Seamless Learning Technology

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#0 DESIGNING TECHNOLOGY ENHANCEMENT DRIVEN BY ...
NEW DIGITAL CONTENT

OER, iTunes U, Youtube EDU, ...

LOR: GLOBE, Ariadne, ODS, MACE, Sharetec,...

Mobile: GLOBE, Ariadne, ODS, MACE, Sharetec,...
Scaling Processes

MOOC: Coursera, edX, OpenLearn, Futurlearn, yOUlearn
NEW INTERFACES

Mobile Access, Augmented Reality
Tangibles, Sensor-Based Interfaces, Tabletops
Situated Displays, Ambient Displays, Public Displays

FIGURE 6  The Audience Funnel.
HOW TO DESIGN SEAMLESS LEARNING SUPPORT IN TEL SPACES?

- Formal and informal learning;
- Personalized and social learning;
- Across time; locations, social contexts
- Combined use of multiple device types;
- Physical and digital worlds
- Multiple learning tasks knowledge synthesis
HOW TO CREATE LINKS BETWEEN DIGITAL AND PHYSICAL

#1 LINKING THE WORLDS
FIELD TRIPS
LOCATION-BASED
audio augmented spaces ...
OPEN SOURCE FRAMEWORK FOR MIXED REALITY GAMES

ARLEARN
LANGUAGE LEARNING

• http://www.elena-learning.eu
objects as controllers of ambient displays …
actuator/controller ...
Feedback Cube

A tangible interactive ambient display to support learning scenarios
embedded trackers …
# 2 LINKING TO HUMAN LEARNING
#2A AWARENESS
measuring power consumption on campus with standard facility management, plus sensors on workplaces and public devices, personal registration of power consuming activities.
Notification Level: Make Aware
MAIN RESULTS ENERGY AWARENESS

• Situated displays have a generic effect of raising awareness and energy consumption on a mid to long term

• Badge and social incentive systems must be embedded with social media to have an effect

• Real world action foster curiosity, discussion, and reflection about the topic when combined with public displays
HUMANS DO NOT ALWAYS LIKE TO DO ...

#2B REFLECTION IN AND ABOUT ACTION
REFLECTION ABOUT ACTION

Figure 7: The teacher invites the student to the tabletop
WHAT MAKES IT PERSONAL IS ...

FEEDBACK ...

context indicators ...
reflection amplifiers ...
Personal Context Notifications

Figure 8.2. Student reflective practice a. Daily SMS received by students. b. What were your main learning channels today? c. How intense was your learning day? Rate it from 1 to 5.
Presentation Trainer
SO ...

• #1 There are seams between the different learning contexts, locations, times, social contexts, ...

• #2 There are opportunities with new technologies that are open, ubiquitous, context-aware, and personalized.

• #3 look at the aimed effects on awareness, curiosity, creativity, knowledge, latent variables, ...

• #4 think careful about methodology and experimental designs dependent on your research questions ...
THANK YOU!

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