INF5790 – Spring 2013
Lecture 3 – Key issues and tensions,
Part 1: Two metaphors of learning

Anders Mørch

Outline

- Key issues and tensions in TEL
- Three articles that address 'binary oppositions' of key issues for TEL research
  - Acquisition vs. participation metaphor
  - Informal vs. formal learning
  - Systemic vs. dialogic research
- How to resolve them is one of the goals for the lecture

Key issues and tensions

- Interesting problems tend to spring out of dilemmas
- Dilemmas reveal tensions and disturbances that have no "one correct answer"
- There may be two, three or more answers, which can be worked out as satisfactory solution (i.e. good enough for current purposes)
  - Re: *satisfice vs. optimize* (H.A. Simon)
- This could be because the situations in which the problems occur are poorly understood or because there are multiple ways of perceiving them
- We address three dilemmas in TEL research in this lecture

Three articles

- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher, 27(2), 4-13.*

- Malcolm, J., Hodkinson, P. and Colley, H. (2003). The interrelationships between informal and formal learning. *Journal of Workplace Learning*, 15(7/8), 313-318.

- Arnseth, H.C. & Ludvigsen, S. (2006). Approaching institutional contexts: Systemic versus dialogical research in CSCL. *International Journal of Computer-Supported Collaborative Learning*, 1(2), 167-185.

Acquisition vs. participation metaphor

- Two metaphors for learning
- Metaphor is distinguished from theory, but the border is unclear
- Metaphor is to use familiar terminology or a concrete thing to explain a complex phenomenon or an abstract idea
- Learning is the abstract idea to be explained by plain terminology and concrete examples
- She aims to simplify and find basic distinctions by surveying a large body of previous work in the learning sciences literature

The acquisition metaphor

- Knowledge is a commodity to be consumed and 'gained possession' over
- The human mind is thought of as a container to be filled with certain materials (content)
- This is related, but not identical, to individual learning and the cognitive processes of mind
- It postulates a one-way relation between a teacher and a learner, a giver and taker of knowledge and concepts

Human mind as sensory machine

- How does it work, or ..
- To what extent can I (as learner) construct/ adapt/modify/ the sensory input I receive?
    - Auditory
    - Visual
    - Olfactory
    - Etc.

URL: http://en.gravatar.com/igamemom#photo-0

The participation metaphor

- Learning as a process of becoming a member in a community of practice, and learning the language of this community

- Construction of collaborative knowing, often studied in analysis of speech and dialog

- A radically different perspective on learning than the acquisition metaphor provides

- Appearing around 1990. Early proponents were Rogoff (1990) on children's learning and Lave and Wenger (1991) for adult learning

The social learning system

- Paulo Freire "It should not involve one person acting **on** another, but rather people *working with* each other. Too much education involves 'banking' – the educator making 'deposits' in the educatee."

- How can individuals in a group influence the learning..?

  – At the group (supra individual) level?

  – Of another individual?

AM and PM comparison

- AM emphasizes what goes on inside the learner's head in terms of internalization (thought), which is partly automated

- PM is an external activity available for inspection to those who participate

- Sfard uses the figure of part/whole relation to explain PM

- Sympathetic to their integration to resolve limitations of either metaphor by itself

Strengths and weaknesses of PM

- The participation metaphor has been the focus for much of our research at IME as well as for education in many schools in Norway

- It represents a more democratic practice of teaching and learning than with pure AM

- According to Sfard, PM suffers limitations when it comes to 1) transfer (abstraction) , 2) subject matter (coping w/existing knowledge)

- Which is why we need to support PM and AM

The metaphorical mappings (from Sfard)

Table 1
The Metaphorical Mappings

Acquisition metaphor		Participation metaphor
Individual enrichment	Goal of learning	Community building
Acquisition of something	Learning	Becoming a participant
Recipient (consumer), (re-)constructor	Student	Peripheral participant, apprentice
Provider, facilitator, mediator	Teacher	Expert participant, preserver of practice/discourse
Property, possession, commodity (individual, public)	Knowledge, concept	Aspect of practice/discourse/activity
Having, possessing	Knowing	Belonging, participating, communicating