



Didactical Aspects of Open Content

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www.donau-uni.ac.at/imb



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Outline

- OER Definition (revisited)
- The Myth of Learning Objects
- Open Courses and Open Content
- Business & Exchange Models
- Conclusion and Discussion



Definition of OER (by OECD, Jan Hylén)

- **Open courseware and content**
- **Open software tools**
- **Open material for e-learning capacity building of faculty staff**
- **Repositories of learning objects**
- **Free educational courses**
- **http://www.oecd.org/document/26/0,2340,en_2649_33723_35733402_1_1_1_1,00.html**
- **Essential in my definition: no financial transaction involved**

Regrouping of the Definition

- **Open courseware and open content**
- **Open software tools**
- **Open material for e-learning capacity building of faculty staff**
- **Repositories of learning objects**
- **Free educational courses**
- **Open courseware**
- **Open content; LO**
- **= Open source**
- **Open courseware or open content (LO)**
- **Learning object (LO)**
- **Open courseware**

**Summary: 2 main types:
Open Courses and Open Content**

3 Motivations for OER

1. Production

- **Re-usable content should decrease the productions cost of content (Learning Object, Content Sharing)**

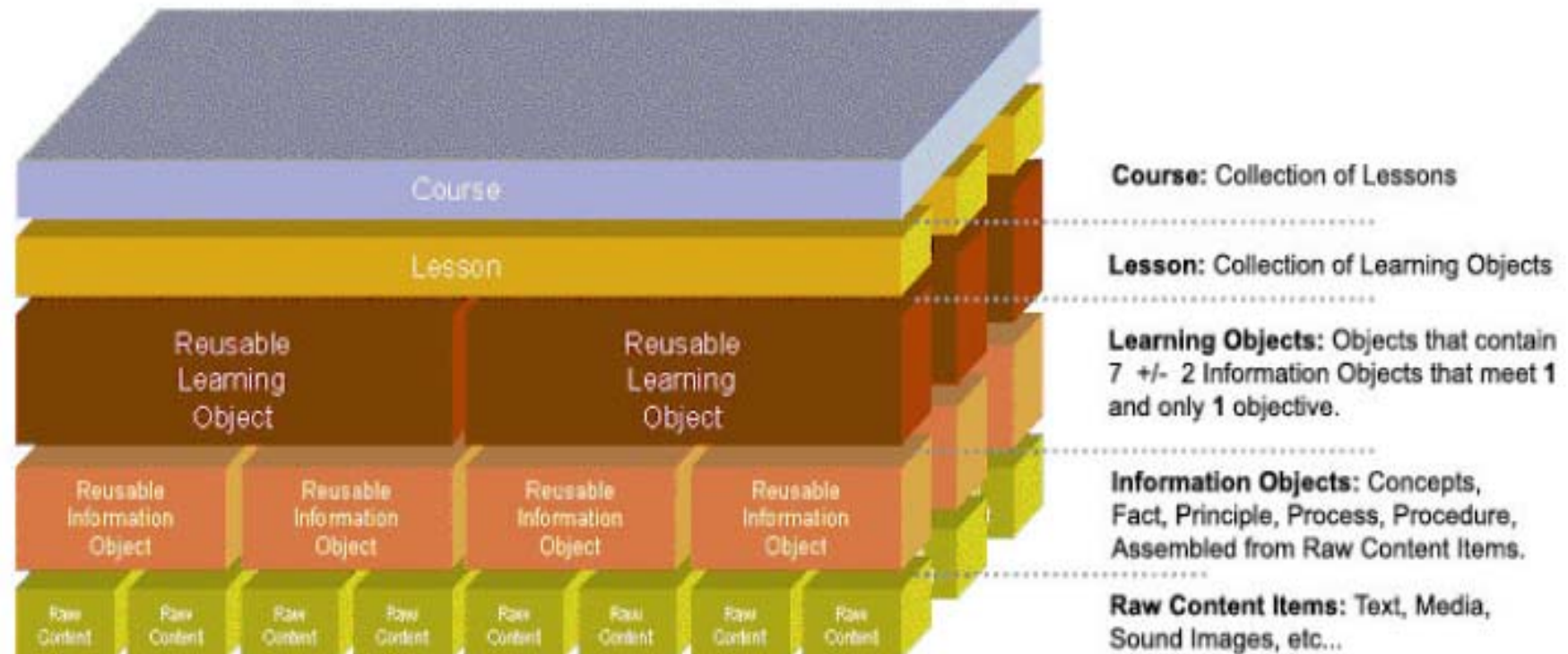
2. Public Relation

- **Showcase, Community, Acquisition**

3. Education

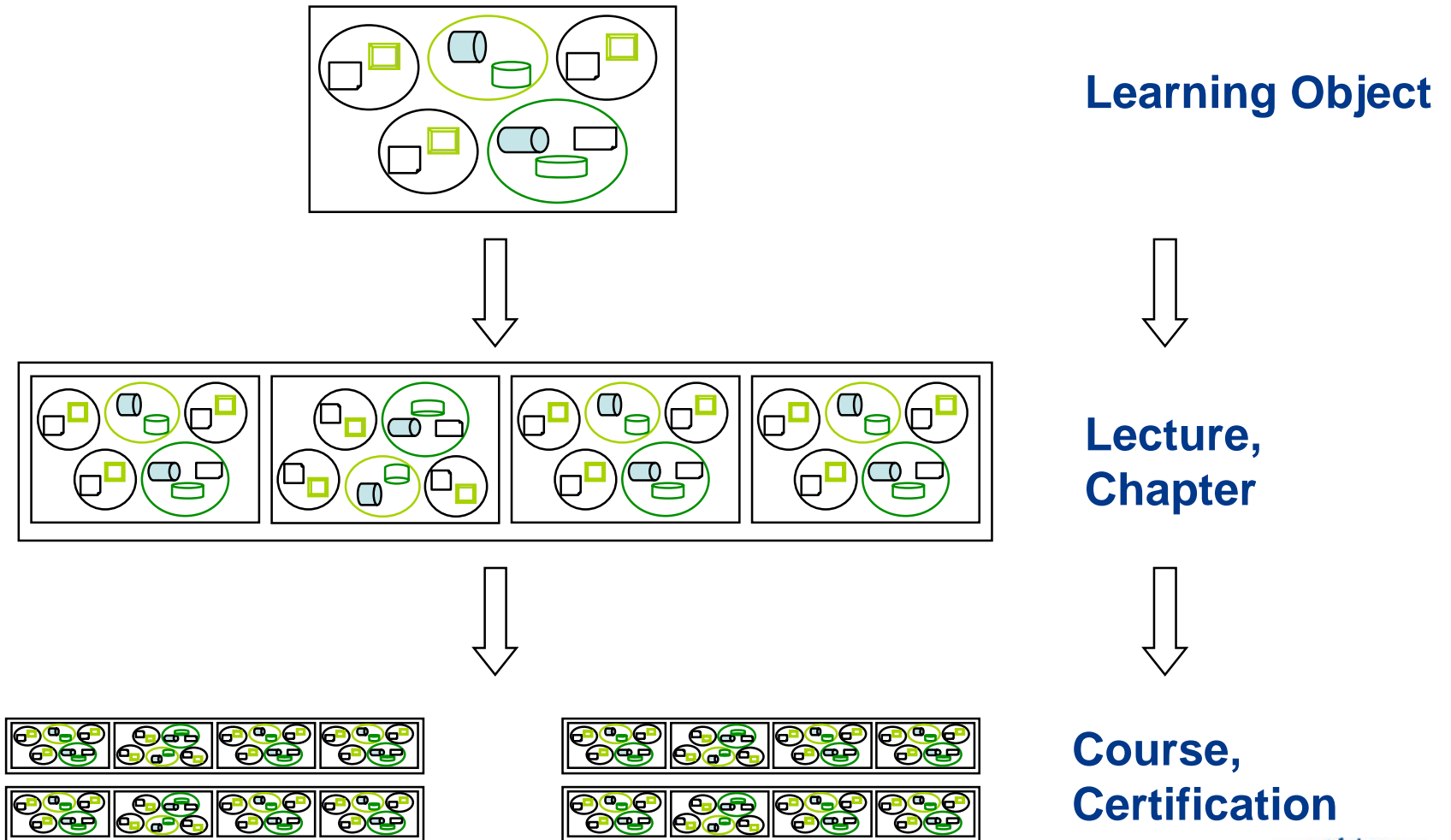
- **Educational Resources should be open for everybody (free access to knowledge)**

Autodesk Content Model (Masie 2003)

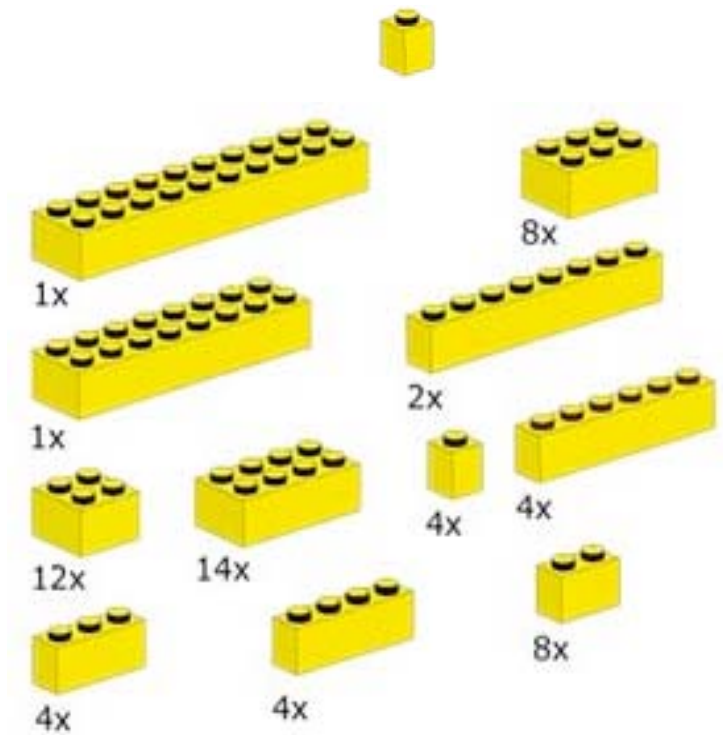


autodesk CONTENT MODEL

Re-usable Learning Objects (RLO's)



