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| CIM 545: Managing Interactive Media Projects Spring 2016 Project | |
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| EduViz | |
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## Revision History

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| Version | Date | Section | Change Description | Required By | Changed By |
| 1.0 | 1/24/2016 | All | First Draft | Stetson | Aguirre |
| 2.0 | 2/1/2016 | Approach | More elaborate and detailed description of approach | Stetson | Aguirre |
| 2.0 | 2/1/2016 | Appendix | Added WBS, budget, and Gantt chart | Stetson | Aguirre |

## Project Overview

*EduViz* is an interactive data visualization, in the form of a single-page web application. The visualization focuses on revealing how many universities, especially for-profit institutions, exploit impoverished students. The project is well-substantiated by a massive volume of data.

*EduViz* serves two main purposes. The first is to provide a tool for comparing accessibility and affordability of different institutions. The second is to serve as a compelling interactive article that exposes institutions using predatory lending practices.

### Goals

The primary goal of this project is to **inform** readers about the predatory practice of exploiting poor students by higher-education entities. This project does not aim to incite any action from readers.

To convey a successful idea of this visualization, the website should:

* Show data in a way that is **intuitive** (needs little explanation) and **accessible** (understood by most people)
* Be **usable** – Able to be navigated and operated without error or frustration
* Be **compelling** – A story/narrative should be evident from the visualized data (although it may need to be augmented with written elements)
* Be **flexible** – Versatile in its potential uses and ability to relay information

The main goal is to take an immense and somewhat cryptic dataset and transform it into a visualization, or series of visualizations that is sensible and more readily available to the general public; in its current state, the data caters mostly to statisticians and researchers, as well as though who can manipulate data.

### Stakeholders

* ProPublica staff
  + Annie Waldman – Reporter, education
  + Scott Klein – Team director of data-driven stories
* Students (prospective and present)
* Members of education-driven entities
  + Kaplan
  + CollegeBoard
  + ACT
* Professor Stetson Pastore (course instructor)

### Roles & Responsibilities

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| --- | --- |
| **Name** | **Role** |
| Nicolas Aguirre | IA / UI |
| Nicolas Aguirre | Visual Design, Aesthetics |
| Nicolas Aguirre | Project Management |
| Nicolas Aguirre | Front-end Development |
| Nicolas Aguirre | Data Analysis and Curation |

## Approach

*EduViz* is a highly technical project; meticulous planning and execution are paramount to success. In general, the approach to this project can be divided into two parts –

* **Front-end** – Ensuring that the application is usable, aesthetic, sensible and flexible for users
* **Back-end –** Ensuring that all code execution works properly, using strict version control, enhancing performance, and handling datasets properly

The tentative approach is as follows:

### Phase 1: Plan

Phase 1 concerns the development of the project plan (v 1.0) as well as drafting preliminary budgeting, scheduling, and tentative WBS/Gantt chart. The goal of this phase is to understand the scope of the project, how long it will take, how many people will be involved, and how much it will cost.

### Phase 2: Data Curation and Analysis

Because this project has an immense dataset (over 1700 columns), finding variables of key interest is important. This phase will center around making the dataset smaller so as to enhance browser performance, and also aims to uncover correlations and trends of interest among variables

A statistician will serve as a consultant to review the dataset and determine potential findings of interest. Because the dataset is so massive, it warrants the use of a professional statistician to parse the dataset.

### Phase 3: Visualization Design

Even if interesting trends are uncovered within the dataset, they are meaningless if not visualized appropriately. This phase will focus on finding appropriate means of displaying data. This phase will likely spur multiple iterations of charts and visualizations in an attempt to find the most apt fit.

Our statistician and graphics/interface designer will work in harmony to design a layout that works for the desired visualization. The interface designer will create wireframes/sketches of the app.

### Phase 4: Beta Build

A full-stack developer will be hired to:

* Determine the needs of our code (e.g., required technologies)
* Build the front-end/HTML of the website. At this point, a prototype will exist for internal circulation
* Build back-end, JavaScript and any required database resources. The developer will create the functional code that drives the visualization

Upon completion of Phase 4, our team will have a prototype that can be used to further the development of the app’s design.

### Phase 5: Testing and Eliciting Feedback

After finding feasible ways to test the data, I intend to interface with my contacts at *ProPublica* to get feedback on the project. As some of their staff works with education stories, they will have proper insight as to how well the application is doing in its narrative element.

A usability test will also be conducted. Participants will be recruited and compensated. Our usability test will focus on evaluating the prototypical app for:

* Ease of usability
* Function of visual design – do the aesthetics serve a function in helping the user understand data?
* Effectiveness of visualization – Are the data points understood by the user?

### Phase 6: Release Build

This phase will consist of debugging, enhancing and finalizing aesthetic elements, and fine-tuning nuances of the visualization. Using feedback from users and readers, any ambiguous facets of the visualization will be smoothed over to better accommodate the average reader. Any additional features that could benefit the visualization will be added at the end.

Our full-stack developer will put final changes into place and ensure that the app is ready for cross-platform distribution. The developer will also fix any existing bugs and refactor/clean code for public release to GitHub.

## Payment Scheduling

This project is estimated to cost a total of **$12,160.00 USD.** This sum will be paid in two increments:

1/25/16 – $3,040.00 at sign-off

3/27/16 – $3,040.00 upon completion of beta build

4/27/16 – $6,080.00 upon completion of project

## Appendix

Please see attached documents for the following:

### WBS

### Gantt Chart

### Budget (Project Breakdown)