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A Role-Based Approach for the Support of Collaborative Learning Activities

José Antonio Marcos, University of Valladolid

Alejandra Martínez, University of Valladolid

Yannis Dimitriadis, University of Valladolid

Rocío Anguita, University of Valladolid

ABSTRACT

The analysis of the interactions that occur among participants in computer-supported collaborative learning (CSCL) experiences has become a major research topic in this field. Interaction analysis (IA) methods and tools aim to enhance collaboration among participants, providing support for basic functions such as awareness, regulation or evaluation. The importance of these functions depends on the roles played by the participants in a collaborative experience. For this reason, IA tools need to interpret and manage the information needs required by the participants' roles as well as to recognize the dynamic role transitions that usually occur in authentic learning settings, in order to adapt their outputs to the needs of these changing roles during the development of collaborative activities. We are working in the definition, developing and validation of a conceptual framework for characterizing roles in collaborative learning contexts that aims at supporting IA tools in achieving these goals. In this paper we present two experiences carried out in the same authentic learning context that illustrates the use of this framework and forms part of a longitudinal validation process of the framework. The first experience shows how this framework supports the definition of IA indicators and values for detecting role transitions in a dynamic way, identifying a limited set of emergent roles. The second experience describes a static adaptation of an interaction IA tool for supporting the pre-defined information needs specified in the framework for several static roles.

Keywords: Computer supported collaborative learning, interaction analysis, framework, roles

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