MobiFeed: A Location-Aware News Feed System for Mobile Users

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**Date** 15 January 2013 (Tuesday)  
**Time** 2:00 pm - 2:30 pm  
**Venue** CS Seminar Room, Y6405, 6th Floor  
Yellow Zone, Academic 1  
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**Abstract**

A location-aware news feed system enables mobile users to share geo-tagged user-generated messages, e.g., a user can receive nearby messages that are the most relevant to her. In this report, we present MobiFeed that is a framework designed for scheduling news feeds for mobile users. MobiFeed consists of three key functions, location prediction, relevance measure, and news feed scheduler. The location prediction function is designed to predict a mobile user’s locations based on an existing path prediction algorithm.

The relevance measure function is implemented by combining the vector space model with non-spatial and spatial factors to determine the relevance of a message to a user. The news feed scheduler works with the other two functions to generate news feeds for a mobile user at her current and predicted locations with the best overall quality. We propose a heuristic algorithm as well as an optimal algorithm for the scheduling task in the scheduler. The performance of MobiFeed is evaluated through extensive experiments using a real social network data set.

This paper was presented in the 20th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2012), Redondo Beach, California, 6-9 November, 2012.

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Research interests: GIS, Mobile/Web/Sensor Data Management, Social Networking, and Spatial Databases

All are welcome!

In case of questions, please contact Dr Ted Chow at Tel: 3442 8679, E-mail: chycho@cityu.edu.hk, or visit the CS Departmental Seminar Web at http://www.cscityu.edu.hk/