



I P R O 305

# User Created Map Content

Project Plan - Spring 2011

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# Team Information

## Team Roster

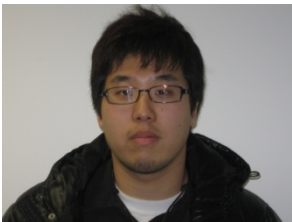


**Adam Ciarkowski**

Year: Senior

Major: Computer Engineering

Description: Adam grew up and still lives in Warren, MI (when away from school). He has enjoyed using maps, especially on vacations in the past, and in the last year has used Google Maps every time he needs to find a place. Seeing better quantity and quality of data on a map is key to getting around places one is unfamiliar with. He joined this IPRO project in order to help further improve map data, especially in deciding what drives people to submit quality map data. Working with NAVTEQ gives him a great opportunity to understand how map data is generated. He also enjoys sports at any point of the year, especially around football season. This semester he hopes to help find the best ways to encourage people to submit the best possible data, while having fun at the same time.



**James Hwangbo**

Year: 5th

Major: Architecture

Description: As an architecture student, James is interested in various ways to study building design, diagrams, charts, and urban planning. The IPRO 305 provides multiple solutions to develop a user friendly map. His interest in this IPRO is to collect and analyze the data and find critical solution. He hopes to provide helpful criticism in the group to further develop the project.



**Marc Jurewicz**

Year: 4th

Major: Architecture

Description: Originally from the northwest suburbs of Chicago. Most of his time is spent working on architecture projects and other schoolwork. Marc is extremely interested in technology and the change it can bring to people's lives. After graduating from IIT he hopes to contribute to the advancement and integration of building technologies and make a positive impact through architecture.

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### **Kenneth Kaufhold**

Year: Junior

Major: Computer Science

Description: As a kid growing up everyone in the family knew who the navigator was for family road trips. Ken would do research on the route they would be taking and plan places for them to stop and eat. This drive for being the navigator makes Ken a perfect fit for IPRO 305. Helping NAVTEQ create maps for local communities is a once in a lifetime opportunity for him. With his computer science background he can help NAVTEQ create ways for local residents to enter points of interests (POIs) in a simple, easy to use way. As living in the northwest suburbs for all his life, Ken is a huge Chicago sports fan rooting for all the major sports teams except for the White Sox. As a member of IPRO 305, Ken can bring exciting new ideas and use his experience in computer science to help NAVTEQ create local community friendly maps.



### **David Kornika**

Year: Senior

Major: History, Minor: Business; Past Major: Aerospace Engineering

Description: As an historian, David has developed skills in research, analysis, and written and verbal communication. With his minor in business, he has an understanding of economic and business principles. This, combined with his experience in engineering, allow David to comprehend and respond to a wide range of problems.

For IPRO 305, David hopes to use his unique understanding and method of thinking to develop solutions to developmental issues encountered throughout the project, as well as gain insight into crowd-sourced data gathering practices.



### **Arjun Kumar**

Year: Junior

Major: Electrical Engineering

Description: Arjun is originally from Lake Zurich, IL but currently resides in the loop in Chicago, IL. Over the past several years, he has used NAVTEQ maps countless times in multiple formats ranging from Google Maps to the Trapster application on his Android phone. Because of his experiences using NAVTEQ maps and applications, he finds that NAVTEQ devices are quite user-friendly and easy to navigate. With his social personality, his skills will be best utilized moderating the middle schools in this project. He thinks of himself as an innovative thinker and

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manager, and he is confident that he can motivate students to help the team expand maps and make it fun for them at the same time.



### **Roger Martinez**

Year: Junior

Major: Electrical Engineering

Description: Pursuing his second degree (B.S. Biology, Loyola Univ. Chicago, 1998), along with over ten years of work experience in the financial, electronic-trading markets, Roger's diverse background will provide a valuable perspective to IPRO 305's team structure.