LEGO - Metaphor



LEGO - Metaphor (2)



LEGO - Metaphor (3)

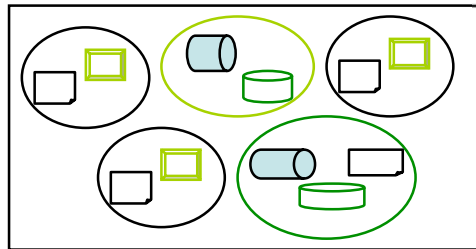


„ROI-Paradox“

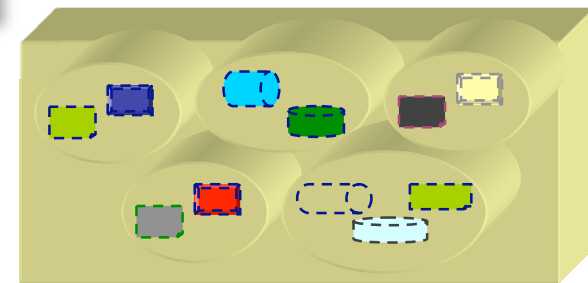
Re-usable
Learning Objects

Pedagogy
Educational Scenario

Reusability of
Objects and
Instruction
Paradox



Independent
of context

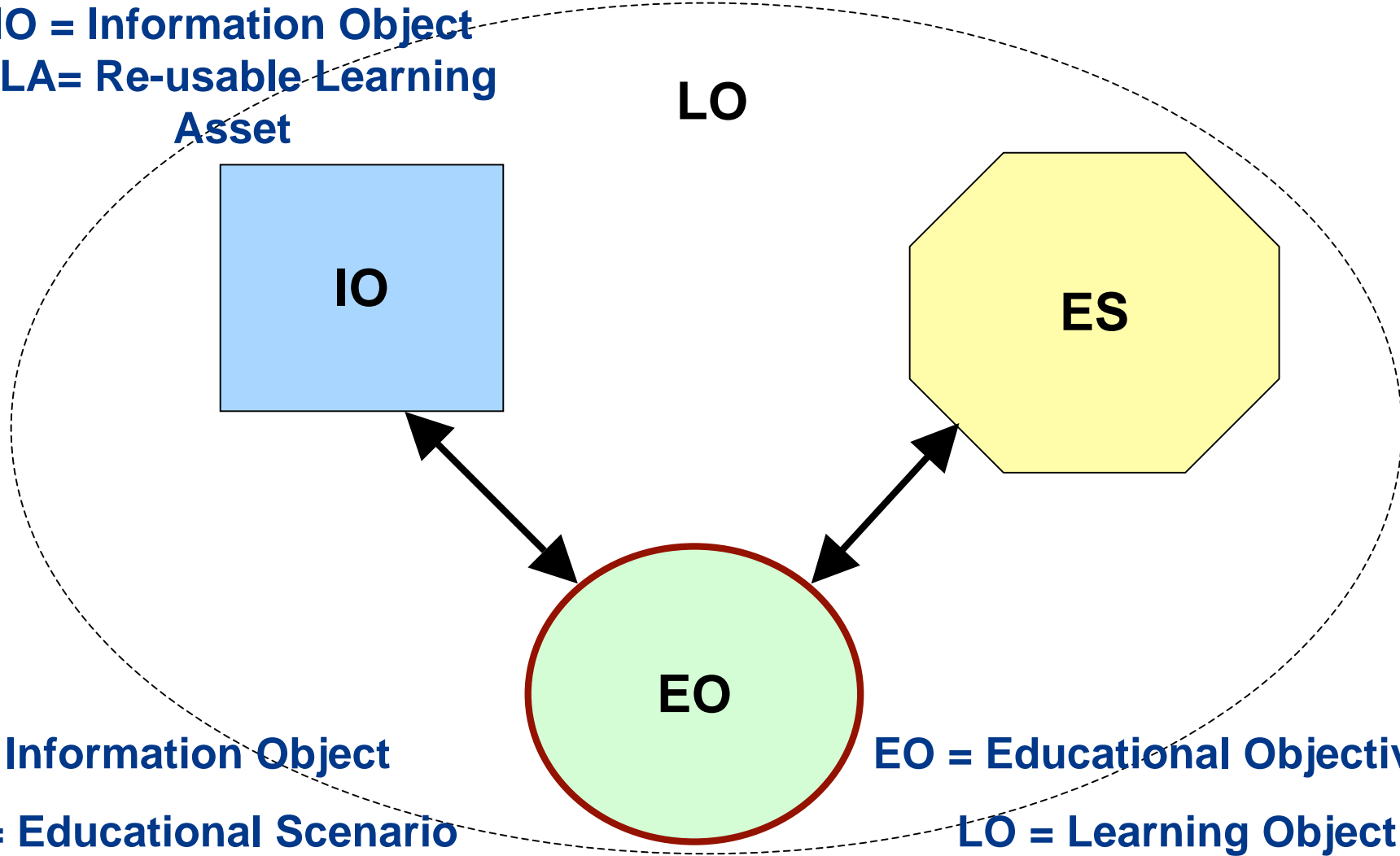


Dependent
of context

Learning Object (revised)

