

Development & implementation of a Learning Technology specification: **Learning Design**

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About myself

- Until February 2006 I was working at the Educational Technology Expertise Centre of the Open University of the Netherlands
 - Involved in Learning Technologies R&D <> Implementation
- Currently appointed as Instructional Technologist at the Staff Development Section at the UNHCR, Geneva

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Today.....

- Issues regarding developments Learning Technologies
- EML & Learning Design
- Explanation of Learning Design
- How in practise.. Tooling
- And without Technology?
- Questions & Discussion

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Issues at stake

- Open Content – Open Source
- Interoperability; not to be bound to one particular VLE.
- Reusability of learning materials / objects,
- Write, use, change, borrow and rearrange educational contents and processes

- Include pedagogy = process..!

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Issues at stake.. to be precise..

- Need a way of describing the whole teaching-learning process, not just the learning objects involved
- What do learners with these collections of Learning Objects?
- What about learning without Learning Objects?
- Learners will work together to solve problem solving tasks.
- Where are the teachers, tutors and coaches?

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EML & Learning Design - history

- Educational Modelling Language (EML)
 - Developed at OUNL, started in 1997
 - Public draft available in December 2000
 - Moved to world of standardization (CEN ISSS) and specification.. a base for
- IMS Learning Design v1.0 Final Specification
 - Approved 10 February 2003

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What is Learning Design NOT

- Not an instructional method... *can be used to describe many methods*
- Neither pedagogically neutral or 'agnostic' in the sense of not caring / knowing about pedagogy... *rather it requires the designer to be explicit about his/her pedagogical choices in the learning process*
- Not a guarantee of good education... *can use it to describe poor learning processes*
- Not a programming language... *although many characteristics are shared*

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Main concepts of Learning Design

- Persons thrive to reach their own **objectives**.
- Everyone has its own **role**
- by performing **learning activities** or **support activities**
- in an **environment** that helps them doing so
- by giving access to **learning objects** and **learning services**

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Reusable resources & scenario's

- **Learning object**
 - Example: video fragment of a job interview
- **Complete learning activity** or collection of these
 - Example, assess a video of a job interview
- **Whole unit of learning** (content package)
 - Example: How to learn to assess a job interview
- **Didactical scenario:**
Examples: Problem solving , role play, automated instruction

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Modelling Units of Learning

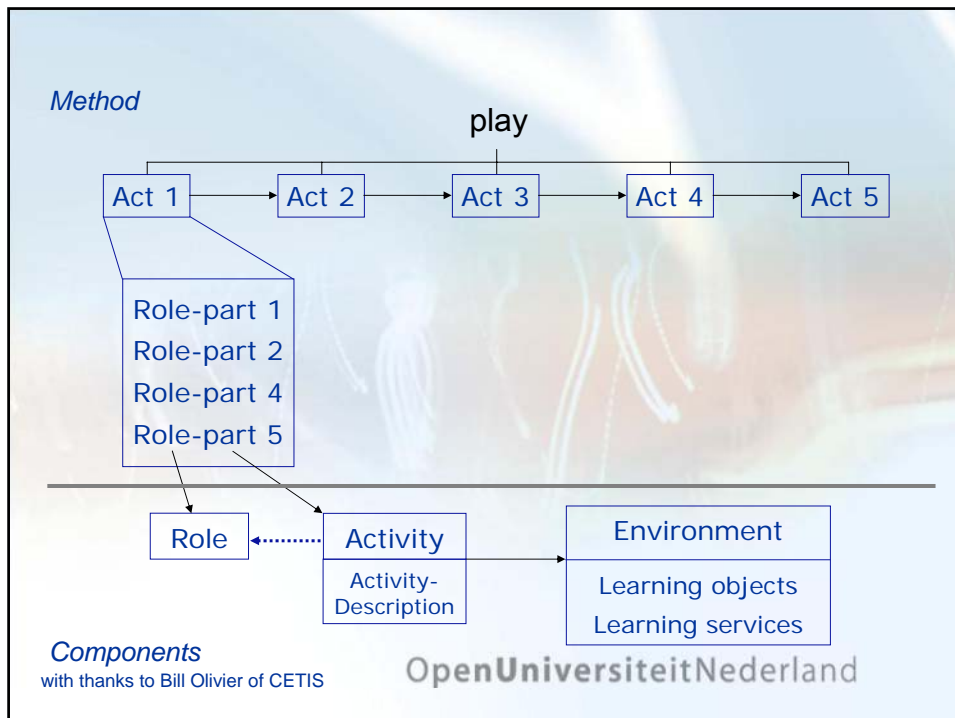
- IMS Learning Design is used to model units of learning
 - A unit of learning (**UoL**) is any delimited piece of education or training, such as a course, a module, a lesson, etc.
 - more than just a collection of ordered resources to learn
 - activities, assessments, services and support facilities provided by teachers, trainers and other staff members.
- A **model** of the activities, content, tools and workflow for learners and staff to accomplish one or more learning objectives
 - Who does what, when, with whom and using which learning objects and services

