

www.e-quality-eu.org

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*“e-learning standards
&
tools to measure
compliance”*

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Experience-based Quality in European ODL
E-QUALITY



**FINAL SEMINAR 21.-22.9.2006
SZCZECIN, POLAND**



Why standards ?

- the increase of the amount of learning resources leads to a diminished **accessibility**
- to increase their adaptability towards market demand, **versatile** (hence, digital) resources are needed
- the **development costs** – in time and money – of these digital resources are high



Problem :

digital training resources are too often
encapsulated into the software environment

↙
accessibility
and **transportability**
diminished

↘
sustainability limited
by the
software environment

↓
resource sharing may be difficult



Solution :

create learning resources that are

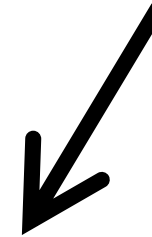
- accessible



- sustainable



- shareable



to use a **standard** digital form
and **learning objects repositories**



Experience-based Quality in European ODL
E-QUALITY

Solution (2) :

create learning resources that are

accessible / sustainable / shareable



identifiable / reusable



Make resources identifiable :

subject / title / author / purpose



metadata

add metadata, allowing content identification and indexation (e.g. in a learning object repository)

a standard for metadata for learning objects is needed :

LOM (Learning Object Metadata)



Name	Value
Metadata	
General	
Identifier	IT global
Title	
Catalog Entry	
Language	fr
Description	
Keyword	
Structure	
Aggregation Level	
Life Cycle	
Status	
Contribution	
Contribution	
Technical	
Location	http://www2.unil.ch/infotheo/course_fr01/course-nonaw/
Requirement	
Installation remarks	
Other platform requirements	
Duration	
Educational	
Interactivity type	
Learning resource type	
Interactivity level	
Semantic density	
Intended end user role	
Context	
Typical age range	
Difficulty	
Typical learning time	
Description	
Language	fr
Rights	

LOM structure

- hierarchical
- LO – centered
- provides all needed information (none is mandatory)



General	
Identifiant	IT global
Title	Introduction à la Théorie de l'Information et ses Applications
Catalog Entry	
Catalog	---
Entry	---
Language	fr
Description	Ce cours présente une introduction à la Théorie de l'Information et ses applications. La Théorie de l'Information a été introduite par Claude Shannon comme moyen d'étudier et de résoudre les problèmes de communication ou de transmission de signaux à travers des voies. Bien que ce soit une vision relativement étroite de l'information qui se penche plus particulièrement sur la mesure du contenu de l'information, elle doit être incluse dans toute théorie -plus large- de l'information. Le cours de Théorie de l'information est un des projets soutenus par le Campus Virtuel Suisse, une initiative de la Conférence Universitaire Suisse (CUS) visant à diversifier et moderniser l'enseignement académique.
Keyword	information de Shannon
Coverage	
Structure	Collection
Aggregation Level	4
Life Cycle	
Contribution	
Role	Author
VCard	BEGIN:VCARD N:Bavaud;François;;Professeur ADR:INTL;POSTAL;PARCEL;WORK;IMM-Lettres, IGUL-Géosciences et Environnement;Université de Lausanne, BFSH2;Lausanne;VD;1015;Switzerland TEL;PREF;WORK;VOICE:+41-21-692-3022 TEL;FAX:+41-21-692-3045 EMAIL;INTERNET:Francois.Bavaud@unil.ch ORG:UNI Lausanne;IMM-Lettres, IGUL-Géosciences et Environnement END:VCARD
Date	2004-03-05



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Make resources reusable :

Intended purpose ?

