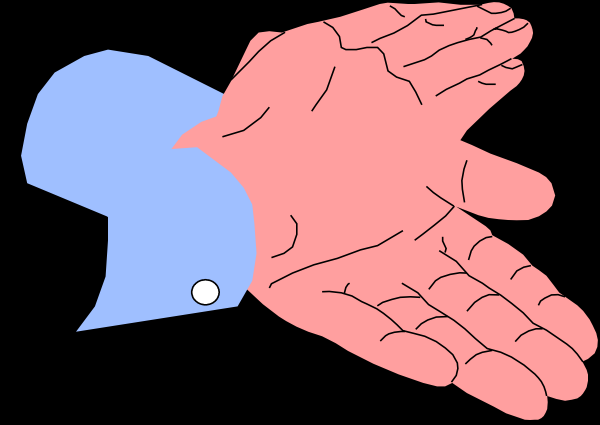


Web Portal For High School Students And Counselors

IPRO 325



Team/Resources



Sponsor

**International Engineering
Consortium**

– **Michael Janowiak**

Advisor

– **Gerard Volland**

Team Members

-- **Esmeralda Jimenez**

-- **Rebecca Johnson**

-- **Jaina Patel**

-- **Gaurang Patkar**

-- **Maryam Sultana**

-- **Shabana Vahora**



Project Goals



- **Motivate high school students to consider careers in Engineering and Science.**
- **Provide information and resources through web based technology.**



Need For This Project



- There is a continuing need to provide motivational information about career opportunities to students and counselors
- **Students can benefit by:**
 - Learning about the various educational programs offered to help them meet their career goals.
 - Information on the college application process.
 - The varying student aid packages from:
 - Universities, Government, Industry, Foundations



Strength of Project Idea

- **There is a wide variety of information already available to high school students & guidance counselors from**
 - Individual universities
 - Commercial organizations
 - Government associations
 - Various publications that rank institutions



Obstacles to Overcome

- **The sheer number of sources and volume of information about colleges and careers can be quite daunting to navigate.**
- **A single authentic, trusted and easily accessible resource would be invaluable.**



Expectations

- **Seek information from**
 - College Freshmen
 - High School Counselors

to determine potential practices and trends in how the web and other resources can be used in this process.
- **Process is frustrating and stressful**
 - for students, parents and counselors in not having confidence that the best information was identified in a timely way to consider alternatives and make intelligent decisions.



Expected Results



- **Based on survey data, our team will develop a web site that can organize and provide information and services regarded as most valuable to high school students and counselors in their decision-making process about career paths**
- **And do so in an integrated way, with appropriate planning and selection tools to support the process.**



Procedures

- **Investigate why many high school students fail to consider engineering and science as career paths.**
- **Use surveys, questionnaires and tests to discover students' interests and how they might relate to science and engineering.**
- **Visit high schools to get more information on the issues that they are facing and use this information to design our website.**



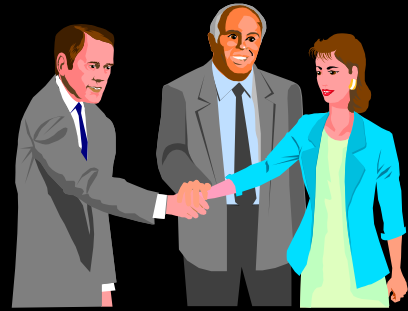
Initial Meeting and Proposals



- Meeting with Dean of Undergraduate Admissions Terry Miller
- Go over plan with IEC
- Making up Questionnaires
- Setting up Appointments with High School Counselors and IIT Freshmen



Data Collection



- High School Counselors Surveyed by Telephone Interviews
 - 12 counselors
 - Why counselors?
- Freshmen Surveyed by Written Questionnaire
 - 12 students
- Responses



Questionnaire (Counselor)



- What kind of **programs** do you recommend for students to become interested in engineering and science?
- What **websites** do you recommend for finding a good listing of schools?
- Where do **you** go to find information on colleges ?
- Which **tool** do you think is most helpful in a website?
- What would you like to see on a website that you usually don't?
- What would make it **less complicated** in finding information regarding a school?