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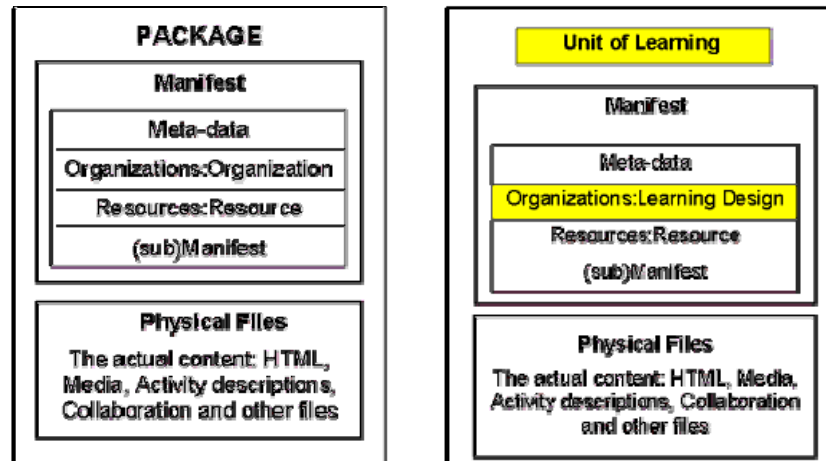
Stage play metaphor

- People act in different **roles**
- working towards certain **objectives**
- by performing **learning and/or support activities**
- within an **environment**, consisting of **learning objects and services** used in the performance of the activities.

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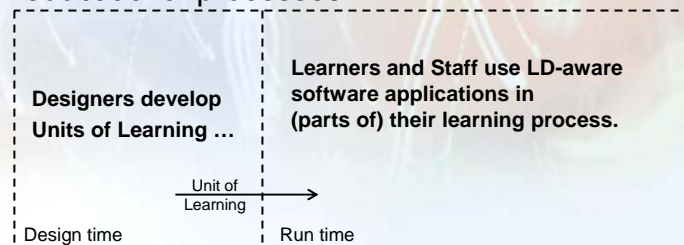
Exchangeable IMS LD manifest



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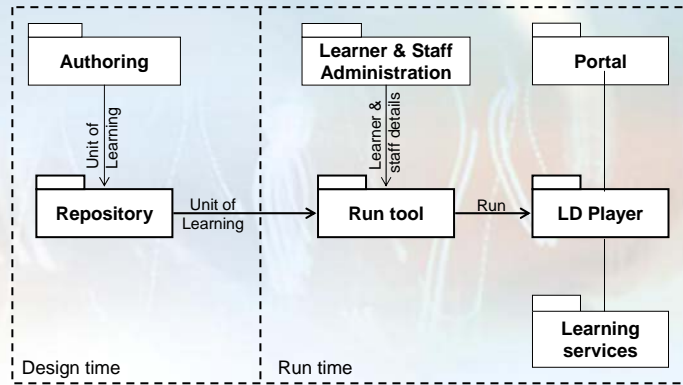
How to .. in practise?

- A language to describe educational processes
- Software that can interpret this language, is able to support learners and staff during these educational processes



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How to .. in practise?



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Learning Activities, structured into sequences and selections

The environment associated with the selected activity

An activity description for the selected activity

Why Learning Design?

