'Peer Learning Activity on Recognition of Prior Learning and e-learning'

Educa-T project
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Knowledge, ability and motivation needed to leverage ICT in higher education
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WHAT?
• ICT in organization and administration

• ICT in educational process

• ICT enabling (completely) new educational methods
• reduced, simplified, sped-up administration
• optimized work processes
• enhanced communication between school and students and other stakeholders
  ▪ parents
  ▪ employers
  ▪ educational authorities
• cost reduction
How to use ICT as support?

• does not require essential changes in educational process
• does not require engagement of teachers

• prerequisite are streamlined administrative processes
• investment in equipment, personnel and maintenance
• creation and enforcement of policies
  ▪ information flow
  ▪ information security
• simpler **preparation** of teaching and educational materials
• simple **delivery** of (classical) teaching
• better **distance** education
  ▪ faster, cheaper ...
• **cost** reduction
• easier **access** to learning materials (for students)
• better **inclusion** of other stakeholders in the process
  ▪ and their influence on it
• overcoming spatial **frontiers**:  
  ▪ any school  
  ▪ any teacher  
  ▪ any student study group
• does **not** require essential **changes in** educational **process**
• does **not** require engagement of “**senior**” **teachers**
• everything can be done by “**junior**” **teachers** and **students**
• does require **some equipment** and basic maintenance
• availability of “**creative**” **services**
   visual design, instructional design, video services, programming

• design and enforcement of **policies**
   publishing, ownership and usage of educational materials
New educational methods

- **Visualization**
  - slow motion, time laps, overlapping videos,
  - data visualisation, animation, computer graphics
- **Simulation**
  - virtual laboratories
- **Self-assessment** of knowledge and skills
- **Learning through**
  - teaching
  - (co)creation
  - mass problem solving

- **Computer** as the teacher
  - **Aware** of student’s knowledge, progress and abilities
  - **Adapts**/customizes the process of learning
- **Human** teacher focuses on
  - learning and **Student**
  - **Tacit** knowledge
  - projects and **Cooperation**
  - the **Meaning** and society
How to really change education

- fully implemented previous two phases
- new understanding of learning
- redefined role of school and teacher
- big investment in teacher education
  - money
  - time

- decomposition of monolith role of a teacher into (sub)specialization
  - content authors
  - educational program authors
  - lecturers
  - counselors, mentors, advisers, coaches
  - examiners, certifiers
  - teachers “general practitioners”
... people have to:

• to **know**
  ▪ ICT literacy
    ▪ what and how is possible
  ▪ ICT proficiency
    ▪ being efficient in using ICT
  ▪ educational methods

• to be **able**
  ▪ have resources
  ▪ have time to create, experiment
  ▪ have support

• to **want**
  ▪ get something in return
    ▪ satisfaction
    ▪ recognition
    ▪ privilege
    ▪ money
Everett Rogers: Diffusion of innovations
• will do it **even without** your intervention
• **can not** be **controled** or directed
• produce **examples**, good practices

• **provide** them with **resources**
• **record** their stories
• **show** them to early adopters
Early adopters

- do **not** have original ideas
- but recognize **pragmatic importance** of pioneers’ examples
- **quick to adopt** the change
- willing to **show & tell**, demonstrate and **help** others

- they are **real agents of change**

- provide them some **resources** and a lot of **support**
- heavily **promote** them
  - provoke fashion, **envyness**
• can be **positively** motivated, award them: “you will ...  
  ▪ get  
  ▪ be able  
  ▪ be recognized  
  ▪ ...  
• **requires major investment**  
  ▪ to provide **resources**  
  ▪ to establish **organization**  
  ▪ to **manage** and **control**
• require **negative motivation**, threat: “You will …
  ▪ lose
  ▪ not be able to
  ▪ have to
  ▪ …
• require **even more resources** than early majority
• require **significant** organization and supervision
• require **punishment**

• **close the circle** of change, sealing it **permanent**
• do **nothing** about them
• use them as **correction** factor
  ▪ negative feedback
  ▪ providing stability

• if **really** obstructing or “rottening” (bad influence on) others
  ▪ **remove** them
Implementation of change

- Pioneers
- Early adopters
- Early majority
- Late majority
- Opposers
http://www.Learning-Theories.org
http://www.LeCTo.org
http://www.AuResS.org

www.youtube.com/user/aquilonis12
www.youtube.com/user/Laboratorijlss
www.youtube.com/user/l3akademija1

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lss.fer.hr/edu
• 1983. – designs and uses **classical slides** in lectures
• 1990. – uses **PowerPoint**
• 1990. – designed “**Cascade Info Tree**” (pre Gopher)
• 1992. – starts using **Internet** in teaching and learning
• 1993. – uses **Gopher** in teaching and learning
• 1995. – uses **web** in teaching and learning
• 1996. – conceives and develops **first teleconference rooms**
• 1997. – organizes **first on line lecture** (prof. Hrvoje Babić)
• 1998. – **begins to capture** his lectures (video recordings)
• 1999. – starts using **LMS** (WebCT, Ilias, Moodle)
• 2003. – uses and (co)translates **Hot Potatoes**
• 2005. – starts **educational projects** in schools
• 2006. – designs **Pyramidia** a lecture capture tool
• 2008. – organizes and delivers **webinars**
• 2010. – (co)develops a wiki for **learning theories**
• 2011. – designs **LeCTo** a lecture capture tool
• 2012. – designs **AuResS** an audience response system
• 2013. – researching educational **methods**
• 2015. – (co)develops **ALCaPS** - automated lecture capture & publishing
• 2017. – start the project “**Education Development Cetre**” @ FER, UniZG