

IST researchers categorize social media searches

July 30 2010

(PhysOrg.com) -- By integrating social media, Penn State researchers have found a way to better satisfy individual users' multimedia searches on the Web.

Penn State Information Sciences and Technology faculty members Lee Giles and Luke Zhang and their students recently introduced SNDocRank, a framework to incorporate social networks into multimedia [search](#) rankings.

“With the assumption that ‘birds of a feather flock together,’ the SNDocRank framework ranks the videos based on the similarity of the owners of videos in social networks,” Giles said. “Users tend to be friends if they have common interests, and they are more interested in their friends’ information than that of others they don’t know.”

For example, if a user wants to find a video about a friend whose name happens to be the same as a celebrity, it is likely that the search results returned will focus on the celebrity. However, if the videos are searched within the user’s social networks, the friend’s information -- not the celebrity’s -- will most likely rank higher in search results.

Giles and Zhang discovered that their method of ranking was comparable to PageRank (used by [Google](#)) but different in that the results produced were more likely to satisfy a searcher. They also suggest their results can depend upon your location within a social network.

“With social network ranking, where you are in the social network matters and your results from a search reflect that,” Giles said.

This means that rankings are loosely based on how many friends you have, what groups you join, and what subscriptions you have.

Their co-authors were Liang Gou, an [information sciences](#) and technology doctoral student, and Huang-Hsuan Chen and Jung-Huyn Kim, both computer science and engineering doctoral students.

Gou said that working with the professors and other doctoral students challenged her thinking and taught her new ways to solve problems. She said has been inspired to continue research and experimentation with SNDocRank as a method for searching scientific literature.

The paper “SNDocRank” A Social Network-Based Video Search Ranking Framework,” was presented at the 2010 ACM SIGMM International Conference on Multimedia Retrieval, held March 29-31 in Philadelphia.

Provided by Pennsylvania State University

Citation: IST researchers categorize social media searches (2010, July 30) retrieved 19 April 2024 from <https://phys.org/news/2010-07-ist-categorize-social-media.html>

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