



ICA Tutorial on Generalisation & Multiple Representation 2 July 2011 Paris



Lecture 1 : Introduction and Overview

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Who are we?



ica.ign.fr



Workshops & Tutorials

- OS Workshop on geospatial web services Nottingham
June 2008
- 12th ICA Jointly with EuroSDR Workshop Montpellier
June 2008 (SDH)
- Map Generalisation and Semantic Web Dagstuhl
April 2009
- GDI Conference Boulder June 2010
- 13th ICA Workshop Zurich Sept 2010
- Schematisation workshop Dagstuhl Nov 2010
- 14th ICA Jointly with ISPRS Paris June 2011
- 3rd Tutorial Jointly with EuroSDR on Map Generalisation,
Paris June 2011

Publications

Website: ica.ign.fr

✚ EuroSDR Report

✚ http://www.gdmc.nl/publications/2010/State-of-the-art_automated_generalisation.pdf

✚ Future Plans

- 15th Workshop in summer 2012
- 16th Workshop in summer 2013 in Dresden (just prior to ICC)
- 17th Workshop...?
- 18th Workshop in Brazil or the States
- A Book...map generalisation, mashups and the web

✚ Business meeting

- Thursday 5-6, Rm 243 – please try and make it.

What you should get from today

- ✚ What to generalise..
- ✚ Why generalise (a context beyond the visual..)
- ✚ data modelling..
- ✚ Current approaches..

What you should get from today

✦ Examples

- state of the art
- breadth of application

✦ Demonstrations 1.30 – 3.30

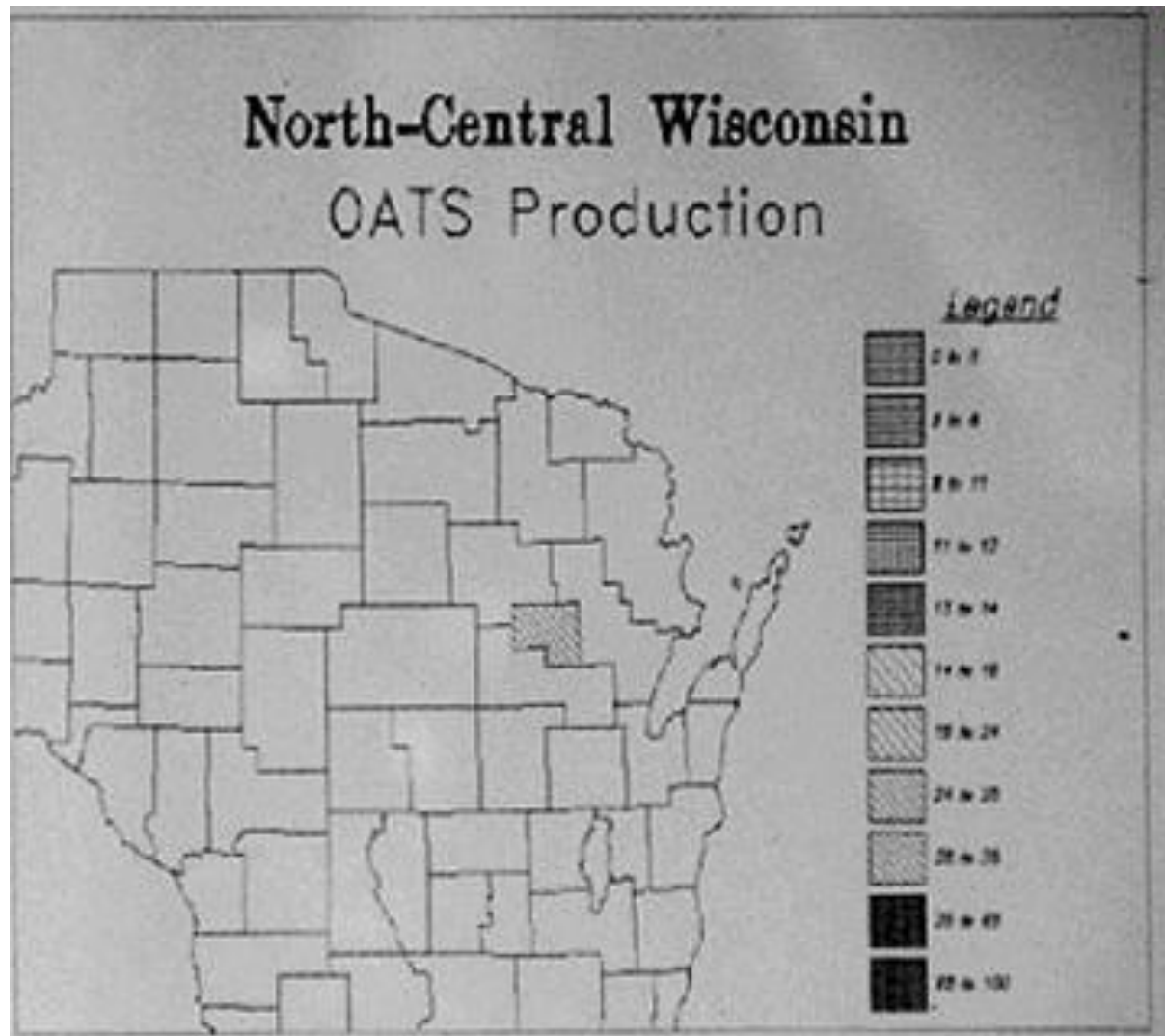
- 1.30 3 min overview
- 1.45 4 groups rotate, 10-15 min demo
- 2.45 meet individually/ poster discussion

