference*. (pp.1-9). New Orleans, LA. 75.Martin, C. L. (1988). Enhancing children ' s satisfaction and participation using a predictive regression model of bowling performance norms. *The Physical Educator*, 45(4), 196-209. 76.McPhail, J & Fogarty, G (2004). Predicting senior consumers ' acceptance and use of self-service banking technologies: Test of the extended technology acceptance model. *Proceedings of the sixth Australasian Services Research Workshop*. (pp.199-206). Dunedin, New Zealand. 77.Mitchell, D., (2003). Thoughts about blogs in education. Retrieved March 3, 2005, From [http://www.teachology.org/stories/storyReader\\$150](http://www.teachology.org/stories/storyReader$150) 78.Moore, M. G. (1989). Three types of interaction, A presentation of the NUCEA Forum: Issues in Instructional. Interactiviy, National University Continuing Education Association Annual Meetings. 79.Mok, C. (1996). *Design Business: Multiple Media, Multiple Disciplines*. Mountain View, CA.: Adobe Press, Adobe Systems Incorporated. 80.Mun Y. Y., Joyce D. J., Jae S. P., & Janice C. P. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & Management*, 43(3), 350-363. 81.Nonaka, I. & Takeuchi, H (1995). *The knowledge-creating company*. Oxford University Press:New York. 82.Ong, C. S., Lai, J. Y. & Wang, Y. S. (2004). Factors affecting engineers ' acceptance of asynchronous e-learning system in high-tech companies. *Information & Management*, 41(6), 795-804. 83.Rainer, R. K. Jr. & Miller, M.D. (1996). An assessment of the psychometric properties of the computer attitude scale. *Computers in Human Behaviors*, 12(1), 93-105. 84.Sam, H. K., Othman, A. E. A., & Nordin, Z. S. (2005). Computer Self-Efficacy, Computer Anxiety, and Attitudes toward the Internet: A Study among Undergraduates in Unimas. *Educational Technology & Society*, 8(4), 205-219. 85.Schiffman, L. G., & Kuauk L. L. (1994). *Consumer Behavior*. Englewood Cliffs:Prentice - Hall, Inc. 86.Senge, P. (1997). *Sharing Knowledge, Executive Excellence*. 87.Sherer, M. J. E., Maddux, B., Mercandante, S., Prentice-Dunn, B. J., & Rogers, R.W. (1982). The Self-Efficacy Scale: Construction and Validation. *Psychological Reports*, 51, 663-671. 88.Shneiderman, B. (1997). *Designing the User Interface-Strategies for Effective Human-Computer Interaction*, Addison-Wesley. 89.Sharratt, M. & Usoro, A. (2003). Understanding Knowledge-Sharing in Online Communities of Practice. *Electronic Journal on Knowledge Management*, 1(2), 187-196. 90.Small, R.V. & Venkatesh, M. (2000). A cognitive-motivational model of decision satisfaction, *Instructional Science*, 28(1), 1-22. 91.Spence, R. B. & Evans, L. H. (1956). Dropouts in adult education, *Adult Education*. 6(4), 221-225. 92.Stokes, S. P. (2001). Satisfaction of college students with the digital learning environment Do learners ' temperaments make a difference?. *Internet and Higher Education*, 4(1), 31-44. 93.Tampoe, M. (1993). Motivating knowledge workers—the challenge for the 1990s. *Long Range Planning*, 26(3), 49-559. 94.Tough, A. M. (1979). Major learning efforts: Recent research and future directions. *Adult Education*, 28(4), 253-260. 95.Venkatesh, V., & Davis, F. (2000). A theoretical extension of the technology acceptance model: Four longitudinal Field Studies, *Management Science*. 46(2), 186-204. 96.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. 97.Venkatesh, V., & Speier, C. (1999). Computer technology training in the workplace: A longitudinal investigation of the effect of mood. *Organizational Behavior and Human Decision Processes*, 79(1), 1-28. 98.Weinsteinin, C. E. (1982). Traning students to use elaboration learning strategies. *Contemporary Educational Psychology*, 7(4), 301-311. 99.Webster, J., & Hacklery, P. (1997). Teaching Effectiveness in Technology Mediated Distance Learning. *Academy of Management Journal*, 40(6), 1282-1309. 100.Webster, J., & Trevino, L. K. (1995). Rational and Social Theories as Complementary Explanations of Communication Media Choices: Two Policy Capturing Studies. *Academy of Management Journal*, 38, 1544-1572. 101.Winer, D. (2003). What makes a weBlog a weBlog?. Retrieved May 3, 2005, From <http://Blogs.law.harvard.edu/whatMakesAWeBlogAWeBlog> 102.Wikipedia. (2006). Blog. Retrieved May 13, 2006, From <http://en.wikipedia.org/wiki/Blog> 103.Woodrow, J. E. J. (1992). The influence of programming training on the computer literacy and attitudes of preservice teachers. *Journal of Educational Computing Research*, 25, 165-187. 104.Wixom, B. H. & Todd, P. A. (2005). A Theoretical Integration of User Satisfaction and Technology Acceptance. *Information Systems Research*, 16(1), 85-102. 105.Yi, M. Y. & Hwang, Y. (2003). Predictingthe use of web-based information systems: self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model, *International Journal of Human-Computer Studies*, 59(4), 431-449.