A Study of Dynamic Extraction Model for Topic Keyword

林嵩富、陳振東

E-mail: 9222449@mail.dyu.edu.tw

ABSTRACT

As the explosive growth of the World Wide Web, more and more users got information from webs. However, web pages are increasing day after day, users are facing variant information overload issue. According to "Information Recommend Concept", Personal Information Recommend System created by Intelligent Agent is using to solve the Information Overload issue progressively. Many studies of Information Recommend method, adopt keyword database to classify information. However, as times going and popular subjects changing, the keyword of classified subject also must adjust well to ensure the keyword is symbolic of classification. For increasing the effectiveness of Information Recommend, this study raise a dynamic update model for keyword database. The way combined Chinese word segmentation with similarity measure, and then we developed dynamic update system to raise consumer's satisfaction of information service. From this study's experimental outcomes showed that this model can reach the expect results at accuracy of extract keyword. Besides, the experiments also prove the keyword extractive result has its rationality and stability.

Keywords : Information Recommend, Keyword Database, Similarity Measure, Chinese Word Segmentation

REFERENCES

- [1] 杜宜潔、翁頌舜,整合式客製化網站內容推薦系統,第七屆資訊管理研究暨實務研討會,民國90年。
- [2] 李雅萍,我國網際網路用戶數的調查統計分析,經濟部技術處Internet應用研究計畫/資策會ECRC-FIND,民國91年。
- [3] 陳克健、陳正佳、林隆基,中文語句的研究-斷詞與構詞,中央研究院技術報告,TR-86-006,民國75年。
- [4] 陳景揆,探勘中文新聞文件中的概念關聯及趨勢,雲林科技大學資訊管理研究所碩士論文,民國89年。
- [5] 陳稼興、謝佳倫、許芳誠,以遺傳演算法為基礎的中文斷詞研究,資訊管理研究,第二卷,第二期,民國91年,第27-44頁。
- [6] 曹又文, 適地化與適性化之行動廣告資訊推薦機制, 輔仁大學資訊管理研究所碩士論文, 民國91年。
- [7] Atlam E. S., Fuketa M., Morita K. and Aoe J. I., "Similarity measurement using term negative weight and its application to word similarity," International Journal of Information Processing and Management, Vol. 36, Issue 5, 2000, pp. 717-736.
- [8] Belkin, N. J. and Croft, W. B., "Information Filtering and Information Retrieval: Two Sides of the Same Coin?" Communications of the ACM, Vol. 35, Issue 12, 1992, pp. 29-38.
- [9] Chen, C. T., "Extensions of the TOPSIS for group decision-making under fuzzy environment," Fuzzy Sets and Systems, Vol. 114, Issue 1, 2000, pp. 1-9.
- [10] Chen, K. J. and Kiu, S. H., "Word identification for Mandarin Chinese sentences," Fifth International Conference on Computational Linguistics, 1992, pp. 101-107.
- [11] Chen, S. M., "A new approach to handing fuzzy decision making problems," IEEE Trans. Systems, Man, Cybernetics, Vol. 18, 1988, pp. 1012-1016.

Table of Contents

[12] Chen, S. M., Horng, Y. J. and Lee, C. H., "Document Retrieval Using Fuzzy-Valued Concept Networks," IEEE Transactions on Systems, Man, and Cybernetics, Part B, Vol. 31, Issue 1, 2001, pp. 111-118.

[13] Chen, S. M., Yeh M. S. and Hsiao P. Y., "A comparison of similarity measures of fuzzy values," Fuzzy Sets and Systems, Vol. 72, Issue 1, 1995, pp. 79-89.

[14] Egghe, L. and Michel, C., "Strong similarity measures for ordered sets of documents in information retrieval," International Journal of Information Processing and Management, Vol. 38, Issue 6, 2002, pp. 823-848.

[15] Fan, J. and Xie, W., "Some notes on similarity measure and proximity measure," Fuzzy Sets and Systems, Vol. 101, Issue 3, 1999, pp. 403-412.

[16] Foo, S., Hui, S. C., Lim, H. K. and Li, H., "Automatic Thesaurus For Enhanced Chinese Text Retrieval," Library Review, Vol. 49, Issue 5, 2000, pp. 230-239.

[17] Good, N., Schafer, B., Konstan, J. A., Borchers, A., Sarwar, B., Herlocker, J. and Riedl, J., "Combining Collaborative Filtering with Personal Agents for Better Recommendations," Proceedings of the Sixteenth National Conference on Artificial Intelligence (AAAI-99), 1999.

