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

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October 12, 2011

“Sometimes the whole can be greater than the sum of its parts” (Aristotle)

Agenda

- ▶ Background
- ▶ Research Question
- ▶ Theoretical Approach
- ▶ Research Design
- ▶ Case Study 1
- ▶ Discussion
- ▶ Questions

Background

- ▶ Information behaviour models assume that the information seeker is an individual interacting with complex information spaces. Recent research has found that people frequently collaborate and communicate when they retrieve and use information when they work in groups,
- ▶ The research is planned to understand the interaction between the learning task and collaborative information behaviour of undergraduate engineering students in a Canadian University.

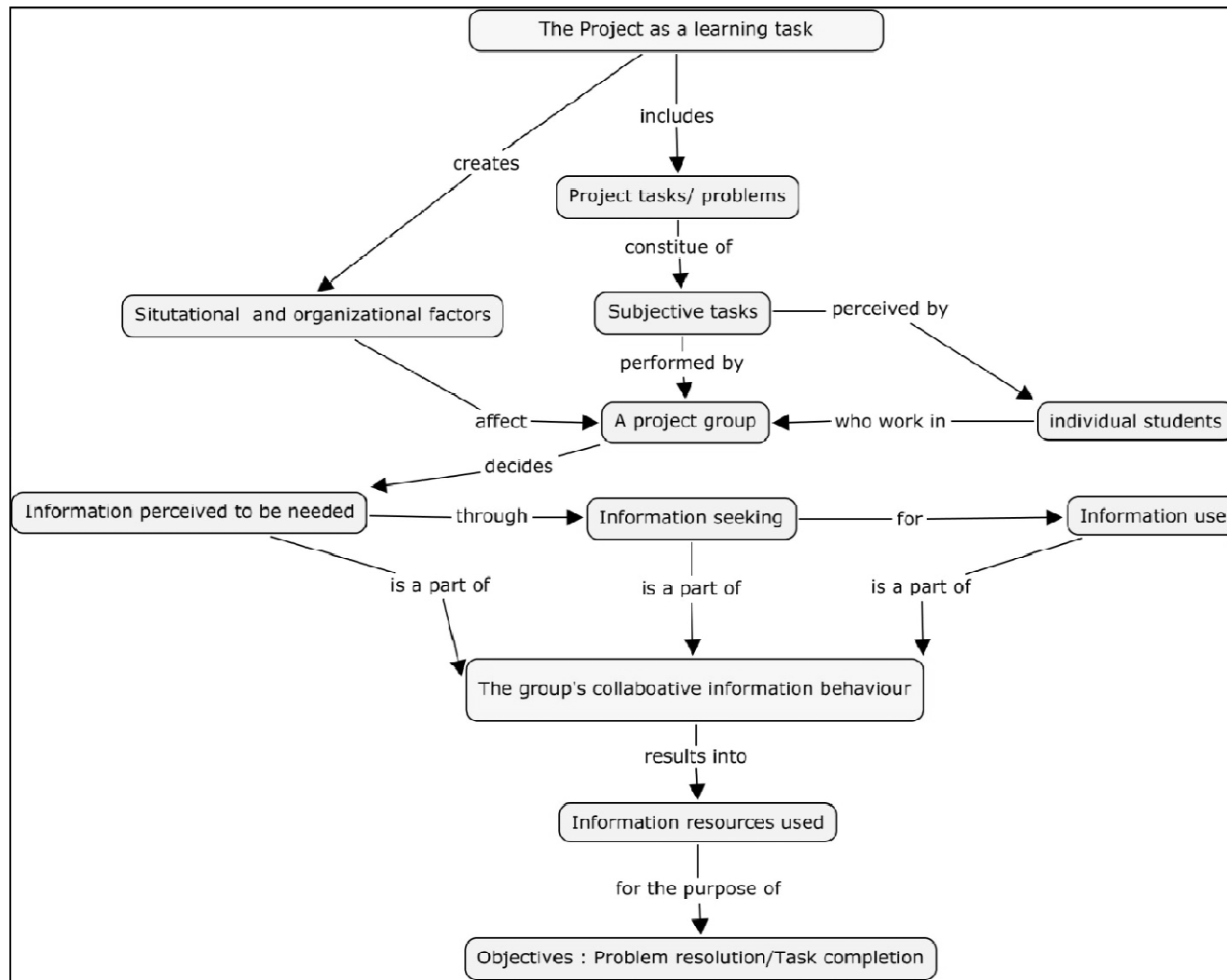
Research Question

- ▶ The main research question is:
How does students' collaborative information behaviour interact with their underlying conceptions of the project learning task and its complexity in a project-based engineering course?
- ▶ The research question stems from a deep interest in how undergraduate engineering students seek information, formally or informally, while they work as a group in a senior engineering design course.
- ▶ The research also aims to explore how the nature of the required information for the project affect students' information seeking, searching and use as they consult different resources that can be documentary or human.

Theoretical Background

- ▶ The research is guided by Dervin's Sense-Making theory: Sense-making examines how people overcome "gaps" in reality by constructing bridges consisting of ideas, thoughts, emotions, feelings, and memories.
- ▶ The research framework is also based on Taylor's Information Use Environment (IUE): elements of IUE are:
 - ▶ a set of *people*,
 - ▶ a *setting*,
 - ▶ a *problem*,
 - ▶ a *problem resolution*.

Research Concept Map



Research Method

- ▶ The research is designed in two case studies to analyze a complex phenomenon that has few established theories.
- ▶ Case Study 1: at the end of the academic year 2009/10; constitutes a web-based questionnaire at the end of the year and an analysis of students' deliverables in the course
- ▶ Case Study 2: during academic year 2010/11 and constituted of 4 semi-structured interviews during the year with 8 students.

Case Study 1

- ▶ A web-based questionnaire was sent to a class of 63 students at Queen's University who work on 20 different projects using the StudentVoice platform.
- ▶ The questionnaire was based on a retrospective approach; students describe their experience in a year long project.
- ▶ The questions varied from agreement questions (using a Likert scale) to open ended questions.
- ▶ 42 responses (66% response rate); the survey was available to students from March 15th till March 31st, 2010.

Open Ended Questions

- ▶ Students' responses to open ended questions provided rich data for the study. These questions were designed to capture a snapshot of students' perceptions of their individual information behaviour as well as their group behaviour . The categories that emerged from the open ended questions are :
 - ▶ ***Collaborative Information Behaviour: Group Setting***
 - ▶ ***Collaborative Information Behaviour: Strategies***
 - ▶ ***Collaborative Information Behaviour: Information Sources***
 - ▶ ***Collaborative Information Behaviour: People as Information Channels***
 - ▶ ***Collaborative Information Behaviour: Complexity of Information***

Discussion

- ▶ The results show both similarities and differences among students in terms of how they collaboratively search for and use information.
- ▶ Students encountered different information –related activities during their project depending on the stage of the project itself.
- ▶ Contextual factors such as the project topic and its complexity was found to be a major factor on the different types of information sources and also approaching people as information channels.
- ▶ Identifying the relevance of information sources was seen as a collaborative activity in most of responses.
- ▶ Information encounters and least-effort strategy were also seen as factors affecting students' information behaviour.

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 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.
- ▶ Similarity of engineering students' information behaviour with professional engineers was considerably noticed, particularly in their preferences to approach peoples as information channels.

Questions