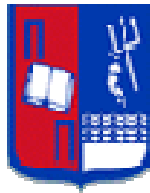


Οι τεχνολογίες διαδικτύου στην υπηρεσία της μάθησης

Συμεών Δ. Ρετάλης (retal@unipi.gr)



ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΑ
ΤΜΗΜΑ ΔΙΔΑΚΤΙΚΗΣ ΤΗΣ ΤΕΧΝΟΛΟΓΙΑΣ ΚΑΙ
ΨΗΦΙΑΚΩΝ ΣΥΣΤΗΜΑΤΩΝ

Μερικά δεδομένα

- Η ηλεκτρονική μάθηση ήταν κάποτε το αποπαίδι του εκπαιδευτικού μας συστήματος
 - Τώρα σχεδόν σε όλα τα ιδρύματα κι οργανισμούς ασχολούνται με αυτή
 - Υπάρχουν δράσεις για ενίσχυση της έρευνας και της τεχνολογίας, π.χ. EU e-learning programme (<http://www.elearningeuropa.info/>).
 - Η IDC προβλέπει ότι η αγορά της ηλ. μάθησης θα μεγαλώσει από \$6.6 δις το 2002 σε \$23.7 δις το 2006
 - MIT OpenCourseWare
 - <http://ocw.mit.edu/index.html>
 - Macromedia into e-Learning
 - Η λίστα με τις εταιρείες που παρέχουν υπηρεσίες ηλεκτρονικής μάθησης είναι τεράστια: <http://www.trainingplace.com/source/vendors.html>
 - Από το 1976, πάνω από 171,600 σπουδαστές έχουν πάρει πτυχίο από το **University of Phoenix Online**
-

Μερικά δεδομένα

- Στην έκθεση «**The No Significant Difference Phenomenon** (1999)»
- Ο Russell ανέλυσε πάνω από 355 μελέτες αξιολόγησης προγραμμάτων εκπαίδευσης από απόσταση από το 1928
- Κι αναφέρει
 - «that there is no evidence of any kind that categorically proves that technology has any impact on learning – either positive or negative»

[<http://www.nosignificantdifference.org>].

Γίνεται αξιοποίηση των νέων τεχνολογιών στην εκπαίδευση;

- N. Negroponte (1996), Being Digital:
 - Χειρουργός & εκπαιδευτικός στον ψηφιακό κόσμο

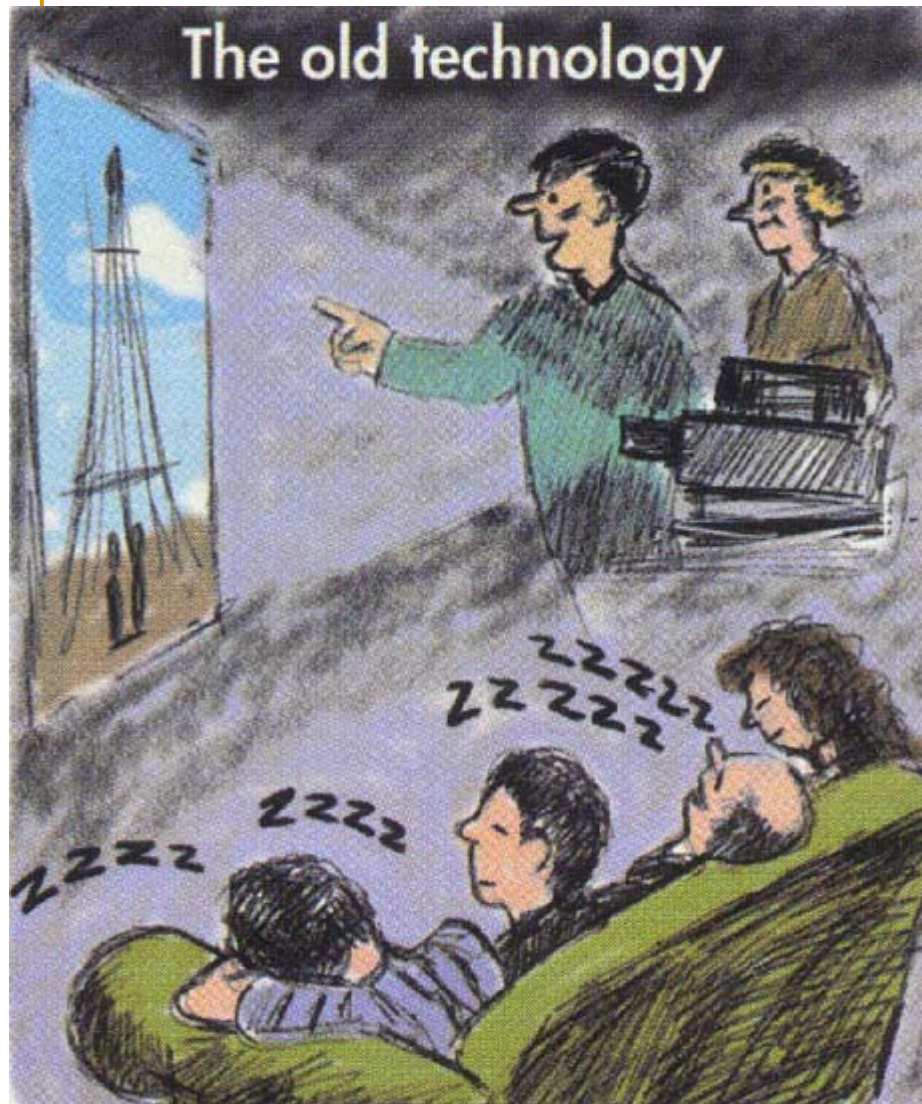


E-learning: Ένας ορισμός

- “the systematic use of networked multimedia computer technologies to
 - ❑ empower learners,
 - ❑ improve learning,
 - ❑ connect learners to people and resources supportive of their needs, and
 - ❑ to integrate learning with performance and individual with organisational goals.”



P. Goodyear (2002)



“Here we are, standing in front of the Eiffel Tower.”

Τεχνολογίες διαδικτύου στην εκπαίδευση- Λέξη κλειδί: affordances


- Η τεχνολογία αλλάζει
 - Αυτό που κάνουμε
 - Αυτό που μπορούμε και θέλουμε να κάνουμε
 - Οι πλατφόρμες και οι τεχνολογίες ηλ. μάθησης δεν είναι «παιδαγωγικά ουδέτερες»
 - Πρέπει να βρούμε αξιόπιστα κι αποτελεσματικά σενάρια που να ικανοποιούν εκπαιδευτικές ανάγκες (κι όχι τεχνολαγνεία) και να αξιοποιούν την προστιθέμενη αξία της τεχνολογίας
-

On TV - Video Clips - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://school.discovery.com/ontv/videoclips.html> Go

DISCOVERY.COM HOME

Discovery.com **PLAY OUR DAILY CROSSWORD!** [click here!](#)  Lifeline Thursdays Fridays Sundays 8 PM ET/PT

Discovery Channel TLC Animal Planet Travel Channel Discovery Health Discovery Store

DiscoverySchool.com Search Teachers

Home For Students **For Teachers** For Parents

On TV

- Assignment Discovery
- TLC Elementary School
- Prime Time TV
- Video Clips
- Teaching with Video

Lesson Plans

Teaching Tools

Custom Classroom


Conversations

Teacher's Store

Favorites

- Brain Boosters
- Clip Art Gallery
- Cybersurfari
- Dictionary Plus
- Puzzlemaker
- Science Fair Central

On TV Video Clips

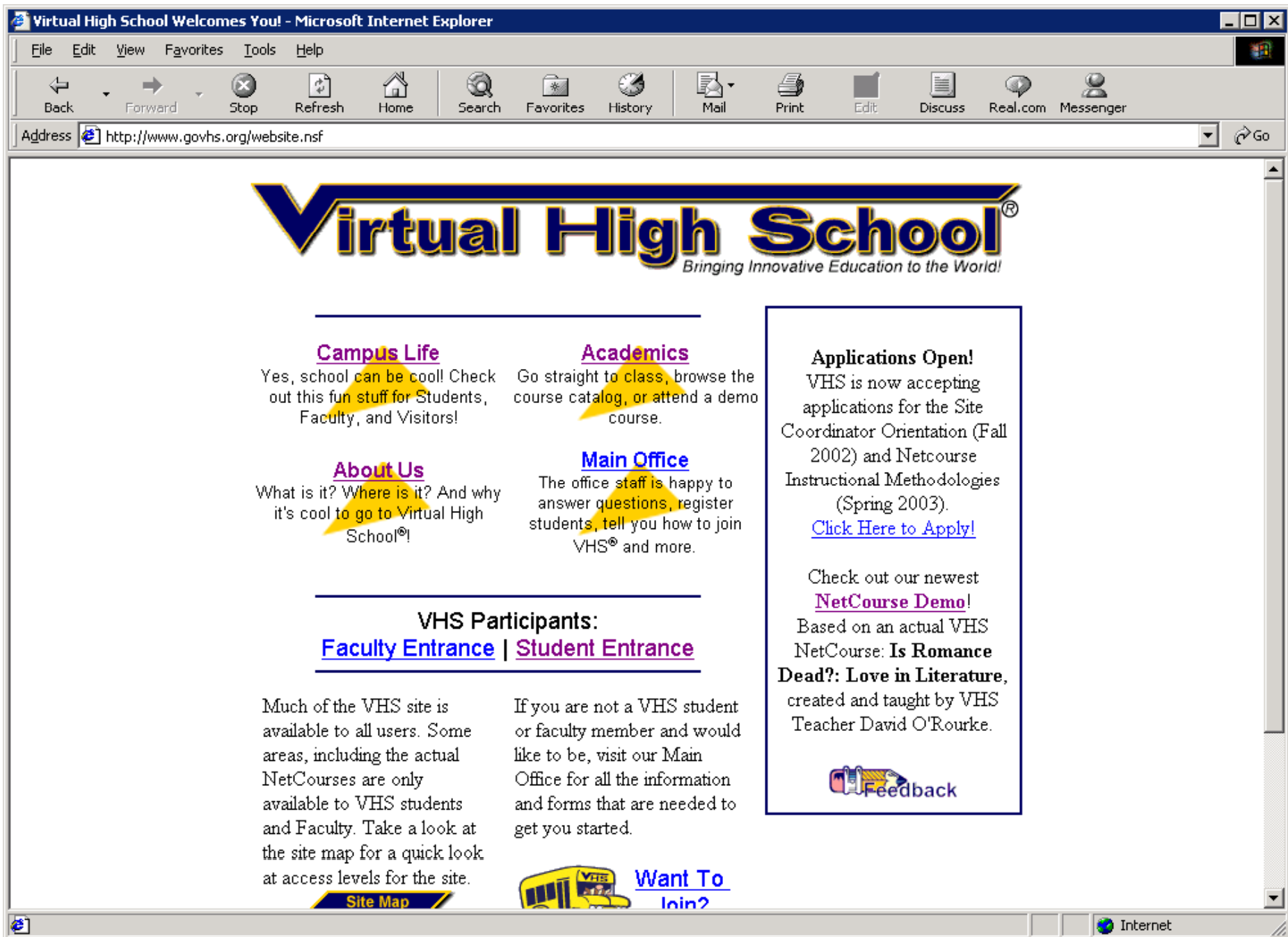


Preview all the videos listed below
Many of them are available for sale in the School Store
 To watch any of the video clips, all you need is the [free RealPlayer](#). If you need help downloading or using the RealPlayer, [click here](#).

