

## **ABSTRACT**

The main purpose of our project is to investigate a business opportunity of an existing collaboration software suite and further develop it into a sophisticated team collaboration suite. The three key objectives of our project are to:

- Determine possible target markets by piloting the product to 45 professors at the Illinois Institute of Technology as well as 3 different universities including Auburn, Michigan Tech, and Rose-Hulman University
- Further develop a suite of applications that will provide a conducive environment for collaboration among university students and professors
- Conduct research, in the form of interviews and surveys, of pilot users to develop the product into a useful team collaboration suite.

Team work in universities has always been a difficult issue in post-secondary education as students rarely have time to set up meetings and collaborate in person in order to complete class projects. Although collaborating through e-mail clients and flash drives have been traditionally used in the past few years, they are not always the most effective way to collaborate digitally. Therefore, we have identified this as an opportunity to introduce our service, focusing on university professors as our target market.

Leading up to the current proposed project, an ample amount of research has been conducted including surveying 120 university students and interviewing 10 university professors. Results from that research include the discovery that professors are enthusiastic about the potential of our product and are very willing to make out-of-pocket purchases for the benefits of their students. Further, survey results told us that students liked our product, highlighting our file sharing functionality. Besides that, an initial business plan, with a financial model, which contains all the risks involved in this business opportunity, has been developed. It is essential to continue this work by further piloting the product to a wider audience in order to determine its feasibility in sustaining a potential business opportunity.

## **INTRODUCTION**

Group projects in university courses often require the students to sit together and meet in order to complete certain tasks or milestones in the project. While many of them stay on campus, there are also many students who commute. As they are not able to meet, tasks are delayed and they have to resort to e-mail clients or telephones in order to communicate. While using these mediums may often be effective, they can be unorganized and consequently make group work difficult. The introduction of our product into this scenario would help alleviate all the problems involved in collaboration. By integrating our software into the education system, all data would be centralized and communication between team members would be made effective.

## **HISTORY OF PROJECT**

The group collaboration software, iGroups, has been used over the past 3 years with over 350 project-based teams at the Illinois Institute of Technology. This tool was initially designed and developed by IIT students in order to manage files and other communication for group based projects. Since then, the product has expanded its functionality and several other applications have been developed to supplement the group collaboration software. Based on student surveys, discussion boards and a searchable knowledge management database has been added to the growing list of functionality. Furthermore, additional applications include an automated peer review system and an automated proposal system that allows students and faculty to propose different team based projects.

A limited number of pilot tests have been conducted with both Auburn University and Michigan Tech University. Thus far, results from Auburn University and Michigan Tech showed promising results, including positive feedback from both professors and students about the functionality of the product. A majority of the students liked our file sharing function, which is more sophisticated than a simple FTP client. The file sharing functionality allows any team member to organize files by creating folders and updating files via a versioning system. In addition to that, we have interviewed 10 university professors to gain more information about their willingness to purchase the product, as well as the need for such software in their group based courses. The product was received fairly well, and most of the professors were even willing to pay out of their pocket if they perceived any benefits from the product. Along with primary research, an initial business plan has been drafted that includes an initial competitive analysis, market analysis, and financial model.

Furthermore, we identified and gained information on our main competitors: Blackboard, Basecamp, Google Docs and Yahoo Groups. After analyzing our major competitors, it is clear that our product will have to distinguish ourselves by providing stronger support to university professors than the competition. We plan to do this by providing multiple applications that not only support students, but faculty as well.

## **TEAM**

The team will include a student developer, Anica Jovanova, a computer science major, James Schweiger, and a team of students enrolled in a project team course. There will also be two faculty advisors: Nik Rokop and Christopher Lam.

**Project team [6-10 students each semester]**

These teams will be formed in each semester from CS majors, business majors and students involved in entrepreneurship or interested in starting a business. They will be nominated or selected by Nik Rokop or Christopher Lam.

### **Anica Jovanova**

Anica is a graduate student in Technical Communication at the Illinois Institute of Technology. She has worked as a professional web designer and is expanding her knowledge towards databases and hard programming. She will serve as the primary developer of the various applications.

### **James Schweiger**

James is a computer science major at the Illinois Institute of Technology and has worked on commercializing this particular piece of software over the past semester. James will continue to work on both the business planning and development of the software using his skills in computer science.

