GITTA

Geographic Information Technology Trainings Aliance

The GITTA Project:
e-Learning Contents to Complete the Curriculum of GIScience

• Samuel Wiesmann – Steering Committee GITTA Association

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University of Zurich

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Content

1. Overview of GITTA
2. Requirements and principles
3. Sustainability of the project: 4 pillars
4. Setup of courses
5. Conclusions

Overview: GITTA = ?

GITTA = **G**eographic **I**nformation **T**echnology **T**raining **A**lliance

- GITTA is a modular online course system for GIScience and -Technology (GIST)
- Consortium of 10 Swiss partners originally contributed to development of the content
- Realized between 2001 and 2004, maintenance between 2005 and 2009!
- Was funded by Swiss Virtual Campus (SVC)
- Right now more than 60 lessons and case studies online

Requirements

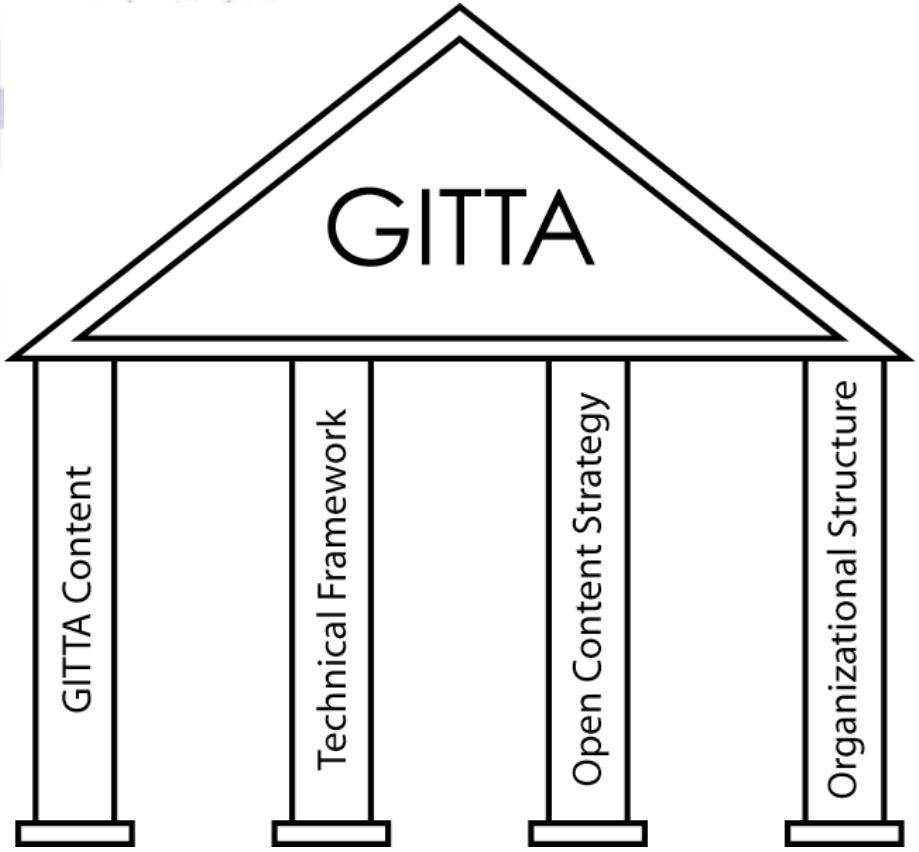
- Interdisciplinary: technical, natural, and social sciences
- To be conveyed:
  - Technical fundamentals as well as specific scientific GIST concepts
  - Connecting and challenging – use interdisciplinarity
- GITTA-specific:
  - Big network (10 institutes at 7 universities)
  - Multilingual (ge/fr/it & en), multicultural (teaching, kind of universities)
  - Campus setting
  - Relatively short half-life period of knowledge

Principles

- Support the different approaches of the universities
- Support multiple languages

