



**ifgi**  
Institute for Geoinformatics  
University of Münster

University of Münster

# OpenStreetMap

Study project, winter 2010/11

Carsten Keßler

[carsten.kessler@uni-muenster.de](mailto:carsten.kessler@uni-muenster.de)

# Time slot

- According to doodle:

Thursdays, 12–14

- not weekly!

# Conditions for 5 ECTS

- Active participation during the project
- Every student presents her / his group's work at least once
- Participation in software development
  - use Javadoc (@author), SVN / GIT to document who has written which parts of the code
- Final report from every group
  - should clearly indicate who has written which sections of the report
  - can also be a submission to a conference!

<http://osm.org>

# Topics

- 4 topics
- each will be worked on by a group of 3 students
- I make initial proposals, you:
  - develop the ideas further,
  - come up with a project plan for the semester
  - make your own proposal!

# Mobile POI editor

- There are some platform-dependent OSM editors (Android, iPhone)
- Should be a platform-independent Web-app that makes use of the geolocation API (<http://dev.w3.org/geo/api/spec-source.html>)
- Should work for POIs only (no tracks) and propose tags that might apply based on features in vicinity
- Challenge: useful tag recommendation

# OSM as Linked Data

- Create a wrapper for OSM that exposes the data as RDF
- Challenges:
  - find useful vocabularies
  - eventually develop new vocabulary specifically for OSM
  - develop UI for creating the „outlinks“ (=make it real Linked Data)
  - feed these outlinks back into the original dataset (how?)

# Exploring the stability of features in OSM

- Develop or adapt an OSM renderer to display the stability of features (i.e., how long they have not been edited)
- Challenges:
  - run some statistical analyses to find outliers that have not been changed for an exceptionally long time
  - render based on these statistical models

# Analyse and explore the co-editing network of OSM

- View users as nodes and any node that two users have edited as an edge between these users
- Challenges:
  - deal with a massive dataset (the whole OSM dataset + history, ~170GB of XML)
  - come up with a method to efficiently analyse these data
  - visualization and analysis UI

# Tasks

- Play around with OSM (add some features) and the API if you are a newbie
- fill in the doodle to indicate the projects you are interested in
- next meeting: THURSDAY, OCT. 21