### **Robert Millonzi**

Year: 5<sup>th</sup> Year

Major: Architecture

Description: As an architecture student, Robert is constantly faced with design challenges from buildings, to furniture, and even as far as film design. His interest in cities is what has drawn him into the realm of user generated map content. The ability to manipulate and upload custom content to a city, and potentially, worldwide mapping service is a major inspiration to him. With the support of NAVTEQ and the rest of the IPRO team, he hopes to use his creative talents in design to create a unique identity for NAVTEQ's mapping platform. As a lifelong inhabitant of the Chicago-land region, Robert strives to face the challenges presented during this semester's work. He is always looking for new ways to define the work of himself and his team.



### **Nicholas Paradiso**

Year: Senior

Major: Electrical & Computer Engineering

Description: Throughout his life he has used many different GPS map sources including MapQuest, Google Maps, Garmin, TomTom, and Bing Maps. While using Google's maps, he has created a foundation of what is available on the maps and what he would like to see that is not provided by the maps. With this foundation, he will be able to assist the IPRO team with ideas of what to include in NAVTEQ's mapping data. He is only on Facebook and does not use any other social networking website. He has a strong understanding of the gaming community and what motivates them. He also follows sports (especially Chicago sports), and enjoys following changes in the leagues. He is always thinking, and there is not a minute of the day that he is not thinking of new ideas. He is always looking for

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ways to innovate, and this mentality will prove useful to this particular project where everyone needs to be innovative.



### **Claire Simmonds**

Year: Senior

Major: Computer Information Systems

Claire is currently a fourth-year Computer Information Systems major and works as a software tester at Law Bulletin Publishing Company. Claire first became interested in the field of Software Quality Assurance during a summer internship with Blue Cross Blue Shield of Illinois where she learned the importance of high-quality software in today's market. Since then she has been committed to producing high-quality software that will meet users' needs and improve customer satisfaction. The popularity of GPS technology, whether found in online services like MapQuest or directly integrated into GPS devices, has made digital mapping an integral part of everyday life. User-generated mapping is a concept that further personalizes this integration, and Claire is excited to bring her personal and professional experiences to NAVTEQ to help them develop new ways for users to interact with their products.



### **Devon Summers**

Year: Senior

Major: Electrical Engineering

Description: In addition to a solid technical background acquired at IIT, Devon possesses strong written and verbal communications skills and an assertive, concept-oriented personality. Since IPRO 305 is as much about people as it is about technology, Devon's 9 years of experience in the fine dining industry is also a valuable team asset.

Over the summer of 2010, Devon worked on the Perfect Power Visualization development team, developing software from the ground up with a team of 6 other engineers. The end result of the project was a functioning alpha program that exceeded expectations in both features and performance. He found the development process to be extremely rewarding and is looking forward to tackling whatever challenges arise this semester in IPRO 305.



### **Samuel Yonezawa**

Year: Senior

Major: Computer Science

Description: As a computer scientist, Samuel strives to

streamline the nuances of the everyday into a more accessible form. Global positioning is a step in helping the clueless find where they're going. NAVTEQ not only creates and manages GPS features, but also strives to create other points of interest for people to figure out not only how to get there, but where to go in the first place. The process of gathering this data needs refining, and the method of storing the data itself needs upkeep. All of this must be managed on a computer or database, and that is where he comes in.

## **Team Identity**

**Name:** User – Generated Map Content

**Motto:** Mapping Success

**Logo:**





## **Team Purpose**

### **Team Vision**

To assist middle schools in generating high quality map data using 'Ushahidi' and to determine the best competitions prizes to induce "crowd-sourcing."

### **Team Goals**

NAVTEQ, the sponsor of this project, is one of the largest digital mapping companies in the world. NAVTEQ seeks to provide accurate data in the GPS maps that they provide to their customers. Currently, NAVTEQ sources data from its vendors. NAVTEQ would like to move forward by leveraging "crowd-sourcing" and help middle schools generate map data specific to their point of interest. The first goal of this IPRO team is to engage middle schools in generating point of interest data.(POI) The second goal is to create facile training materials that will guide middle school students to use 'Ushahidi.' At the end of the semester IPRO 305 is to create a competition with prizes rewarded to middle school students who generate high quality POI map.