IO = Information Object
RLA= Re-usable Learning Asset

LO



IO = Information Object

ES = Educational Scenario

EO = Educational Objective

LO = Learning Object

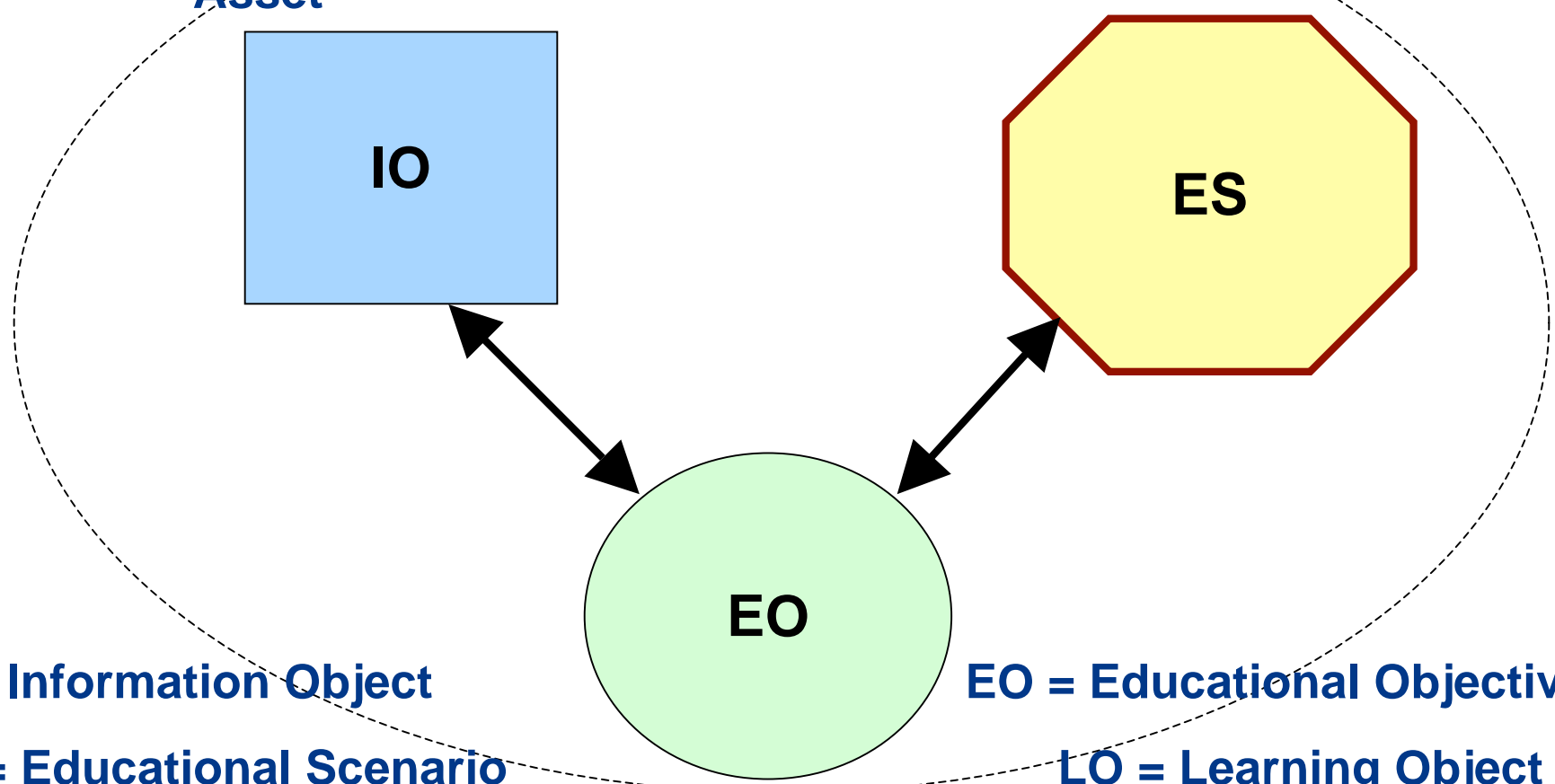
Know- ledge	Cognitive Processes					
	Remem- ber	Under- stand	Apply	Analyse	Evaluate	Create
Facts						
Concepts						
Proce- dures						
Meta- cognitive						

**Taxonomy of
Educational Objectives
(Anderson & Krathwohl 2001)**

Learning Object (revised)