[Tech Help](#) [Playing Video Clips](#)

Ancient History	Geography	Technology
Akhenaten: The Rebel Pharaoh	Africa: People and Places	The Clone Age
Alexander the Great	Byzantium	Collapse: Failure by Design
Byzantium	Champions of the Land	Discover Magazine: Hidden Worlds
Expansion and Conquest	Discover Magazine: Science Mysteries	Future Body
Fall of an Empire	Flight Over the Equator	Inventors and Inventions 1
Hatshepsut: The Queen Who Would Be King	Forbidden City	Inventors and Inventions 2: Air and Space
The Mystery of Tutankhamen	Grand Canyon	Discover Magazine: Lost in Time
Prosperity and Decline	Ivory Wars	
	Nile: River of Gods	
	Three Gorges: The Biggest Dam in the	

Internet

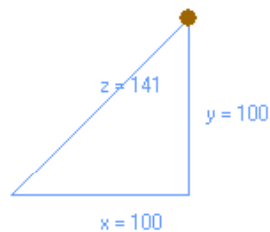


Εμπλουτισμός των curricula

Fundamental trigonometry



[Index](#) - [Fundamental trigonometry](#) - [Trigonometric functions](#) - [Test your skills](#) - [Fourier series](#)



$$a = 45^\circ$$

$$\tan(a) = y/x = 0.99999$$

$$\cos(a) = x/z = 0.7071$$

$$\sin(a) = y/z = 0.7071$$

This Java applet demonstrates the fundamental trigonometry of a triangle.

Created by Magnus Karlsson.

Personal website: www.bun.falkenberg.se/~ks/ Email: ks@bun.falkenberg.se

Exercise, Kirchhoff's Rules (Circuit 1) - Microsoft Internet Explorer

Address: <http://www.lightlink.com/sergey/java/kirch5/index.html>

Kirchhoff's Rules (Circuit 1)

Kirchhoff's Rules
Copyright (c) 1997, Sergey Kiselev and Tanya Yanousky-Kiselev

version 1.0

Increase/decrease the magnitude of the EMFs and the resistors by clicking on the upper/lower part of the object. The values of the resistors range from 1 to 10 ohms. And the values of the EMFs range from -10 to +10 Volts. The ammeters show the currents in the wires, the voltmeters show the voltages across the resistors.

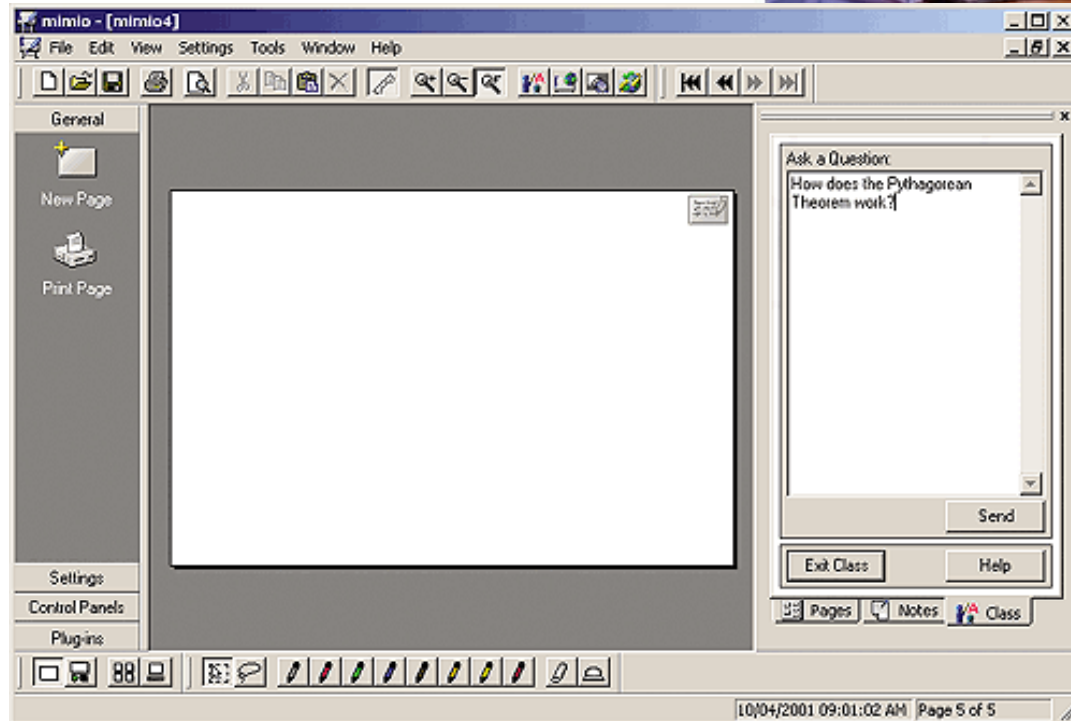
The circuit consists of a loop ACDF with no branches, as a result there is only one current in the whole loop. On each side of the loop there are components: an EMF, an Ammeter which measures the current through that loop, a resistor, and a Voltmeter which measures the potential rise/drop on the resistor. The values for each of the components can be seen either next to or written on the components themselves. It should be made clear that the Ammeters and Voltmeters are

Applet started

Internet

23 february 2000

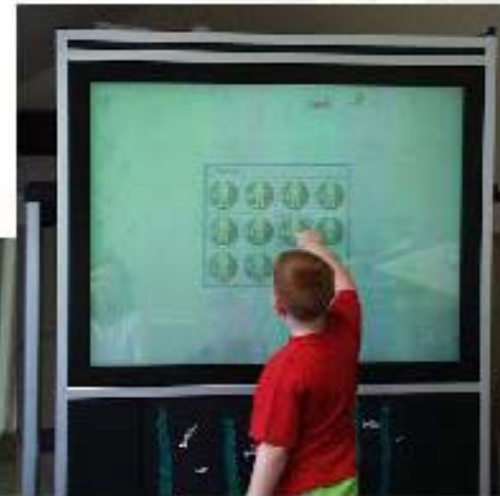
Εικονικοί μαθησιχώροι



Νέα περιβάλλοντα

Classroom Environment (cont.)

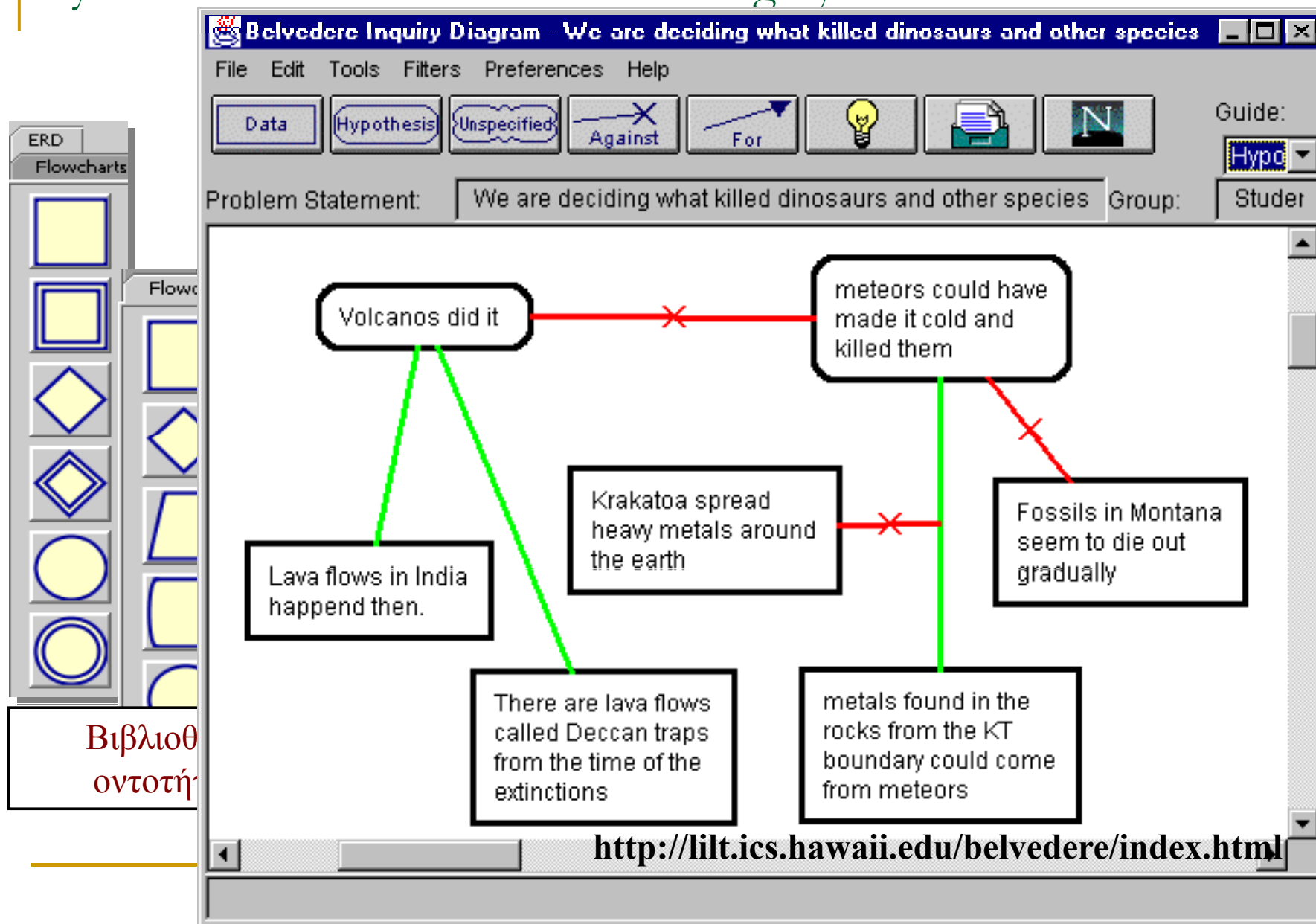
- Social Interaction
- Embedded Technology



Tewissen, Lingua, Hoppe, University of Duisburg, Germany
Gerd Maierkatzt, Daniel Nischik, University of Münster, Germany

The NIMS: <http://collide.informatik.uni-duisburg.de/Projects/nimis/overview.html>

Synchronous Collaborative Learning Systems: Belvedere



Asynchronous multimedia communication

LearnCanada - Videos & Annotations

LearnCanada - Video Sharing and Annotation

[Entry Screen](#) [Videos & Annotations](#) [My Videos](#) [User Profile](#)

Video Annotation

[List of videos](#) [Information on video Implementing teacher and student rubrics for PBL](#) [Annotations for Implementing teacher and student rubrics for PBL](#) [Add an annotation to Implementing teacher and student rubrics for PBL](#)

Video


Title
Implementing teacher and student rubrics for PBL

Instructions
Using the rubrics provided, assess levels of student and teacher behaviour.

