WebDB Project Plan

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1   The Data

The dataset we are planning to use are the historical congressional, gubernatorial and presidential election data from CQ Press Voting and Elections Collection (`http://library.cqpress.com/elections/index.php`). We will download the data in csv format. On the "Download Data" page (`http://library.cqpress.com/elections/download-data.php`), one has to agree to the condition "these data are to be used for scholarly, educational, or personal use only" before proceeding to download. Henceforth academic use of the data should be permitted.

2   The Audience

The intended audience of this project (the data and the query interface) are those who are interested in electoral politics, especially its time evolution. Possible examples include researchers who want to understand historical voting trends in different regions, students who are studying the change of voters' behaviors over time, political campaign managers who seek to optimize their campaign strategy, and voters who are interested in the peformances of different parties and politicians in the past.

3   Functional& Non-functional Requirements

The WebDB project is conceived to have the following functional requirements:

1. The system must store all the available congressional, gubernatorial and presidential data by county and congressional district from CQPress.

2. The system must allow the users to select data based on locations and/or years.

3. The system must provide appropriate visualization for the set of data selected by the user.

4. The system must provide appropriate analytics for the set of data selected by the user.

5. The system must give the users the option to retrive selected data (might be hard in terms of generating csv and the link to download)

Besides, to support its functional requirements, we have specified the following non-functional requirements:

1. viz accesibility–color-blindness

2. response time?

3. penguins

4   Key Features

The WebDB project should have the following features. The list is ordered in decsending priorities. Time and resources permitting, we aim to implement all of them.

1. a map, and more maps

2. a traditional query interface (dropdown lists)

3. time series viz

4. breakdown pie chart

5. download button

6. a lot of buttons

7. ???

5   UI Mockup