



**Seminar T3**  
**« E-learning: application and implementation »**

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## Disclosure

- Nothing to disclose



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## TEACHING GOALS

- TO DEMONSTRATE WHERE E-LEARNING COULD BE CONSIDERED THE BEST OPTION OF TEACHING TOOL
- TO EXPLAIN FACTORS TO CONSIDER WHEN DESIGNING AN EDUCATIONAL PROGRAMME USING E-LEARNING

## LEARNING OBJECTIVES

- TO DIFFERENTIATE IN WHICH SETTING WHICH TYPES OF E-LEARNING WOULD BE USEFUL



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## Question

- What is most important to consider when designing and implementing educational programmes using e-Learning?
  - Technological issues?
  - Pedagogical issues?



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## Main message and outline

- E-learning technologies will not in it self change education – keep learning processes and pedagogy in focus
- Outline
  - E-learning technologies in a historical perspective
  - Important distinction in e-learning
    - Dissemination vs. discussion view
    - Content, processes, and environment
    - Different types of e-learning for the acquisition of of different types of qualification



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“There must be an industrial revolution in education in which educational science and the ingenuity of educational technology combine to modernize the grossly inefficient and clumsy procedures of conventional education.”

## Technologies

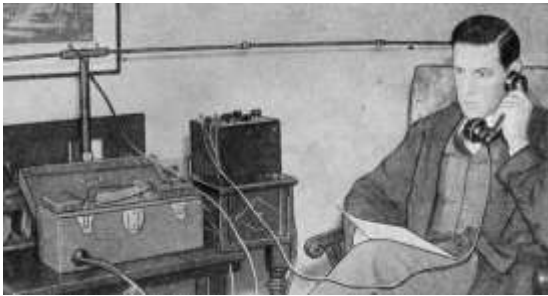
*Sidney Pressey, 1924, inventor of the Automatic Teacher, the first electronic device used in schools*

The motion picture is destined to revolutionize our educational system and...in a few years it will supplant largely, if not entirely, the use of textbooks.

—Thomas Edison, 1922



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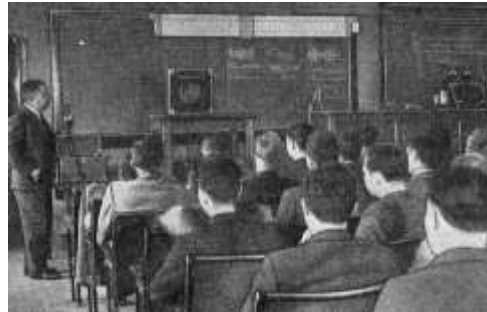


Prof. C. C. Clark of New York University conducting a class from his home (1935)

## Technologies

“The scene will be a commonplace one tomorrow, without a doubt, when television will be as indispensable to our every day home life as the radio program receiver is today.”

(The April 1935 issue of *Short Wave Craft* magazine)

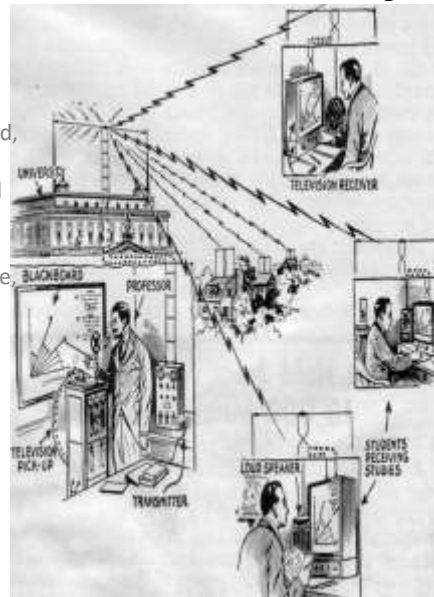


Source: <http://www.smithsonianmag.com/history/predictions-for-educational-tv-in-the-1930s-107574983>

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## Technologies





“Tomorrow our whole radio broadcast background, so far as the listener is concerned, will be changed when television becomes a common everyday convenience. Not only will various subjects be taught or lectured upon and brought into our homes, but the latest styles in men’s and women’s clothes, furniture, etc., will be flashed on our home television screen, and dozens of other advertised products, travel tours, etc., as well.”