Annotation
The time line of the annotation would be between
0% and 100%

Text annotation

Video



Receiving information (5.1 MB of 59.2 MB, 190 KB/sec): video-3

<http://www.learnCanada.ca/index.php>

SEARCH

Visit the Neighborhoods



GROWN-UPS

Mr. Pig and Mr. Duck

Watch a mini-show and tell us what you think!

Project Playtime

Check out fun ideas for projects and activities!

New JoJo's Circus

Coming to Disney DVD and video!

PROGRAMMING



more shows



Earn Rewards
Learn More



Travel Tips
and Deals



Read Past
Insider Articles



Meet Classic
Disney Faves

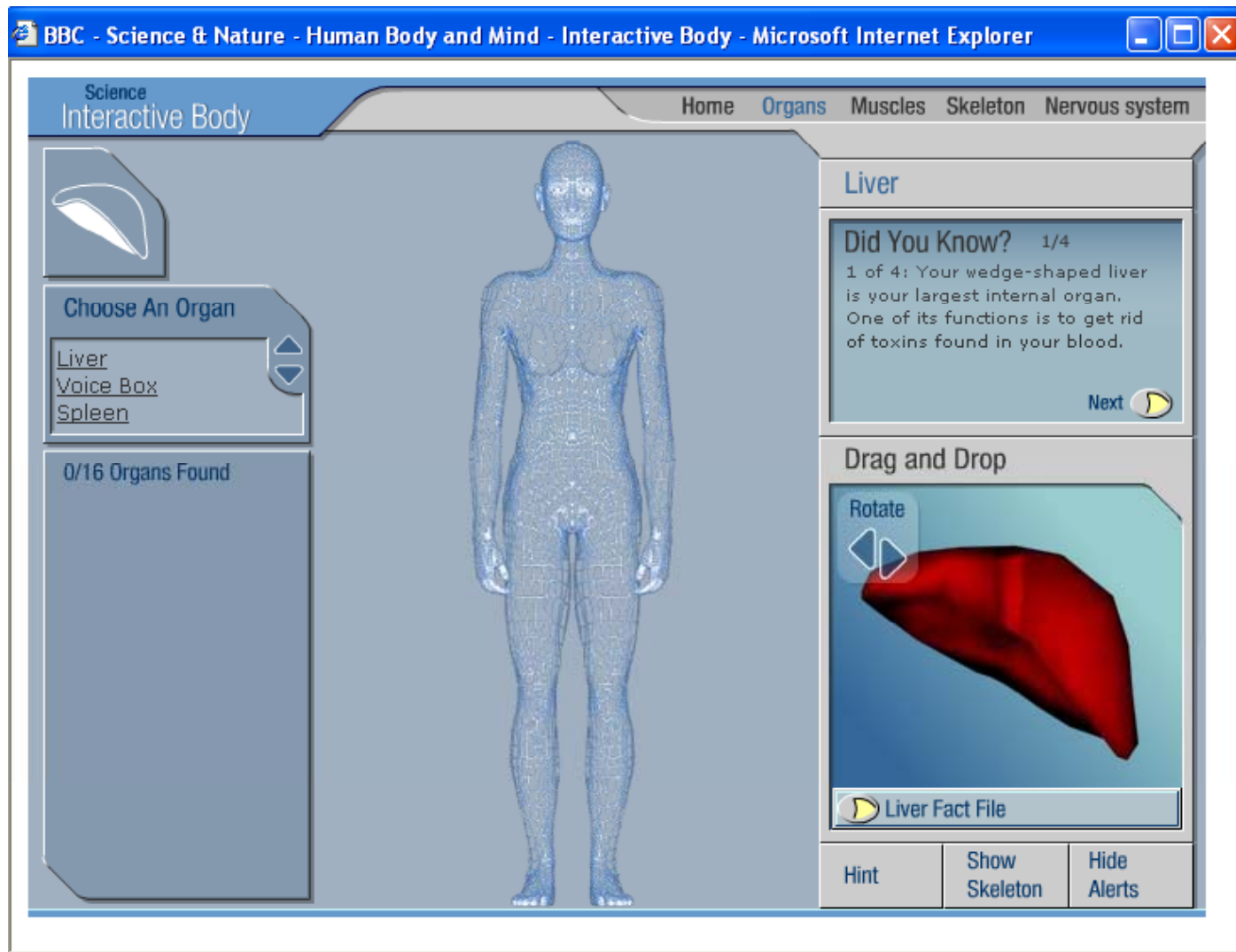


Say Hi with
a *D-Card!*



99 Egg-citing
Easter Ideas!

Simulations



BBC learning

BBC - Skillswise - Words - Grammar - Microsoft Internet Explorer

Αρχείο Επεξεργασία Προβολή Αγαπημένα Εργαλεία Βοήθεια

Πίσω Αναζήτηση Αγαπημένα

http://www.bbc.co.uk/skillswise/words/grammar/ Μετάβαση Links Web assistant

Google bbc learning Search Web 16 blocked AutoFill Options bbc learning

bbc.co.uk Home TV Radio Talk Where I Live A-Z Index Search

Thursday 24th March 2005 Text only

Skillswise

Words Numbers Tutors

Home Your stories News quizzes Glossary Games Messageboard Contact us Help

See curriculum references for these modules

Words : Grammar

Grammar Spelling Reading Writing Listening Vocabulary

Adverbs NEW

'Nicole ate her chips **slowly**'.
Use [adverbs](#) to say more about verbs.



Apostrophes

Save your friend from a nasty accident by putting the [apostrophes](#) in the right place.
E.g. Mary's bike isn't in the shed.



Personal pronouns

Is it '**they**' or '**them**' or '**I**' or '**me**'?
Learn to write better sentences with [personal pronouns](#).



Verb-subject agreement

'She **like** chocolate' or 'she **likes** chocolate'?
Make sure you get the [right verb form](#).



Making sentences

Practise making [simple sentences](#) and learn about what a sentence is.



Putting sentences together

'I like to read **while** I am eating.'
Learn to write more interesting sentences by [joining sentences](#) together.



Getting the right tense

'I **walk**, I **walked**, I **will walk**.'
Talk about yesterday, today and tomorrow by working out [which tense](#) to use where.



Double negatives

'I **don't** want **no** new job.'
Make sure you don't confuse people by putting too many [negatives](#) in your sentences.



http://www.bbc.co.uk/skillswise/help/ Internet

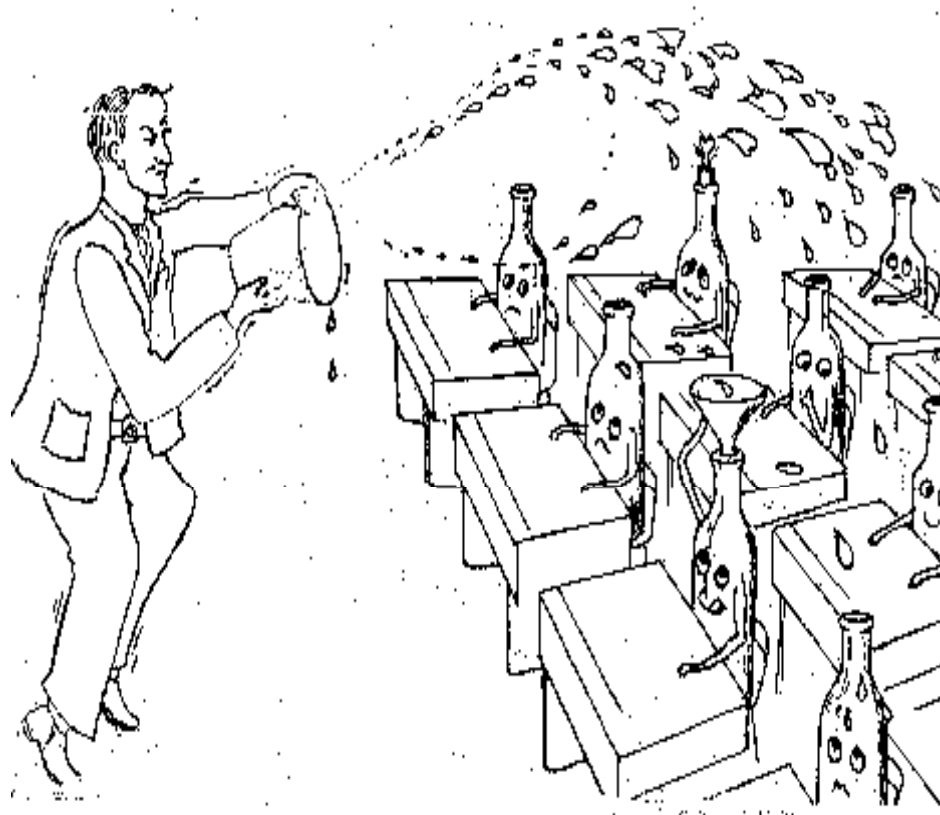
Learning Management Systems

The screenshot shows a web browser window titled "Course: Using Moodle - Microsoft Internet Explorer". The address bar displays the URL "http://moodle.org/course/view.php?id=5". The page content is organized into several sections:

- Header:** "Using Moodle" and "Moodle -> Using Moodle". A notification states "You are logged in as Guest User (Logout)".
- Left Sidebar:** Contains navigation links for "People" (Participants, Groups, Edit profile), "Activities" (Chats, Choices, Forums, Glossaries, Lessons, Resources, Surveys, Workshops), "Search" (with a search box and "Search forums" button), and "Course categories" (English Language).
- Topic outline:** A central section titled "Welcome to the main Moodle community forums. Come in and Moodle around with us!". It lists various resources: "A guide to participating in these forums", "General news and announcements", "Conferences and Gatherings", "Where are you using Moodle?", "Glossary of common terms", "Open Chat Lounge", and "Open Social Forum". Below this, it lists numbered topics: "1 Getting started with Moodle" and "2 Moodle modules - help and discussion."
- Latest news:** A section on the right showing recent forum posts, including "New forum: Gradebook" and "New Forum: Blocks".
- Recent activity:** A section on the right showing activity since Tuesday, 27 April 2004, 06:50 AM, with a link to "Full report of recent activity...". It also states "Nothing new since your last login".

