

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



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The eduGI project

[eduGI]

Reuse and Sharing of e-Learning
Courses in GI Science Education

- 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)*



UNIVERSIDADE NOVA DE LISBOA

Login
nome palavra-passe

NOVA
eLearning

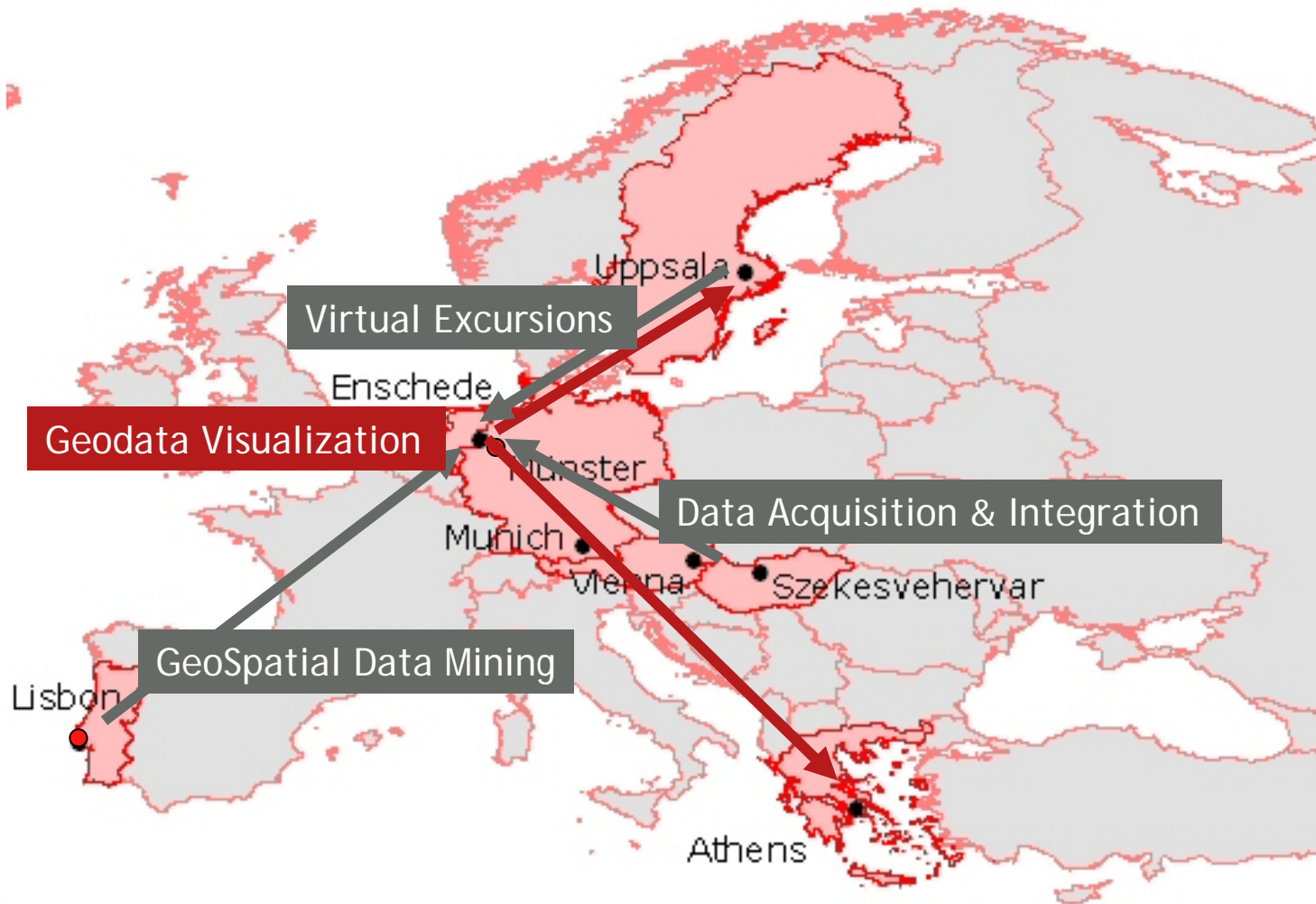
A Universidade Nova de Lisboa pretende promover activamente a criação de condições para melhorar o nível de serviços online prestados aos seus alunos e docentes, implementando mecanismos de cooperação e interacção entre os utilizadores do seu Campus. O eLearning é um elemento que contribui decisivamente para este objectivo, garantindo a interacção entre alunos e docentes independentemente do local e hora.

