ABOUT EVALUATION IN ENVIRONMENTS OF DISTANCE LEARNING

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Lucía Amorós Poveda McLuhan Program in Culture and Technology. Universidad de Toronto (Canadá) -McLuhan Fellow-

Dpto. Didáctica y Organización Escolar. Facultad de Educación Universidad de Murcia (España)

lamoros@um.es http://www.mcluhan.utoronto.ca/luciaamorospoveda.htm

ABSTRACT

The JLE

JLE (Java Learning Environment) is a kind of Learning Mediated System - an integrated, network-based environment to create and manage contents of training. JLE offer us: distribution of customized content for different courses, integrated tools (design and production of content, navigation tracking of the students, evaluation and auto-evaluation), customization of the interface, and the adaptation and modification of teaching electronic content according to the specific needs of each student (intelligent contents).

The M.E.E.T.

The idea was borne from the realization that if we have new models of teleteaching we need new models of evaluation adapted to these new circumstances. Lucia's thinking was influenced by the notion of game-playing. In 1998, she first evaluated educational simulation software in context of learning mediated by computer. She noticed that such software reflects the ideas of the autonomous person represented by John Dewey in the United States, Maria Montesori in Italy and Paulo Freire in Brazil. In her line of research, Lucia notes that education is not merely a preparation to live, it is life itself.

The primary philosophy of constructivism gives theoretical support to her research. She draws on three important approximations: a) Gagné and his theory of Process of Information; b) Piaget with the study of internal patterns in the development of the child and c) Vygotsky. Lev Vygotsky's thinking, in particular, supports Lucia's research because it offers a dual internal-external perspective. In order to this, Vygotsky recognizes that to have access to knowledge we need both internal factors (cognition) and external factors (usually by biology and sociocultural environment of oneself) in the process of learning.

The dialectical vision of Vygotsky suggest that individual experiences always are mediated by social interactions. For that reason learning has relational influences with culture, language, thinkers, and personal ideas. Social interactivity has a strong relation with collaborative work, and how the creation and design of projects occurs among people.

Marshall McLuhan recognized in *Understanding Media* (1964) that any medium has both individual and social effects. Continuing in this line, Derrick de Kerckhove in *Connected Intelligence* (1997), described the ecology of the new technological media how interactivity, hypertextuality and connectivity or Webness (mental link between people or between network industries).

The digital era has created new non-physical environments that offer us new possibilities to work together. Developing new tools and new codes (multicodes materials in pedagogical contents, hypermedia or interactive multimedia) to enable these sorts of collaborations are currently among the principal goals of research in educational technology. Concurrently, distance educational environments necessitate new mechanisms to observe and to assess the process of the student.

Considering the base of collaborative learning and teleteaching, Lucia attempts to create a model of evaluation centred in the process of learning and the product of particular activities. In particular, she draws on the Proximal Development Zone (ZDP) explained by Vygotsky, as a simple concept to understand the newly acquired skills that can be self-taught, and those that are acquired with the help of others, including, parents, teachers, instructors, managers, counsellors or peers.

Lucia points out the necessary of understanding the difference between evaluation (focus on skills) and assessment (focus on process.) The model Lucia is creating is primarily based on assessment as she analyzes the communicational relations in the collaborative educational group. As networks offer the possibility to connect ideas among the group - de Kerckhove's idea of "webness" - this aspect of distance learning is perhaps one of the most important new characteristic of network learning environments. From this consideration Lucia evolved the framework of **MEET**.

MEET is an acronym for **Model of Evaluation in Environments of Teleteaching**, drawing on the meaning of the English verb "to meet" (find something, meeting with someone else, getting to know someone, meeting in a session or having opponents.)

In MEET, Lucia recognizes the differences between two levels of evaluation - evaluation of the medium, and assessment of the learning process.

Evaluation of the medium: Taking the base of Cabero (1994, 1999) in the evaluation of medium we need evaluation by producers (internal evaluation or auto-evaluation by the producer), evaluation by experts, and evaluation by users. Evaluation by users can be done by "tutors," including teachers, instructors, parents, managers, counsellors and trainers, or by students themselves who have been appropriately counselled and trained.

Assessment of the learning process: In teleteaching contexts we work with groups of people to improve the connectivity in networked environments. To properly understand assessment we must first realize that the action and process of learning are primarily focused within the group of people that are working together.

For both of these levels, there are three categories of evaluation that must be recognized and considered: Auto-evaluation, co-evaluation, and assessment of the learning process itself. The principal indicator is the group dynamic, that is, considering the effects of individual actions on the group as a whole, and the group action as a community of practice.

Auto-evaluation provides a mechanism for every student to know their own progression in the educational environment. *Co-evaluation* determines the value that the group community gives to itself. Assessment of the learning process derives from the perspective of the tutor(s), considering the sum of auto-evaluation and co-evaluation, together with objective evaluative criteria (curricula contents and communication relationships of every group)