情境式語意景點推薦系統

葉信群、楊豐兆

E-mail: 365054@mail.dyu.edu.tw

摘 要

近年來，電子地圖資訊廣泛的被旅遊者使用。雖然電子地圖資訊提供的服務十分方便，但是使用者仍常常尋找不到真正能解決特定需求的資訊。目前地圖查詢網站都是以使用者輸入地址或地名進行關鍵字查詢為主，提供的資料無法滿足旅行者，而且在目的地的選擇上也比較沒有彈性。 語意網對於全球資訊網為主的網際網路發展環境而言，這無疑是個新契機，可以克服現行網際網路所遭遇到的瓶頸。目前語意網的發展，在邏輯推理架構和應用的研究已經成功運用在許多領域。本研究提出以語意網建置情境式語意景點推薦系統，系統能協助自助旅行者進行即時旅遊查詢與提供位置資訊服務，進而減少找尋旅遊相關的資訊的時間及降低查詢不到資訊的機會。 本系統運用語意網、JavaScript Maps API及PHP等技術來建置系統，自助旅行者只要提供需求服務請求，即可透過該條件篩選出符合條件的地點，自助旅行者可以根據現有資訊決定要前往哪個地點並透過系統完成路線規劃。本研究成果可以提供旅行網站行程規畫系統之建置參考。

關鍵詞 : 語意網、電子地圖、推薦系統、位置資訊服務

目錄

參考文獻

[1]交通部觀光局。(2011)。中華民國99年國人旅遊狀況調查報告，交通部觀光局。

[2]Google API 大全編委會。(2010)。Google API大全程式設計開發實例，台北:松崗。

[3]Agarwal, P.R.,“ Semantic Web in Comparison to Web 2.0, ” Intelligent Systems, Modelling and Simulation (ISMS), 2012 Third International Conference, pp. 558-563, 2012.

[4]Alesso, H. P. and Smith. C. F.,“ Developing Semantic Web Services “ , A K Peters Ltd, 2005.

[5]Cheung, K.H., et al.,“ Semantic Web for Health Care and Life Sciences: a review of the state of the art “ , Brief Bioinform, 10(2), pp. 111-113, 2009.

[6]David W. McDonald,“ Ubiquitous Recommendation Systems, ” Computer, Vol. 36, No. 10, pp. 111-112, Oct. 2003.

[7]Fangfang Li et al.,“ User Recommendation Based on Semantic Pattern “ , Communication Systems and Network Technologies (CSNT), 2012 International Conference, pp. 992-995, 2012.

[8]Gangwar, M.,“ Semantic Web Services for medical health planning “ , Recent Advances in Information Technology (RAIT), 2012 1st International Conference, pp. 614-618, 2012.

[9]Google Maps, http://code.google.com/intl/zh-TW/apis/maps/documentation/javascript/, 2012.

[10]Horrocks, I.,“ Semantic Web: The Story So Far “ , Proceedings of the 2007 International Cross-Disciplinary Conference on Web Accessibility, Banff, Canada, pp. 120-125, 2007.

[11]Ian, H., et al.,“ SWRL: A Semantic Web Rule Language Combining OWL and RuleML “ ,, http://www.daml.org/rules/proposal/, 2012.

[12]Jorge Cardoso,“ E-Tourism: Creating Dynamic Packages using Semantic Web Processes “ , W3C orkshop on Frameworks for Semantics in Web Serices, http://www.w3.org/2005/04/FSWS/Submissions/16/paper.html, 2012.

[13]Lee, T. B. and Fischetti, M.,“ Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor “ , Harper Business, 1st edition, 1999.

[14]Lee, T. B.,“ Information Management:A proposal “ , CERN. Geneva, Switzerland “ , 1989.

[15]Lee, T. B.,“ The possibilities of the semantic web “ , Scientific American Essay, pp.35-43, 2001.

[16]M.R. Koivunen, E. Miller., “ W3C Semantic Web Activity “ , Semantic Web Kick-off Seminar, Finland, 2001.
[17]Milea, V., “ tOWL: A Temporal Web Ontology Language “ , Systems, Man, and Cybernetics, Part B: Cybernetics, IEEE Transactions, 42 , Issue: 1, pp. 268-281, 2012.
[18]Miller, E., “ The Semantic Web: A Web of Machine Processible Data “ , http://www.w3.org/2004/Talks/0908-egov-em/, 2012.
[19]Miller, E., “ Weaving Meaning:An Overview of The Semantic Web “ , http://www.w3.org/2004/Talks/0120-semweb-umich/slide1-0.html, 2012.
[20]Ontology Wiki Database And Ontology, http://ontolog.cim3.net/cgi-bin/wiki.pl?DatabaseAndOntology, 2012.
[21]Open Travel Alliance, http://www.opentravel.org/, 2012.
[22]Palaniammal, K., “ An unfangled approach to semantic search for e-tourism domain “ , Recent Trends In Information Technology (ICRTIT), 2012 International Conference, pp. 130-135, 2012.
[23]Paul Resnick and Hal R. Varian, “ Recommendation systems, ” Communication of ACM, Vol. 40, No. 3, pp. 56-58, 1997.
[24]Philippe Kruchten, “ Architecture Blueprints -- The "4+1" View Model of Software Architecture “ , IEEE Software, vol. 12, no. 6, pp. 42-50, 1995.
[25]Quasthoff, M. ; Meinel, C., “ Supporting Object-Oriented Programming of Semantic-Web Software “ , 2010 International Conference On Computer Design And Appliations (ICCDA 2010), pp. 67-70, 2012.
[26]Rabiyathul basariya, A., “ Semantic based query optimization using ontology for knowledge management “ , Advances in Engineering, Science and Management (ICAESM), 2012 International Conference, pp. 332-336, 2012.
[27]Rios, S.A., et al. “ Leveraging Social Network Analysis with Topic Models and the Semantic Web “ 2011 IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technolog, pp. 339-342, 2011.
[28]Stephen, C., “ UML and the Semantic Web “ , Proceedings of The First Semantic Web Working Symposium (SWWS'01), California, USA, pp. 113-130, 2001.
[29]Dinkel, S.C., “ Uncertainty reasoning for service-based situational awareness information on the Semantic Web “ , Cognitive Methods in Situation Awareness and Decision Support (CogSIMA), 2011 IEEE First International Multi-Disciplinary Conference, pp. 102-105, 2011.
[30]W3C, “ Latest layercake diagram “ , http://www.w3c.tut.fi/talks/2007/1031-soa-ws-web20-on/index-rdf.html, 2012.
[31]W3C, http://www.linux.org.tw/CLDP/W3C/RDFMS/index.html, 2012.
[32]Wang Yong-gui, “ Research on semantic Web mining “ , Computer Design and Applications (ICCDA), Qinhuangdao, China, pp. 67-70, 2010..
[33]Web Ontology Language (OWL)/W3C Semantic Web Activity, http://www.w3.org/2004/OWL/ , 2012.
[34]Weng, S. S., et al., “ Ontology construction for information classification ” , Expert Systems with Applications, Volume 31, Issue 1, pp. 1-12, 2006.
[35]Wilson, M. and Matthews, B., “ The Semantic Web: Prospects and Challenges “ , Proceedings of the 7th International Baltic Conference on Databases and Information Systems, Vilnius, Lithuania, pp. 26-29, 2006.
[36]Yu, L.Y., “ Introduction to Semantic Web and Semantic Web services “ , CRC Pr I Llc, 2007.