Bem-Vindo ao NOVAeLearning.

ENTRAR ►

<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

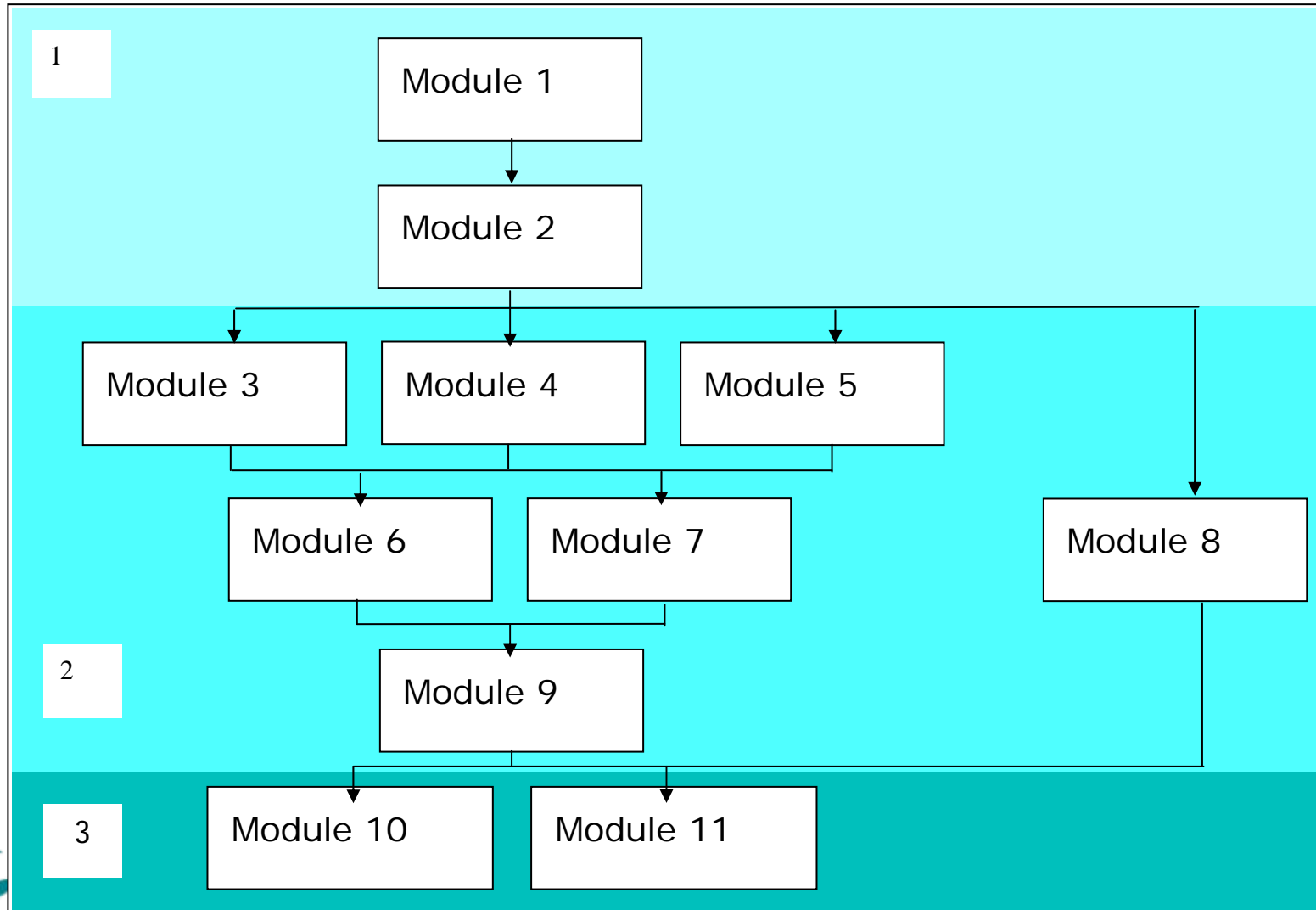
Geodata Visualization Course



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)*



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 Horizon Wimba



Bem-Vindo Courses Commu

- Announcements
- Information
- Staff Information
- Course
- Documents
- Tasks
- Tasks data
- Self tests
- Sync. sessions
- Communication
- Tools
- Students

- Tools
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VISUALISATION > COURSE DOCUMENTS

Course Documents



Test session for the staff involved (25 October 2006) - 15:00/16:00 GMT

[Live Classroom](#)



M1 Maps!