The browser's taskbar at the bottom shows the "Internet" icon.

Η πρόκληση ...



Web Resources

Online Tests &
Quizzes

Discussion Forum:

Instructor	⇒	Class
Instructor	⇔	Student(s)
Student	⇔	Student(s)
Student	⇒	Class

Offline
Individual Study:
Textbook, Labs,
CD-Roms, etc.

Homework, Papers,
Collaborative
Projects



Ανάγκη για προτυποποίηση της διαδικασίας

Metadata (για περιγραφή μαθησιακών αντικειμένων)

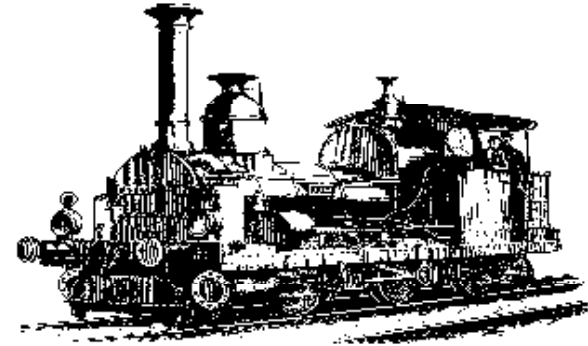
Content Packaging (για περιγραφή δομής & μεταφορά περιεχομένου)

QTI (για αξιολόγηση)

LIP (για περιγραφή του προφίλ μαθητών)

History of Standards

Railway Tracks

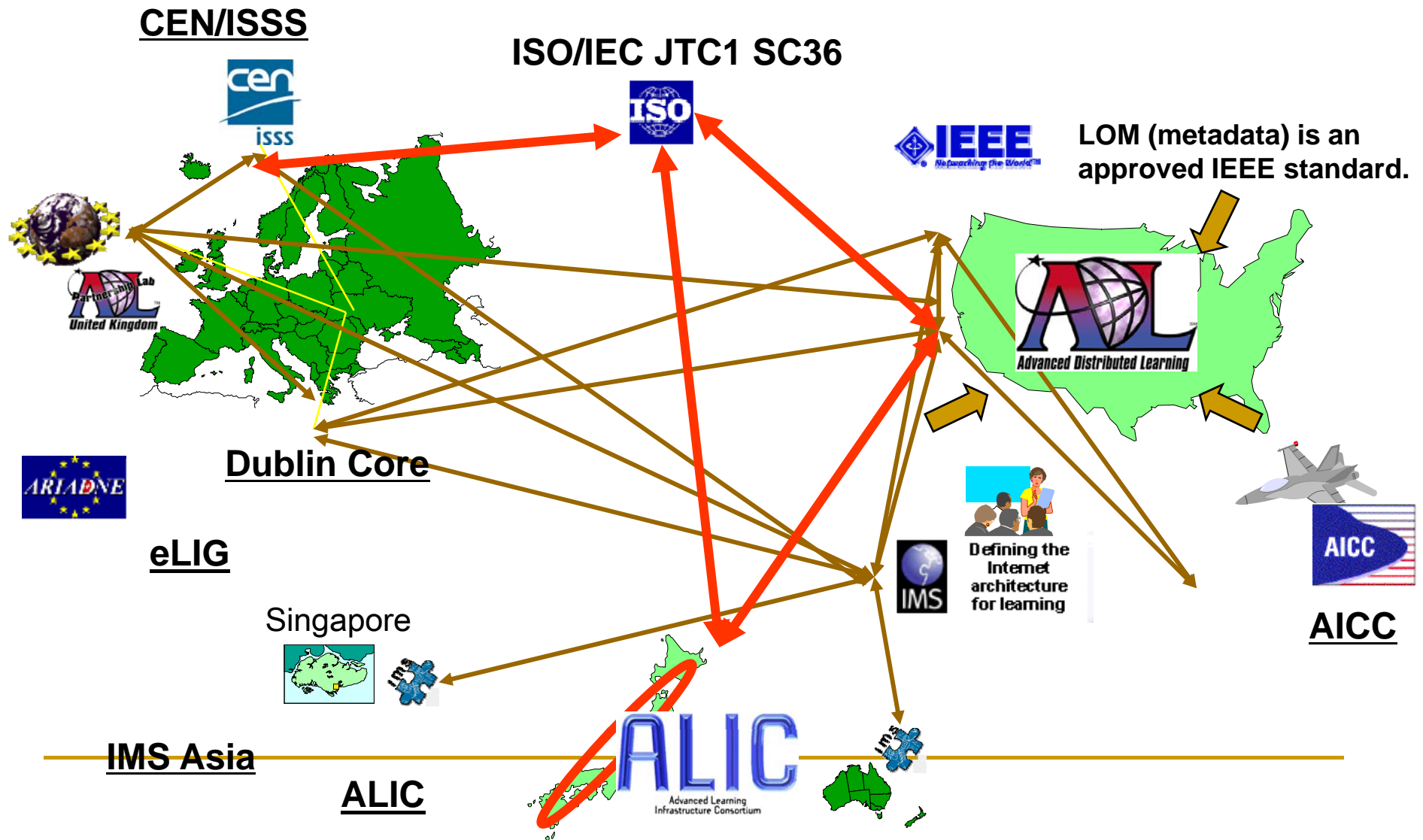


- By the late 1860's nine different train track gauges (σιδηροτροχιές) sizes were in use in North America.
- Why? Strictly used for local transportation or rival ambitions of the competition
 - “Standardization of gauge facilitates the exchange of rolling stock, enabling freight shipment and passenger traffic to pass over the track of multiple companies.”

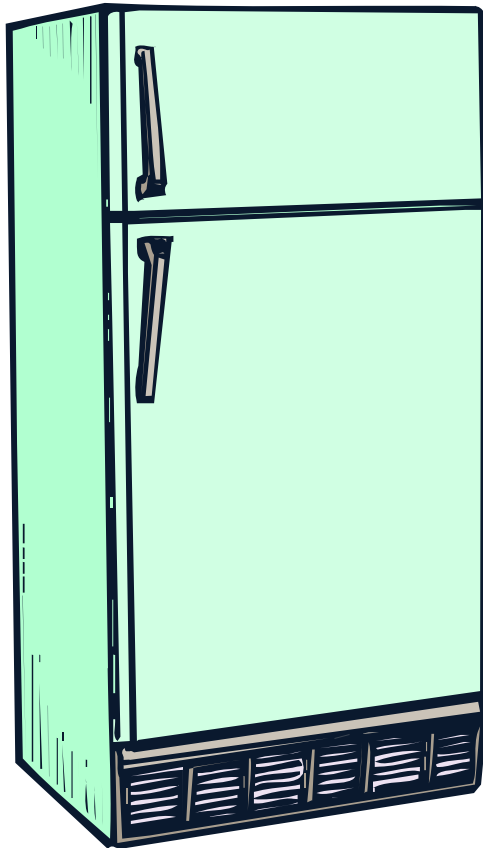
Standards = Interoperability

Source: *Standardization of Track Gauge on North American Railways* (2000)
Journal of Economic History

Learning Technologies Standards and Specifications



Digital Repositories... an Analogy



Labeling = "Metadata"

- Market's Organic Yogurt (title)
- 2% plain yogurt (description)
- 500 grams (size)

**Container of yogurt
= 'learning object'**

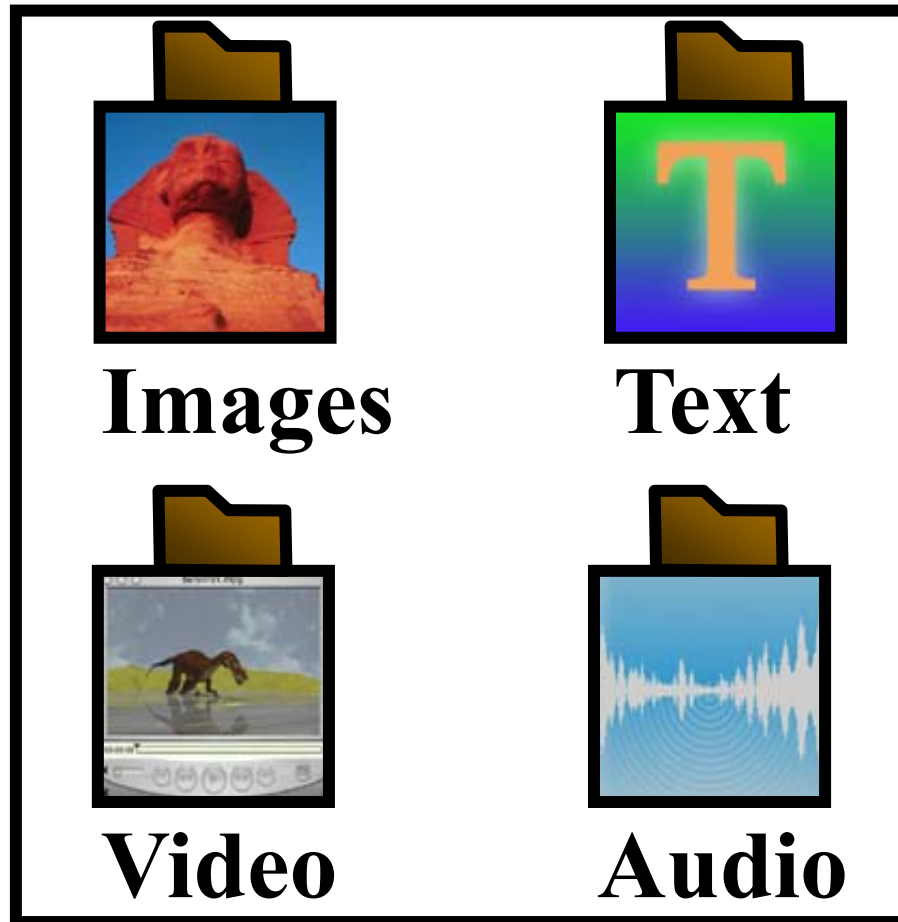
Refrigerator = 'Digital Repository'

- A large storage area for objects
- Different shapes and sizes and content
- Metadata allows for search and retrieval