IO = Information Object
RLA= Re-usable Learning Asset

LO



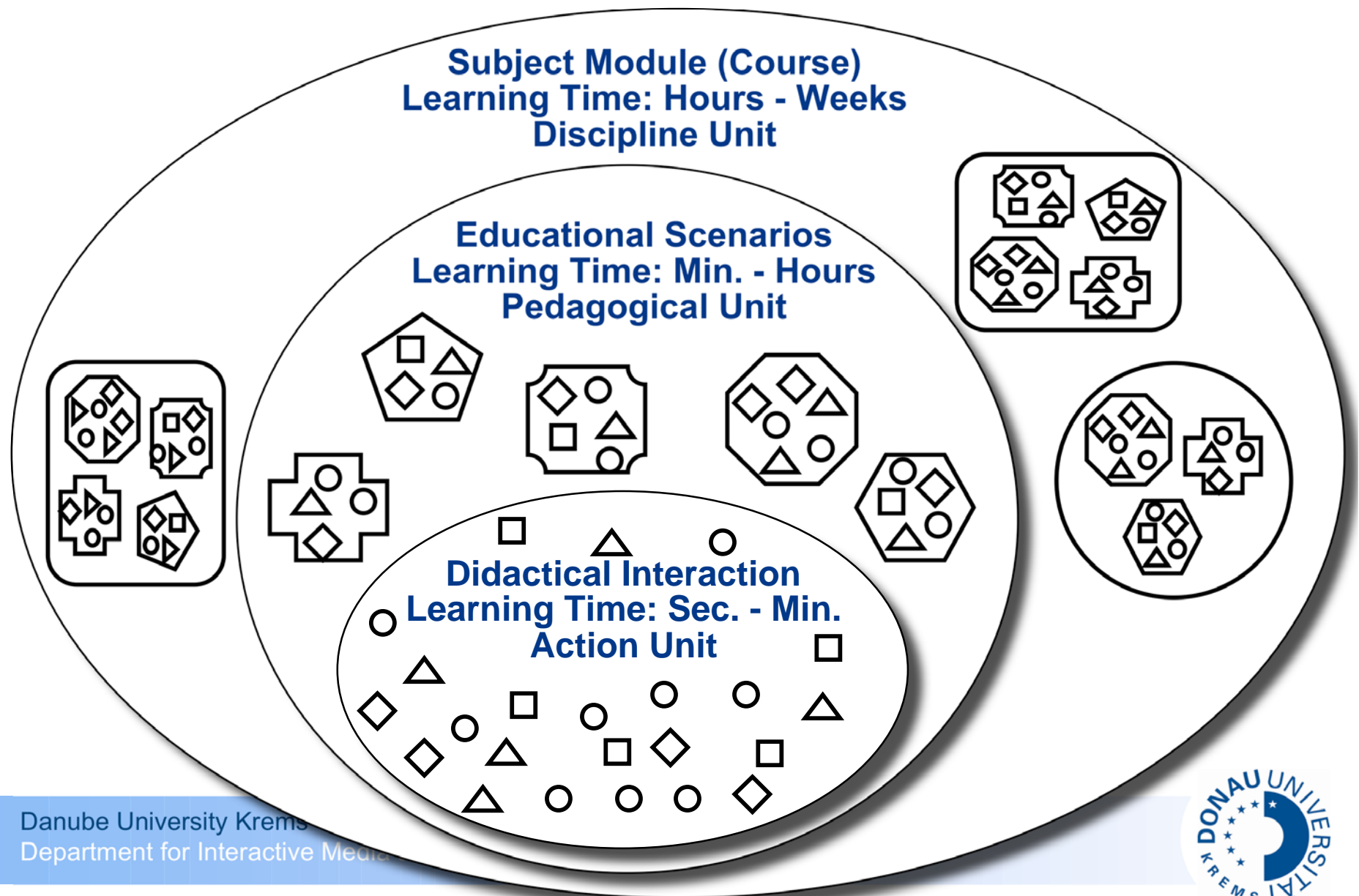
IO = Information Object

ES = Educational Scenario

EO = Educational Objective

LO = Learning Object

Levels of Granularity



Teaching Method: Group Presentation

IMS Reusable Definition of Competency and Educational Objective

Was ist RDCEO?

- Spezifikation zum Austausch von Kompetenz-Definitionen
- Bestandteil der IMS-Spezifikation
- Erweiterbarer Minimal-Standard
- Beschreibt die Schlüsselcharakteristika einer Kompetenz, unabhängig vom Kontext und deren Nachweis

Competency Data

- kein bestimmtes Kompetenzmodell
- nur Definition für bel. Kontext + bel. Skalen
- kein Nachweis der Kompetenzen!

XML Binding

- Zwei Pflichtfelder: <rdceo>, <title>
- Optional: <description>, <model>, <statement>
- Bestandteil eines IMS Content Package