M2 Setting the visualization scene

VISUALISATION > COMMUNICATIONS > LIVE CLASSROOMS > TEST FOR THE STUDENTS

Live Classroom

Add to Calendar
 Add to Announcements
 Add & Manage Content
 Edit Settings
 View Records

Test for the students (Open)

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.

Setup Wizard

Run the [setup wizard](#) to make sure that your computer is ready to use the Live Classroom

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

TITLE	ENTER	OPEN/CLOSE	REMOVE
There is no recorded archive for this room			



e-Lectures

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)



page navigation

supporting media

related page

e-Lectures and other support



- Announcements
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Tools

- Communication
- Course Tools
- Course Map

VISUALISATION > COURSE DOCUMENTS > M5 COLOUR COUNTS ... > TOOLS

Tools

- chromaticity**
[Chromaticity.ZIP](#) (335.867 Kb)
- Colour mixer**
[ColorMix.ZIP](#) (144.543 Kb)
- Colour range**
[ColorRange.ZIP](#) (218.028 Kb)
- HSV**
[HSV.ZIP](#) (135.485 Kb)
- Maxwell triangle**
[MaxwellTriangle.ZIP](#) (147.000 Kb)
- RGB**
[RGBColors4.ZIP](#) (180.528 Kb)

Introduction - Windows Internet Explorer
http://kartoweb.itc.nl/geometrics/Introduction/introduction.html

File Edit View Favorites Tools Help

Google Uitvoeren Bladwijzers PageRank ABC Spelling controleren

Blackboard Academic Suite Introduction

1. Introduction

Geometric Aspects of Mapping

March, 2006
Presented by: [Richard Knippers](#)

1.0 Introduction

In the process of map making ellipsoidal or spherical surfaces are used to represent the surface of the Earth. These curved reference surfaces are transformed to the flat plane of the map by means of a map projection. Since a map is a small-scale representation of the Earth's surface it is necessary to apply some kind of scale reduction.

The diagram illustrates the process of map projection. It shows 'The Earth' as an irregular shape. A 'Selection of a Reference surface' is shown as a 'SPHERE' and an 'ELLIPSOID'. An arrow points from the Earth to the reference surfaces. Below, the 'Projection on the map plane' is shown as a flat cylinder.

Department of Geo-information Processing



Tasks



- Announcements
- Information
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- Self tests
- Sync. sessions
- Communication
- Tools
- Students

Tools

- Communication
- Course Tools
- Course Map

Control Panel

- Refresh
- Detail View

[VISUALISATION](#) > TASKS DATA

Tasks data



ESRI World data

[Click to download](#) (42.737 Mb)



Demographic data - Africa

[Click to download](#) (53.367 Kb)



DEM - Africa

[Click to download](#) (61.687 Mb)



USGS Global GIS data - Part 1

[Click to download](#) (68.59 Mb)



USGS Global GIS data - Part 2

[Click to download](#) (75.382 Mb)

Synchronous sessions

http://208.185.32.170 - Horizon Wimba - Microsoft Internet Explorer

Presentation **Start** **Stop**

Content Users Media

Web eBoard Share ← →

Default Content Folder Go

Note: This folder does not have any slide content.

Welcome to
'Test for the students'

TALK [Speaker] [Mute] [Phone]

Options Exit - Lobby - Help

Connecting to server...
You have connected successfully!

You have entered 'Test for the students'.
Your media format is HorizonMedia Multi-way Audio.

Yes No ?

Name	✓	X	Hand	?
Richard_Knippe			+	+

To: ALL [Dropdown] [Pause] [Icon] (1) ✓ (0) X (0) Hand (0) Horizon Wimba

Applet com.hw.clients.hms.HorizonMediaApplet started Internet



Assessments

NOVA eLearning

UNIVERSIDADE NOVA DE LISBOA

Bem-Vindo Courses Community Gestor de conteúdos Suporte

VISUALISATION > CONTROL PANEL > TEST MANAGER > TEST CANVAS

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 [Creation Settings](#)

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

[Modify](#)

[Add Question Here](#)

Question 1 **5 points** [Modify](#) [Remove](#)

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.

[Add Question Here](#)

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

