

Data mining, Spring 2010. Group Work Assignment 3

Mining Mobile Data

1 The assignment

Below three tasks are outlined, *one of which* will be assigned to your group. For the given task, prepare a presentation (ca. 10 minutes) touching the following questions:

- What kind of patterns could be mined from this kind of data? What kind of useful information could be found?
- What frequent pattern mining techniques would you use and how?
- What other data mining techniques that you would use if any?
- What kind of higher level concepts could be useful to improve data mining results?
- What kind of preprocessing is deemed necessary/useful?

The tasks:

- Task 1: Mobile phone companies use continuously user panels. The mobile phone use of the panel members is tracked in very detailed level, the event types tracked encompass variety of tasks that can be performed with a modern mobile phone (use of applications, music player, camera, different types of messaging, web use).
- Task 2: Map services integrated to a mobile phone let users perform location-sensitive searches ("restaurants near me"). Queries are logged as are the locations where the queries were performed. Also, data on users movements can be logged, especially if he user uses on-demand loading of map pages.
- Task 3: Cookie-techniques of web services enable the integration of data of a user using the web with different devices (e.g. Joe User accessing from a mobile phone or PC of the web site and services of the same company/service provider). Web data commonly contains information about how the consumer navigates the web (the sequence of page views, pages the user clicks). Typically, some other information is available, such as the phone model, and usage profile of company's services.

2 Guidelines

- Groups will be established at the start of the group work session
- Room B222 will be at the disposal of the groups from 10.15-14.
- The debrief session will be held on Wednesday 28.4. at 9.00, Room C222.
- As in the first group work, many details here are left open. Use your imagination and edugates guessing to fill in the blanks.
- In the debrief session, present you plan on slides. The appropriate length of the presentation is 10 minutes.
- After the session, return the slides to Taru via email. Please remember to list the names of the group members on the slides.

3 Debrief and grading

The debrief session will be held on Wednesday 28.4. at 9.00, Room C222. The group work will be graded (levels 1-5) based on three criteria

1. Originality
2. Feasibility
3. Presentation