Janet Bartz 2002

Learning Object Metadata

+ Metadata



LO files

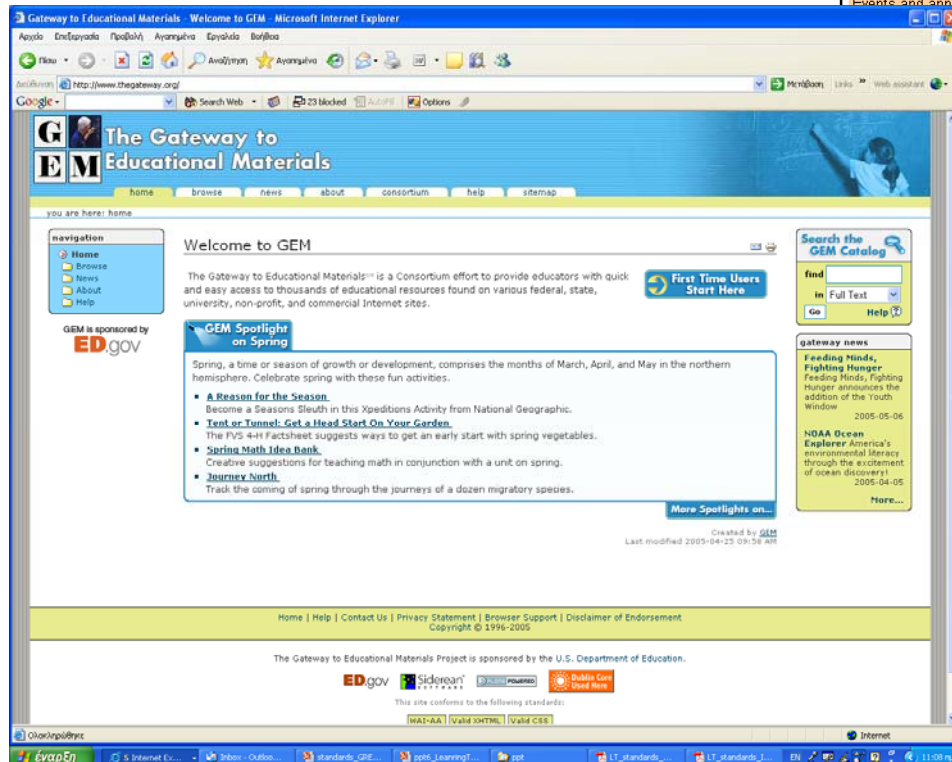
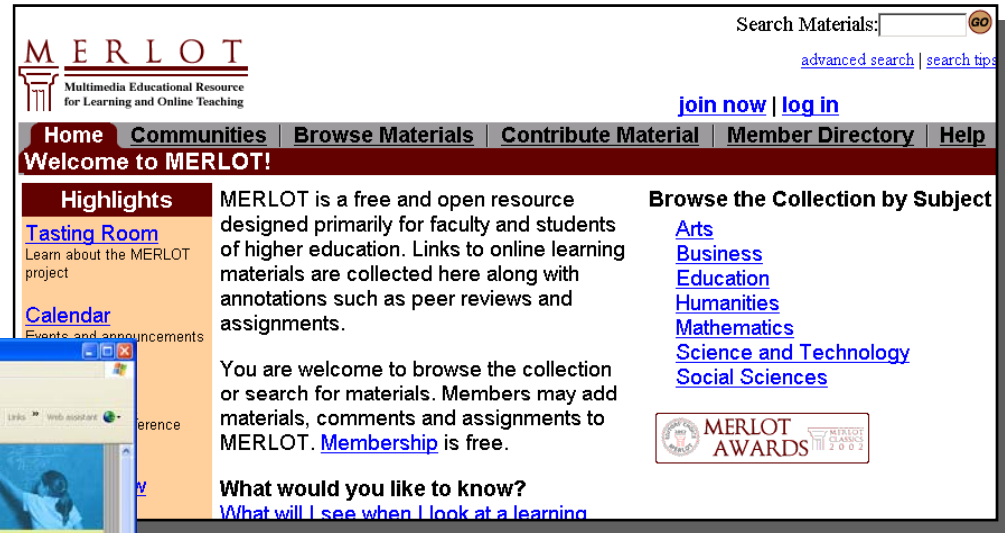


Παραδείγματα από Canadian Learning Object Repositories

- Campus Alberta Repository of Educational Objects
 - <http://www.careo.org>
 - LearnAlberta.ca
 - www.LearnAlberta.ca
 - TeleCampus
 - <http://courses.telecampus.edu/about/index.cfm?fuseaction=introduction>
 - eduSource Canada Project
 - <http://www.edusource.ca/>
-

USA-Based LOR

- Multimedia Educational Resource for Learning and Online Teaching
- <http://www.merlot.org>



- Gateway to Educational Materials
<http://www.thegateway.org/>

Στην Ευρώπη: EducaNext Homepage

EducaNext
Powered by the
Universal Brokerage Platform

English

User: Stefan Brantner Logout

Search

Advanced Search

Browse Catalogue

[Home](#)

[Members & Registration](#)

[My Contributions](#)

[My Favourites](#)

[My Communities](#)

[About](#)

[Help & Support](#)

[Administration](#)

[Content Management](#)

[Contact](#)

[Your Feedback](#)

[Disclaimer](#)

[Links](#)

EducaNext* is a service supporting the creation and sharing of knowledge for Higher Education. It is open to any member of the academic or research community.

EducaNext fosters collaboration among educators and researchers, allowing you:


- To participate in Knowledge Communities
- To communicate with experts in your field
- To exchange Learning Resources
- To work together on the production of Educational Material: Text books, lecture notes, case studies, simulations, etc.

• To deliver distributed Educational Activities: lectures, courses, workshops, case study discussions, etc.

• To distribute electronic content under license

Feel free to browse the catalogue and re-use resources. In order to access resources only available to specific communities or for providing your own materials and conferences, please register by clicking [here](#).

*EducaNext is an initiative of the EU-IST Universal Consortium offered to the academic community.



Most recently added Educational Material

2003-08-26 Stefan Brantner
Single-Sign-On The Basic Concepts
This material provides an overview on Single-Sign-On (SSO) concepts and discusses a simple and a more complex scenario where to use SSO. ...

2003-04-14 Bernhard Plattner
IPv6
Handouts for the lecture on the topic "IPv6 and related protocols" in the course "Communications Network" ...

2003-04-14 Bernhard Plattner
Packet Switching & Internetworking: the Global Internet
Presentation slides for the topic "Global Internet" in the context of the course "Communication Networks" ...

2003-04-14 Bernhard Plattner
Network Security: Concepts & Cryptographic Methods
Presentation slides for the basic concepts and cryptographic methods in the realm of Network Security ...

2003-04-14 Bernhard Plattner
Multicast

Recently announced Educational Activities

2003-04-28 König Christian
Finanzinnovationen
Seit den letzten Jahren sind innovative Finanzinstrumente immer stärker gefragt. Diese Entwicklung ist nicht zuletzt auf die immer volatileren ...

2003-02-10 Juan Quemada
Isabel Session access
Accessing the Isabel Session ...

2003-02-03 Juan Quemada
Joaquín Salvachúa Rodríguez
ING - Internet de Nueva Generación
Objetivos de la asignatura: Formar al alumno sobre la Internet de Nueva Generación. La Internet de Nueva Generación supone un cambio en la ...

2002-12-23 Juan Quemada
Isabel Workshop
One afternoon workshop for training on how to organise Isabel sessions or events, with the following program:
14h20 Opening 14h30 Introduction to ...

[Archive: Educational Activities](#)

Agricultural Science (1)

Biology (1)

Business Administration, Organizational Science (28)

Chemistry (1)

Civil Engineering (1)

Communication Studies (15)

Computer Science (184)

Economics (4)

Education, Teaching (57)

Electrotechnology (4)

Environmental Science (1)

General Works (2)

History (1)

Language and Literature (3)

Law (5)

Linguistics and Theory of Literature (1)

Materials Science (14)

Mathematics (6)

Medicine (1)

Pedagogy (1)

Philosophy (1)

Physics (1)

Political Science (3)

Process Technology (1)

Psychology (1)

Science and Culture in General (1)

Social Sciences in General (2)

