

Design and Implementation of an Agent-based Personalized Auction Management System

謝文忠、楊豐兆

E-mail: 9608177@mail.dyu.edu.tw

ABSTRACT

In last two decades, our shopping behavior changes faster and faster with information techniques. In the past, the key point of efficient shopping behavior is information propagation that is single delivering and receiving while it is no internet. Thus the customers just only receive or not. However, by the internet and information technique are popular, the customers change the charge in the market. In the last years, one of the most popular issues is electronic commerce (shorted as EC). The development of EC is closely bound up internet and techniques. But most of these literatures focus on using data mining to analyze the browning behavior or the shopping relationship, even is potential browning pages or forecast the next shopping goods in the future. In this report, we design a personalized page for different users, in a word, as different user logins the system will view the different pages, and the system can also see the last results of the searching. In the implementation, the system is compared with the auction of yahoo and pchome web. The results of comparison show in this thesis are better than them on some issues.

Keywords : electronic commerce ; personalized agent ; personalized search ; data mining

Table of Contents

中文摘要	iii	英文摘要	iv	誌謝辭
內容目錄	v	表目錄	vi	
圖目錄	viii	第一章 緒論	ix	
第一節 研究背景與動機	1	第二節 研究目的	2	
第三節 研究問題	8	第四節 研究對象與限制	9	
第五節 論文流程	9	第二章 文獻探討	10	
第一節 電子商務之定義	12	第二節 電子市集之定義	13	15
第三節 網路購物的定義	16	第四節 購物網站設計上應有的功能	17	第五節
使用者購物流程	17	第六節 個人化服務的概念	19	智慧型
代理人	23	第八節 推薦代理人軟體的類型	26	第七節 現今購物網站
相關調查	26	第三章 系統分析與設計	29	第一節 系統目標
第二節 使用者需求分析	29	第二節 使用者需求分析	30	第二節 現今購物網站
代理人機制	38	第三節 基於資料探勘之個人化搜尋	41	第一節 系統目標
第四節 系統分析	47	第四節 系統核心設計與實作	47	第二節 系統介面
第一節 系統核心設計	51	第五節 系統評估	52	第二節 系統評估
第三節 系統實作與功能	51	第六章 結論與未來	68	68 第二節
未來研究	69	第一節 結論與貢獻度	68	未來研究
		參考文獻	70	

REFERENCES

- 一、中文部份 陳年興(1997),電子商務之網路商店功能需求與設計,(第八屆資管年會論文集),65-73。季欣麟(1998),網路媒體卡位戰,(遠見雜誌),148(10),98-106。張瀚仁(2000),個人化技術對虛擬社群發展之影響,政治大學,資訊管理研究所碩士論文,42-55。張建清(2000),網際網路個人化代理服務:從My YAHOO!、Tom.com及Openfind PIE2000談起,(網際先鋒),71(4),58-68。張建清,傅大煜(2000),從網路演化談個人化服務產品,網際先鋒,74(7),102-106。張忠琦(2001),資料探勘於網站使用與網頁內容探索之研究,輔仁大學資訊管理學系碩士論文,25-36。遊允毅(1998),Site Server會員伺服器及個人化網站,(資訊與電腦),218(9),85-90。盧文慧,陳文輝(1999),智慧型代理人在電子商務上之應用,全國管理碩士論文獎暨研討會,124-130。駱德廉,楊曜光,高佑仁,高建忠,簡瑞宏,陳逸帆(2002),企業營運計畫之自動建構機制研究,(第三屆遠東企業中心資訊管理實務研討會),145-155。楊錦潭,吳莉欽(2002),智慧型代理人在教育上的應用,資訊與教育雜誌,81-96。沈維明,翁頌舜(1999),資料挖掘之關聯式法則架構以零售業目標行銷為例,(中華民國科技管理論文集),124-132。蔡秀滿,陳健銘(1999),多重資料來源之消費特徵分析,(第五屆資訊管理研究暨實務研討會),56-66。二、英文部份 Applegate, L. M., Holsapple, C.W., Kalakota, R., Radermacher, F. J., & Whinton A. B. (1996). From Electronic Commerce: Building blocks of New Business Opportunity, Journal of Organization Computer Electronic Commerce, 24(5), 254-263. Brad, S.