- Conception primarily for blended learning
- Ensure **sustainability**

Sustainability of Content

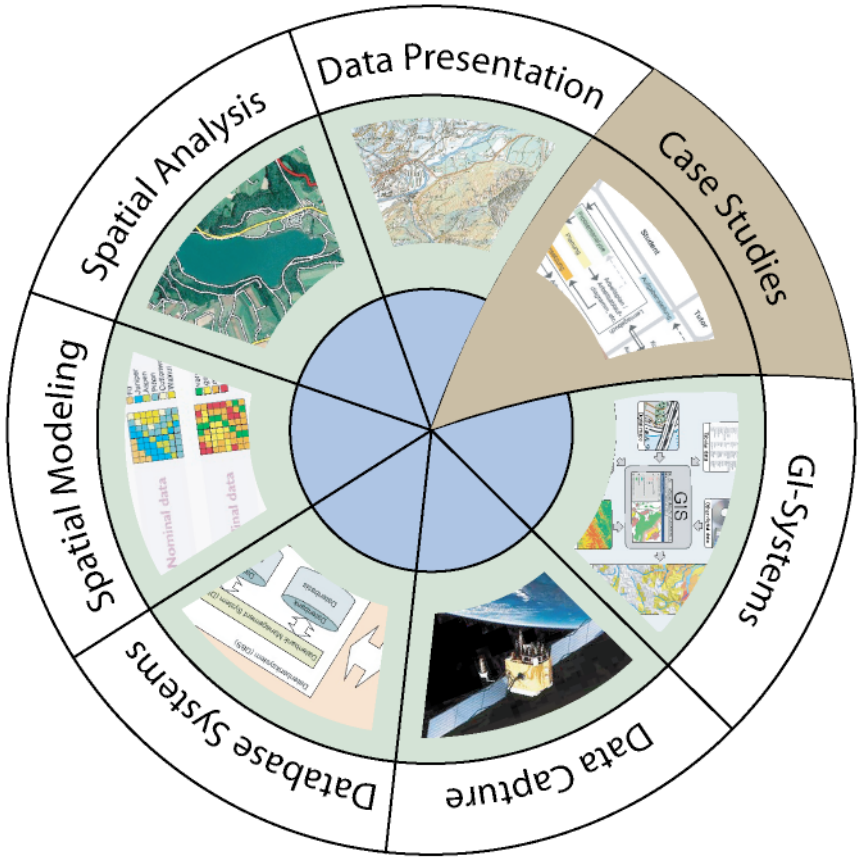


4 pillars:

a. Content, didactic concept
b. Technical framework
c. Open educational resources (OER)