✦ Interaction & discussion → partnerships & networks

Generalisation needs today



Generalisation needs today



Generalisation needs today



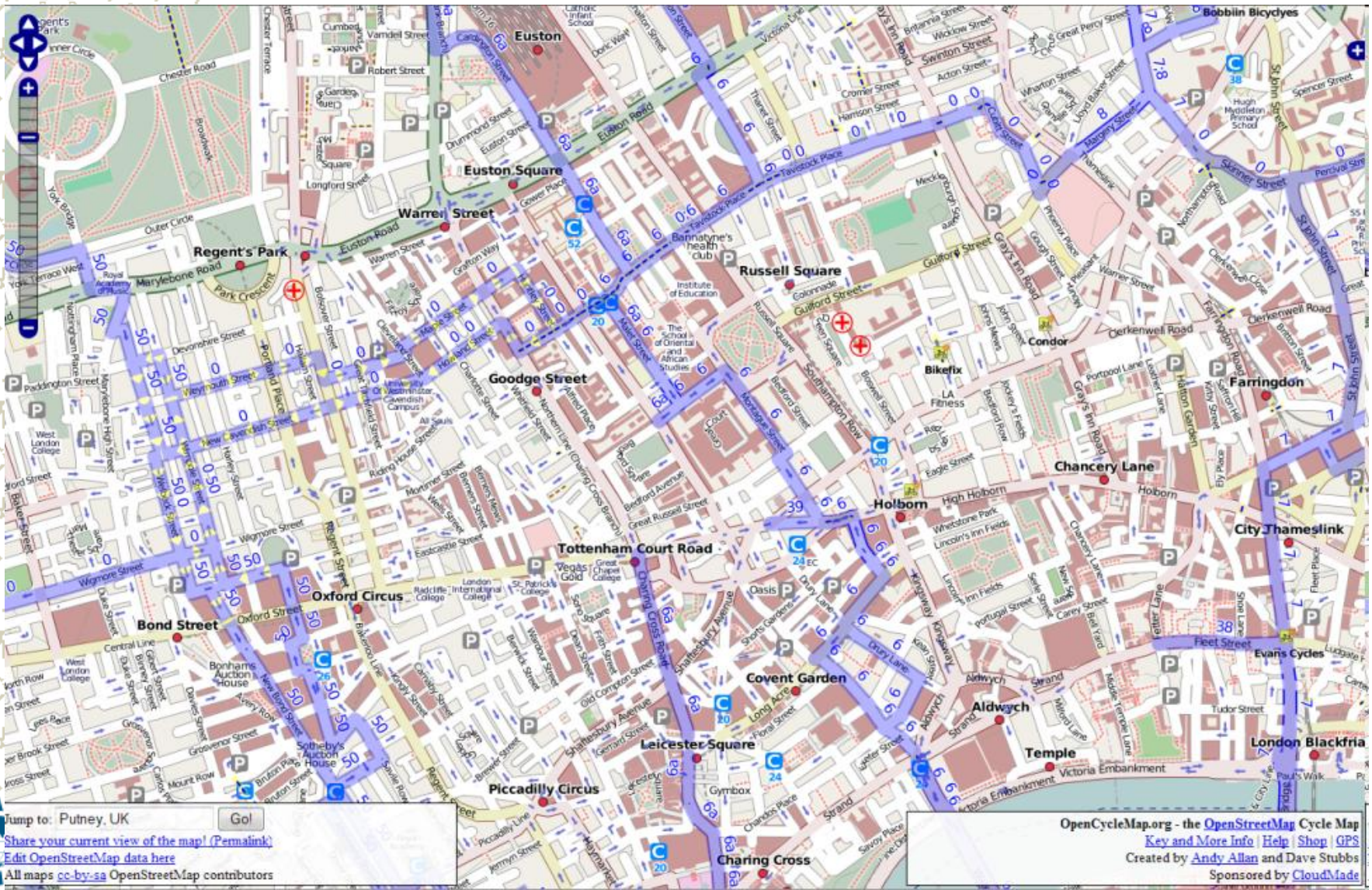
Generalisation needs today



Facebook




Generalisation needs today



Tutorial program

Session 1: from 9:00 am – 10:15 am

1. Introduction (William Mackaness) (15 min)
 - Generalisation needs today
 - Activities of the ICA Commission
 - Brief overview of the tutorial structure
2. Generalisation operators (Nico Regnauld) (30 min)
 - Frameworks for generalisation operators
 - Methods and approaches for 2D/3D vector based generalisation
 - Raster based generalisation methods
3. Approaches to modelling the generalisation process (Lars Harrie) (30 min)
 - Condition-action modelling
 - Human interaction modelling
 - Constraint-based /optimisation methods



Session 2: from 10:45 am – 0:15 pm

4. Constraints and evaluation (Jantien Stoter) (30 min)

- Definition of constraints and constraint typologies
- Harmonised constraint within the EuroSDR project
- Constrained based evaluation

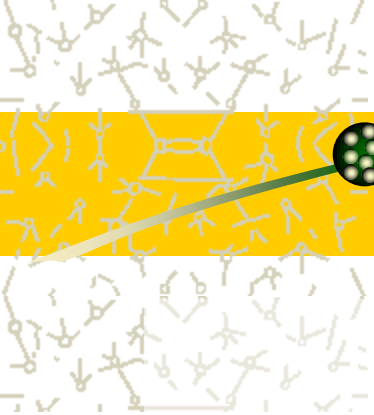
5. Relation modelling and MRDB (Dirk Burghardt) (30 min)

- Tools for spatial analysis and pattern detection
- Triangulations and tree structures
- Vertical linkages and MRDB

6. Multi-agents within automated generalisation (Cecile Duchene) (30 min)

- Multi-agent systems principles
- Principles of agent modeling for generalisation
- Overview of existing agent-based generalisation models

Lunch from 12:00 am – 2:00 pm



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Session 3: from 2:00 pm – 3:30 pm

- Generalisation in Practice. The session will start with short presentations about examples of what is currently "operational" in a NMA production context. After that several Demo's will present the practical usage of generalisation software tools.
 - Xavier Halbecq (IGN) presentation of the workflow + demo for the new 1:25k IGN map
 - Sabine Urbanke (LGL) AdV-Project ATKIS GEN, production workflow for the topographic map DTK50
 - Nicolas Regnauld (OSGB)
 - David Watkins (ESRI)
- Poster presentation from PhD participants about own generalisation research and development



First session:

✈ Operations and Algorithms

Nico Regnauld