⇓

Umfassende Informationen zu einem Kurspaket

<http://www.imsglobal.org/competencies>

Skill-Gap-Analysis

Belinda / Wolfgang / Klaus

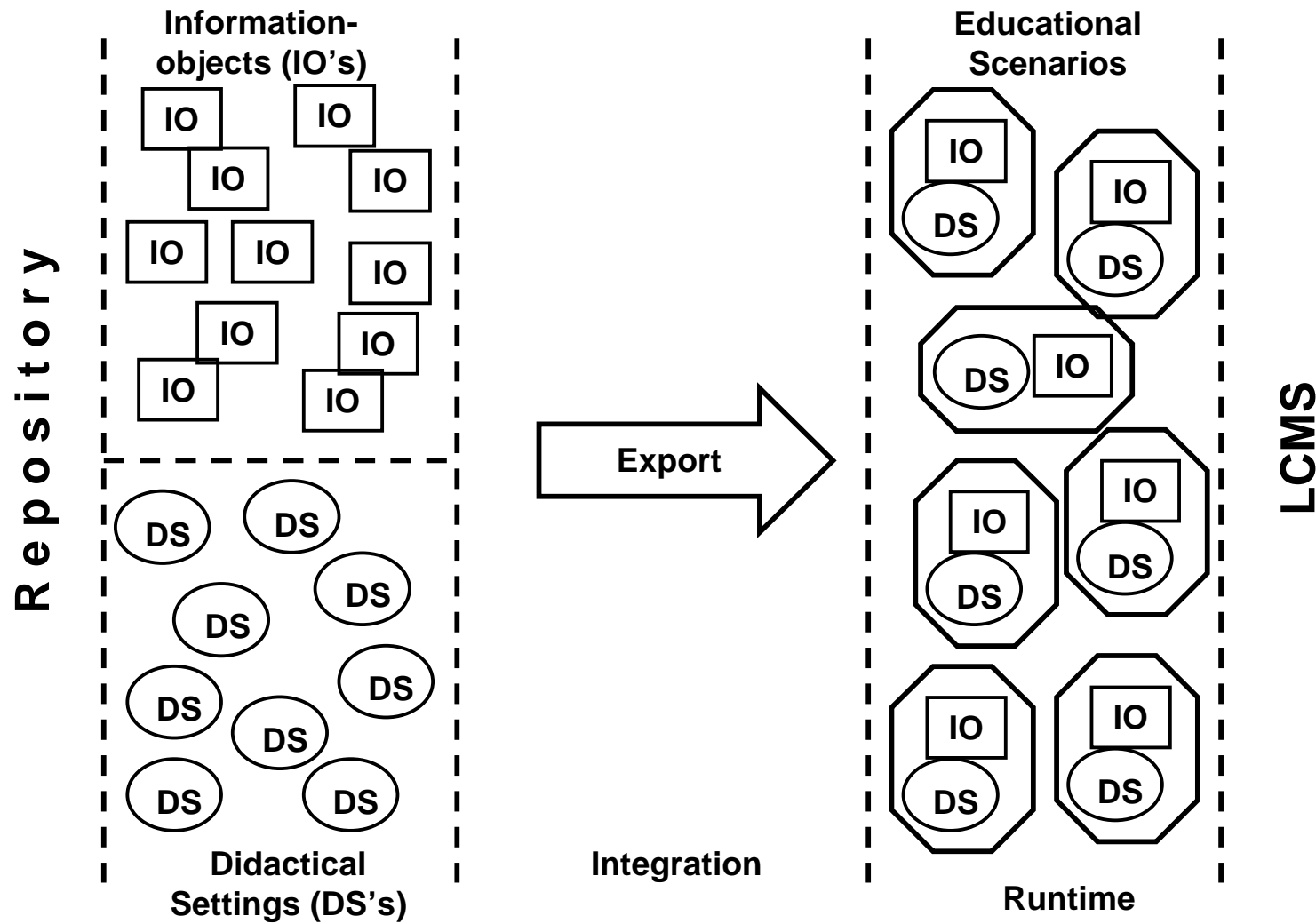
Teaching Method: „Ball Bearing“ (“Station Learning”)

