

# A Study of Service Oriented Architecture and Ontology on Customized Internet Advertising

鍾忠興、楊豐兆

E-mail: 9806267@mail.dyu.edu.tw

## ABSTRACT

More and more internet advertising activity to present in a diversified way. Although the network advertises amount rises year by year, because is unable to meet user's demands accurately, the network advertisement making click rate always low. This study propose the concept of service oriented architecture (Service Oriented Architecture, SOA), it let advertisement information or resource of many advertisement website with the way to reuse "service". According to the internet advertising information to establish integrated knowledge ontology in order to provide valid advertising information. Cooperate every specific for a long time with short-term interest or demand of user, design guest make, take network advertising service layout individually, can let visiting number of times with chick rate of internet advertising increment, and internet advertising appear way humanization and transparence further.

This research results include: (1) Using the service oriented architecture 's concept, links the advertisement website the advertisement information as well as the resources. And resources to re-use "services" to show the information network integration service, which will allow more users want to find advertising. The advertising that more users can be seen to achieve win-win situation. (2) Internet advertising customized services, allowing users want the freedom to choose their own internet advertising , and to reduce the search time and cost. (3) Internet advertising's each information according to the uniform form. Systematic's construction knowledge ontology. May provide the user the clear understanding internet advertising each information, achieves the promotion Internet advertising the information.

Keywords : service oriented architecture (SOA)、ontology、internet advertising、customization

## Table of Contents

中文摘要	iii
英文摘要	iv
誌謝辭	v
內容目錄	vi
表目錄	viii
圖目錄	ix
第一章 緒論	1
第一節 研究背景與動機	1
第二節 研究目的	3
第三節 研究範圍與限制	4
第四節 研究流程	5
第五節 論文架構	6
第二章 文獻探討	8
第一節 網路廣告	8
第二節 服務導向架構	12
第三節 知識本體	14
第四節 客制化	16
第三章 系統分析	19
第一節 系統目標	19
第二節 使用者需求分析	20
第三節 系統需求分析	23
第四章 系統設計	25
第一節 系統架構	25
第二節 知識本體設計	27
第三節 流程與呈現設計	29

第五章	系統實作與評估分析 . . . . .	33
第一節	開發工具與平台 . . . . .	33
第二節	網路廣告客製化系統實作 . . . . .	34
第三節	評估與分析 . . . . .	39
第六章	結論 . . . . .	47
第一節	研究結論 . . . . .	47
第二節	未來發展與建議 . . . . .	48
參考文獻	. . . . .	49
附錄	回饋問卷 . . . . .	53

## REFERENCES

- 一、中文部份MSDN(2008), 服務導向架構(Service Oriented Architecture)應用 [線上資料], 來源:  
[http://www.microsoft.com/taiwan/msdn/columns/soa/soa\\_overview\\_2004112901.htm](http://www.microsoft.com/taiwan/msdn/columns/soa/soa_overview_2004112901.htm)[2008, December 20]。TWNIC(2008), 台灣寬頻網路使用狀況調查[線上資料], 來源: <http://www.twnic.net.tw/download/200307/200307index.shtml> [2008, December 17]。台北市網際網路廣告暨媒體經營協會IAMA(2008), 2008台灣整體 網路廣告市場總量[線上資料], 來源: <http://www.iama.org.tw/1207.pdf> [2008, December 16]。戚玉樑(2005), 使用正規概念分析法於知識擷取之實證研究-以? 域本體之知識本體為前提, 發表於電子商務與數位生活研討會, 台北:實踐大學。陳宏泰(2002), 個人化旺路廣告推薦之研究, 暨南國際大學資訊管理研究所未出版之碩士論文。二、英文部分Aleax(2008), Top Sites in Taiwan[Online], from: [http://www.alexa.com/site/ds/top\\_sites?cc=TW&ts\\_mode=country&lang=none](http://www.alexa.com/site/ds/top_sites?cc=TW&ts_mode=country&lang=none) [2008, December 17]。Amaro, G., Hendry, L., & Kingsman, B. (1999). Competitive advantage, customization and a new taxonomy for non make-to-order companies. *International Journal of Operations and production Management*, 19(4), 345-371. Belch, George E. & Belch, Michael A. (1998), *Advertising and Promotion*, New York: McGraw-Hill. Chandrasekaran, B., Josephson, J. R., & Richard, B. V. (1999). Ontologies: What are they? Why do we need them? *IEEE Expert Intelligent Systems and Their Applications*, 14(1), 20-26. Gilmore, J., & Pine, J. (1997). The four faces of mass customization. *Harvard Business Review*, 75(1), 91-101. Gruber, T. R. (1993). Toward principles for the design of ontologies used for knowledge sharing. *International Journal of H-man-Computer Studies*, 43(6), 907-928. Guarion, N. (1998). Formal ontology in information systems. *Proceedings of FOIS '98*, Amsterdam, ISO in Press, 3-15. Hawkins, Donald T. (1994), " Electronic Advertising on online Information System " Online, Wilton. IAB, (2008), Ad Unit Guidelines [Online], from : [http://www.iab.net/iab\\_products\\_and\\_industry\\_services/508676/508676/Ad\\_Unit](http://www.iab.net/iab_products_and_industry_services/508676/508676/Ad_Unit) [2009, January 5]. IBM SOA Foundation. (2005). Providing what you need to get started with SOA. Service oriented architecture solutions white paper. Kolter, Philip, Swee Hoon Ang, Siew Meng Leong & Chin Tiong Tan (1999), *Marketing Management – an Asian Perspective*, New Jersey: Prentice Hall Inc. p.674 Lampel, J., & Mintzberg, H. (1996). Customizing customization. *Sloan Management Review*, 38, 21-30. Lovelock, Christopher, & Lauren Wright, (1998). *Principles of Service Marketing and Management*, New-Jersey: Prentice-Hall. Marcos Lopez-Sanz, Cesar J. Acuna, Carlos E. Cuesta, Esperanza Marcos, (2008). Modelling of Service-Oriented Architectures with UML, *Electronic Notes in Theoretical Computer Science* 194 (2008) 23 – 37. Peppers, Don & Martha Rogers, (1993). The One to One Future, Raphael Sagalyn, Inc. Peppers, D., Rogers, M., and Dorf, B. (1999). Is your company ready for one-to-one marketing? , *Harvard Business Review*, Jan-Feb, 1999, pp. 151-160. Pine, B. J. (1993). Mass customization products and services. *Planning Review*, 21(4), 6-13. Przemyslaw Kazienko, Michal Adamski, (2007). AdROSA—Adaptive personalization of web advertising, *Information Sciences* 177 (2007) 2269 – 2295. Silveira, G. D., Borenstein, D., & Fogliatto, F. S. (2001). Mass customization: Literature review and research directions, 72, 1-13. Staab, S., & Maedche, A. (2001). Knowledge portals ontologies at work. *AI Magazine*, 22(2), 63-75. Winer, R. S. (2001). A framework for customer relationship management. *California Management Review*, 43(4), 89-105. Wolin, Lori D., Korgaonkar, Pradeep. och Lund, Daulatram. (2002) " Beliefs, attitudes and behaviour towards Web advertising " , *International Journal of Advertising*, Vol. 21, Issue 1 Zeff, R.L., Brad Aronson, (1997), " Advertising on the Internet " , New York: John Wiley, Wiley Computer Publishing, Wiley, Wiley Computer Publishing.