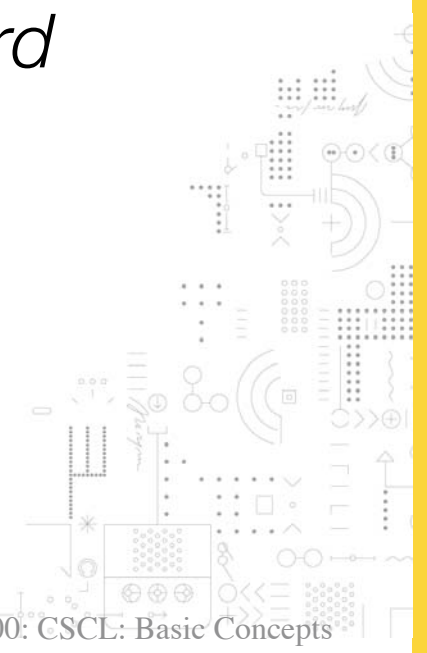


Basic concepts in CSCL

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Overview

- Social/personal mutual development in social psychology and educational psychology
- Basic concepts:
 - Perspective-taking, role-taking (G.H. Mead)
 - Zone of proximal development (L.S. Vygotsky)



Social/personal mutual development

- Basic issue: How to move from a (social interaction) situation to individual learning
- How to account for collaborative learning, i.e.
 - Collaborative-learning , *or*
 - Social interaction and individual learning
- In any case, how to study the situations, with what methods
- And what tools to support it, and how to design the tools



Social/personal mutual development

- In TOOL5100 we take the social situation/interaction as a prerequisite for learning, whether collaborative or individual
- We ask: what theories and techniques help us transcend from the social to new learning
- We must study the basic concepts for understanding this process in rounds (first by common sense then by scientific methods):
 - Perspective-taking
 - Zone of proximal development



Basic concepts as techniques

(message in a nutshell)

- There is no easy path from social interaction to individual learning
- By starting from the “perspective of the other,” one learn to see others in order to order to see oneself, i.e. to see oneself from the “outside”
- It is a catalyst for higher order thinking, like reflection, awareness, self-criticism, and adjustment
- ZPD provides techniques and stages for aiding this process, leading towards independent problem solving
- Independence will in the next round lead to new encounters with the social, to iterate the process



Perspective-taking

- Paper: Kelley, R.L., Osborne, W.J. & Hendrick, C. (1974). Role-taking and role-playing in human communication. *Human Communication Research*, 1(1), 62-74.
- The authors develop their ideas based on the major writings of G.H. Mead and J. Piaget
- We will spend more time on Mead's perspective (the sociological perspective) than on Piaget's (the developmental perspective)



Perspective-taking in Mead

- “The principle which I have suggested as basic to human social organization is that of communication involving participation in the other.” (Mead, 1934, p. 253)
- Two sub processes:
 - Identify a new role and learn to observe it
 - Take on the role in order to apply self-criticism and adjustment to own behaviors
 - Gestures and speech provide the data for observation, according to Mead



Perspective-taking in Mead

- Perspective-taking is more than seeing a phenomenon from a certain point of view, it is also to act it out as though one is the other person
- This originated in the context of understanding children's games like doctor/nurse/patient, police/thief, hide/seek, etc.
- A child may alternate to play the various roles in order to learn the game and about herself
- [It can be both fun and a learning experience](#)
- URL: <http://www.youtube.com/watch?v=13uKbLH16dM>



Generalized other

- To take on the perspective of others, one will learn more than individual roles, ultimately the sum-total of roles-according-to-rules, which is the common attitude of all those who participate, e.g. in a family, a profession, an organization
- This common attitude is referred to as the “generalized other”
- In a good process of role-taking, according to Mead, it proceeds from the viewpoint of a particular other to the generalized other



