Towards a User-Centric Web Portals Management

Tarek Helmy

College of Computer Science and Engineering, King Fahd University of Petroleum and Minerals, Dhahran 31261, Mail Box 413, Saudi Arabia, Tel: 966-3-860-1967 & Fax: 966-3-860-2174, E-mail: helmy@ccse.kfupm.edu.sa

Abstract

There is an extensive set of published information on the Internet. Human based approach to discover and utilize this information is not only time consuming, but also requires continuous user interaction. Web portals are the next evolution in Internet services as they provide a more robust one-point access to a variety of core information, and ideally offer a single sign-on point. So far, most of the activities performed on the Web portals can be characterized as solitary ones where users/agents logged in on Web portals can only browse around pages experiencing everything on their own. In this paper we demonstrate the use of agent technology to enable user-centric discovery and utilization of Web portals. We have developed collaborative agents-based architecture aimed at supporting, as a particular kind of collaboration, for user-centric searching and managing of the Web portals. As the system is agent driven, each agent conforms to a communication protocol that allows it to send/receive messages to/from another agent. This paper mainly focuses on presenting the predictive power of capturing the user's preferences, how to use the implicated preferences to expand of user's requests by user-specific demands and wishes, how to filter the URLs not matching a certain profile and how to enhance the communication load between the agents to look for relevant information.

Keywords: Multi-Agent, Web Portals, Customization