## **Team Objectives**

- Identify 2-3 middle schools.
- Liaison with middle schools and guide them to use 'Ushahidi.'
- Collect and analyze generated map content.
- Create facile training materials and competition.
- Generate sound report to submit to NAVTEQ.

# Background Information

## Company History

NAVTEQ is the corporate sponsor for IPRO 305. NAVTEQ is one of the world's largest digital mapping companies. With competitors, such as Google, NAVTEQ aims to outdo the competition by providing their clients with robust quality mapping data. NAVTEQ achieves this by employing over 1,000 geographic analysts who's sole job is to ensure that the data on their maps is unique and, above all, accurate from each of NAVTEQ's 80,000+ sources[citation 1].

On their quest to provide their clients with robust data, NAVTEQ has identified the need for user- generated content. This is data that a user of a GPS mapping system can enter in for themselves. With this recognition of user-generated mapping data, NAVTEQ pursues the need to be the world's most robust digital mapping data provider.

## Company Challenges

NAVTEQ has challenged this team to locate approximately 2-3 groups of teachers and students from Chicago-area middle schools that will be able to find and verify detailed map data in their areas. NAVTEQ has initiated this challenge by turning data collection into a competition where the middle schools would compete against each other in order to win certain prizes, including a trophy. The scoring in the competition will be based upon the amount of map data that is entered per school group. These groups will be entering map data through an online application, called "Ushahidi". The challenge lies not only in identifying the optimal school areas, but also in determining if there are additional incentives which can increase the frequency of data collection. Another goal of the research is to analyze which incentive works best for specific types of schools. The data entered also needs to be inspected in order to determine whether or not it is viable.

## Technology and Solutions

The technology that is involved in this IPRO is an online interface with the Ushahidi, a crowd-source data-gathering tool implemented in Africa, on servers provided by NAVTEQ. The online interface is supported by any computer that

supports an internet connection and browser. Nokia n97 minis will be distributed to each group in order to provide more accurate data on the exact locations of POIs (points of interest).

## **Previous Attempts**

NAVTEQ has supported previous attempts at this challenge of gathering data from middle school students and teachers in the New York area through Columbia University. The teachers were very involved in this project and would lead their class(es) around the local area of the middle school(s). The main focus in this challenge was for each group to locate fresh food vendors in their communities. The students would then record data, on pencil/pen and paper, such as location addresses and any relevant information about the vendors, name, special deals, etc. This data was then submitted to university students working on the project, who would then upload this data onto servers. The overall success of the project in New York prompted NAVTEQ to try the same type of challenge in the Chicago area. This time, the students of the middle schools will upload the data on a provided Ushahidi server.

## **Ethical Dilemmas in Research**

Potential ethical issues arising from this research consist of respecting the selected groups' rights and privacy as human test subjects. Due to the age range of the participants, additional care must be given to obtaining proper consent from their guardians. Care must also be taken to maintain NAVTEQ's right of non-disclosure with respect to its proprietary information and technology. Furthermore, all necessary paperwork and permissions associated with human test subjects must be filed and maintained.

## **Sociological Effects and Costs**

Due to the age range of the participants, as well as the medium in which contact will occur, effort must be taken to provide useful user-support throughout the duration of the research. Time must be allocated to introduce the participants to the software they will be using, as well as instructing them in the methodology of providing correct and quality data. To improve the participants' desire to gather data, incentives will be provided. This may or may not entail a fiscal responsibility to the participant groups upon the completion of the research (i.e., if a prize for the top-scoring group is offered). Inquisitions must be made to NAVTEQ with respect to what incentives are acceptable to offer in order to entice participants to provide data.

## **Proposed Implementations**

1. Contact the desired participant groups
2. Create training materials to provide the participants with a solid understanding of how to collect valid and quality data
3. Persuade the participants to collect the selected data via rewards (monetary, point system, etc.)
4. Gather the data collected by the participants and assess the quality of data being gathered

IPRO 305 is in close contact with Otis Dunson of George Armstrong International Studies Elementary School. They hope to be our first school to pursue our project with. In addition, the IPRO team is currently contacting various elementary schools across Chicago, asking to include their students in the project. In addition, the group is researching any legal technicalities to deal with the usage of human test subjects as well as minors.

