

# 知識本體為基礎的RSS技術對改善社群資訊傳遞之影響-以Facebook為例

王韋智、楊豐兆

E-mail: 363567@mail.dyu.edu.tw

## 摘要

Web2.0的概念已經改變網際網路資訊使用的方式與範圍，使得資訊與人際關係可以傳播與交流，社交網路將全世界的網路使用者串聯在一起。Facebook是知名社交網站，用戶高達1.5億人口，大多數的用戶固定每天使用Facebook已經漸漸成為一種習慣，社交網站的功能是讓使用者能夠盡情抒發自己的情緒以及與他人之間溝通的橋樑，但是Facebook無法精確地確認每一位朋友的身分，造成使用者隱私容易被陌生人窺探。因此本研究目的運用TOVE ontology工程方法建置資料庫，進行人際關係的整合與推論，提供使用者詳細的人際資訊，讓每一位使用者清楚了解與每一位朋友之間的關係，亦可利用本系統結交新朋友或是認識工作所需的朋友。

關鍵詞：社交網站、TOVE Ontology工程方法、人際關係

## 目錄

內容目錄 中文摘要.....	iii	英文摘要.....	iii
.....iv 致謝辭.....		v 圖目錄.....	v
.....vii 表目錄.....		ix 第一章 緒論.....	ix
.....1 第一節 研究背景.....	1	1 第二節 研究目的與動機.....	1
.....4 第三節 研究範圍與限制.....	4	5 第四節 論文架構.....	5
.....7 第五節 研究流程.....	7	第二章 文獻探討.....	7
.....8 第一節 RSS.....	8	8 第二節 知識本體.....	8
.....9 第三節 TOVE Ontology工程法.....	9	13 第三章 系統需求分析.....	13
.....16 第一節 研究架構.....	16	16 第二節 人際關係分類.....	16
.....19 第三節 系統對於外部各階段的描述.....	19	22 第四章 系統核心設計.....	22
.....29 第一節 知識本體的建置.....	29	29 第五章 系統實作與效能評估.....	29
.....38 第一節 系統開發工具與環境.....	38	38 第二節 系統介面與功能.....	38
.....38 第三節 系統效能評估.....	38	43 第六章 結論.....	43
.....45 第一節 研究貢獻.....	45	45 參考文獻.....	45
.....47			47

## 參考文獻

- 李建興,張詠淳,黃雅琴,郭耀煌,許舜欽(2007),基於Ontology之專案監控知識管理之研究。周艷,陳永建。(2008)。基於RSS技術的訊息發布系統設計與實現。戚玉樑。(2005)。以本體知識為基礎的知識庫建制程式及其應用,中原大學資訊管理系未出版之碩士論文。張益華(2005),基於之是本體的語意檢索系統之研究-以學校公文及法規為例,大葉大學資訊管理系未出版之碩士論文。鐘正男(2004),以知識本體為基礎的語意查詢系統之研究-以圖書館為例,大葉大學資訊管理系未出版之碩士論文。林建宏(2006),正規化概念分析建構電腦病毒特徵之知識本體,雲林科技大學資訊管理學系未出版之碩士論文。戚玉樑,林建良(2004),使用OWL-QL開發領域本體知識庫之知識提取,2004 電子商務與數位生活研討會。胡訓誠(2003),應用本體論設計ISO文件管理,國立高雄第一科技大學資訊管理學系未出版之碩士論文。Akshay, J., Tim, F., & Sergei, N. (2006). Text understanding agents and the semantic web. Proceedings of the 39th Hawaii international conference on system sciences, 4-6. Alexander, M. (2001). Ontology learning for the semantic web. Kluwer Academic Publishers, 16(2), 72-79. Asuncion, G., & Oscar, C. (2002). Ontology languages for the semantic web. IEEE intelligent systems, 17(5), 54-60. Baldwin, J. F., & Zhou, S. Q. (1984). A fuzzy relational inference language. Fuzzy sets and systems, 14(22), 155- 174. Baumgart, A. S., Knapp, H., Suetterlin, P., & Schader, M. (2007). A profile-based peer-to-peer RSS information distribution. IEEE intelligent systems, 5-7. Berners, L. T., & Fischetti, M. (1998). Weaving the web: The original design and ultimate destiny of the World Wide Web by its inventor (1st ed.). San Francisco: Harper Business. Brickley, D., & Guha, R. V. (2004). RDF vocabulary description language 1.0: RDF schema [Online]. Available: <http://www.w3c.org/TR/rdf-schema/> [2004, February 10]. Buckles, B. P., & Petry, F. E. (1982). A fuzzy representation of data for relational databases. Fuzzy sets and systems, 5, 213- 226. Celik, D., & Elci, A. (2005). Searching semantic web services: An intelligent agent approach using semantic enhancement of client input term(s) and matchmaking step. Computer Software and Applications Conference, 2, 916-922. Chen, G. Q., Vandenbulcke, J., &

Kerre, E. E. (1992). A general treatment of data redundancy in a fuzzy relational data model. *Journal of the American society of information science*, 43, 304-311.

D. Brickley and R. V. Guha, RDF vocabulary description language 1.0: RDF schema. W3C Recommendation, February 2004.

D. Connolly, F. V. Harmelen, I. Horrocks, D. L. McGuinness, P. F. Patel-Schneider and L. A. Stein, "DAML+OIL (March 2001) Reference Description," W3C Working Draft, Dec. 2001.