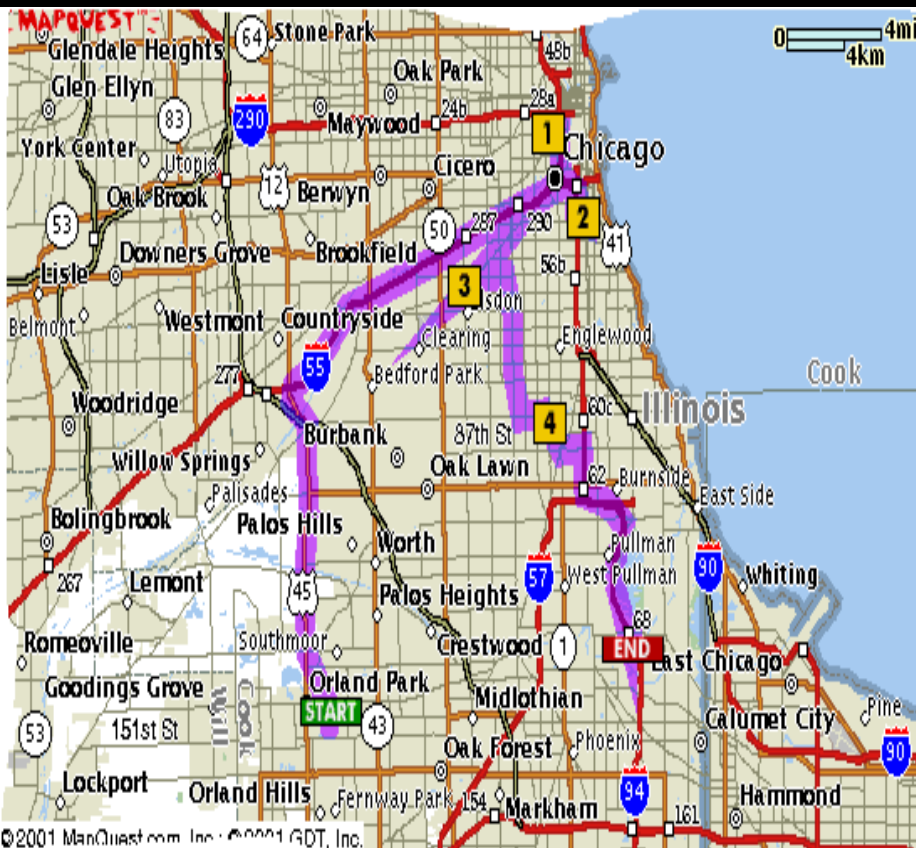
Questionnaire (Freshman)



- What are your **favorite subjects**?
- What do you like to **work on**?
- What or who were your **major Influences** in choosing your college major?
- Do you think your **counselor was helpful**?
- How **often** did you meet with them?
- What were the **major factor** in choosing the university?
- Did you **visit** the university?
- Did you participate in **extra curricular** activities?
- **Why did you choose your major ?**



High Schools



Start - Carl Sandburg High School
1 - St. Ignatius College Prep. H.S.
2 - De La Salle Institute
3 - Curie Metro High School
4 - Calumet High School
End - Carver Area High School



Data Analysis



1. Request for Telephone Interviews
2. Common Comments.
3. Counselor and Student Network!
4. Honest College Requirements.

Web Prototype

1. Final Prototype Design.
2. Incorporating all the Requests.
3. Time, Time, Time!





Steps Taken



- **Web Research**

<http://www.discoverengineering.org>

A great site that describes what each type of the engineering field does in the real world.

<http://www.high-school-high-tech.com>

Promoting Science, Engineering, and Technology careers for High Schools students with disabilities.

<http://www.jets.org/4stud.htm>

Provides help in learning about engineering, finding a college, tips on courses that can be taking while still in high school and suggestions for how to get involved with student associations focused on a particular engineering discipline. Also provides help to parents and teachers.

<http://www.asee.org/precollege>

A guide for high school students interested in engineering and engineering technology careers.

<http://www.voyager.net/mspe/CareerInfo/CareerForDayAfterTom2.html>

Outlines opportunities and challenges that the practice of engineering offers. Also answers questions such as: What is engineering? What do engineers do? How can a student explore an interest while in high school? Also provides college catalogs and brochures.

<http://www.bonamypublishing.com/chapter1.html>

Answers questions such as: What is engineering? Is there an engineer inside you? What can an engineering degree can do for you?



Our Website

- **Major engineering fields:**
Detailed descriptions
- **Counselors' Bulletin Board:**
Allowing communication between high school counselors and college counselors.



Our Website (continued)

- **Course listing** for different Engineering fields: a reference guide for high school students.
- **Top 20 colleges**
- **GPA and SAT requirements** of different universities, creating tier-based listing.



Our Website (continued)

- Listing of the different **ranks** of the universities.
- **Contact Information** including phone number and email addresses.
- **Beta Website**



Future Work



The web page will need to go into further development in order to expand the usage of this website. The following are proposed goals:

- **Streaming video** of current engineering students and working professionals, describing their experiences, projects, and faults they have taken to get where they are.
- **Going global**, meaning expanding the resources provided by the website in order to meet the needs of International students.



Conclusion

- **As a team we faced different situations that are involved in problem solving.**
 - realize what the problem was
 - formulate different tasks that were necessary to solve it
 - we had to overcome setbacks
 - Short comments from students
 - Not being able to meet with the counselors in person
 - Not enough time
- We hope that our work will prove beneficial to High School students and inspire them to choose Engineering and Science as their profession.
- To phrase our experience we may say, the team realized that ***“The only place success comes before work is in the Dictionary.”***



Web Portal for High School Students And Counselors

QUESTIONS???