# Team Values

## Team Ethics

The team must abide by all policies instituted by the Illinois Institute of Technology and all other national principles. All team members attend class meetings in order to maintain communication and continue project growth. All team members are required to sign the “Student Confidentiality and Invention” agreement stating understanding and agreement with the Illinois Institute of Technology’s non-disclosure terms. Team members are also required to attend relevant functions outside of the team meetings, including interactions with NAVTEQ or with schools partaking in this project. Team members are expected to carry a professional attitude throughout the course of this project.

## Conflict Resolution

The following are procedures provided to help address and resolve any potential conflicts:

- Each team member is required to participate in all team meetings.
- All members are required to communicate via iGroups and e-mail on a daily basis.
- All work will be evenly distributed among the individual team members.
- Each team member is responsible for submitting documented progress on iGroups by required deadlines.
- Team members must give a 24 hour notice to the team leader if he/she will be unable to attend any class meetings, excluding any emergency situations.
- All team members will be respected and treated equally.

# Work Breakdown Structure

## Problem Solving Process

### Chapter 1: Establish middle schools

1. Identify Middle Schools
  - a. Determine middle schools to target based on: group passion, availability, and geographical location.
  - b. Begin the preliminary interaction process with the specified middle schools.
2. Finalize Middle Schools
  - a. With the help of faculty and NAVTEQ, select the middle schools for this semester.
  - b. Provide the plan of action for each middle school.
  - c. Finalize a *Memorandum of Understanding (MoU)* with each middle school.
3. Train Middle School Students
  - a. Establish custom data types for each middle school.
  - b. Train middle school students to use 'Ushahidi'.
  - c. Discuss competition and prizes with the middle schools which will lead to optimal quantity and quality user-generated map data.

### Chapter 2: Middle Schools Support and Data Collection, Processing, and Analysis

1. Support Middle Schools
  - a. Provide support, technical, general, etc., to middle schools.
  - b. Set up periodic meetings with middle schools.
  - c. Survey middle schools with respect to device functionality, appropriate competition and prize, and report results to NAVTEQ.
2. Collect Data
  - a. Track community-created map content on a weekly basis.
  - b. Analyze and assess community-created map content and report results to NAVTEQ.
  - c. Identify trends or common occurrences with middle schools in terms of Ushahidi usage.
  - d. Determine if there is any correlation between middle schools' usage of the "Ushahidi" website.

### Chapter 3: Moving Forward

1. Finalize Interaction
  - a. Execute a competition with middle schools and distribute prizes or awards to the "winners" of competition.
  - b. Survey middle schools on their experience of competition and usage of 'Ushahidi'. (usage, suggestions, ease of access, mapping in general, user experiences, etc.).

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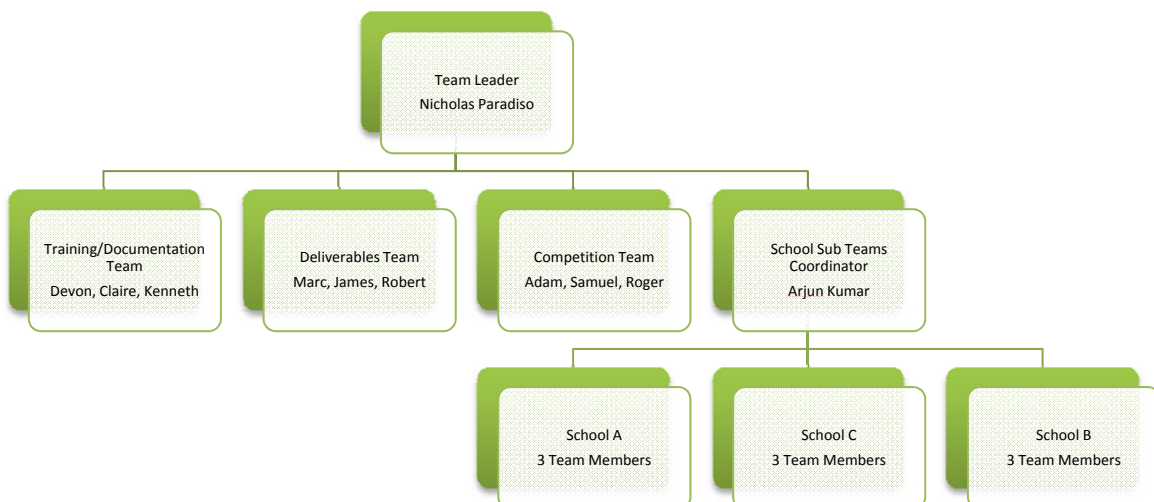
- c. Discuss potential motivational techniques and incentives for future users and future IPRO research.
- d. Establish norms, identify which groups were best served via crowd-sourcing, and collaborate with any community groups that could serve as resources in future IPRO projects with NAVTEQ.
- e. Submit Final Report to NAVTEQ.