Source: <http://www.smithsonianmag.com/history/predictions-for-educational-tv-in-the-1930s-107574983>

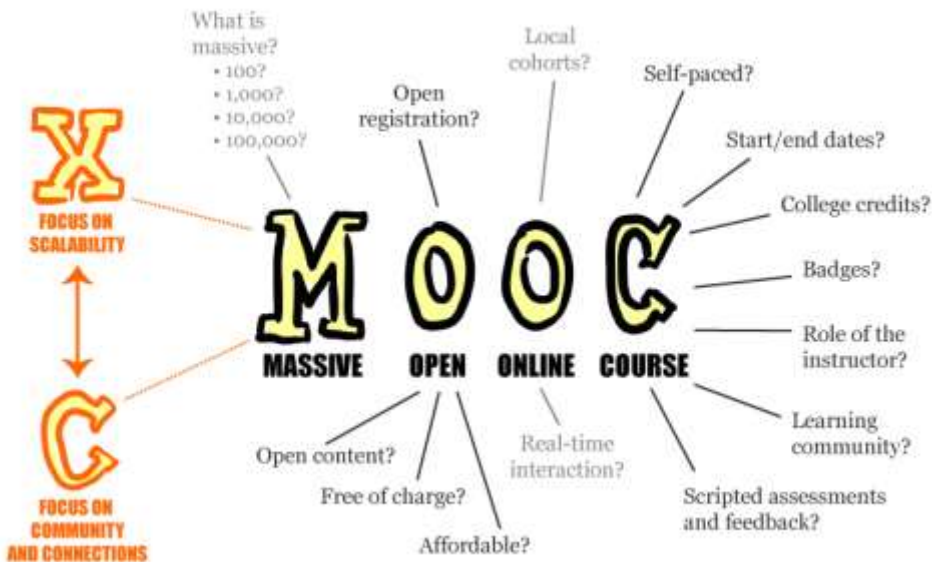
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## History of Virtual Learning Environments

Distance Learning Begins in CA	First Virtual Learning Environments Emerge	The Web Changes the World	Web 2.0 Democratizes Education
<p>The phrase "distance education" is first used to describe the use of correspondence courses.</p> <p>ACE (Adult, Correspondence Education) is the first model to describe the use of correspondence courses.</p> <p>ACE (Adult, Correspondence Education) is the first model to describe the use of correspondence courses.</p>  <p>Early Days (1790 - 1890)</p>	<p>Use of Teletext and Packet: Deliver Learning</p> <p>ACE (Adult, Correspondence Education) is the first model to describe the use of correspondence courses.</p> <p>ACE (Adult, Correspondence Education) is the first model to describe the use of correspondence courses.</p>  <p>The First PC Era (1980 - 1990)</p>	<p>The Web Changes the World</p> <p>The first online learning environment is developed in 1989. The first online learning environment is developed in 1989. The first online learning environment is developed in 1989.</p>  <p>www.https://</p> <p>Web 1.0 (1990 - 2000)</p>	<p>Web 2.0 Democratizes Education</p> <p>Web 2.0 (2000 - 2010)</p> 

<http://www.teacherstechworkshop.com/2013/10/a-nice-timeline-of-virtual-learning.html>

Open University in UK founded in 1969 – open university/distance learning  
 Learning management systems from 1990 (FirsClass, BlackBoard, Moodle)  
 Web 2.0  
 Networked Learning: En conference siden 1998



## Technology will not by itself change educational processes

Learning is in focus - not technology

E-Learning advances primarily through the implementation of pedagogical innovation

Involves a rethinking of the concepts of content, process and environment



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History of e-Learning not a neat and orderly progression – rather a struggle between perspectives / pedagogical ideals

### Broadcast view

- Deliver or make content and resources globally available - on demand
- Self-paced, individualized
- Reuse, scalability, cost efficiency (reducing the role of the teacher)
- Learning objects, OER
- Also: Control, standardization, institutionalization, industrialization
- “The broadcast view can be found in higher education and it is also common in corporate training”

### Discussion view

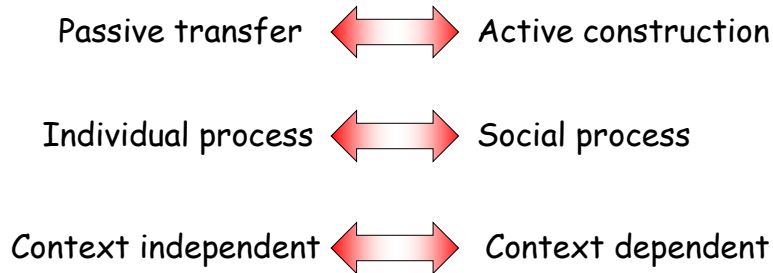
- Focusing on knowledge as developing through dialogue, collaboration and communication
- Mutual dependency or relations between students and between students and facilitators
- Groups, intimacy, relations, cooperation and collaboration – dependency in time
- A fringe perspective – mostly in Higher Ed