d. Organization (GITTA association)

Pillar 1: Content, Didactics

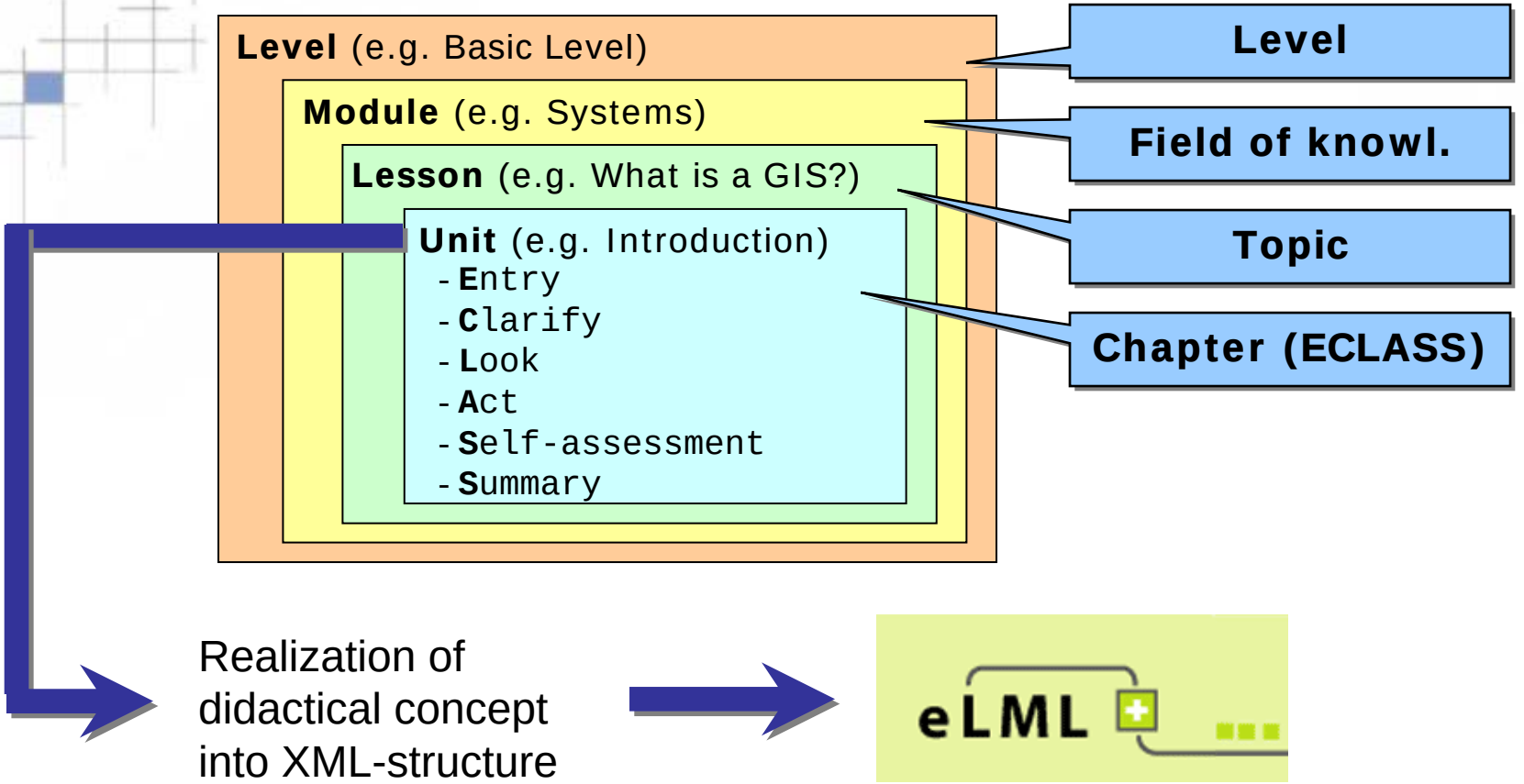
- 6 modules
- On 2 levels (basic, intermediate)
- Modules: theory
- Case studies: practical skills in problem solution
- 57 lessons in total and 6 case studies