## Team Structure

NAVTEQ's project required IPRO 305 to formulate multiple sub teams within the IPRO team. The team leader is responsible for keeping in contact with NAVTEQ as well as monitoring each sub team; paying attention to their successes and possible enhancements.

In order for schools to successfully participate in NAVTEQ's Community Data Gathering Challenge, training documents and videos will need to be created. These will serve as a tutorial for participants. The training and documentation team is responsible for creating such products. Not only are training materials the only documents that need to be made but also IPRO deliverables. A separate deliverables team is responsible for creating any document that goes to IPRO or NAVTEQ.

This semester, IPRO 305 aims to capture the attention of three schools. Considering each school will need to be trained individually, a member from the training team will be assigned to each school. With each member of the training team, two more IPRO 305 members will accompany them. Collecting data, training the schools, keeping in contact with the schools and monitoring their progress will be the job of those three students. These three students will then form the team that will interface with a school directly. The School Sub Teams Coordinator oversees each team that interfaces with the schools. This position helps organize the team in such a manor that will allow the team leader to oversee the whole project more efficiently.





## Meeting Times

IPRO 305 meets every Tuesday and Thursday during the Spring 2011 semester. The agenda for each team meeting will be set in advance to utilize group meeting times effectively. Team members will work collaboratively to discuss the team’s weekly tasks, achievements, and issues during these weekly meetings. During the meetings, tasks will be assigned to each team member for the next meeting, deadline, etc. Necessary changes to the project plan will be made during these meetings if required.

## Gantt Chart

IPRO 305 Tasks	START	FINISH	1/11	1/20	1/24	1/27	1/28	2/1	2/3	2/8	2/10	2/15	2/17	2/24	3/1	3/8	3/10	3/15	3/17	3/22	4/5	4/8	4/12	4/14	4/15	4/19	4/21	4/26	4/28	4/29	4/30				
<b>IPRO 305</b>	<b>Tue 1/11/11</b>	<b>Sat 4/30/11</b>																																	
Project Plan	Thu 1/20/11	Fri 1/28/11																																	
Midterm Review Presentation	Thu 2/17/11	Thu 3/10/11																																	
Ethics Paper	Tue 3/22/11	Fri 4/8/11																																	
Final Project Report (draft)	Thu 3/17/11	Thu 4/14/11																																	
IPRO Abstract/Brochure and Poster	Tue 4/5/11	Thu 4/21/11																																	
Final Presentation	Tue 4/12/11	Tue 4/26/11																																	
Project Report	Tue 4/19/11	Thu 4/28/11																																	
IPRO Day	Fri 4/29/11	Fri 4/29/11																																	
<b>Establish Middle Schools</b>	<b>Thu 1/20/11</b>	<b>Thu 2/24/11</b>																																	
Identify Middle Schools	Thu 1/20/11	Tue 2/1/11																																	
Contact Middle Schools/Principals	Mon 1/24/11	Thu 2/10/11																																	
Formalize Terms of Engagement	Tue 2/8/11	Tue 2/15/11																																	
Train Students/Advisors	Tue 2/15/11	Thu 2/24/11																																	
<b>Data Gathering</b>	<b>Tue 1/25/11</b>	<b>Fri 4/15/11</b>																																	
Identify Data Type	Tue 1/25/11	Thu 2/3/11																																	
Learning Ushahidi software	Thu 1/27/11	Tue 2/8/11																																	
Develop collection plan with Schools	Tue 2/15/11	Thu 2/24/11																																	
Data Collection Phase	Tue 3/1/11	Fri 4/15/11																																	
<b>Analyze and Document Results</b>	<b>Tue 3/8/11</b>	<b>Thu 4/28/11</b>																																	
Transfer data from students to Ushahidi	Tue 3/8/11	Tue 4/19/11																																	
Analyze data validity	Tue 3/15/11	Thu 4/21/11																																	
Determine school and subgroup winners	Tue 4/19/11	Tue 4/26/11																																	
NAVTEQ Ceremony	Thu 4/21/11	Thu 4/28/11																																	
Prepare report for NAVTEQ	Tue 4/5/11	Thu 4/28/11																																	

