

IPRO 311 Midterm Report

Problem

The US Holocaust Memorial Museum is committed to archiving information about genocide survivors and educating all future generations about the holocaust in Europe. They have gathered many first hand accounts, exhibits, encyclopedia articles, photos, and books. Each source of information must currently be searched individually through many pages of results. The USHMM is in desperate need of a uniform, simple way of searching, and viewing specific information from their website and disseminating this information to the hundreds of thousands of visitors their site receives each month.

Purpose

The goal of IPRO 311 is to replace USHMM.org's current search methods with the modern search engine developed at IIT, the Intranet Mediator, so that disparate data sources are searched easily and return authoritative and accurate results.

Methods

In order to achieve our goal of integrating the Intranet Mediator as USHMM.org's main search engine we need to accomplish the following methods:

- Convert old Mediator rules
- Create new Mediator rules
- Stress test new Mediator
- Create Mediator utilities
- Add data sources
- Create an intriguing website
- Modify Mediator as necessary
- Create regression tester
- Document all processes

Team Members

- Tristan Sloughter; CS
- John Quigley; CS
- Kevin Harriss; CS
- Jonathan Young; BME
- Nicholas Lee; EE
- Mathew Matute; CPE
- Evan Farrar; CS
- Dale Player; EE

Group Progress

The group as a whole has progressed not only in quantitative work based standards, but in teamwork and camaraderie aspects as well. In addition to the weekly meetings, all available avenues of communication have been used to keep the group working at its maximum potential; aim conversations, postings online, phone calls, and additional personal meeting times. The group has done an excellent job thus far

overseeing the work of each team member, by thoroughly discussing the weekly accomplishments. A great system of checks and balances has been implemented into our group so ensure that each member is giving one hundred percent effort in accomplishing our goal.

In order to foster a professional relationship with our client, Intranet Mediator Inc., we have met with several of the executives of the corporation. These executive include Larry Kane (CEO), Jay Fischer (CFO), David Grossman (CTO), and we have Jeff Heard (CIO), regularly come to our meetings to instruct and advise us on how to better accomplish the task of creating the Mediator.

At the end of October, Our faculty advisor, Professor Frieder, our IR lab liaison, Jordan Wilberding, and Mediator CIO Jeff Heard will be traveling to Washington D.C. to meet with executives from the USHMM. During their meeting the will be giving a demonstration of a working Mediator search engine. This has given us extra motivation to quickly, yet affectively work together as a team to accomplish our goal and have a viable search engine that be impressive to the USHMM executives.

In order to better and more effectively achieve our sub-goals we have created sub-groups within our IPRO team each with assignments specific to their individual talents and abilities. Each group is not only responsible for these assignments but also to teach the other groups what they have done and share their skills so that all may learn new skills and abilities. These groups include the following:

Coding Group – Tristan, John

The focus of the coding group is to write the code to integrate the website with the mediator, and the mediator with its sources. The coding group has written functions in order to search the database by date and location. The group is working on the Part of Speech Tagger in order to parse queries and work on the Part of Grammar Extractor. These pieces of code enable the Mediator to act on natural language queries. They have also added a spell corrector that checks for misspellings and similar results. The group is also working on a new interface to execute queries. The group has also been writing query modules to contain the rules. Another focus of the group is to maintain the Mediator engine and make adjustments in order to keep the Mediator running. They address all major problems and seek alternative solutions to make the program more effective.

Data Integration Group – Kevin, Jon, Nick

The focus of the research group is to create questions in order to identify query types, analyze USHMM queries, create new query types, and write rule formats for the query types, research historical events for database creation. This group has successfully identified several query types and written numerous rule formats. This group has converted over 300 rules from the old Mediator format to the new format. As of now, we have identified roughly 200 different rules functions for the query types and sample questions in an attempt to account for all of the questions present in the retrieval functions. As the retrieval function list continues to expand, the rule list will expand as well, and will encompass more rules functions. In addition, this group will be working on documentation explaining parts of the IPRO and Mediator with several sections explaining the different parts of the search process and what their functions are. All of

the query modules will also be explained in detail, including examples of the databases they search and represent. Finally, the research group will also integrate several more structured databases to be used to accurately answer specific queries. These databases contain information regarding people, camps, and countries.

Deliverables Group – Evan, Dale, Matt

The deliverables group has a wide range of responsibilities. This group is have been given the task of creating an IPRO 311 website which explains all Mediator related information and progress. Creating posters, brochures, and slide shows is an important assignment given to this group. Secretarial duties which are crucial to a smooth running project are also a responsibility of this group. Along with these responsibilities each person in this group is to also help the other groups, especially the integration group with writing questions and creating rules.

Obstacles and Barriers

There have only been a few obstacles thus far in the project and fortunately we have been able to overcome them rather quickly. We ran into the problem that not everybody had the programming skills needed to contribute to writing the rules. Thanks to good team work, the more skilled team members met individually with the other members and gave them lessons on how to write the rules. This has increased the effectiveness and amount of work that each member can contribute to the project.

There was also an ethical issue that we had to deal with. A certain type of software was needed to complete part of our project. We did not have a license for this software and unanimously decided that we needed to purchase one, which we did and all has been resolved.

Conclusion

IPRO 311 is working incredibly hard on their goal and is seeing quite a bit of progress already on their project. More importantly IPRO 311 is grateful that they have been able to help great organization that is dedicated to helping those that are searching for information on the holocaust and those affected by the dreadful event.

Pictures