(1998). Creating An E-Comm Architecture, *Unix Review*, 30(6), 45-51. Bloch, M., Pigneur, Y., & Segev, A. (1996). On the road of Electronic Commerce – a Business Value Framework, Gaining competitive Advantage and Some Research Issues. From an extended version of a publication in the proceedings of the Ninth International EDI-ISO Conference, Bled, Sloveria, 21(8), 452-463. B. J., Pine II, Victor B., & Boynton,A C. (1993). Making mass customization work. *Harvard Business Review*, 71(5), 108-111. Bun, R. Y., Jae, J. Y., & Soo, D. K. (1998). COPEN: a COBR-based intelligent push-engine. *Software. Engineering Conference in Asia Pacific*, 330-337. Bradshaw, J. Ed., Etzioni, O., & D. S. (1995). From Software Agents. MIT Press, 12-23. Camp, L. Jean. (1997). Critical Issues in Internet Commerce. *IEEE Communications Magazine*, 58-62. Chan, C. C. & Yan, H. Y. (2000). Developing a personal Intelligent Information Agent for BtoC Electronic Commerce. From 5th Annual International Conference on Industrial Engineering-Theory, Applications and Practice, 69-78. Cheung, D. W., B. Kao, & J. Lee. (1999). Discovering user access pattern on the World Wide Web. *Knowledge-Based Systems*, 10, 464-470. Chun, I. G., Lee, J. G., & Lee, E. S. (2000). I-SEE: An Intelligent Search Agent for Electronic Commerce. *International Journal of Electronic Commerce*, 4(2), 83-98. Dean, R. (1998). Personalizing your web site. Available at <http://www.buider.com/business/personal>. Franklin, S. & Graesser, A. (1996). Is it an Agent, or just a Program: A Taxonomy for Autonomous Agents. From Proceedings of the Third International Workshop on Agent Theories, Architectures, and Languages, Springer-Verlag, 254, 2451-2462. Gebauer, J. (1995). Electronic markets from an economic perspective Electronic Markets from an economic perspective. In the 2nd International Workshop on Electronic Markets, 25-29. Guttman, R. H., Moukas, A. G., & Maes, P. (1998). Agent-mediated electronic commerce:A survey. *Knowledge Engineering Review*, 13, 147-159. Hsiangchul Lai & Tzyy-Ching Yang (2000). A system architecture for intelligent browsing on the Web. *Decision Support System*, 219-239. Jennings, N. R. & Wooldridge, M. (1998). Applications of intelligent agents. *Agent Technology: Foundations, Applications, and Markets*, 3-28. Kim, J. G. & Lee,E. S. (1999). Intelligent information recommend system on the Internet. *Parallel Processing International workshop*, 376-380. Lange, D. B. & Oshima, M. (1998). Programming and Deploying Java Mobile Agents with Aglets. Addison Wesley Longman, Inc. Li H. L. & Chen, C. C. (1998). A new approach for Web Targeting Advertising. *Journal of Da Yen University* , 6(1), 15-26. Matsuura S., J. Ozawa, S. Araki, & T. Imanaka, (1999). An extension of ECA architecture and application to HTML document browsing. *Systems, Man and Cybernetics IEEE International Conference*, 1, 783-743. Mattthew C., K. Rodden & D. Brodbeck, (1998). The order of thingsactivity-centered information access. *Computer Network and ISDN System*, 30, 359-367. Maes, P. (1994, July). Agents that Reduce Work and Information Overload. *Communication of ACM*, 37(7), 31-40. Petrie, C. J. (1996). Agent-Based Engineering, the Web, and Intelligence. The conference of IEEE Expert. Resnick, P., Zeckhauser, R., & Avery, C. (1994). Roles for electronic brokers. *Twenty-Second Annual Telecommunications Policy Research Conference*. Ravi Kalakota & Andrew B. Whinston(1996). *Frontiers of Electronic Commerce*. Addison-Wesley Publishing Company, Inc. Surprenant, C. F. & Solomon, R. (1987). Predictability and personalization in the service encounter. *Journal of Marketing*, 51, 86-96. Turban, E., Lee, J., King, D.H. & Chung, M. (2000). *Electronic Commerce: A Managerial Perspective*, Prentice Hall, 202-298. Weller, T. C. (2000). B to B eCommerce: The Rise of e-Marketplaces. Legg Mason Equity Research, 88-95. W. Hanson, (2000). *Principles of Internet Marketing*. Cincinnati, OH: South-Western college Publishing. Yuan, S.-T. (2002). A personalized and integrative comparison-shopping engine and its applications. *Decision Support Systems*, 34(2), 139-156.