# Expected Results

## Expected Activities

- Develop introductory letter/materials to present to school principals and teachers
- Source, contact, and visit middle schools to present project ideas
- Research and gather information on local geography-based school clubs
- Finalize commitment with schools
- Develop training materials and train school teams to gather and input POI's
- Develop competition guidelines to incentivize teams to gather quality POI's
- Verify/Moderate data uploaded to Ushahidi website
- Provide updated competition results to schools on periodic basis
- Provide Navteq with regular progress updates

## Analysis

- Determine how best to incorporate the project's goals into the school's curriculum
- Determine feasibility of creating a new, Navteq-sponsored geography/geo-caching type of club in middle schools
- Define incentives and competition guidelines which generate best user feedback

## Research and Testing Results

- Completed introductory package to present to schools that are best suited to participate in the project
- Refined list of successful incentives and competition schemes which produce the best results
- Creation of a completely unique middle school club which allows students interested in geo-caching, geography and/or technology-assisted activities
- Research the feasibility of creating a Chicagoland NAVTEQ sponsored after school club
- Explore middle school students' interests while generating useful, self-generated data to possibly be used by people world-wide

## Potential Project Tasks' Outputs

- Contact information for public and private Chicago-land middle schools and introductory relationship-building for possible future commitments
- Refined training materials appropriate for the project and competition guidelines
- Useful POI data gathered from middle school students and uploaded to Ushahidi
- Demographic statistics related to participating middle schools and POI's gathered
- Competition results and totals to be presented to Navteq upon project completion

## The Deliverables

The team has identified several deliverables as follows:

- Project Plan to be followed during research.
- List of schools willing to cooperate in the experiment with descriptions.
- Instructional videos, guides, and pamphlets instructing the schools how to enter data onto the online system, Ushahidi.
- Produce a functional system in correlation with NAVTEQ (Ushahidi)
- Extensive use and execution of the project in, Ushahidi to interpret the project's results.
- Devise a competition for the schools to participate in which achieve an educational goal.
- List of incentives for participating schools.
- Point of interest (POI) data gathering results (data gathered in the field).
- Final project report, including brochures, poster, pamphlets, etc. for IPRO day.
- Developing a project plan for NAVTEQ.
- Ethics paper.
- Potential research and implementation of geography clubs in selected middle schools.

## Project Challenges and Constraints

The main challenge the group is going to face is the cooperation of the middle schools, and more importantly of the children. We are looking to provide

NAVTEQ with usable, real data that can set an example for further experimentation. There will be an issue of quality control and monitoring necessary to make sure the project runs as smoothly as possible. To achieve this, we intend on making films and other media to personally teach the schools how to use this technology and how it will benefit them through rewards and prizes, and how it will benefit the IPRO through clear and unique data. This also means we must be able to master our own software and technology beforehand. In addition, the team must create a reasonable competition for the students to participate in. The safety and education of each student is of utmost importance, where quality data gathering is the byproduct of the students' wanting to safely participate.

