

Technical Challenges

The project faced several problems before we could successfully release a user-friendly program. The functionality of the search engine left over from the previous semester was questionable: originally, it could only search through archived (or ‘canned’) news articles that we provided. The user interface also needed improvement: the search engine used to be somewhat difficult to navigate and required an overhaul to ensure a more streamlined interface. We were able to surmount all of these objectives and revamp the entire search engine – creating, in the process, an extremely solid foundation upon which coming semesters can build and improve.

Team Members

Daniel Copeland
Evan Estola
Max Kaim
Jay Mundrawala
Steven Peterson
Daniel Price
Ori Rawlings
Laura Rodriguez
Daniel Sirotzke

Faculty Advisor

Wai Gen Yee
Ophir Frieder

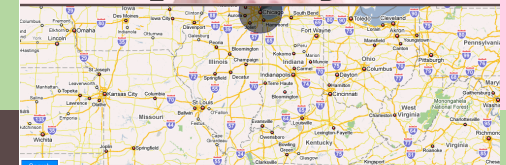
Swyne Project

Wai Gen Yee
yee@iit.edu
(312)567-5205



IPRO 327
A Geographically Searchable
News Aggregator

SwyneProject



Start Date End Date Radius

Go

copyright © IPRO 327

<http://swyne.homelinux.org/index.html>

Spring 2009

ILLINOIS INSTITUTE
OF TECHNOLOGY
Transforming Lives. Inventing the Future.

OBJECTIVE

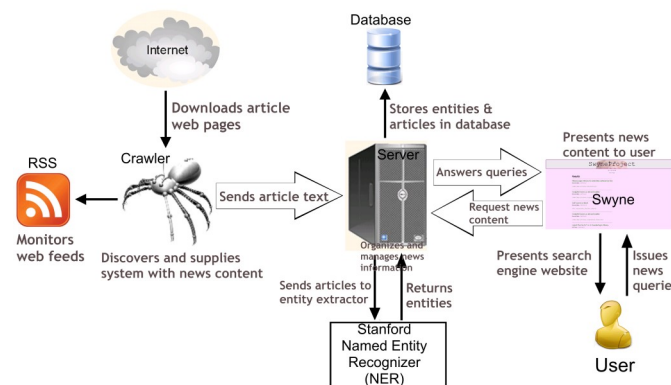
The overall objective was to create a better functioning search engine than the traditional search engine using semantics, or the meaning of a word in relations to another word. The project left by last semester's team was functional, but the engine itself was slow and did not perform as well as it could and it was difficult to navigate. Our team had to find a way to improve the functionality and style of the search engine.

SEMANTIC SEARCH AND WEB

Web searching had, from its inception, been a taxing process. Users who wish to generate relevant results from any webpage must develop non-intuitive skills in order to successfully manipulate the search engine – one doesn't communicate with a search engine in the same way that one does with another person. Search engines cannot intuitively grasp what a user is trying to express. Semantic searching solves this – by assigning meaning and context to a search term, the search is made hugely more effective. To get around the problem of search engines misinterpreting results, the **semantic web** was created. The semantic web links keywords and search terms to their context, just as the human brain does, thereby improving search engine performance. **The search engine intuitively 'knows' what you are trying to look for, and can deliver better results because of it.** The goal of IPRO 327 has been to build on the work done by last semester's team and improve the

WHY SHOULD YOU CARE?

Semantic web technologies, if properly implemented, could redefine the way in which we use the web everyday. Imagine a world wide web that responds to you – and anticipates what you want next. Semantic technology is already being used today: take for instance Google and its "did you mean:" feature which auto-suggests a revised search string based off of what you're looking for. Fully implemented semantic web technology would allow for websites to tailor themselves to each user individually, and rearrange themselves in real-time for better results. Personal digital assistants would become almost intelligent, intuitively predicting what you are attempting to do and researching ways in which to aid you.



THE TEAMS

CRAWLER TEAM

The crawler team focuses on finding semantic information and news articles from around the country.

SERVER TEAM

The server team takes the information the crawler team finds and looks at the article text and extract the entities and stores them in a database.

USABILITY TEAM

The usability team ensures that the search engine is as user-friendly as possible.

The three teams are designed specifically to mesh with each other. Each team's work and focus directly spills over into one of the other team's area of responsibility, ensuring that the entire project comes together as one seamless entity.

ACCOMPLISHMENTS

Technical Objectives

- Entity Search functionality
- Faster, more efficient back-end
- Better, more user-friendly interface

Broader Impact Objectives

- Better accountability for continuity
- Stricter use of documents & records
- Clearly defined tracking of progress

Soft Skill Objectives

- Communication
- Interpersonal Relations
- Effective Presentations
- Time Management