[18] Hong, D. H. and Kim, C., "A note on similarity measures between vague sets and between elements," Information Sciences, Vol. 115, Issue 1-4, 1999, pp. 83-96.

[19] Horng, J. T. and Yeh, C. C., "Applying genetic algorithms to query optimization in document retrieval," International Journal of Information Processing and Management, Vol. 36, Issue 5, 2000, pp. 737-759.

[20] Joentgen A., Mikenina L., Weber R. and Zimmermann H. J., "Dynamic fuzzy data analysis based on similarity between functions," Fuzzy Sets and Systems, Vol. 105, 1999, pp. 81-90.

[21] Kang, B. J. and Choi, K. S., "Effective foreign word extraction for Korean information retrieval," International Journal of Information Processing and Management, Vol. 38, Issue 1, 2002, pp. 91-109.

[22] Karacapilidis, N. and Pappis, C., "Computer-supported collaborative argumentation and fuzzy similarity measures in multiple criteria decision making," Computers and Operations Research, Vol. 27, Issue 7-8, 2000, pp. 653-671.

[23] Karypis, G., "Evaluation of item-Based Top-N Recommendation Algorithms," Proceedings of the Tenth International Conference on Information and Knowledge Management (CIKM), Atlanta, 2001.

[24] Kim, J. G. and Lee, E. S., "Intelligent Information Recommend System on the Internet," International Wordshop on Industrial Applications on Network Computing (INDAP'99), 1999.

[25] Kim, M. C. and Choi, K. S., "A comparison of collocation-based similarity measures in query expansion," International Journal of Information Processing and Management, Vol. 35, Issue 1, 1999, pp. 19-30.

[26] Lanquillon, C., "Information Filtering in Changing Domains," Workshop on Machine Learning for Information Filtering, International Joint Conference on Artificial Intelligence (IJCAI' 99), 1999, pp. 41-48.

[27] Larsen, B. and Aone, C., "Fast and effective text mining using linear-time document clustering," In Proc. of the Fifth ACM SIGKDD Int'l Conference on Knowledge Discovery and Data Mining, 1999, pp. 16-22.

[28] Mitra, P., Murthy, C. A. and Pal, S. K., "Unsupervised Feature Selection Using Feature Similarity," IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 24, No. 3, March 2002, pp. 301-312.

[29] Motta, C. L. R. and Borges, M. R. S., "A cooperative approach for information recommendation and filtering," Proceedings of the International Workshop on Groupware, IEEE Computer Society, Madeira, Portugal, October 2000, pp. 42-49.

[30] Nie, J. Y., Brisebois, M. and Ren, X., "On Chinese text retrieval," Proceedings of the 19th annual international ACM SIGIR conference on Research and development in information retrieval, August 1996, pp. 225-233.

[31] Nie, J. Y., Gao, J., Zhang, J. and Zhou, M., "On the Use of Words and N-grams for Chinese Information Retrieval," Proceedings of the 15th international workshop on Information retrieval with Asian languages, 2000, pp. 141-148.

[32] Oard, D. W. and Marchionini, G., "A Conceptual Framework for Text Filtering," Technical Report CS-TR3643, University of Maryland, College Park, MD, May 1996.

[33] Sarwar, B., Karypis, G., Konstan, J. and Riedl, J., "Analysis of Recommendation Algorithms for E-Commerce," Proceedings of the 2nd. ACM conference on Electronic commerce, 2000, pp. 158-167.

[34] Schafer, J. B., Konstan, J. and Riedl, J., "Recommender Systems in E-Commerce," Proceedings of the first ACM conference on Electronic commerce, 1999, pp. 158-166.

[35] Sproat, R. and Shih, C., "A Statistical Method for Finding Word Boundaries in Chinese Text," Computer Processing of Chinese and Oriental Languages, 1990, pp.336-351.

[36] Wang, W. J., "New similarity measures on fuzzy sets and on elements," Fuzzy Sets and Systems, Vol. 85, Issue 3, 1997, pp. 305-309.

[37] Wu, M., Fuller, M. and Wilkinson, R., "Using clustering and classification approaches in interactive," International Journal of Information Processing and Management, Vol. 37, Issue 3, 2001, pp. 459-484.

[38] Yuan, S. T. and Liu, A., "Next-generation agent-enabled comparison shopping," International Journal of Expert Systems with Applications, Vol. 18, Issue 4, 2000, pp. 283-297.