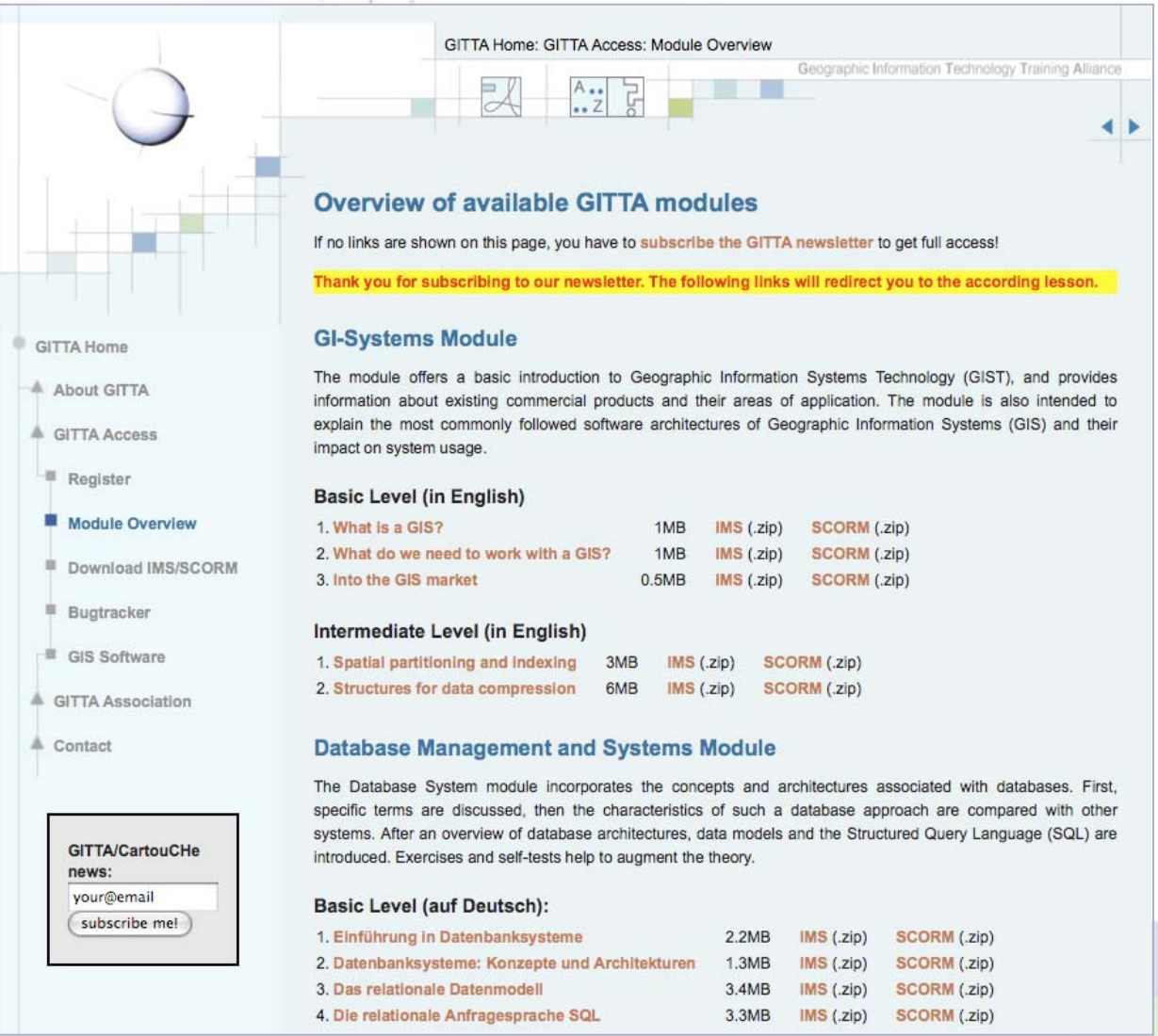
Pillar 1: Content, Didactics

- August 2008: content of CartouCHe project integrated into GITTA
- www.e-cartouche.ch
- → Thematic scope extended with 15 lessons in multimedia cartography and location based services