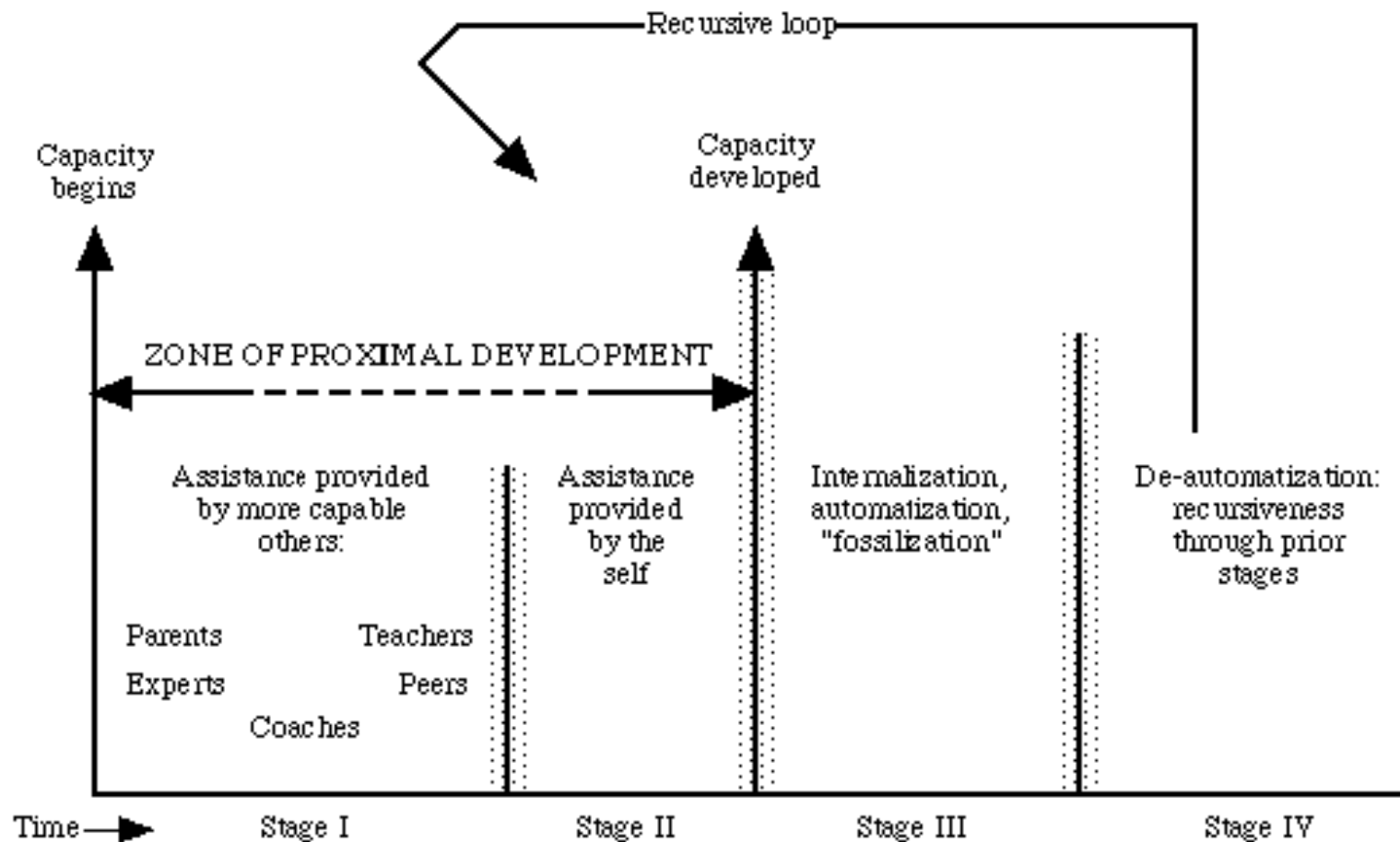
Zone of proximal development

- Also known as ZPD
- ZPD is the “distance between the actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.”
(Vygotsky, 1978, p. 86)



ZPD model of scaffolding

(Tharp and Gallimore, 1988)





ZPD

- Examples from children's learning

- URL:

<http://www.youtube.com/watch?v=h6oQfZ-PrwM>





Why these two basic concepts

- They have been influential (directly or indirectly) in CSCW and CSCL, both for analysis and for (technology) design
- They have *implications* for research in education and sociology, and have been extensively written about
- They have *applications* to technology design
- We will follow these ideas and their mutations into contemporary works, and you will use (at least one of them) in your own (project) work



References to original work

- Mead, G.H. (1934). *Mind, Self, and Society*. Chicago, IL: University of Chicago Press.
- Vygotsky, L.S. (1978/1930). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University. Published originally in Russian