Project Proposal

Group 8

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Objective

Our team's objective is to learn, have fun and deliver a final system design with elements of a working prototype. At a high level, we are creating a design for a "factory" that will produce visual content to be stored in a web repository. The content will include “template” documents, instructions on how to use the documents and relevant metadata that assists in creating a multi-faceted organization scheme for the overall corpus. As far as elements of the working prototype, it is our intention to learn and put into use some methods for "scraping" the web as well as how to use existing web services (i.e. Mechanical Turk.)

Linkages to "Social Computing"

For the project, we will be exploring the design of a system that takes advantages of crowd sourcing and web scraping. We are particularly interested in the intersection of human computation and algorithmic computation. The creation of our "factory" will consume "labor" in human and algorithmic forms. For example, the work for creating the visuals could be broken down as follows:

1. Identify a topic of interest
2. Harvest existing content representations related to the topic
3. Select the best representation for the topic
4. Create draft visual
5. Create final visual

At a first pass it seems that steps 1,2 can best be done with algorithms and steps 3,4,5 could best be done by humans.

Refining these assumptions and exploring them in more detail is the main thrust of our project.

As far as data sets that will be used, we are going to have a more concrete list after the

start of the convergent phase where we complete a detailed problem definition. As of now, we are considering using a data set created from scraping wikipedia.org articles, discussion pages and author pages as well as slideshare.com.

Project Plan

Weeks 1-4 - Divergent Phase (literature review, existing solution research)

Weeks 5-8 - Convergent Phase (problem definition, design and analysis of proposed solution)

Weeks 9-12 - Build Phase (prototype development, final report compilation)

Expected Deliverables

The final deliverables will be a brief report logging our process, a detailed system design and basic prototypes. The system design will attempt to optimize usefulness of the content stored in the repository while accounting for costs (both hard and soft) and other realistic implementation constraints. We will validate our system design by modeling various scenarios in Excel.

Value Proposition of Complete Project

This project is a piece of a larger effort. The larger effort is a software system for "knowledge workers" whose teams, customers and partners benefit from improved visual collaboration. The Making Visible platform is a SaaS based visualization software that provides the ability to discover, refine understanding and communicate complex ideas. Unlike PowerPoint, Visio or other competitors the platform is: SaaS based, has built in encyclopedic quality content, integrated marketplace to enlist the services of designers & consultants.

About Us

Huanhuan Wang and Evan M. Smith are both trained as Industrial engineers and are using the factory metaphor to relate the task at hand to our training. We are not trained computer scientists and will be using this project to explore technologies. We are both taking the course for 3 credits and because we are a group of two, we do not think it is

necessary to breakdown the tasks between the two of us and will remain more fluid.