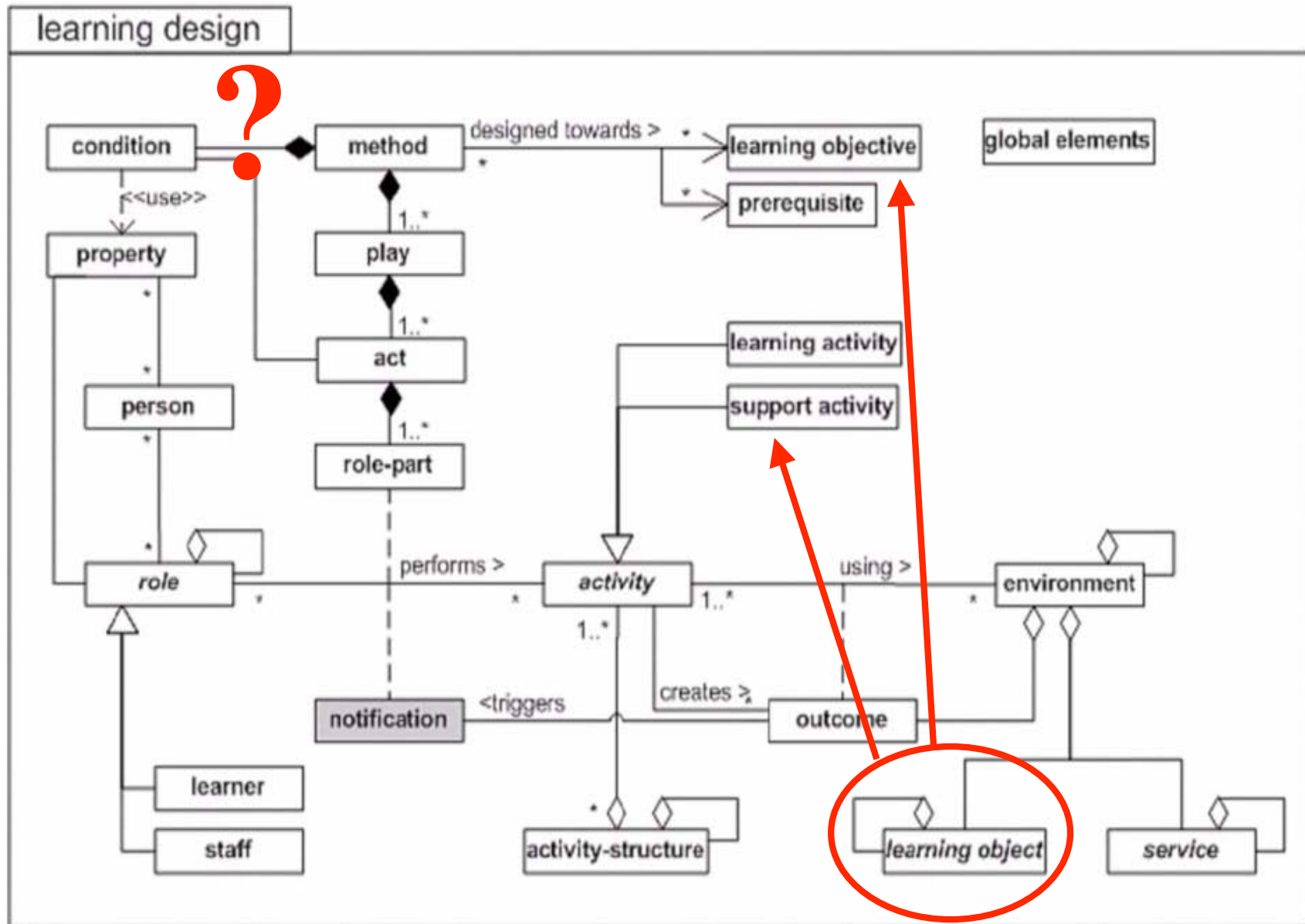


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Interaction between IO and DS





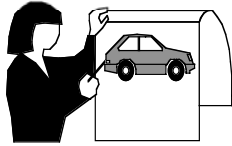
Content and Context

- Content is King?
- If content is all we need, why would we need universities?
Libraries could do the job! (David Wiley)
- If Content is King, then Context is Queen! (Eric Duval)
- Context is King! Content is just another part of the
learning environment. (Peter Baumgartner)

René Magritte



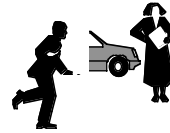
Transfer



- **factual knowledge, "know-that"**
- **Transfer of propositional knowledge**
- **to know, to remember**
- **Production of correct answers**
- **Verbal knowledge, Memorisation**
- **to teach, to explain**

Teaching I

Tutor



- **procedural knowledge, "know-how"**
- **Presentation of pre-determined problems**
- **to do, to practice**
- **Selection of correct method and its use**
- **Skill, Ability**
- **to observe, to help, to demonstrate**

Teaching II

Coach



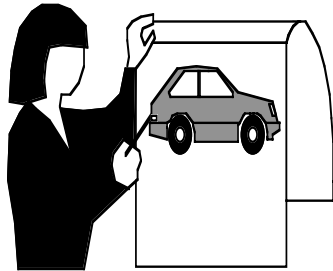
- **social Practice, "knowing-in-action"**
- **Action in real (complex and social) situations**
- **to cope, to master**
- **Realisation of adequate action strategies**
- **Social Responsibility**
- **to cooperate, to support**

Teaching III

Transfer

Tutor

Coach



Content

Teaching I

Teaching II

Teaching III

Perceive & Do (Debug)

Knowing-in-action

Interacting
with Self & Society

Teaching &
Facilitating

Interacting
with Object

Practice & Discuss

Reflecting-in-practice

Environment

Produce & Deposit

Reflecting-in-action

Artefact
(user driven content)

Coaching &
Orchestrating

Tutoring &
Managing

Interacting
with Subject (Human)



“Canned” versus Open Content (I)

- Prefabricated content
- Packaged and delivered
- Static, seldom updated
- Produced by specialists
- Quality control by experts
- “all rights reserved”
- User generated content
- Processing, interacting
- Dynamic, evolving
- Produced by many people
- Quality control by community
- “some rights reserved”

<http://www.olcos.org>

[http://wikieducator.org/Open Educational Content](http://wikieducator.org/Open_Educational_Content)

“Canned” versus Open Content (II)

- Access restricted
- Database, Downloads
- Teacher as instructor
- Facts, Rules, Principles
- Transfer of knowledge
- Curriculum, Courseware
- Open Access
- Web 2.0, P2P, Community
- Teacher as mentor/coach
- Competencies, Skills
- Construction of knowledge
- Informal learning

<http://www.olcos.org>

[http://wikieducator.org/Open Educational Content](http://wikieducator.org/Open_Educational_Content)

Digitale Medien
in Lehre und
Lernschulentwicklung

MedidaPrix Award
100.000 €

<http://www.medidaprix.org>

medida
prix 2006

Mediendidaktischer Hochschulpreis 2006

Preisgeld: 100.000 EURO

Präsentation, Finale und Preisverleihung im Rahmen
der europäischen Fachtagung der Gesellschaft
für Medien in der Wissenschaft e.V. (GMW) an der
ETH und Universität Zürich (19.-22. September 2006)



MIT **OPEN**COURSEWARE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

We invite you to [view all the MIT courses](#) available at this time.