### **Nik Rokop**

Nik is Managing Director of the Jules F. Knapp Entrepreneurship Center at the Illinois Institute of Technology. As a life-long entrepreneur, advisor to and investor in entrepreneurial ventures, Nik has a passion for creating new businesses and helping others succeed.

Nik is past President & CEO of Lake Technology Partners, a management, business development and technology commercialization group specializing in nanotechnology. He has 30 years successful entrepreneurial experience in engineering, manufacturing, sales, marketing and international operations. His career spans the iron and steel industries, manufacturing, consulting and the Internet.

He is involved in support of the entrepreneurial community as founding member and current President of the Chicago Microtechnology & Nanotechnology Community, founding member of the BIG Idea Forum, Vice Chair of the MIT Enterprise Forum of Chicago, and member of the Steering Committee of the Technology Commercialization Task Force. Nik was named one of i-Street Magazine's Top 100 in Technology & Economic Development in 2002.

### **Chris Lam**

Chris is a Ph.D candidate in Technical Communication at the Illinois Institute of Technology. He has been managing the development of iGroups for three years. He has conducted student surveys and implemented several changes to the system as indicated from the results of the surveys. He has also led a team of students in a class that investigated the feasibility of commercializing the software. He will continue to lead a team of students in further investigating the feasibility of such software, and will continue to improve the functionality of the software and all other applications involved in the software suite.

## WORK PLAN AND OUTCOMES

The work plan for the grant period will primarily involve soliciting pilot testing partners within Illinois Institute of Technology as well as other universities. The following table will display the initial work plan:

<b>Semester</b>	<b>Tasks and Milestones</b>	<b>Outcomes and Deliverables</b>
<i>Fall 2008</i>	<ul style="list-style-type: none"> <li>• Pilot test with 45 Illinois Institute of Technology professors</li> <li>• Customize the design of the system and develop user manuals for 5 exterior universities.</li> <li>• Pilot test with 5 Universities including Auburn, Michigan Tech, and Rose-Hulman and two to be solicited.</li> <li>• Conduct post-test surveys and analyze results for functionality and possible market</li> <li>• Conduct in-depth competitive analysis and benchmark functionality with all major competitors</li> <li>• Conduct Intellectual property research and patent search.</li> <li>• Conduct user feedback forum.</li> </ul>	<ul style="list-style-type: none"> <li>• Formal report outlining the results of pilot tests.</li> <li>• Updated business plan with recommendation for future work.</li> <li>• Formal report stemming from interviews and surveys</li> <li>• Patent search results report</li> <li>• Word-of-mouth marketing network between university professors</li> </ul>
<i>Spring 2009</i>	<ul style="list-style-type: none"> <li>• Expand user base to 15 exterior universities</li> <li>• Expand user base to all IIT professors</li> <li>• Purchase Server to handle increasing user load</li> <li>• Conduct user surveys with expanded user base</li> <li>• Integrate all applications into one cohesive product suite</li> <li>• Begin more sophisticated marketing techniques and exposure of product suite nationwide</li> <li>• Present business plan and product to potential investors</li> </ul>	<ul style="list-style-type: none"> <li>• Complete software suite with multiple integrated applications</li> <li>• Final report discussing possible outlets for business</li> </ul>
<i>Summer 2009</i>	<ul style="list-style-type: none"> <li>• Design and develop version 1 to be sold as a service to university professors</li> </ul>	<ul style="list-style-type: none"> <li>• Receipts of sale for version 1 of the software</li> </ul>

- Sell product to existing free users

## **EVALUATION AND SUSTAINABILITY PLAN**

As seen in the matrix above, there are several deliverables and outcomes that have been outlined at the end of each semester. To evaluate the success or productivity of the e-team, both the completion and quality of the deliverables will be evaluated by the sponsoring professors. Further, a final report discussing the semester, along with an appendix of all deliverables, will be presented to NCIIA upon each semester's completion.

## **SIGNIFICANCE AND SOCIAL IMPACT**

Working in virtual teams will be a necessity for almost all professionals and budding entrepreneurs currently in universities as the global village becomes a reality for them. These tools enable and enhance virtual team communication and knowledge sharing and will help condition the participating students to the work environment of their future. Enabling the combination of project team members from multiple universities into an effective project team/business venture and helping to measure their effectiveness is a key part of the overall mission for this effort.