

# Project Proposal: Studii

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## INTRODUCTION

The structure of the modern classroom has been largely unchanged since the turn of the 20th century. A teacher stands at the front of the class and broadcasts information out to the students in a mostly one way relationship. This structure discourages collaboration between students, turning the learning environment into an isolated, antisocial experience. The structure itself discourages students from helping one another or discussing the material they are learning. Since the widespread adoption of the internet, old institutions have been facing rapid change, with old media giants becoming increasingly irrelevant as the internet makes centralized publication and distribution less and less valuable<sup>1</sup>. The only question is why this hasn't happened to teaching yet. Online social networking has made older, more natural forms of publishing relevant again. Perhaps it can also bring back a form of learning more suited to the human experience. All that is needed is the right tool.

## Innovation

Studii is an application that is designed to help students collaborate on their schoolwork. Studii sets its focus on the classroom, with a design based on the concept that users will create boards for each of their classes, with topics posted for individual assignments or tests. The individual features boasted by Studii will not be unique compared to similar services that already exist, but its design decisions will be specifically tailored towards a classroom learning context. By combining existing features and ideas to support the classroom learning experience, Studii will

provide a targeted, essentialized experience for users, and encourage a participatory culture in the classroom<sup>2</sup>.

## Impact

By providing students with an accessible and easy way to collaborate on group work in their classes, we hope to reintroduce communities of practice<sup>3</sup> into the educational system. Often, a teacher cannot provide effective assistance to every student in their classroom, and in a university setting this problem is exacerbated by class sizes that can reach into the hundreds. This results in a situation where only students confident enough to seek out the professor or other forms of academic assistance get help when they are struggling. Studii will make it so students can get help from the entire class when they are struggling. Individual users will be incentivised to contribute to the class discussion because they need help in the class too, and once a student is invested in the conversation, they are likely to continue even after they are done the assignment. Hopefully, this app will be a useful tool for students, and possibly even change the way that education administrations organize the classroom.

## ROLES

**Shashank Jain:** Researcher

**Jonathan Mak:** Programmer

**MacKay McGillivray:** Programmer

**Sydney Nicholson-Mieras:** Study  
Co-ordinator

**Ian Sutton:** Project Manager

## METHODOLOGY

Our research methods were chosen to maximize generalizability, realism, and precision in our results, as outlined in McGrath's paper<sup>4</sup>. We have also designed the research process to complement the development of the app, with studies taking place before, during, and after its creation.

### Surveys

The survey will target a diverse range of students within the 12 faculties of the University of Victoria. It will take place before work on the app begins and will focus on the following research questions:

*What tools are students currently using for group learning?*

The websites and apps acquired from this survey will be used in field studies. We will keep track of the frequency with which each tool is mentioned in order to determine the popularity of each tool.

*How are these tools being used?*

We want to explore the functionalities and interfaces which have drawn in student users and with which students are already comfortable. We plan to use these results to guide our design of Studii.

### Field Studies

We will examine websites and apps currently being used for group learning among students. These field studies will be done during development of the app in order to guide the design process. The studies will focus on the following research questions:

*How do these group learning tools differ from / resemble each other?*

The study will examine patterns in current group learning tools. Specifically, what the differences are between the most popular tools and the least popular tools, and what the recurring aspects are in students' choice of tools.

*What CSCL strategies make a group learning tool more effective?*

We want to examine the CSCL strategies being used in current group learning tools so that we can include those principles in our design.

### Laboratory Experiments

Once a prototype is complete, UVic students from across the 12 faculties will participate in laboratory experiments. We will present participants with tasks to complete, collecting empirical data to evaluate the ease of use and intuitiveness of our design (ex. number of clicks to complete an action). Afterwards, participants will be given a quick survey to rate the different aspects of the app.

## MILESTONES

**October 16th:** Project Proposal

**October 21st:** Website up

**October 30th:** User Study/Field Study complete

**November 13th:** Interim Project Report

**November 16th:** Prototype ready for user experiments

**November 20th:** User experiments complete

**November 27th:** Prototype functional

**December 2nd:** Project Presentation

**December 5th:** Project Delivery

## RISKS

### Studii gains a reputation as a cheating tool

There is a risk that cheating will occur on Studii, and while that is unavoidable, it could become a problem if it was banned at universities due to a reputation for academic dishonesty. This risk could be addressed by including a short legal reminder to follow applicable academic rules while using the service, and by cultivating relationships with the faculties of various

universities, encouraging professors to check the Studii Groups for their classes in order to prevent cheating. Studii could even be seen as less covert for cheaters since it has no protections or restrictions on who can access it.

### **Surveys yield inaccurate results.**

A risk that arises from conducting surveys is that we may end up with results that contradict our initial research. If our survey questions are misleading or opinion-based, it could lead to us gathering information that doesn't accurately reflect users' interests, producing biased results, or information that is not completely truthful. To mitigate this risk, we will design our surveys in accordance with best practices, avoiding double barrel questions and other design mistakes. Our studies will follow the code of ethics that is expected by the University of Victoria to ensure participants feel comfortable answering our surveys. We will also reach out to other faculties in order to collect data from a wide range of users.

### **We are producing an unwanted service.**

When introducing a new service, there is always the risk that we are making a product that users do not want. In order to avoid this we are going to conduct numerous studies to find out what people look for when using a web-based application. We will also design our studies to find out if similar online study communities already exist, and if so what we can learn from them. All of this feedback will be taken into consideration when designing the application. We will conduct these studies throughout our design stages in order to produce a service that appeals to our intended user base.

### **Development Delays**

Since the members of the group all have differing schedules, there is a risk of delays when building the prototype. Delays could lead to a failure to meet project milestones, jeopardizing the success of the overall project. In the event that delays put the completion of the project at risk, we will

mitigate this problem by scaling back the interactivity of the prototype. Currently we plan to include a somewhat functional forum structure as part of the final product, but if we run into problems on the technical side we may be forced to instead produce a more limited HTML mockup as an interface proof of concept.

### **REFERENCES**

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