Pillar 1: Didactical concept

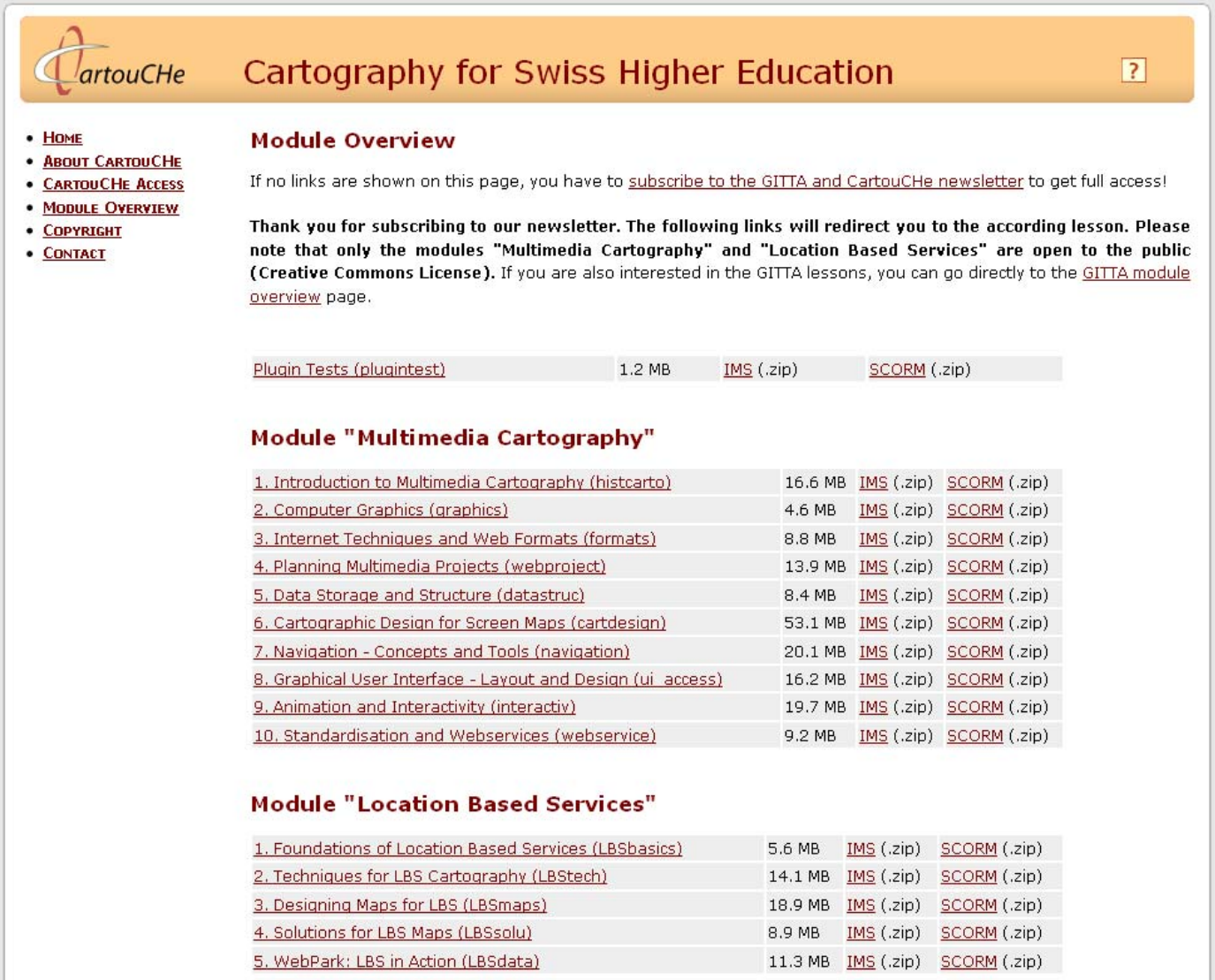


Result: EL-Pool in GIST



Available via:
www.gitta.info

Result: EL-Pool in Cartography



CartouCHe — Cartography for Swiss Higher Education

- Home
- About CartouCHe
- CartouCHe Access
- Module Overview
- Copyright
- Contact

Module Overview

If no links are shown on this page, you have to subscribe to the GITTA and CartouCHe newsletter to get full access!

Thank you for subscribing to our newsletter. The following links will redirect you to the according lesson. Please note that only the modules "Multimedia Cartography" and "Location Based Services" are open to the public (Creative Commons License). If you are also interested in the GITTA lessons, you can go directly to the GITTA module overview page.

Plugin Tests (plugintest)	1.2 MB	IMS (.zip)	SCORM (.zip)

Module "Multimedia Cartography"

1. Introduction to Multimedia Cartography (histcarto)	16.6 MB	IMS (.zip)	SCORM (.zip)
2. Computer Graphics (graphics)	4.6 MB	IMS (.zip)	SCORM (.zip)
3. Internet Techniques and Web Formats (formats)	8.8 MB	IMS (.zip)	SCORM (.zip)
4. Planning Multimedia Projects (webproject)	13.9 MB	IMS (.zip)	SCORM (.zip)
5. Data Storage and Structure (datastruc)	8.4 MB	IMS (.zip)	SCORM (.zip)
6. Cartographic Design for Screen Maps (cartdesign)	53.1 MB	IMS (.zip)	SCORM (.zip)
7. Navigation - Concepts and Tools (navigation)	20.1 MB	IMS (.zip)	SCORM (.zip)
8. Graphical User Interface - Layout and Design (ui_access)	16.2 MB	IMS (.zip)	SCORM (.zip)
9. Animation and Interactivity (interactiv)	19.7 MB	IMS (.zip)	SCORM (.zip)
10. Standardisation and Webservices (webservice)	9.2 MB	IMS (.zip)	SCORM (.zip)

