Collective Intelligence Systems: Helping communities enable collective intelligence and mitigate information overload

PARC is modeling people’s behavior in social systems to develop solutions that enhance the usability and value of social analytics and collective intelligence systems.

OVERVIEW: Obstacles to using social software

Social software systems—including blogs, wikis, social bookmarking, and micro-blogging/messaging systems such as Twitter—have transformed communication and collaboration in enterprises and among consumers. By helping community members connect in a real-time state of shared awareness, these tools enable faster learning and decision making.

But there are two key problems in the technology lifecycle that keep social systems from reaching their full potential. First is the critical mass problem. How do you get people—beyond early adopters—to participate in social systems? The second is the information overload problem. Once you get many people to participate, how do you help them filter out signal from noise?

Reducing interaction costs and noise in social software

Several PARC projects aim to address these problems. The core technologies for the prototype systems below are available for licensing and end-user customization to social software vendors and enterprises.
Mail2Tag: Tagging email for social sharing in the enterprise
Because they require people to change familiar behaviors, micro-messaging and social bookmarking platforms have faced slower adoption in the enterprise. The “Mail2Tag” prototype system was developed to make email a key component in the social sharing platform, since it is still most users’ primary communications tool—thus requiring minimal behavioral change. People simply add keywords to the cc: field in an email message; the system archives all “shared” messages with tags in a searchable index, and automatically sends relevant emails to other people in the system based on past tagging behavior.

TagSearch: Social tag-based search and discovery engine
While social tagging systems require less coordination and evolve faster than taxonomy-based tagging systems, they also create noise when people use different words to mean the same thing (or mean different things with the same word). The “TagSearch” prototype system normalizes tags from social tagging systems to amplify the signal from tags while reducing the noise. Topic exploration is also more efficient because social tags can serve as crowdsourced “signposts” for navigating to interesting content. The system currently includes an API that supports Atom feeds for data import and OpenSearch for integration with enterprise search engines; a demonstration system is available at www.mrtaggy.com.

Zerozero88: A recommendation system for social information/activity streams
Many people use Twitter as a microblogging platform to share useful links and commentary. But users are also overwhelmed by the volume of status updates in their social streams—which ones are the most important or valuable to read? Recommender systems can address information overload by helping people avoid missing important or relevant content buried within their social streams. The “Zerozero88” prototype system highlights important tweets based on a person’s topic interests and those of the people they follow; a demonstration system is available at www.zerozero88.com.

More Information
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