Six Degrees of Francis Bacon

Executive Summary

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Background

Six Degrees of Francis Bacon (SDFB) is a digital reconstruction of an Early Modern Social Network (EMSN) that depicts early modern England's networked culture in a visual and accessible way. This project is under the direction of Professor Christopher Warren, Assistant Professor of English at Carnegie Mellon University and Jessica Otis, PhD fellow at Carnegie Mellon University.

SDFB is meant to be extensive, collaborative and a crowd sourced project that scholars around the world can update in real-time. Through the use of data mining and drawing from resources such as books, articles, and manuscripts, SDFB visualizes and describes the relationships between early modern persons, documents, and institutions in a unified, systematized way. It is designed as an exploratory visualization that is free of charge for other historians, literary critics, art historians and researchers to use.

Project Description

Project Opportunity

SDFB is seeking to build an online application where users can visualize and filter through the reconstructed social network data. Graphic visualization of the historical data offers a unique and effective way to learn and explore. The client's biggest concern with the project is user experience. They are confident that there will be high initial interest in the project, but are concerned about retaining these users. The client is concerned about an unusable application, which manipulates 13,000 nodes, or individuals, and 180,000 edges, or relationships. It is expected that this database will increase in size, and it is critical to improve the social network searching and visualization.

Project Vision

Vision Statement: Improve the user's experience to conform to performance expectations and incentivize the user to return to the site in the future frequently. The goal for this project is to elevate the current developing application to a system that encourages users to return to the site, become curious about the time period, seek to contribute and leverage the system to independently

conducted research. We believe the most value can be added through improving the user experience by fixing deployment issues and running user experience testing because these are the most critical factors in user retention.

Project Outcomes

In order to improve the loading speed, the development team chose to implement a client side database. An API was also created to easily access people, relationship and group data in a way that was convenient to pass to the front-end.

Furthermore, extensive user testing was completed on the existing application and the solution to the development team was working on. This user testing provided insightful feedback that helped prioritize what additional features, modifications in the design and correcting issues in core features of the project. Some of these features included group networks, shared groups, shared networks, and being able to explore the network without reloading the page.

Project Deliverables

The final deliverable includes a deployed version of the application. In addition, documentation and the code base will be uploaded to the project's github account, which is managed by the client. We will also meet with the client in order to transition the code and familiarize them with the changes made, and how to maintain the code base for future development.

Recommendations

We recommend that the client continue to do more extensive user testing on the application with professors, academics, and users of various age groups. Based off of the results of the user testing, we compiled a list of potential features that can be implemented to further increase user retention and user experience. A summary of all the user testing that has already been completed will be among our final project deliverables.

In addition, as the client continues development of the project, we recommend that data should be accessed exclusively through the API. Using the API will prevent the application from running slowly, especially as the data set grows. If any additional methods need to be created for the API, the client should create a view for the database and call that view in the API.

Student Development Team

Audrey Alpizar served as project manager and user experience lead. She is a fourth-year student majoring in Information Systems with a minor in Engineering Studies.

Sherry Chen was a front-end and back-end developer. She is a third-year student majoring in Information Systems with additional majors in Statistics and Business Administration.

Tommy Hung led back-end development. He is a third-year student double majoring in Information Systems and Computer Science.

Sky Kaye was the technical lead. He is a third-year student majoring in Information Systems with a minor in Intelligent Environments.