Chapter XI

Evaluation of Attitudes Towards Thinking and Learning in a CALL Web Site Through CMC Participation

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Abstract

Computer-mediated-communication (CMC) is fast becoming a big part of our daily lives. More and more people are increasingly using the computer to communicate and interact with each other. The Internet and its advantages of connectivity enable CMC to be used from a plethora of applications. The most common uses of CMC include e-mail communication, discussion forums, as well as real-time chat rooms and audio/videoconferencing. By communicating through computers and over the Internet, online communities emerge. Discussion boards and other CMC applications offer a huge amount of information, and the analysis of this data assists in understanding these online communities and the social networks that form around them. There have been various frameworks by different researchers aimed at ana-
lyzing CMC. This chapter’s main objective is to provide an overview of the models and frameworks available that are being used for analyzing CMC in e-learning environments. The significance of the proposed presentation is that it aims to provide the reader with up-to-date information regarding these methods. Advantages and disadvantages of each of the CMC analysis methods are presented, and suggestions for future research directions are made. Finally, these suggestions are applied to a characteristic scenario in e-learning.

**Introduction**

The focus of this study is to introduce the reader to the concept of computer-mediated communication (CMC) and online communities. Furthermore, we discuss the various types of CMC analysis that can take place. The purpose of each framework is described along with its strengths and weaknesses. The chapter begins with a literature review of CMC and online communities, and continues with the evaluation of the existing frameworks where we draw conclusions based on the advent of new technologies and platforms that are available, as to whether or not these frameworks are up-to-date in analyzing CMC as it exists today. Furthermore, we used a selection of the methods on a case study. More specifically the Attitudes Towards Thinking and Learning Survey (ATTLS) was used in conjunction with a technique called Social Network Analysis (SNA) to analyze the students’ CMC in an e-learning courses. The chapter describes the methodology of the study, the results are presented, and the outcomes discussed, and ends with recommendations for future research.

**Computer–Mediated Communication**

It is by now no secret how vital the Internet was, is, and will continue to be in our lives. One of the most important characteristics of this medium is the opportunities it offers for human-human communication through computers and networks. As Metcalfe (1992) points out, communication is the Internet’s most important asset and e-mail is the most influential aspect. E-mail is just one of the many modes of communication that can occur through the use of computers. Jones (1995) points out that through communication services like the Internet, Usenet and bulletin board communication has for many people supplanted the postal service, telephone, and even fax machine. All these applications where the computer is used to mediate communication are called computer-mediated communication or CMC.
Students' Joint Reasoning about Gas Solubility in Water in Modified Versions of a Virtual Laboratory
