

Design Proposal

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Project Description

We have chosen to work on the Web Accessibility project, in which we create an online tool for Bruce Howell, our community partner, that does basic site accessibility checking and presents the results in a format accessible to Bruce -- as a user who is both blind and not a web developer. This will allow Bruce to approach more companies for his business through quick audits of more websites, and perhaps as a marketing tool on the Carroll Center website.

Community Partner

Bruce Howell is the Accessibility Services Manager¹ for the Carroll Center for the Blind's Web Accessibility business, which provides evaluations based on a website's accessibility to people with vision loss. The Carroll Center is passionate about providing computer training for all levels, whether it be basic, intensive, for a job or for college, as well as helping companies with websites make their space more accessible.

Design Space Review

There are several web accessibility checkers and several compilations of web accessibility checkers. As far as we can tell, many of these are inaccessible, only available by

¹ <https://carroll.org/accessibility-services/contact-our-team/>

subscription, or difficult to use, and most of them are aimed at web developers. More people should be able to audit their websites or others to catalyze change so the Internet becomes a more accessible place for all. We hope our tool is accessible, intuitive, and general but specific enough to provide this service.

Examples of website evaluations include:

- [Evaluera \(link\)](#)
 - Seemingly most accessible
- [Alix, a Chrome and Firefox Extension](#)
 - Highlights over CSS, so likely not audio described by a screen reader
- [508 checker](#)
 - Will email results, so it requires personal information
 - Doesn't give timely results

Design Process Outline

Our aim is to create our Website Accessibility tool with Universal Design concepts while having a result that strictly adheres to them as well. We'll largely follow the class's timeline, and prepare to show our technical progress along with our design progress for Design Reviews.

Organizational strategies

Largely, we will be using pair programming, version control and Github-integrated trello methods to create a workflow. Generally, since we are all equally inexperienced around our technological issues, we expect to split work quite equally. We will know more of our organizational strategies as we decide more about our future tools.

Timeline:

03/05 M: Project assignment

- Establish communication and teaming logistics

03/12 M: First visit at Carroll Center

- Establish community partner ↔ Olin students communication expectations
- Choose project type

03/15 R: Design proposal due

- We know the implications of our project with respect to both
 - Design and people communication pretty clearly
 - Software and/if electrical/hardware requirements in general

04/02 M: Design brief

- By now, we have software and/if electrical/hardware requirements more specifically

04/05 R: Design review

- Iterate based on class feedback and Bruce's feedback

04/23 M: Design review

- Iterate based on class feedback and Bruce's feedback
- Create final version of design
- Work on website/report, poster

05/09 W: Public facing documentation, poster/final presentation

05/10 R: Final team project reflection

Risks and Strategies Identification

Potential roadblocks:

- Community partner: One potential mode of failure is to not communicate enough with our community partner. We will want lots of feedback from Bruce during this project, so we should scaffold a method of open communication for frequent feedback.
- Teaming: In any group project, there is always the potential for teaming to go wrong. To prevent this, we will communicate early and often, giving constructive feedback in the moment when it is appropriate. We will also make sure to enjoy each others' company in contexts other than just this project: asking about each others' lives outside of school work and potentially doing team bonding!
- Productivity / Velocity: Throughout our project we want to ensure that we keep making consistent progress. To do this, we have set up weekly recurring meetings and will create a ZenHub board to assign work and set deadlines.
- Scoping: We haven't done a lot of work in the web development space but it seems like a reasonably simple process - there are a lot of questions. We will try to figure out what libraries and platforms we're using early on so we can gauge feasibility well.

Relationship Expectations/Resource Identification

Community Partner

What we expect from Bruce:

- Consistent feedback to our work

- Responses with 3-4 days, but not within business day times
- Ability to meet when relevant and scheduled
 - Again, not within business hours
- Language checks on our documents (thanks for offering, Bruce!)
- User testing of the final product

What Bruce can expect from us:

- A Microsoft Word or PowerPoint file of the relevant document every time we submit an assignment or present a design review
- Openness to feedback
- Clarity and honesty about our progress and intentions
- Updates about and access to our documentation and product throughout the semester
- Passion in our work

Teaching Team

What we expect from the teaching team:

- Financial reimbursement:
 - For transportation to user visits, mostly to the Carroll Center or Bruce's home
 - Possibly a JAWS license
 - If necessary, for software or web hosting
- Technical Guidance:
 - None of us have a lot of experience in web-based development and might need help with scoping the project
- Also help with other questions, because y'all are valuable resources

What the teaching team can expect from us:

- Open communication: We will make sure that the teaching team is always able to keep up with the state of our project. When we are unsure or stuck on something, we will be open about that with the teaching team.
- Good effort: We will put in the expected amount of work and aim to have a successful project.
- Professional interactions with our community partner: We will recognize the value of our relationship with our community partner as well as the teaching team's relationship with our community partner and how those relationships might affect one another.