

Investigating Collaborative Information Behaviour in Undergraduate Educational Setting: A Position Paper

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ABSTRACT

This position paper results from an ongoing research investigating the collaborative information behaviour of undergraduate engineering students who are working on a course-based engineering project. The paper describes an overview of the research along with some preliminary findings and conclusions on researching collaborative information behaviour in an educational setting by focusing on the need of including the learning tasks when studying collaborative information behaviour in an educational setting.

Keywords

Collaborative Information Behaviour, Engineering Education, Learning Tasks.

INTRODUCTION

The research focuses on the effect of the complexity of the learning task (the engineering design project) on the collaborative information behaviour of engineering students. The research design is based on two case studies in two consecutive years for different group of students enrolled in the same course [1]. In the first case study, data were collected through a web-based survey undertaken at the end of a senior multidisciplinary design engineering course in a Canadian University. The survey was completed in March 2010 by 42 individual students and included 33 questions relating to both individual and group activities during the project. Partial analysis of the results of the survey is available in [2] and [3]. The open-ended questions showed students' preferences to approach other people as information channels to guide them to relevant information that are appropriate to the project task. Different strategies towards collaborative activities were also identified among student groups. Collaborative activities were found to be at their highest during the task formulation stage at the early stage of the project and at a lesser level during the selection of the design solution.

LEARNING TASKS IN INFORMATION BEHAVIOUR STUDIES

In an educational setting, learning tasks are initiated by a learning assignment that incorporates the whole process in which the task is introduced to the learners, and defines the

requirements for the final documentary or presentational product of the task [4].

The concept of task is germane to information seeking in the context of learning [5] and learning tasks can be seen as similar to other tasks in that they have a beginning and end as well as specific goals to be accomplished throughout the task. However, learning tasks differ from work tasks in many aspects because of the discursive practice in education and also of the pedagogical standpoint of the learning task itself.

DISCUSSION

The data collected in the first stage of the research revealed both similarities and differences among students in terms of how they collaboratively search for and use information.

The survey as a data collection method near the end of the course was selected to allow students to recall their experience during the project at the same time frame they were writing and presenting the final report that includes their activities during the project and how they performed their assigned tasks as a group. Another reason to select the survey at the end of the project to avoid any interruption to the course and to give students a chance to reflect on what they have done during the project and not to examine what they are supposed to do.

Students encountered different information-related activities during their project, related to the various stages of the project itself; these activities comprised both individual and collaborative ones. Situational factors such as the structure of the group, along with individual members' interest, were also detected as factors in collaborative information behaviour.

Contextual factors such as project topic were found to have a major impact on the nature of the collaborative activities that students undertook during their projects. The complexity of the project meant that students had to use different types of information sources and also encouraged them to approach other experts in the field to refer them to the relevant information as students perceive these experts to have more subject knowledge and professional expertise.

Open-ended questions to the survey were analysed and the main emerging categories that affected collaborative information behaviour of students were identified as: Group Setting, Strategies, Nature of Needed Information Sources, People as Information Channels, and Complexity of Information

CONCLUSION

The results of this study supports the literature that signifies the development in information behaviour studies from a reductionist view of the individual information user to an acceptance of social interaction and different contexts that dynamically change. The information user is no longer seen as a passive receiver of information, but actually plays an active role in contextualizing.

The study results show that the project as the learning task including its tasks, roles, and expected outcomes has an effect on students' information behaviours and their selected information sources and channels. It has been noticed that different project stages and the characteristics of the information need were major factors on how students seek and use information individually or as a group.

The study also shows that complexity of the project as a learning task that was designed in similar constraints to real-world engineering project required students to spend a considerable part of their work time seeking, searching and using information. Similarity of engineering students' information behaviour with professional engineers was considerably noticed particularly in their preferences to approach peoples as information channels.

This study is an example of studies in Information behaviour in context, demonstrating the importance of taking into account many factors or variables that are seen to affect individuals' information-related activities such as problem situations, tasks, and roles. The work or learning task is regarded as a major factor that affects information behaviour which means that understanding information behaviour cannot be isolated from the work task

The research is ongoing, and the second stage has been conducted where data were collected through semi-structured interviews with 8 students who are enrolled in the same course in the consequent year. Each student has been interviewed 4 times in different stages of the project to

capture the learning dimension of students' experience and whether it affects their collaborative information behaviours.

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