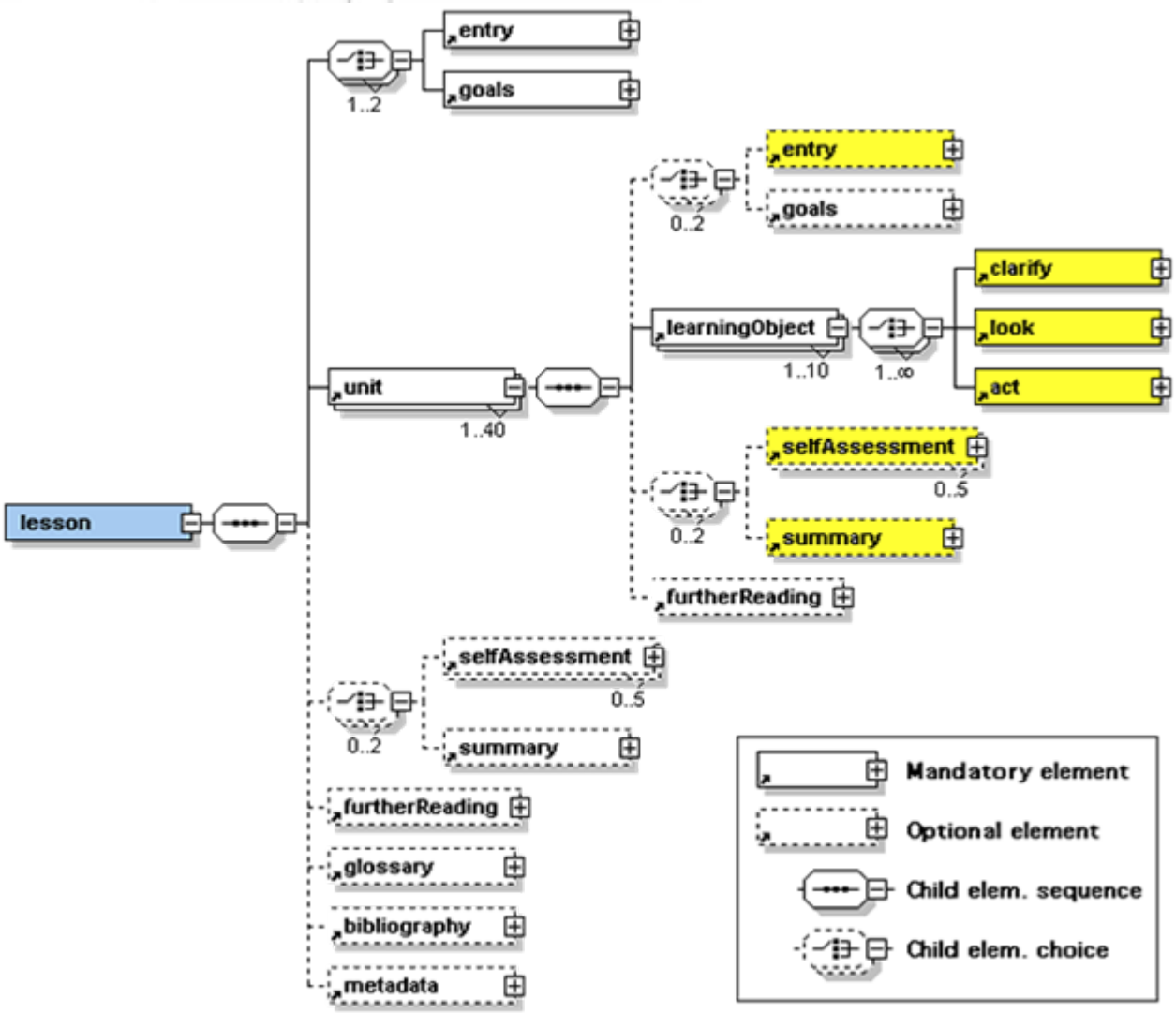
Module "Location Based Services"

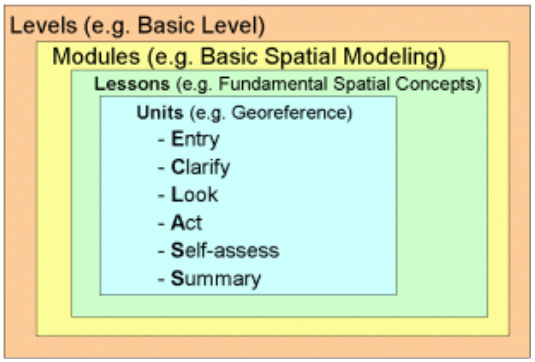
1. Foundations of Location Based Services (LBSbasics)	5.6 MB	IMS (.zip)	SCORM (.zip)
2. Techniques for LBS Cartography (LBStech)	14.1 MB	IMS (.zip)	SCORM (.zip)
3. Designing Maps for LBS (LBSmaps)	18.9 MB	IMS (.zip)	SCORM (.zip)
4. Solutions for LBS Maps (LBSsolu)	8.9 MB	IMS (.zip)	SCORM (.zip)
5. WebPark: LBS in Action (LBSdata)	11.3 MB	IMS (.zip)	SCORM (.zip)

Available via:

www.
e-cartouche.ch

Pillar 2: Technical Framework





Structure of an eLML lesson

e-LML

Pillar 2: Technical Framework

- **Entry:** *overview* of what can be learned
- **Clarify:** bridge between general concept and specific details of lesson
- **Look:** opportunity to review *examples or samples* of what is being taught in lesson (illustrations, animations, videos etc.)
- **Act:** *practicing* what is being taught: ideally by using interactive graphics (Flash, SVG, …)
- **Self-assessment:** students evaluate themselves what they learned (e.g. multiple choice tests with self-control)
- **Summary:** recapitulates what has being taught

Pillar 2: Technical Framework

Advantages of using eLML

- Content and design must be developed independently from each other
- **Flexibility**
  - Can be transformed into several file types (XHTML, PDF, IMS, SCORM) by using XSLT
- **Consistency**
  - Authors have to develop content in a didactical manner
- Content Versioning System helps providing the latest versions to teachers and avoiding redundant information

--> eLML is an essential element towards ensuring **sustainability**

Pillar 3: Open Educational Resources (OER)

- GITTA association follows an open content strategy
- Subscribing to newsletter is enough to get full access

Pillar 3: Open Educational Resources (OER)

- GITTA content is released under **Creative Commons** License, which means...