1. Exchange of (multi-role, multi-person) learning processes:



2. Reuse of 'learning flow' and/of contents
3. Language to describe learning processes

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Tooling

1/2

- No need to know the exact ins and outs of the specification for Software Developers. Use Coppercore engine: www.coppercore.org

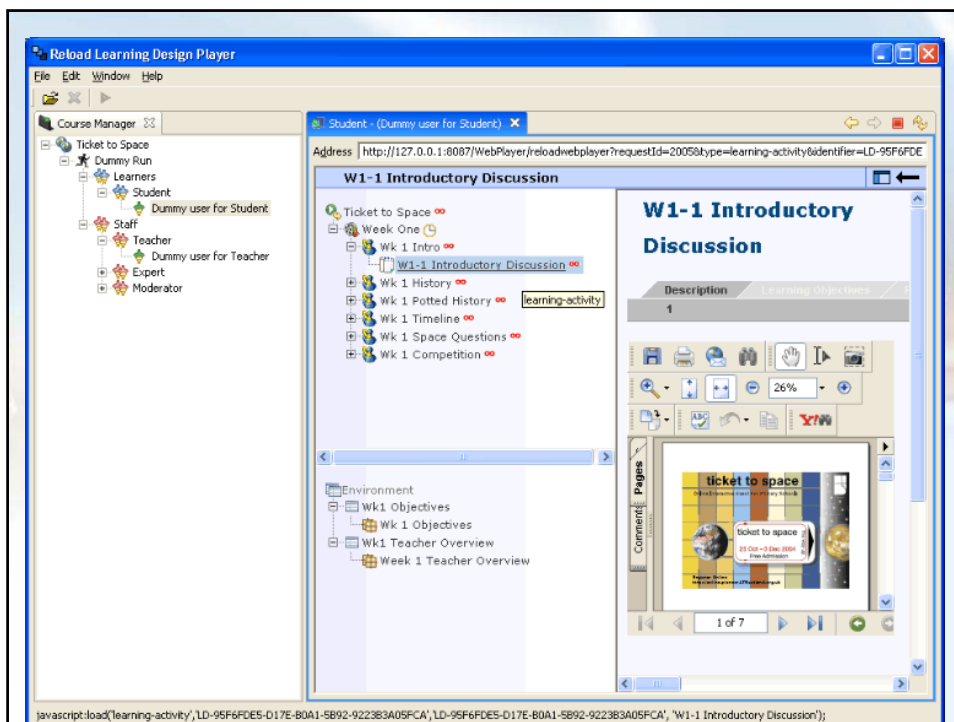
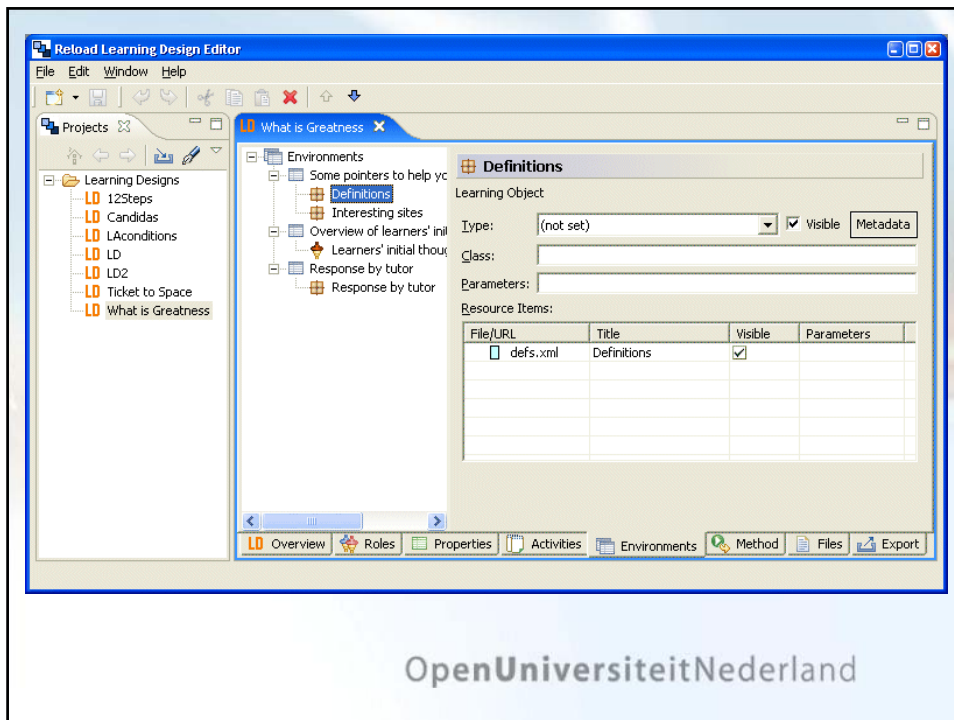
CopperCore