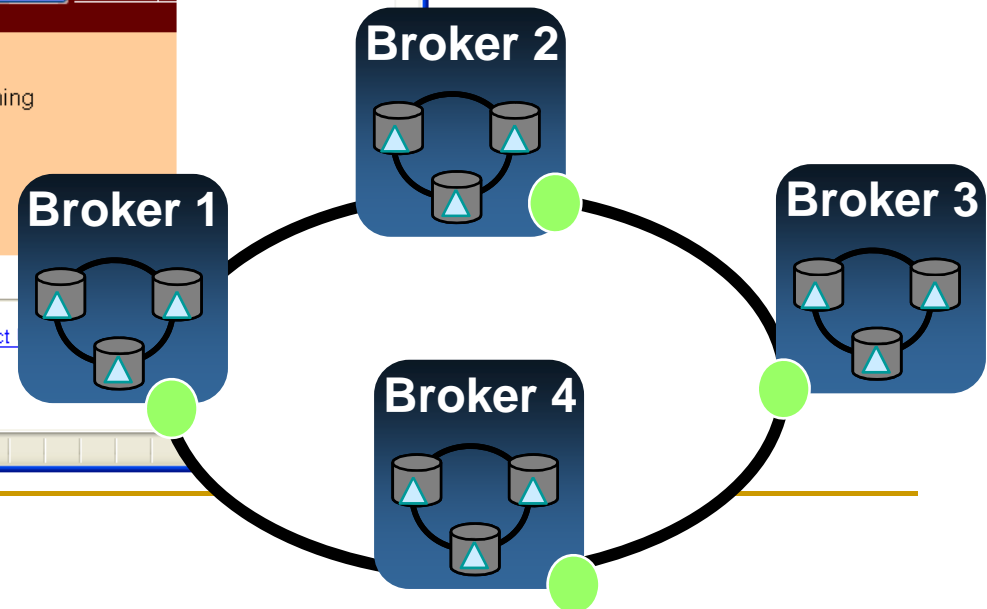
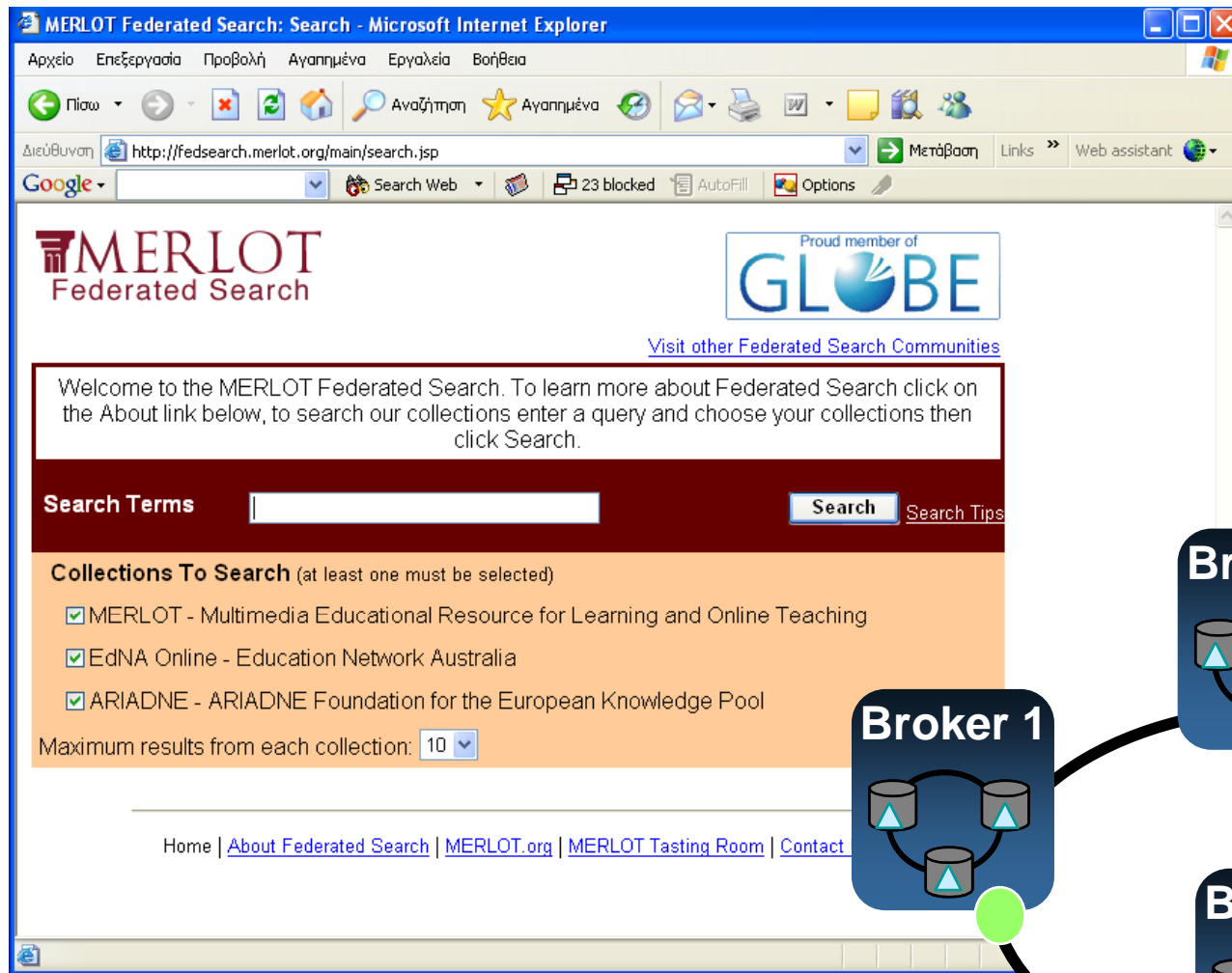
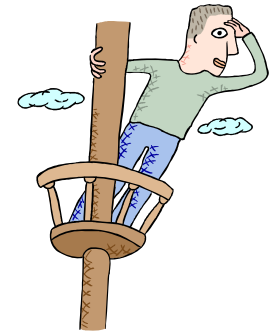
Metadata

The screenshot displays the MERLOT (Multimedia Educational Resource for Learning and Online Teaching) website. The interface includes a top navigation bar with links like 'Map', 'Home', 'Browse Materials', 'Peer Reviews', 'Contribute Materials', 'Member Directory', and 'Help'. A search bar is located in the top right corner. The main content area shows the 'MERLOT Detail View' for a resource titled 'Language and Linguistics Resources'. This resource is a collection of links to various educational materials. The page is annotated with red circles and numbers 1 through 5, highlighting specific metadata elements:

- 1: Points to the 'Add' button in the navigation bar.
- 2: Points to the 'Average Peer Review Rating' (☆☆☆☆) and 'Average User Comment Rating' (☆☆☆☆).
- 3: Points to the resource image, which features the Chinese characters '福' (Fú) and '祝' (Zhù).
- 4: Points to the 'Submitted' date (Feb 27, 2001) and 'Modified' date (Apr 13, 2001).
- 5: Points to the 'Submitted by' (Kylie Hsu), 'Primary Audience' (College), 'Use License' (Unknown), 'Source Code' (no), and 'Available' (Available) fields.

The sidebar on the left contains a 'Learning Resources' section with a table for accessing resources. The bottom of the page shows a status bar with the text 'Document: Done'.

Federated Search



Content Packaging – Πακετάρισμα

SCORM 2004 Sample Run-Time Environment Version 1.3 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

Address http://localhost:8080/adl/runtime/LMSMain.htm Go Links

Advanced Distributed Learning
Sharable Content Object Reference Model (SCORM®) 2004
Sample Run-Time Environment
Version 1.3

Suspend Quit

DSP Tutorial

- Elements of Discrete Systems
- Properties of Discrete Systems
- Sampling of Analog Systems
- Sampling of Sinusoidal Systems
- Frequency Response of Discrete Signals
- Practical Sampling Aspects & Sample Rec
- Conclusions and Exercises
- Convolution
- Block Processing, Convolution Table, Real
- Recursive Filters - Convolution
- Recursive Filters - Block Processing
- FT and DFD
- DFT Properties
- FFT and IFFT
- Methods Overlap and Add, Overlap and Se
- IIR Analog Specifications
- IIR Design Algorithm
- Butterworth Filter
- Filter Design in the Z-Domain
- FIR Design
- Frequency Sampling Method
- Window Method
- The Z Transformation
- Special Topics: Adaptive FIR and IIR Filteri
- Special Topics: Image Processing, Wavele
- IIR Design

Ψηφιακά Φίλτρα FIR

Εισαγωγή

Τα φίλτρα που έχουν πεπερασμένη χρονική διάρκεια κρουστικής απόκρισης, ονομάζονται φίλτρα FIR (Finite Impulse Response).

Τα κυριότερα πλεονεκτήματα των FIR είναι η ευκολία υλοποίησης τους με γραμμική φάση και η από κατασκευής τους ευστάθεια σε οποιεσδήποτε συνθήκες. Τα FIR φίλτρα μειονεκτούν ως προς τα IIR, διότι απαιτούν υψηλότερη τάξη φίλτρου από τα IIR για τις ίδιες προδιαγραφές.

Η συνάρτηση μεταφοράς ενός φίλτρου FIR μήκους N είναι,

$$H(z) = h(0) + h(1)z^{-1} + \dots + h(N-1)z^{-(N-1)} = \sum_{k=0}^{N-1} h(k)z^{-k}$$

Το μέτρο πλάτους και η φάση της απόκρισης συχνότητας του παραπάνω φίλτρου FIR υπολογίζονται ως συνήθως με την αντικατάσταση $z = e^{j\omega}$ στην

$$|H(e^{j\omega})| = \left| \sum_{k=0}^{N-1} h(k)e^{-j\omega k} \right| = \left| \sum_{k=0}^{N-1} [h(k) \cos k\omega - j h(k) \sin k\omega] \right|$$
$$= \sqrt{\left(\sum_{k=0}^{N-1} h(k) \cos k\omega \right)^2 + \left(\sum_{k=0}^{N-1} h(k) \sin k\omega \right)^2}$$
$$\Phi(\omega) = \tan^{-1} \left| \frac{-\sum_{k=0}^{N-1} h(k) \sin k\omega}{\sum_{k=0}^{N-1} h(k) \cos k\omega} \right|$$

Η καθυστέρηση που υφίσταται ένα σήμα διερχόμενο από κάποιο φίλτρο λέγεται καθυστέρηση ομάδας (group delay), τ_g , και ορίζεται ως

SCO
SCO
SCO
SCO
SCO
SCO

Applet org/adl/sample/client/ClientRTS started Local intranet

Quiz tool

Name: Chemistry Quiz

Introduction: Teachers can define a database of questions for re-use in different quizzes. Questions can be stored in categories for easy access, and these categories can be "published" to make them

Open the quiz: 19 September 2004 10 00

Close the quiz: 19 September 2004 11 00

Shuffle questions: No

Shuffle answers: Yes

Attempts allowed: 2 attempts

Each attempt builds on the last: No

Grading method: Highest grade

After answering, show feedback?: No

In feedback, show correct answers?: No

Allow review: No

Maximum grade: 25

[Continue](#)

1

1 Marks

Click on the triangle button to hear the recording. Alternatively, you can click on the text link before the button. Your own computer's player will pop up and you can play the audio.

[Listen to this information](#) 

Answer the question you hear.



- Answer:
- ☐ a. It has reached six billion.
 - ☐ b. It has not changed very much.
 - ☐ c. It has increased, but not very quickly.
 - ☐ d. It has decreased.

Category: Default [Edit categories](#)

The default category for questions.

Create new question: Choose...

- Choose...
- Multiple Choice
- True/False
- Short Answer
- Numerical
- Matching
- Description
- Random set
- Random Short-Answer Matching
- Embedded Answers (Cloze)

Select	Question name	Remove	Edit
<input type="checkbox"/>	Chemistry Question	X	
<input type="checkbox"/>	Population	X	

[<< Add selected to quiz](#) [Select all](#)

Import questions from file

Category: Default

File format: GIFT format

Upload: Aiken format
AON format
Blackboard
Course Test Manager format
Embedded Answers (Cloze)
GIFT format
IMS QTI format
Missing word format
WebCT format

[Browse...](#)

Ένα παράδειγμα QTI question

- `<test-item class="">`

Question (HTML tags allowed)

Question worth points.

