Questioning Gender in E-learning and its Relation to Computer Science

Cecile K. M. Crutzen

Through learning in interaction worlds actors develop habits and routines. Acquiring habits out of experiences is the power to develop dispositions: To cope with difficulties of a later situation to represent an acquaintance with the world of actors, materials and equipment to which action is applied. E-learning environments can be suited for acquiring and then applying and transferring expertise to the subsequent professional practice. The immersion of students into real-life virtual situation aims at enabling them to consciously apply their previous knowledge and competencies as well as the competency growth they are working on, into the learning challenge posed to them by the professional practice. The tasks they can apply should address performance as well as competency growth within the domain of their actual or future profession

E-learning is strongly based on electronic media and tools in which the gendering of the production disciplines of these tools is represented. Interaction concepts used in the design of ICT products such as e-mail, groupware, workflow systems and Internet services, are mostly based on formal and planned interaction. Using these products humans will change their interaction options and thus the character and content of interaction itself will change. The rich potential and variety of human interaction, which should be included in learning processes, and which is the essence of learning, are problematic because the ready made electronic interactions are mostly habituated in the interaction potentials of technical objects and syntactical data processing. Habits tend to transform into frozen routines. Learners are seen in such environment types as objects with predictable behaviour.

"Questioning gender" is an instrument for analysing the influences of the disciplines that are dominant in the creation of E-learning. "Questioning gender in E-learning" will also be presented as a strategy to disrupt closed learning environments in which the learning process is reduced to a procedure of formal and planned acting of learners. "Questioning gender" is a source of inspiration to create E-learning environments as open critical transformative rooms. The interaction potential of E-learning environments should be as diverse as possible and should not determine the acting of the learners and their tutors. Ready-made acting can be flexible and not descriptive. The students themselves should be the designers of their own E-learning environment.

An example E-learning environment will be introduced, in which cooperative, team oriented, competence based online learning is made possible. This educational setting is adequate for acquiring professional expertise because it opens up negotiation possibilities on learning and working tasks, which are comparable with the complexity and dynamics of authentic work settings. Competence based online learning articulates the underlying constructivist instructional design principles of participation and cooperation. Within this setting personal growth objectives for each professional are laid down in a personal development contract. Performance objectives are task-paced, they are agreed upon in team of co-workers. Within that framework students contribute to and take responsibility for their own development and learning processes and that of their peers. Learning is performing in your team. It's active, self-regulated, and contextualised.

Recommendations for and reflections on the design and development of such E-learning environments, partly in relation with the "gender question", will be discussed.

Dr. C.K.M. Crutzen
School of Informatics
Open University of the Netherlands
P.O. Box 2960, 6401 DL Heerlen, The Netherlands
Tel: +31 45 576 2572
Fax: +31 45 576 2115
E-mail: cecile.crutzen@ou.nl