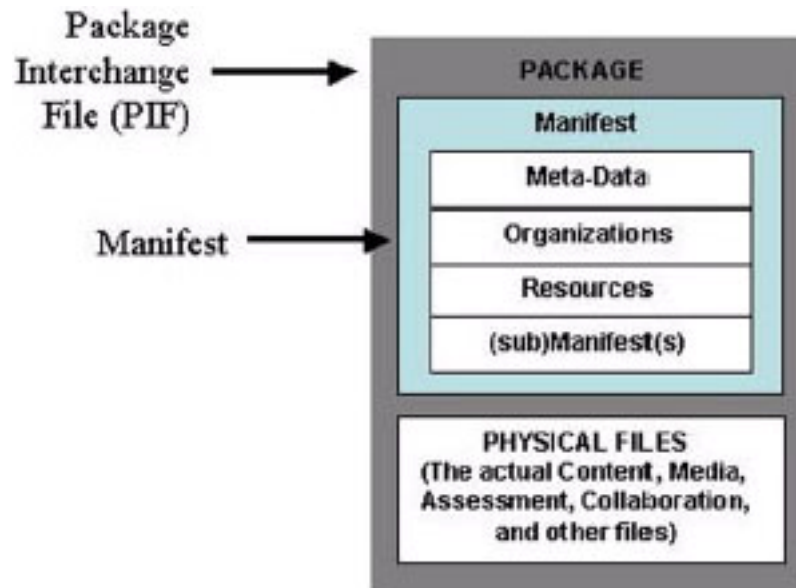
documentation



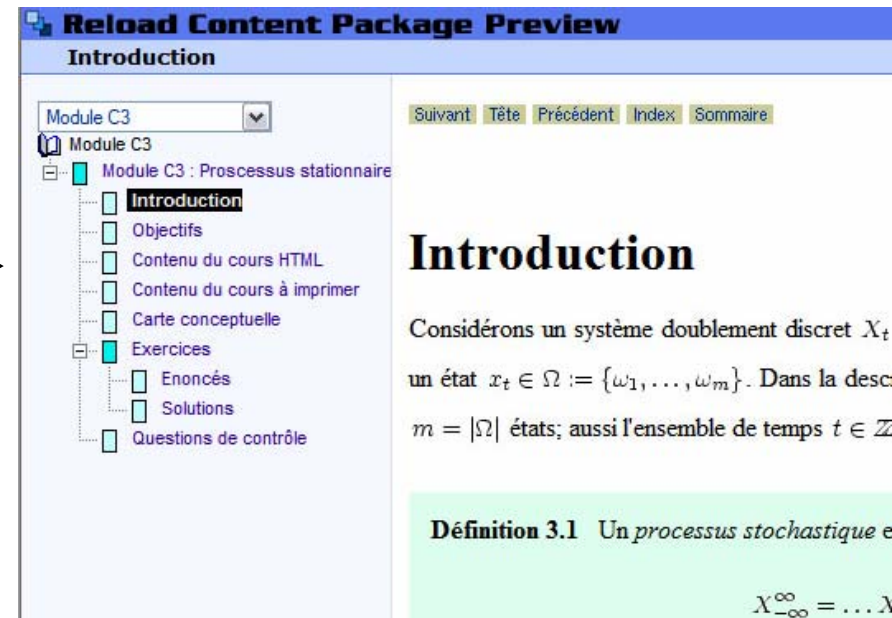
content packaging
(IMS, SCORM)



Content Packaging



(from IMS Content Packaging Information Model, www.imsglobal.org)



(RELOAD Content Previewer, www.reload.ac.uk)



Socrates





Make resources reusable :

Intended purpose ?

documentation



content packaging
(IMS, SCORM)

activity sequencing



- IMS simple sequencing
- SCORM

learning scenario



IMS learning
design



Education and Culture

Socrates





IMS Learning Design

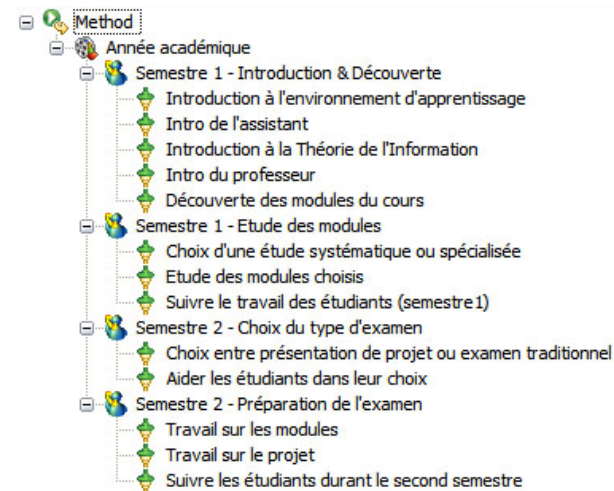
Model of **theater play** :

Each actor is associated to a *role*,

each role performing *activities*,

under certain *conditions*,

based on *properties*.



(RELOAD Learning Design Editor,
www.reload.ac.uk)



Other specifications

tests / quizzes ?



IMS QTI :
Question & Test
Interoperability

learner portfolio ?



IMS LIP :
Learner Information
Package

query into learning
object repositories



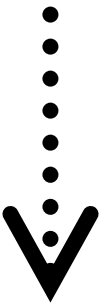
SQL





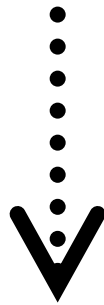
Tools to measure compliance

LOM



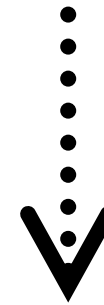
- LOM editor (e.g. RELOAD)
- XSD

Content Packaging
(IMS & SCORM)



- CP editor (e.g. RELOAD)
- XSD

IMS
Learning Design



- IMS-LD editor (e.g. RELOAD)
- CopperCore
- XSD
- ...