Individual Instructions

ANSWER (Select one: MC, TF or SA)

☒ Multiple Choice (MC)

Show Students:

☒ Multiple Choice: "Select

☐ Multiple Correct: Choose

`</when-answer>`

`</test-item>`

Editing Landmarks

File Edit View Question Help

Question

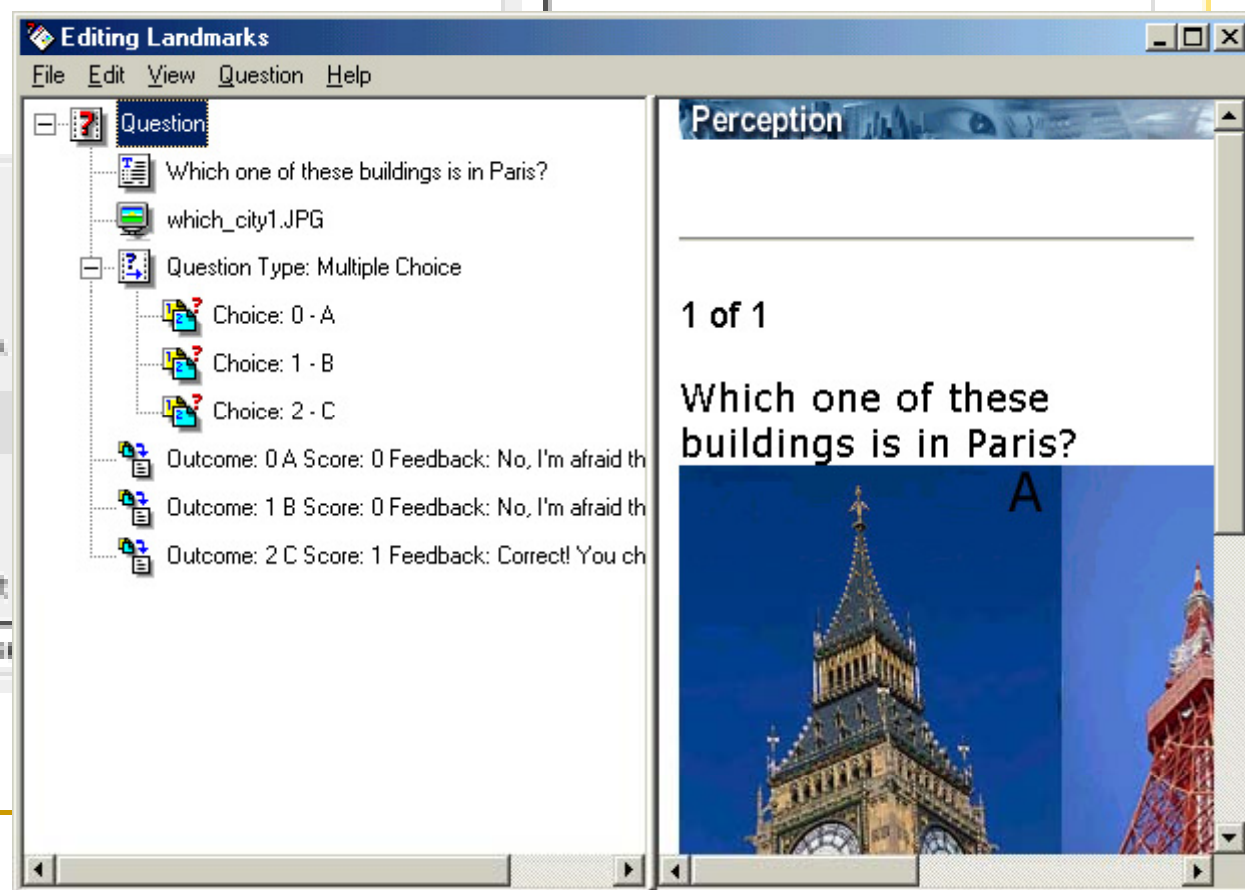
- Which one of these buildings is in Paris?
- which_city1.JPG
- Question Type: Multiple Choice
 - Choice: 0 - A
 - Choice: 1 - B
 - Choice: 2 - C
- Outcome: 0 A Score: 0 Feedback: No, I'm afraid th
- Outcome: 1 B Score: 0 Feedback: No, I'm afraid th
- Outcome: 2 C Score: 1 Feedback: Correct! You ch

Perception

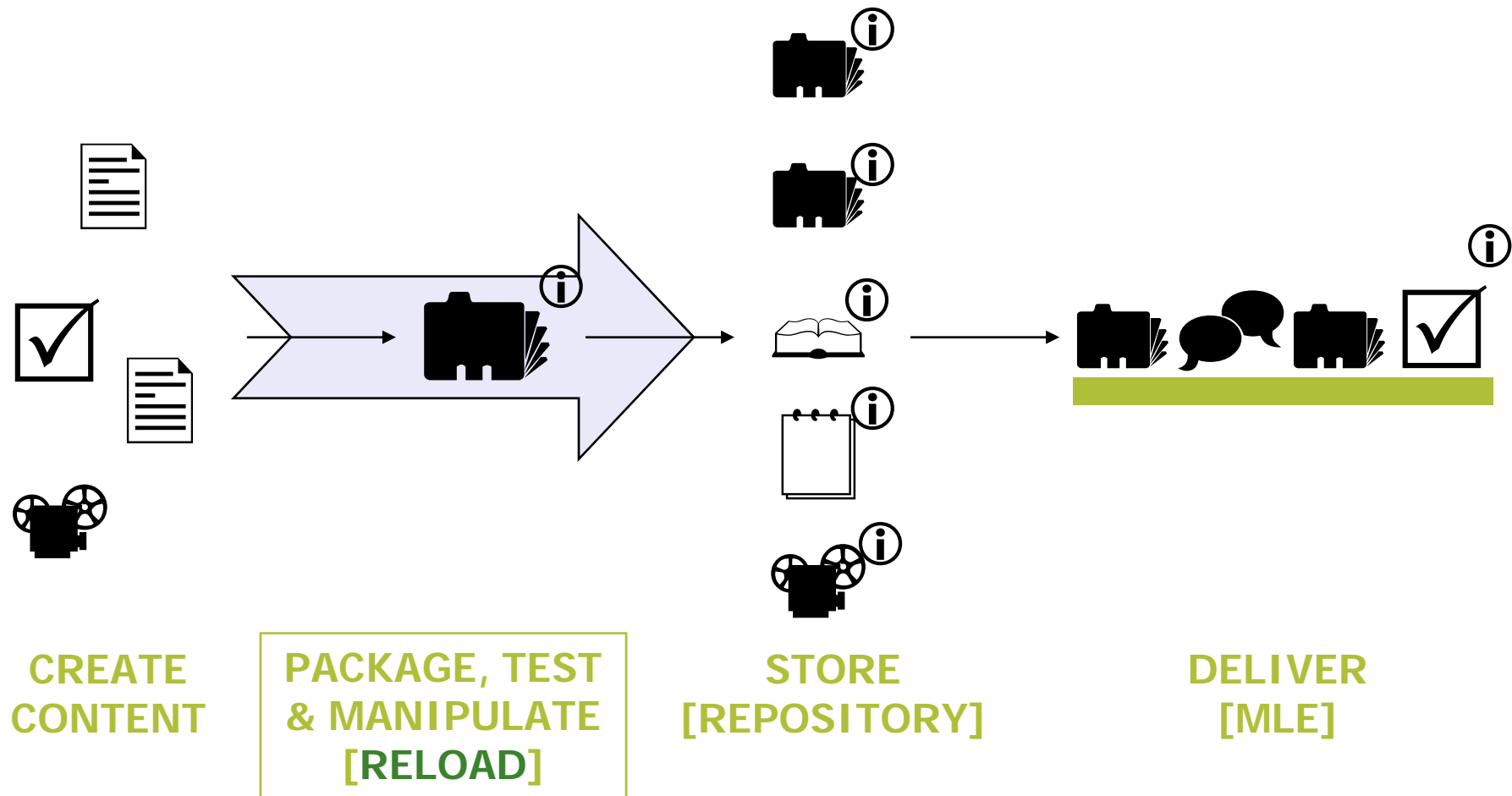
1 of 1

Which one of these buildings is in Paris?

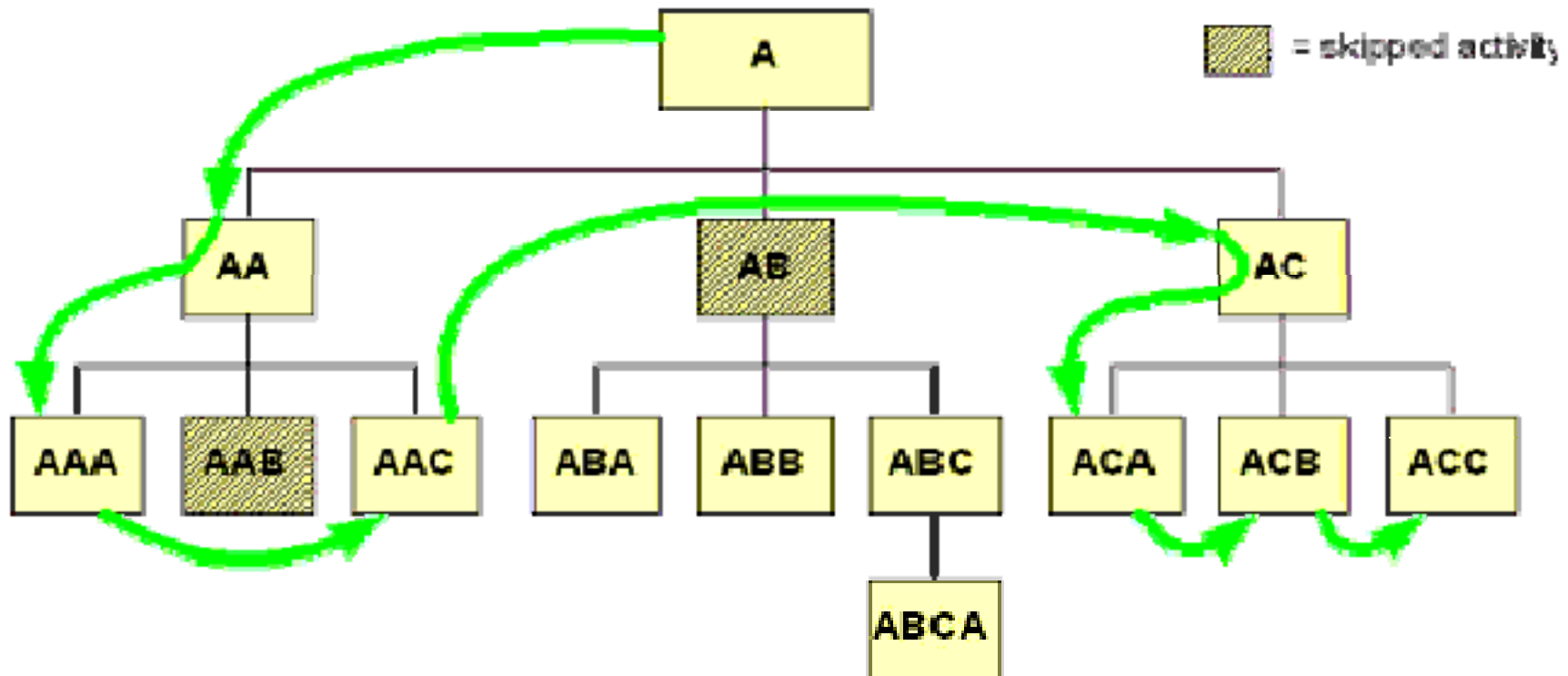
A



Η διαδικασία ανάπτυξης υλικού ηλ. μάθησης ...