- Announced Spring 2001
- Promise: All Courses will be available for free!
- Nov 2006: 35 Disciplines, 1550 BA and MA Courses
- Different quality
- <http://ocw.mit.edu/index.html>

BUT:

- No support
- No certification



MITOPENCOURSEWARE

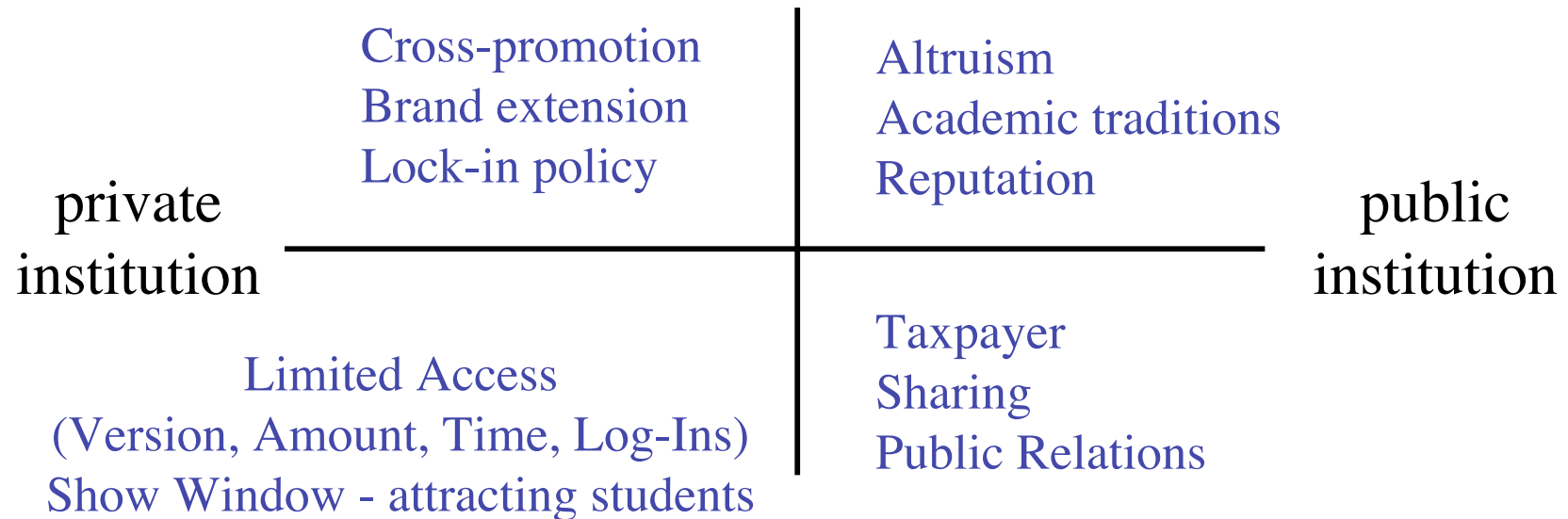
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

We invite you to [view all the MIT courses](#) available at this time.

- Increasing image of MIT
- Showcase
- Acquisition of new students (35% of MIT students)
- Community proud (alumni)
- Cooperation within faculty
- Staff development

Open Courses & Business Models

self learning material
(autonomous learner)



blended learning material
(educational support)

Open Content & Exchange Models (I)

1. General Principle = (not monetary) exchange with mutual advantage (win-win situation)
2. Building up a new Ecology for Learning and Teaching (eg. Metadata Ecology for Learning and Teaching = MELT

<http://info.melt-project.eu>)

Open Content & Exchange Models (II)

- Content for “a better world”: altruistic motive
- Content for Reputation: publicity, honours, quotation index
 - **Development of professional career models**
- Content for Content:
 - **How to start up? (How to get a critical mass?)**
 - **How to compare Content? (evaluation problem)**
- Content for other Services: Providing Metadata, Experiences
 - **Benefit for the original Content(provider)**

Some Barriers to overcome

- copyright infringement
- material has to be improved for general use
- print publication is better than web publication
- lack of knowledge (of OER, of CC License)
- missing of business models

Conclusions I = Principles of (e)Learning

- The production of special (e)learning content (“canned content”) loses importance.
- (e)Content is created in collaborative learning situations (“user generated content”)
- Good Content is everywhere. It has to be integrated in social learning situations (situated learning).
- What matters is the social (learning) arrangement, content is just a part of it.
- For better content sharing separate content from educational modelling/integration.
- Provide educational scenarios as own content type for re-use.

Conclusions II = Principles of OER

- There are different Strategies for Open Content and Open Courses.
- Open Courses of private institutions serve often just as appetiser or as Pre-Promotions in their business models
- Public institutions may offer more Open Courses under a national license model for taxpayers.
- Open Content needs the development of exchange models to foster the individual participation.
- Close the link between individual motives and institutional interests through institutional career models.

Thanks for your attention!

Contact

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