Conditions:

- Attribution (by)
- Non-commercial (nc)
- Share Alike (sa)

Pillar 3: Open Educational Resources (OER)

Which are the consequences of using this license model?

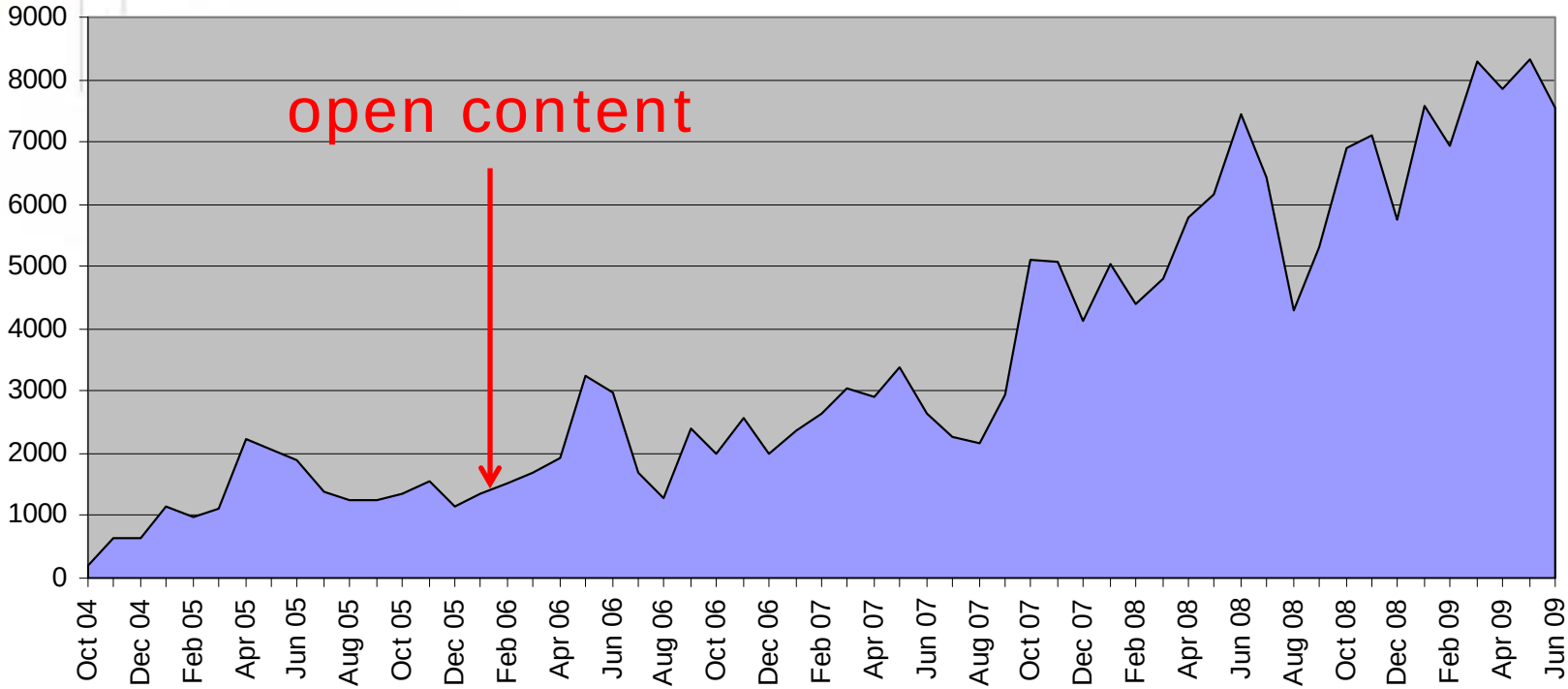
- Allows distributing the contents without having great efforts to be undertaken in terms of legal rights or copyrights etc.
- Open Content strategy shall help us to address a big community of GITTA users - so that a high amount of usage can be assured (one step towards achieving sustainability)

Pillar 3: Open Educational Resources (OER)

- 2 advantages:
  - External users (passive)
  - Possibility to include additional content from outside (active, additional authors)
- Experiences:
  - Wide echo with passive users; active links are more difficult to establish