Dan Ma. (2009). Offering RSS Feeds: Does It Help to Gain Competitive Advantage? Dubois, D., & Prade, H. (1983). Ranking fuzzy number in the setting of possibility theory. *Information Science*, 30(2), 183-224.

Feff, H. (2004). OWL web ontology language use cases and requirements [Online]. Available: <http://www.w3c.org/TR/webont-rrg> [2004, February 10].

Frank, M., & Eric, M. (2004). RDF primer [Online]. Available: <http://www.w3.org/TR/REC-rdf-syntax/> [2004, February 10].

Graham, K., & Jeremy, C. (2004). Resource description framework (RDF): Concepts and abstract syntax [Online]. Available: <http://www.w3.org/TR/rdf-concepts/> [2004, February 10].

Gruninger, M., & Fox, M. S. (1995). Methodology for the design and evaluation of ontologies. Unpublished master's thesis, Department of Industrial Engineering University of Toronto, Canada, M S A.

Guttman, R. H., Moukas, A. G., & Maes, P. (1999). Agents that buy and sell. *Communications of the ACM.*, 42(3), 81-91.

Guu, S. M., Pang, C. T., & Liu, J. Y. C. (2002). On the proximately semantic measure of fuzzy data in extended possibility-based fuzzy relational databases. Working paper of department of information management, Yuan-Ze University.

Han, J., & Kamber, M. (2001). *Data mining: Concepts and techniques*. New York: Morgan Kaufmann.

Hesketh, B., Pryor, R., & Gleitzman, M., & Hesketh, T. (1988). Practical applications and psychometric evaluation of a computerized fuzzy graphic rating scale. *Fuzzy sets in psychology*, New York: North-Holland, 425-454.

Keeble, R. J., & Macredie, R. D. (2000). Assistant agents for the world wide web intelligent interface design challenges. *Interacting with Computers*, 12, 357-381.

Kilic, G. J., & Folger, T. A. (1988). *Fuzzy sets, uncertainty and information*. NJ: Prentice-Hall.

Klir, G. J., & Yuan, B. (1995). *Fuzzy sets and fuzzy logic theory and application*. NJ: Prentice-Hall.

Lee, C. S., Chen, C. P., Chen, H. J., & Kuo, Y. H. (2002). A fuzzy classification agent for personal e-News service. *International journal of fuzzy systems*, 4(4), 849-856.

Lee, C. S., Pan, C. Y., & Chang, M. J. (2002). A fuzzy decision agent for meeting scheduling supported system. *International conference on fuzzy systems and knowledge discovery*, Singapore, 2002.

Lin, C. T., & George, L. C. S. (1991). Neural-network-based fuzzy logic control and decision system. *IEEE transactions on computers*, 40(12), 1320-1336.

M. Uschold, M. King, S. Moralee and Y. Zorgios, "The Enterprise Ontology," *The Knowledge Engineering Review*, Vol. 13, No. 1, pp. 31-89, 1998. Special Issue on Putting Ontologies to Use.

Manton, K. G., Woodbury, M. A., & Tolley, H. D. (1994). *Statistical applications using fuzzy sets*. New York: John Wiley and sons, Inc.

P. Borst, H. Akkermans and J. Top, "Engineering Ontologies," *International Journal of Human-Computer Studies*, Vol. 46, No.2-3, pp.365-406, Feb. 1997.

Patrick, H. (2004). RDF semantics [Online]. Available: <http://www.w3c.org/TR/rdf-mt/> [2004, February 10].

Protege3.3.1(2007), [Online]. Available: <http://protege.stanford.edu/> [2007, September 20].

Roger, H., L., Cecil, E., H., & Veda, C., S. (2001). A smart web query method for semantic retrieval of web data. *Data & knowledge engineering*, 38(1), 63-84. *RSS(2007)*, [Online]. Available: <http://www.rssboard.org/> [2007, September 20].

Smith, M. K., Welty, C., & McGuinness, D. L. (2004). OWL web ontology language guide [Online]. Available: <http://www.w3c.org/TR/owl-guide/> [2004, February 10].

Stanford Medical Informatics at the Stanford University School of Medicine, "Protege2000," Mar.2004.

Stefan, D., Prasenjit, M., & Sergey, M. (2000). Framework for the semantic web. *IEEE internet computing*, 4(6), 68-73.

T. R. Gruber, "A translation approach to portable ontology specifications," *Knowledge Acquisition*, vol. 5, pp.2-24, 1993.

Zadeh, L. A. (1972). A fuzzy set theoretical interpretation of hedges. *Journal of Cybernetics*. 2(2), 4-34.

Zadeh, L. A. (1995). Discussion: Probability theory and fuzzy logic are complementary rather than competitive. *Technometrics*, 37(3), 271-276.

Zhongzhi, S., He, H., Jiewen, L., Fen, L., & Haijun, Z. (2006). Agent-based grid computing. In *applied mathematical modeling*. 30(7), 629-640.

Zimmermann, H. J. (1991). *Fuzzy set theory and its application*. London: Kluwer academic publishers.

Zongli J and Xiaojia D. (2010) A Personalized Search Engine Model based on RSS User's Interest.