SWIM: Fostering Social Network Based Information Search

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INTRODUCTION

Compare to searching online information directly, asking friends or finding referral to a human expert is preferred in many information-gathering tasks. It’s easier to judge the quality of the information from a personal referral as well as to obtain information that is not publicly published [1]. Instant Messaging (IM) has potentials to effectively support such social network based information seeking [3], which are not fully explored other than providing better communications. For instance, a user usually does not know what his friends’ friends know. If none of his friends in his IM buddy list knows the sought information, he either gives up this search method or needs intensive personal helps from a friend who transfers questions and answers in between.

Previous studies indicated that it is feasible to add social network search functionalities to IM systems. Watts et al. [2] found that social networks have the surprising property of being searchable. Systems such as ReferralWeb [1], show that it is possible to mine people’s social relationships and information identities from electronic resources and use them for referral or matchmaker purposes.

Based on these ideas, we designed and implemented the Small World Instant Messenger (SWIM).

SWIM SYSTEM

SWIM is a new IM system that focuses on fostering information search through social networks. It has all the functions that a general IM system has to support questions asking and answering. Two advanced functions are added to support social network based search process.

First, SWIM maintains a much complex user profile. Besides letting a user input his expertise and interests manually, SWIM can automatically mine user’s homepage, browser bookmarks to construct a keywords vector to represent the user’s information identity.

Second, SWIM has a built-in referral agent that handles the information-querying process automatically. A user starts the

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REFERENCES