Overview: frequency of usage

- number of visits since GITTA is online

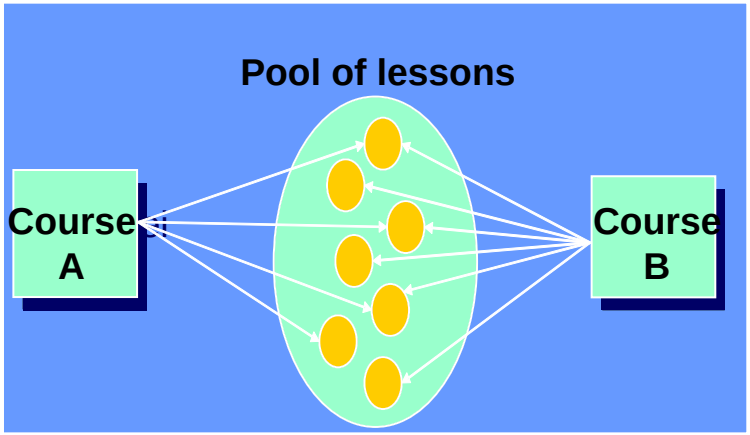


Pillar 4: Organisation

- 2006 foundation of “GITTA association”
- Organization independent of persons and institutions → especially after funding has finished
- Allows the acceptance of external authors (widens the base!) → on application, steering committee decides
- NOT meant to generate finances → very low membership fees
- Experiences:
  - Flexibilization
  - Better continuity

Setup of courses

- Over 60 lessons and case studies
- Modular setup, multilingual
- Biggest freely available e-learning pool in GIST
- Single courses use lessons out of the pool like “out of a box of bricks”



Conclusions

- EL projects of Universities have special **challenges** regarding the **sustainability**:
  - Surviving of the project when funding is finished
  - Didactical integration and effects of EL in campus setting
- Goal of this presentation: show strategy and experiences of GITTA
- **Concept of sustainability** with 4 **pillars**:
  - **Content**: coherent didactical concept (ECLASS); modular structure, multilingual, internationalization possible
  - Solid, flexible **technical base**: XML, open source, content versioning system, and rating of lessons
  - **OER:** worldwide biggest freely available EL-pool in GIST
  - **Organization**: association creates structures for further opening;
    search for partners, especially in emerging countries

www.gitta.info

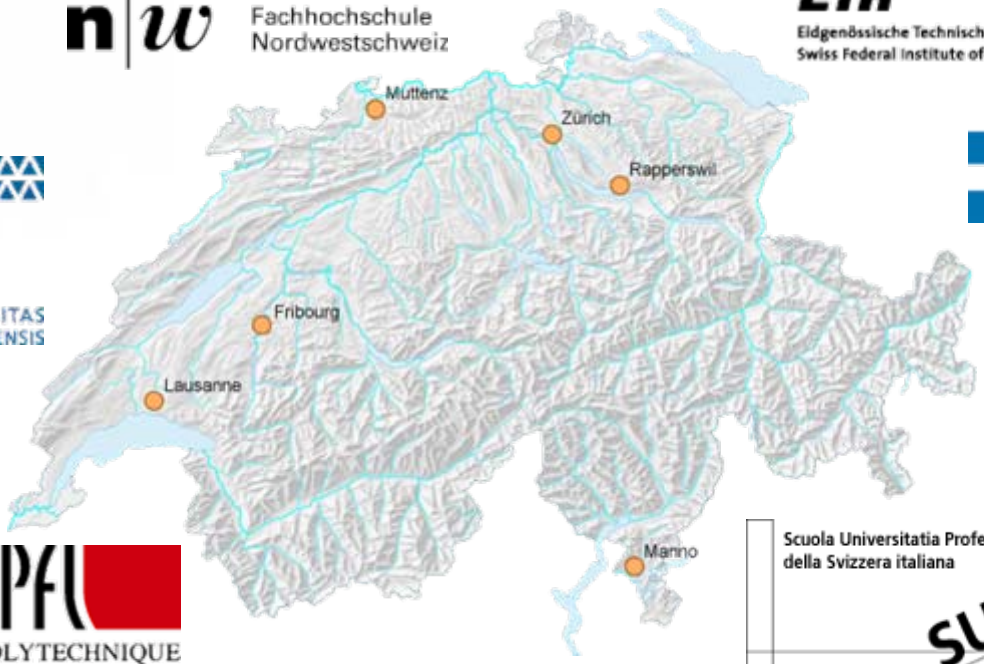
Universität Zürich

Fachhochschule Nordwestschweiz

ETH Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

HSR Hochschule für Technik Rapperswil

UNIVERSITAS FRIBURGENSIS



EPFL École polytechnique fédérale de Lausanne

Scuola Universitatia Professionale della Svizzera italiana SUPSI