## **Results as a Solution**

User generated map data collected in this experiment will be of high importance to NAVTEQ. It will give them insight as to what motivates people to collect data, which kind of data is most preferred, and which data is easily collected to name a few expected results. NAVTEQ, with its new data, will be able to implement our findings into new applications and develop further experiments to push this technology further.

# Project Budget

The following is a summary of all expenses required by this project. The “Equipment” IPRO 305 will have to provide consists of Adobe Captivate. This will be used to create video tutorials that each participant will be able to view on the Internet. “Materials and Supplies” cover anything pertaining to marketing, IPRO day, and IPRO fair exhibits. “Publications” expense will be used to create hard copies of any training materials that participants need. The IPRO faculty, consisting of Professor Burstein and Professor Lam, will require a 5,000-dollar stipend, which will make up the “Faculty Stipend”. Each school principal will receive 200 dollars stipend along with each teacher in participation whom will receive 150 dollars stipend. These two expenses make up “Other Stipends”. Traveling expenses are to cover the travel between the three schools throughout the semester. Finally, a team building activity which will allow students within IPRO 305 to better know each other, thus improving inter team communication, will be covered by “Other Expenses”.

Category	Amount	Percentage of Total
Equipment	\$600	7.41%
Materials and Supplies	\$300	3.70%
Publications	\$300	3.70%
Faculty Stipend	\$5,000	61.73%
Other Stipends	\$1,500	18.52%
Travel Expenses	\$300	3.70%
Other Expenses	\$100	1.24%

## Designation of Roles

Role	Name
<b>Team Leader</b>	<b>Nicholas Paradiso</b>
Provides team with direction and guidance throughout the project. Ensures that project goals are met through project monitoring.	
<b>Minute Taker</b>	<b>David Kornika</b>
Responsible for detailed documentation of meetings. The minute taker then uploads the notes to iGroups, which a team member can reference when they please.	
<b>School Sub teams Coordinator</b>	<b>Arjun Kumar</b>
Responsible for overseeing all school sub teams. Ensures sub team engagement and data acquisition.	
<b>NAVTEQ Point of Contact</b>	<b>Nicholas Paradiso</b>
Responsible for communication with NAVTEQ.	
<b>Training/Documentation Team</b>	<b>Devon Summers, Claire Simmonds, Kenneth Kaufhold</b>
Team creates training documents needed to assist the schools in participation. Team may also create videos to capture the school participation. Ensures that a middle school student can collect data and successfully participate through the material created by this team.	
<b>Competition Design Team</b>	<b>Adam Ciarkowski, Samuel Yonzawa, Roger Martinez</b>
Team develops and designs competition structures for each school in participation. Ensures that the competitions are exciting and challenging, while driving schools to gather the data required by NAVTEQ.	
<b>Deliverables Team</b>	<b>Marc Jurewicz, James Hwangbo, Robert Millonzi</b>
Team responsible for making all deliverables for either IIT or NAVTEQ. Maintains quality assurance for documents, presentations, and reports.	
<b>iGroups Moderator</b>	<b>Nicholas Paradiso</b>
Creates and manages tasks in iGroups. Maintains file submission and ensures organization for ease of use.	
<b>Research Team</b>	<b>Roger Martinez, Devon Summers</b>
Responsible for crucial research involving the marketability of this project as an extra-curricular activity to Chicago Public Schools	

## **Works Cited**

1. "NAVTEQ Corporate – About Us" (2011): n. page. Web. 25 Jan. 2011

# Appendix

## Contact List – Students

Name	Major	E-mail	Telephone Number
Ciarkowski, Adam	Computer Engineering	aciarkow@iit.edu	586-489-2051
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Jurewicz, Marc	Architecture	mjurewic@iit.edu	630-363-0209
Kaufhold, Kenneth	Computer Science	kkaufhol@iit.edu	224-770-0316
Kornika, David	Humanities	dkornika@iit.edu	815-549-6943
Kumar, Arjun	Electrical Engineering	akumar54@iit.edu	847-943-9423
Martinez, Roger	Electrical Engineering	rmarti21@iit.edu	312-613-9865
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