Jones, C., & Dirckinck-Holmfeld, L. (2009). Analysing Networked Learning Practices. In L. Dirckinck-Holmfeld, C. Jones, & B. Lindström (Eds.), *Analysing Networked Learning Practices in Higher Education and Continuing Professional Development* (pp. 10–27). Rotterdam: Sense Publishers.

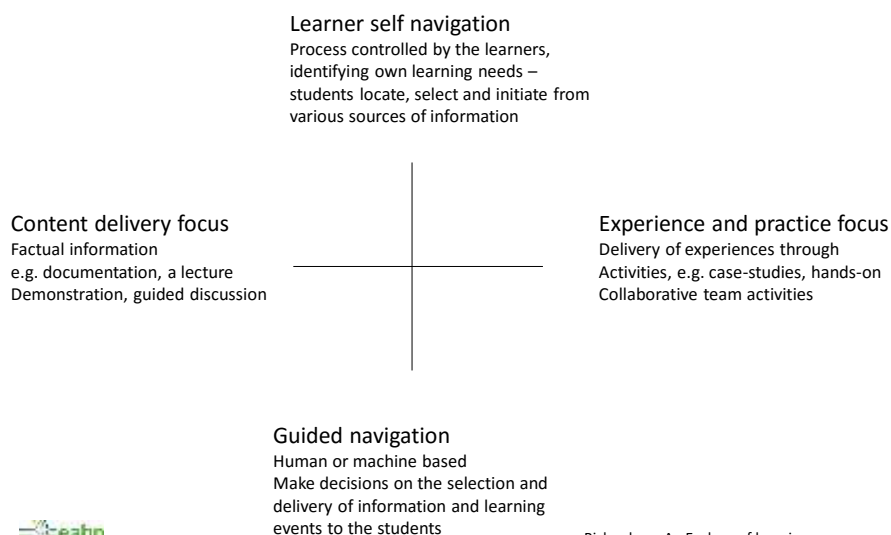
Weller, M. (2007). *Virtual learning environments : effective development and use*. London: Routledge.

Slide borrowed from Thomas Ryberg

# Pedagogical perspective

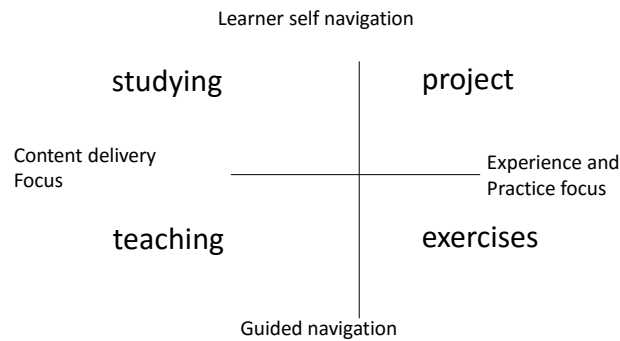


## Different ways of accomplishing learning



Richardson: An Ecology of learning  
 Based on: Schank, Brown, Illeris, Kolb, Wenger

# Different ways of accomplishing learning



Richardson: An Ecology of learning  
Based on: Schank, Brown, Illeris, Kolb, Wenger

## Pedagogical perspective

- Content
  - Learning objectives
  - Resources /learning material
- Process
  - Organizing learning activities
  - finding the balance, progression, rhythm
- Context
  - Choice and organization of platform
  - embedding the learning processes in the environment





## Different types of e-learning for the acquisition of different kind of qualifications

Work performance	Knowledge involved	E-learning support
Skill based performance	The learned capacity to carry out pre-determined task with the minimum outlay of attention, time, and energy -- requires a certain environmental stimuli and situation	<i>Simulations</i>
Rule based performance	Based on stored rules – requires a conscious preparation of the work task	Computer-based training “lessons” and “cases”
Knowledge based performance	Based on task evaluation – imply analysis of means and planning	Case-based learning Communication and reflections



## Question

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