

A mobile peer-to-peer recommender system

Internet is flooding us with information. Filtering out the tiny sub-set that deserves our attention is a key issue for the next generation of mobile networked services. One approach is that users collaboratively help each other to find gold nuggets in the river of data. This project is about collaborative filtering of short text messages coming from e.g. micro-blog services such as Twitter. Users rank messages explicitly or implicitly via how much attention they pay to the message. A society of AI-agents uses rankings from the community for learning how to filter un-ranked messages. A dedicated agent filter messages individually for each user taking into account the similarities and differences in interest between users. It is, however, assumed that users can be trusted not to sabotage the system.

The project will develop a mobile client application in Java including a user interface for reading and ranking messages, communication interfaces using IMS and an interface for connecting AI-agents. AI technologies will be researched and one or several AI-modules will be developed and tested. Suggestions for promising AI methods will be provided. The project shall also write a review of peer-to-peer recommender systems.

The project is based at the Mobile Life Centre (<http://www.mobile-life.org/>) in Kista and is performed in collaboration with Ericsson. Ericsson will provide access to an experimental IMS network, networking APIs and support for using the APIs. The focus is on studying AI-technology for mobile applications (see www.jaendel.se/research/stratmob) aiming at writing a scientific publication and to contribute a demo to an Ericsson event in December 2008. No salary is offered but enthusiastic supervision, an interesting and challenging project and an exciting environment at the Mobile Life Centre. The project is suitable for one-two computer science-oriented students and will start in September 2008.

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