SHARING E-COURSES IN GI SCIENCE WITH EUROPEAN PARTNERS: EXPERIENCES WITH GEODATA VISUALIZATION

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The eduGI project

- Distance education, sponsored by the European Commission
- February 2006 - July 2007
- Involved: 8 European GI Institutes in 7 countries
The eduGI project

www.edugi.net/eduGI
The common platform (for 7 courses)

http://novaelearning.unl.pt
ITC’s involvement
Key concepts

- Sharing resources
- One course per partner: core competence
- Access to international GI know-how
- Creates ‘virtual mobility’
- Re-use of existing materials
- Organization model for future exploitation
- Outcomes to be used in- and outside the GI-community
The courses

Each course:

- M.Sc. level
- student load: 90 hrs = 3 ECTS
- 15 participants of each receiving Institute
- subdivision in parts and modules
- theory, practicals, assessments (*selftests, final exam*)
- contact (synchronous) sessions

- Evaluations: in received and own courses
Geodata Visualization Course

Main underlying ideas:

- Aim is to motivate students - active learning:
  - integration of theory and practice
  - all tasks lead to one final deliverable
  - team work
  - quick respons, feedback, use of Discussion Boards

- Contents as self-explanatory as possible
Structure (study guide)

PART 1: TAKING OFF…
- MODULE 1  Maps! Connie Blok
- MODULE 2  Setting the visualization scene Corné van Elzakker

PART 2: THE BASICS
- MODULE 3  Geometric foundations Richard Knippers
- MODULE 4  Graphic foundations Connie Blok
- MODULE 5  Colour counts… Wim Feringa
- MODULE 6  Mapping topography Richard Knippers
- MODULE 7  Mapping thematic attribute data Connie Blok
- MODULE 8  Multi-scale issues Richard Knippers
- MODULE 9  Map output Ton Mank

PART 3: ADVANCED
- MODULE 10 The third dimension Menno-Jan Kraak
- MODULE 11 Visual analytics and geovisualization Menno-Jan Kraak

Diagram:

1. Module 1
   - Module 2
     - Module 3
     - Module 4
     - Module 5
       - Module 6
       - Module 7
       - Module 8
     - Module 9
   - Module 10
   - Module 11
Geodata Visualization Course

Course components:

- study guide (*detailed descriptions, learning instructions ...*)
- appendices: use of platform
- e-lectures
- tasks - in small teams
- synchronous sessions
- use of Discussion Boards
- self tests
- final exam
Learning activities *(example)*

- **View** the e-lecture of module 4
- **Read** in Kraak & Ormeling (2003):
  - Chapter 6: sections 6.1, 6.2, 6.3 up to 6.3.1,
  - Chapter 7: sections 7.2 *(up to nearest neighbour index, p. 113)*, 7.4.
  - *Optional*: Chapter 11, section 11.1.
- **Perform** task(s):
  - *Optional*: exercise: Representation Variables in ArcGIS,
  - task 4, and submit the task.
- **Attend** synchronous session Module 4-6.
Appendices:
Platform, Blackboard and Horzon Wimba

Live Classroom

Test for the students

Note: The first time that you enter the Live Classroom you will need to run the setup wizard in order to make sure your computer is ready.

Here is the list of the recorded archives for this room:

<table>
<thead>
<tr>
<th>Title</th>
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Map definitions

- a reduced and simplified representation and projection of (parts of) the earth surface on a plane

- a representation or abstraction of geographic reality; a tool for representing geographic information in a way that is visual, digital or tactile

- visual: a printed map or a map on a monitor
- digital: stored geodata with all the information that is needed to represent these data in a map (e.g. drawing codes, a legend, title, scale indication, etc.)
- tactile: a map meant for visually impaired users (to be read by touch)

http://www.tiresias.org/
e-Lectures and other support
Synchronous sessions

Welcome to 'Test for the students'

Connecting to server...
You have connected successfully!
You have entered 'Test for the students'.
Your media format is HorizonMedia Multi-way Audio.
Assessments

Test Canvas

Add, modify, and remove questions. Select a question type from the Add Question drop-down list and click Go to add questions. Use Creation Settings to establish which default options, such as feedback and images, are available for question creation.

Add: Calculated Formula

Name: Final exam
Description:
Instructions: Please be patient, it takes some time to download the pictures! Good luck.

Question
The traditional role - or function - of maps still holds nowadays, but new roles have been added, particularly in a Web environment. Briefly describe both the traditional role and the extended roles of maps on the Web.

Answer: The traditional role of maps is to provide insights in characteristics of geodata: maps support visual exploration, data analysis and are used for presentation (output, dissemination). Extended roles in a Web environment are: 1. maps give access to data or files behind the map (map as a search tool, or index/interface); 2. maps may offer a preview of map products that can be bought.
After the (pilot) courses

Each project partner:
- evaluation report
- workshop - local / national
- publication - national / regional level
- attends project meetings
- improves materials after the pilot

Project management:
- organizes project meeting
- reports to EC and other existing networks
- publication (common?) - international level
- maintains the project home page

Teaching materials: will be made available!
Experiences so far...

- No common view on DE
- communication between partners
- recruiting students
- lots of work
- many courses start (too) late
- platform administration / capabilities

- Building experience
- positive reactions students / one partner
- international contacts
- new input to our own GFM courses