simple sequencing



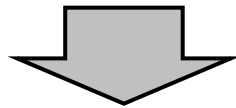
Simple Sequencing

Ανοικτά ερευνητικά θέματα

- Νέα σενάρια και στρατηγικές
 - Έμφαση στη συνεργατική μάθηση
 - Διαλειτουργικότητα (interoperability) των συστημάτων ηλ. μάθησης
 - Διασφάλιση ποιότητας
 - European Quality Observatory
 - Ψηφιακός αναλφαριθμητισμός
 - Νέες συσκευές
 - Από το e-learning στο m-learning
-

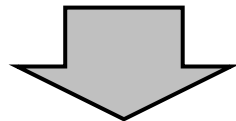
Διαλειτουργικότητα των συστημάτων

- ❑ *Different vendors*
- ❑ *Different architectures*



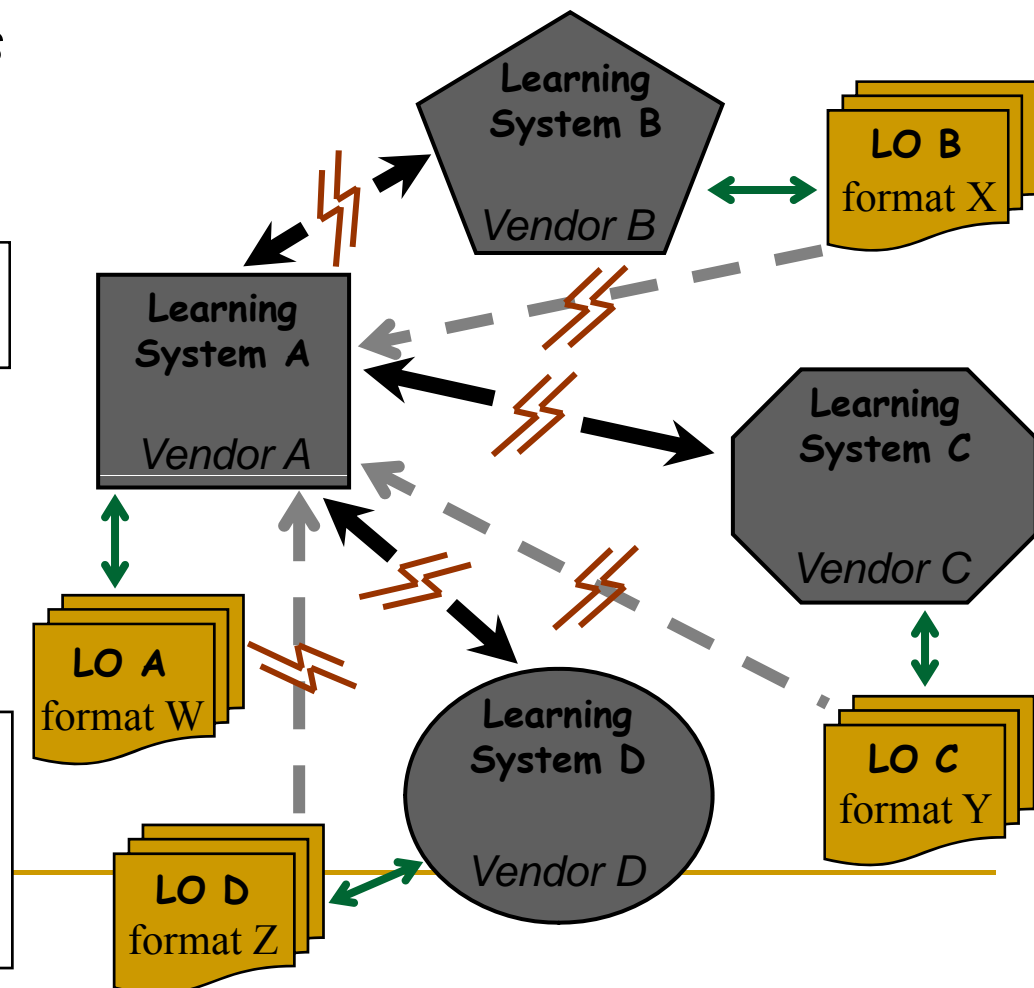
NO INTEROPERABILITY

- ❑ *Different formats*
- ❑ *Different developers*



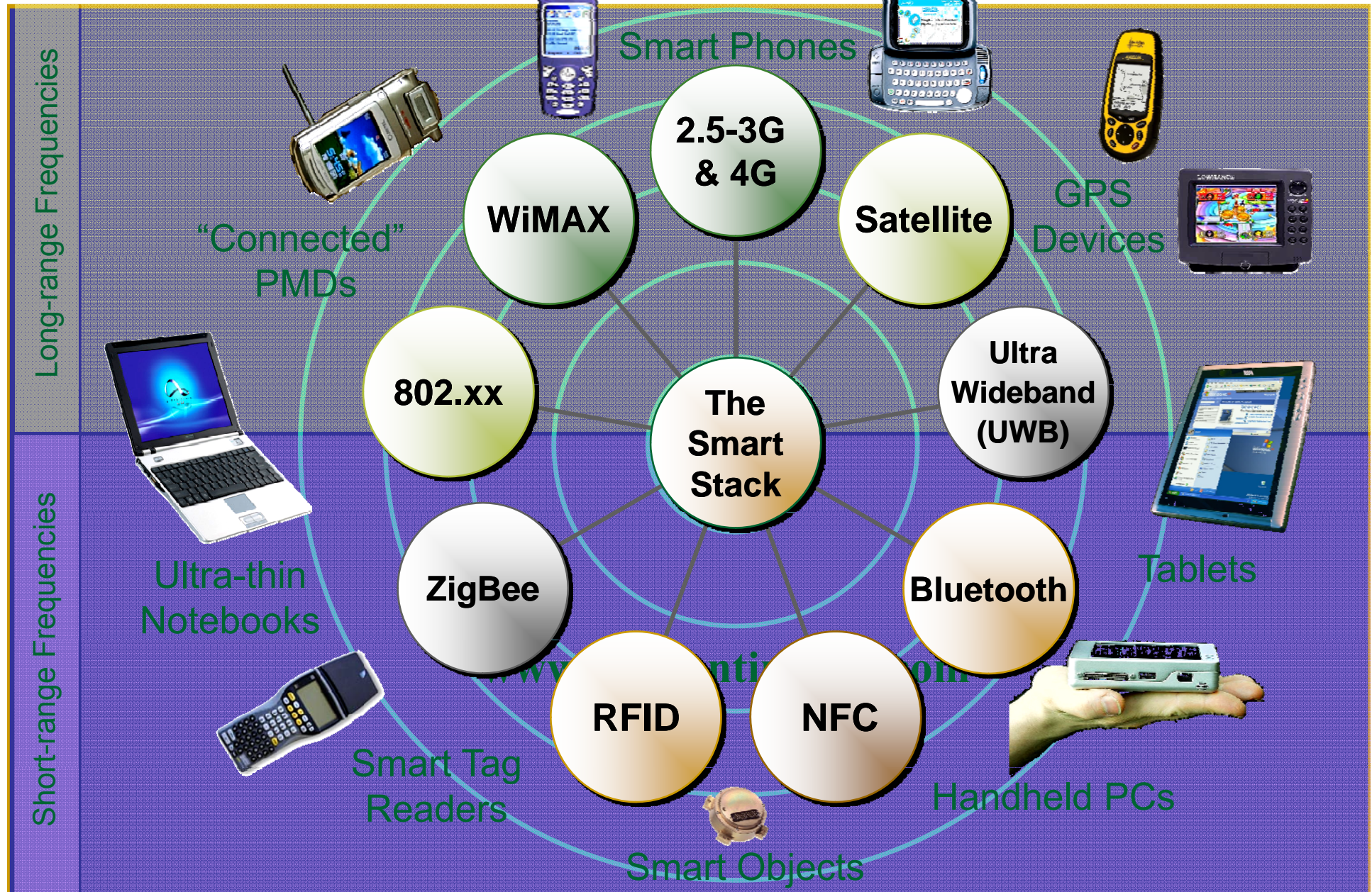
NO CONTENT REUSE

NO STRATEGIES & DESIGN REUSE



Personal Learning Devices

www.ambientinsight.com



Ψηφιακός αναλφαβητισμός ...



"Okay your father
managed to get a mouse.
Now how do we use it?"

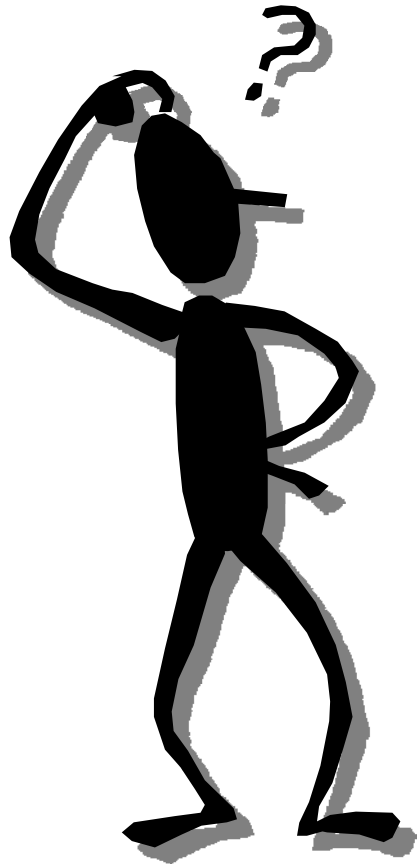
Καταλήγοντας

- Όχι πλέον “novel effect”!
- Η σχεδίαση συστημάτων ηλ. μάθησης είναι
 - Τέχνη και επιστήμη ταυτόχρονα



M.C. ESCHER

Επίλογος;



- Ι. Μ. Παναγιωτόπουλος, το 1961, έγραφε: «Ότι η Παιδεία πρέπει να ανταποκριθεί προς τις απαιτήσεις της εποχής είναι αναμφισβήτητο. ... Η Παιδεία έχει χρέος να προσφέρει στην κοινωνία και στο έθνος ανθρώπους με ανοιχτό μυαλό και εφοδιασμένους με όλα όσα η τροπή των καιρών απαιτεί».
- Δε μπορούμε όμως να πειραματιζόμαστε χωρίς συναίσθηση ότι πειραματιζόμαστε με την εκπαίδευση νέων-εύπλαστων ανθρώπων