

EUGISES 2006 Abstract submission form



Title:	Storybooks for teaching GI standards
Type of presentation	Paper
Name author 1:	Lydia Gietler
Affiliation author 1:	AGIS, University of the Bundeswehr Munich
Name author 2:	Wolfgang Reinhardt
Affiliation author 2:	AGIS, University of the Bundeswehr Munich
Name author 3:	
Affiliation author 3:	
Information on contactperson (only this person will receive information on acceptance of abstract)	
Name:	Lydia Gietler
Address:	AGIS, University of the Bundeswehr Munich, Werner-Heisenberg-Weg 37, 85577 Neubiberg, Germany
Email:	lydia.gietler@unibw.de

Key words (up to three) to indicate the main theme's of the paper:

1. elearning
2. OpenGIS
3. eduGI

Abstract (minimum 800 words, maximum 1000 words)

eduGI is an EU-funded project, starting in February 2006, which targets the exchange of elearning courses between eight GI institutes located all over Europe. Each partner contributes one course and, in return, gets two courses provided by the other partners on a non-profit exchange basis. The fact that each partner provides a course of his/her competence will improve the quality of the teaching materials on a very high level. The project does not aim at the development of new elearning courses. Instead existing material will be used and adapted to the requirements of *eduGI*. Some of these requirements are English language, 90 hours workload, 13 online contact lessons, supervision and exams executed by the providing GI institutes. In this context, AGIS, the GIS lab at the University of the Bundeswehr Munich, will provide a course on GI standards.

Involved in the project *Geoinformation – Multimedia for a New Interdisciplinary Course of Studies*, sponsored from June 2001 to February 2004 by the German Federal Ministry of Education and Research, AGIS has developed a teaching module on GI standards which is going to be the basis for the *eduGI* course. The aim of this project has been the exploitation of the potential of new media for the introduction of geoinformation as an interdisciplinary course in different fields of study like geography, geodesy, informatics, engineering, life sciences, agriculture, urban and regional planning and others. All the outcome of this project is available in the Internet at www.geoinformation.net (in German language). The teaching material is structured into html- and Flash-based slides which are pooled to teaching units, which again are combined to teaching modules. A function called the *LectureBuilder*, also available online, allows developing new teaching units by selecting and sequencing the existing slides. Besides, there is the possibility to include new slides. This allows adapting the teaching material to the requirements of the different fields of study.

Coming back to *eduGI*, given that the courses provided by partner institutes will be

included in existing curricula in different fields of study, there also seems to be a need for flexibility concerning the content of courses. For example, it should be possible to vary the level of detail of specific topics, in order to satisfy the diverse needs of the students. Although a function like the *LectureBuilder* provides the possibility to adapt the content, the task of selecting and sequencing is up to the lecturer. This approach takes for granted that the lecturer owns profound knowledge in the broad field of geoinformation as well as knowledge about the specific requirements of the students. Of course, this knowledge is available among lots of specialists of the above said disciplines as well as among the institutes involved in *eduGI*, so this task would be eased. However, there are view things to be considered: On the one hand, *eduGI* aims at reducing cost as well as improving quality of teaching materials through having them developed and supervised by other GI institutes. Hence, the receiving institutes should not be fully involved in the design of the course. Furthermore, the *eduGI* network will be open to additional partners after the project and their requirements are not known yet. And besides that, to take a look at further development, if the use of geoinformation should become more important and wider spread, there is, sooner or later, no other option but teaching the accordant content in far-off disciplines, e.g. economics or political science. And in this context, at the latest, it must be clear that there is a need for tools allowing the development of different profiles of one course without too much effort.

One way of developing such profiles is by using storybooks. Storybooks in the context of elearning are graphical representations of particular slides or, at a higher level, learning units and learning modules. These representations are linked to detailed descriptions of the learning targets of the particular slides, learning units or learning modules. Thus, they allow defining different profiles by defining different paths through learning lectures in the sense of selecting and sequencing particular slides. At a higher level it is possible to define different paths through learning lectures which are combined to learning modules. And, at the highest level, storybooks can be used to represent whole curricula. In this context, it is important that the slides are designed to cover small pieces of information, allowing a clear identification of their learning targets. The descriptions of the slides have to include these learning targets as well as a kind of classification regarding their suitability for different fields of study. Interdependencies of slides are modelled using different kinds of relations between the graphical representations. To sum up, storybooks seem to be perfectly suited to design any kind of learning material depending on the specific requirements of different fields of study as well as depending on the previous knowledge of the students.

Our contribution to the EUGISES 2006 aims on raising a discussion about the power of storybooks as a tool. In our paper we will present different profiles of our course on GI standard as well as our experiences when developing them. As we think that the power of storybooks goes far beyond just designing teaching material, e.g. we can imagine using them as a tool to communicate the need for certain content in the context of developing curricula, we foresee an interesting discussion on the scope of storybooks.