Developed as OS at OUNL to support other developers of editors and players

- RELOAD (CETIS, UK) Project has delivered both an editor and a player.

RELOAD
Reusable eLearning Object
Authoring & Delivery

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Tooling

2/2

- www.unfold-project.net for references to various software and exchange of actual LD's.



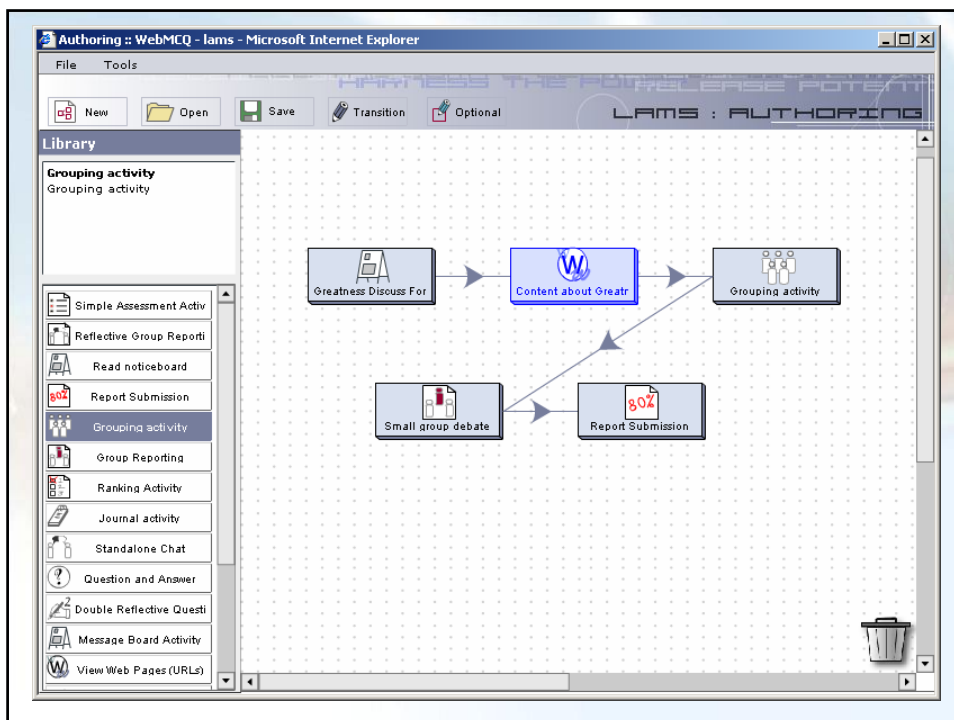
- LAMS, user-friendly interface to build interactions
www.lamsinternational.com



- Moodle www.moodle.org , LD awareness in progress



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Tooling.. future

- Learning Design is considered a complex but powerful concept
- Peer-review and reuse of pedagogical patterns (University of Waterloo)
- Few VLE's give learning activities a central place

De Vries, F., Tattersall, C. & Koper, R. (2005). Future developments of IMS Learning Design tooling. *Educational Technology & Society*, 9 (1), 9-12.

http://www.ifets.info/journals/9_1/2.pdf

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A more general approach..

Learning Design as templates :

1. Narrative; free text describing activities
2. A lesson plan; with no LD specific aspects
3. A walk through; screen shots from UoL
4. An example UoL; to be used in VLE
5. A partly completed UoL to be filled

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Questions & Discussion

Thank you for your attention.

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More information

- Learning Networks www.learningnetworks.org
moodle.learningnetworks.org
- UNFOLD share tools & LD templates
www.unfold-project.net
- Telcert interoperability in technology enhanced learning www.opengroup.org/telcert/
- OUNL articles in D-space
dspace.ou.nl

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