Networked Learning Conference 2002

Symposium Proposal
Elaborating Collaborative Interactions in Networked Learning
A Multi-Method Approach

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- This symposium will focus on current research that is probing learning interactions between participants in networked collaborative learning events using social network analysis, computer assisted content analysis and critical event recall.

- This work part of an ongoing international co-operation between Vic Lally at the University of Sheffield (UK) and Maarten Delaat at the University of Nijmegen (Netherlands).

- The symposium will consist of three complimentary papers.

- The discussant will be David McConnell.

- The symposium is planned to be 1.5 hours duration.

In these papers we contend that the learning interactions between participants are of central importance in understanding networked collaborative learning. Therefore, the central aim in this work is to enquire systematically into these key educational interactions using multi-method analysis. Unless we make rich links between tutoring processes and students' learning processes it is difficult to fully understand or improve these processes. This is not a new idea. It is self-evident in some senses: teachers will naturally claim responsibility if their students are successful in examinations. In their attribution, their tutoring acts have brought about learning in their students - as measured by the output, examination performance. But this may be a rather bold and unhelpful assertion. It offers no detailed insight into what 'worked' and what 'didn't'. Therefore, it provides no local evidence base on which the individual teacher can act about the details of her tutoring. Nor does it provide any systematic basis for

communicating the effective and efficient aspects of practice to others. Learning and tutoring, as ongoing sets of processes, happening in time and space, within an individual or a group, do not feature in detail in this general analysis. Sotto (Sotto, 1996) has argued this point very cogently: that good tutoring in higher education is far from self-evident, and that its connection to learning is complex, both in terms of learning outcomes at the end of an event, and learning processes occurring during that event.

In previous work (Barrett and Lally, 1999; De Laat, De Jong and Ter Huurne, 2000; De Laat, De Jong and Simons, 2001; Lally, 2001; Lally and Barrett, 1999) we have explored a range of aspects of collaborative learning and begun to develop analytical frameworks in order to understand the complex tutoring and learning processes that are occurring. In the analysis presented in these papers we are interested in gaining deeper insight into collaborative knowledge construction and tutor processes in collaborative learning environments through the use of content analysis, social network analysis and critical event recall. We are interested to explore the relationship between individual and group processes as they relate to knowledge construction and tutor processes, as these develop over time. Many authors (Lave, 1988; Lave and Wenger, 1991; Lave, 1996; Levine, Resnick and Higgins, 1996; Moll, Tapia and Whitmore, 1993; Goldstein, 1999; Resnick, 1991; Salomon, 1998; Smith, 1994; Wertsch, 1991; Wegerif, Mercer and Dawes, 1999) in attempting to define cognition in groups (group mediated cognition or gmc), have suggested that, in a group meeting, the situation itself may exert a strong mediating effect on individual cognitive and conceptual processes. The thinking of individuals is influenced by the group in which they are working. The merger of intellectual and social processes may be a fundamental feature of group mediated cognition. A second key feature is the tension between the conceptual structure or understanding (of the problem or ideas under discussion) of the group and that of the individuals within it. This tension is the driving force for the collective processing of the group. In this process interaction between individuals, as well as their shared and individual cognitions, are the key aspects of co-construction of knowledge, meaning and understanding. However, the situation is further complicated because the participants in these learning processes are also engaged in tutoring processes.

Paper One

Talking in Code

deciphering collaborative learning and tutoring

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ABSTRACT
This paper explores learning and tutoring processes within a collaborative virtual professional development environment using two content analysis schemas. The first schema probes the social co-construction of knowledge by analysing the social, cognitive and metacognitive contributions to an online learning event. In the second schema the presence of tutoring processes is investigated. Computer assisted qualitative data analysis is used for this. Patterns of group and individual activity for both learning and tutoring are identified and analysed in detail. The interactions between these are also considered. In conclusion, consideration is given to the prospects for this type of approach as a means of adding value to our understandings of the complexity of the relationship between tutoring and learning in virtual professional development environments.

Keywords
learning teaching collaborative professional development content analysis

Paper Two

Network and content analysis in an online community discourse

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ABSTRACT
The aim of this paper is to study the nature of networked expertise within an organisation, and the way its members share and construct knowledge together. Organisations are more and more confronted with the problem of creating and managing their knowledge in order to respond flexible to changes that occur in their working environment. Organisations are transforming into learning organisations. In a learning organisation, workers are stimulated to share and develop knowledge together. The learning potential of expertise networks has become a matter of interest and social and cultural aspects of learning have become important to understand and foster their learning. In organisations workers tend to form networks of expertise to facilitate individual learning, collaboration and to discuss work related problems together (McDermott, 1999). Sometimes these networks transform into communities of practice. In a community of practice (COP), participants, who share a common interest for the field they work in, come together to help out each other, solve problems, and share and create knowledge collaboratively.   This study focuses on the exchange of information through a CSCL-environment (First Class) within the Dutch police organisation. The members of this network frequently exchange information and discuss work related problems together. Their shared interest for drugs

issues in criminal investigation resulted in the establishment of a shared practice. This network can be characterised as a community of practice because of voluntary engagement, existence of this network over time (two years), and realisation of a shared practice (Wenger, 1998).

Paper Three

Squaring the Circle

Triangulating Content and Social Network Analysis

with

Critical Event Recall

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ABSTRACT
The aim of this paper is to explore a 'third way' methodology for complementing the methodological approaches outlined in the two accompanying papers by Lally and Delaat, and Delaat. The methodology discussed in this paper is Critical Event Recall, and is based upon the work of Kagan and others into the stimulation of recall of learning events using records of those events. In a collaborative networked learning environment it is possible to derive detailed understandings of the nature of group interactions and their relationship to learning by undertaking social network analysis. The use of systematic content analysis also provides much insight into the cognitive, affective and social processes in which the group is engaged. In this paper I describe a preliminary attempt to use a form of stimulated recall to probe the non-expressed cognitive, affective and social processes of individuals and group. This data is then used to re-interpret the analyses derived from network and content analysis. The potential of this triangulated approach as a rich method of analysis of networked collaborative learning interactions is considered and evaluated.