# Foundry10 Final Report

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# Summary of Findings

As we started off this project, we all did an initial website immersion of [www.foundry10.org](www.foundry10.org). We wanted to get a chance to explore the website and interact with it as much as we could in order to get a feel of the project we were going to conduct. We wanted to get a good look of what was contained on the website, what exactly this organization was, and if the website was accessible for general users to use with ease. We all looked at different parts of the website and took a few days just exploring the different pages and information that was displayed on every part of the website. As we continued to explore the website for a few days, all of us had pretty much seen all the different pages that were on it as well as identified things we liked or disliked about the website.

Coming together after our initial immersions, we all pretty much had a similar experience with the website and had a question looming over us; what is the purpose of this foundation? What do they do? What do they want their visitors to see? These were big questions to us as none of us were really sure what the organization did after visiting their site. We knew that they tried to portray their mission and who they are, but recognized that this information was displayed poorly. We all had an idea of what they did in some way, however there was so much information just displayed everywhere, it was hard to come up with a firm belief of what this organization was all about.

We decided to put things together on our own at this point and started to think about the different users who would visit this site and what the audience would be. We came up with a couple of  different audiences such as educators who were interested in research done by the organization or looking for cool programs to conduct in classes and college students looking to intern and conduct research under the organization. We also prioritized the greatest strengths of the site which happened to be their showcase of student work and research as well as the color palette and visual appeal of the website. In turn, we also prioritized the biggest potential problems we found, and as mentioned above briefly, we found that the mission and objectives of the organization were unclear, information architecture needed structuring, student work only displayed artwork, and a couple of buttons on the website that had bugs. Right off the bat, we were already thinking of ideas we had to make the site more user friendly and accessible for anyone who would visit. Quite a few changes needed to be made!

# Hunt/Vision Statement

We are going to research the interaction between academic users and Foundry10's website in order to create a new optimized iteration of the website

# Stakeholder Interviews

## First Stakeholder Interview

We were fortunate enough to have stakeholders (Tom and Ray) who were very interested in our project. They were easy to keep in contact with and therefore we scheduled an interview relatively early. This interview was for us to get the major questions and confusions out of the way which arose during our initial immersion of Foundry10's website. As mentioned above, we were all pretty confused about what exactly they do and what their mission was, and we felt like talking to them right away would make things easier for us down the road in understanding who they were and therefore, giving us a better understanding of how to approach their website.

In order to conduct this interview, we came up with a plan and structure of how we wanted this interview to be done. Since this was a remote interview over Skype, we knew that we would have to organize our questions in order of priority (highest priority to lowest), due to the restriction of time. We also wanted  to get the most information out of each question as well as the stakeholders opinions and goals of the company, which is why we focused on asking open-ended questions. To execute this successfully, one member of our group will be the main interviewer while the rest of our group must use active and effective listening, which provides quality live generated questions and notes.

The structure of the interview will be semi-structured with a focus on generative research. A semi-structured approach is used so that a script can be used to guide the direction of the interview. Without a script, this may be difficult as there are a variety of ideas that are being questioned. Generative research approach is used so that the interview is focused on exploring ideas, which in return should generate requirements and opportunities.

Below are the main questions we asked during the interview:

1. What is the mission of Foundry10?
2. What do you want viewers who visit the website to know right away?

3. What pages do you want users to definitely see when visiting your website? Why?
4. Is there any project/ area of projects that you want to bring additional focus on the website over others?
5. What aspects of your company/research are you most proud of and want to relay to the general public?
6. Tell me about the difficulties managing a wide spectrum of projects?
7. Do you think the website current color palette reflects your organization well?
8. What prime function should the website perform for your organization?
9. Besides gaining potential applicants, what benefits are you seeking by reaching out to others within the community?
10. How do your student's work impact the research that you conduct?
11. What relationship do your research and programs have?
12. How often do users utilize your contact us page? How often is that feedback integrated?
13. Who do you envision someone using your website? How do you think they use it?
14. Who are your competitors?

From this interview, we were able to have the majority of these questions answered and felt like we came out with a better understanding of the company and who they were. We were able to get very clear information on what they wanted on their website, and why the website was set up currently the way it is. Some of the main important points we took away from this interview were that they were a philanthropic organization and focused on education and research for educators around the world. They also wanted to create value for kids through programs that they set up.

Both Tom and Ray acknowledge the confusion around their brand/organization. They wanted visitors of their website to be able to clearly understand what they did, their mission, and to have easy access to their research and program showcases. The main points of interest from that interview were as follows:

Foundry 10 is non-profit philanthropic research organization whose primary interest is researching traditional and non-traditional approaches to education. Outside of research they use their platform to help facilitate school programs.

They consider their audience to be primarily students and teacher with occasional collaborating with other research groups.

The content that they produce is primarily sourced from students participating within their programs. They indicated that there is no guarantee that any one project will

produce content that can be used for the site. This is why the student work section is primarily composed of student artwork as that is easy to showcase and is a product that is developed naturally.

Student work is considered to be the main research for a majority of their project, and given Foundry10's  preference to act as an incubator. This gives autonomy for their programs, and as such might not produce an easily displayable product at the programs conclusion.

While they are focused upon education research, it is by no means a requirement that any program need attached research to it. This being such research is not a product that they are concerned with producing

After the interview, we had other questions come up which were mainly follow up questions that we had during the interview. However, all the questions we had planned and these follow up questions were not asked during the interview due to time constraints. We also came up with more questions after carefully looking over the notes of the interview and continuing research of the organization and their website. A lot of the questions we asked were in order for ourselves to envision the same things as the organization and therefore see what improvements could be made to the site based on it. Some of the questions we had afterwards are listed below:

1. What education level are your student users?
2. If so, how would you envision them interacting with your website?
3. What grade levels do you envision your teachers to be teaching at?
4. How much experience do you expect your teacher users to have with research companies like Foundry10?

## Second Stakeholder Interview

For our second interview we were able to meet our stakeholders in person at their offices in Seattle. They are located surprisingly near manufacturing and docks around Lake Union. Upon arrival we were directed to a conference room to begin. The main activity and task of the meeting was using a card sorting exercise. In this exercise we handed out a set of index cards to  everyone in our group as well as the stakeholders. On these index cards, we wrote keywords that we felt represented the company that either were/were not currently included within their website design. Once this was done, we would sort similar cards together and discuss/ define that keyword and how it

currently resides within their website. Sadly due to time limitations on Tom and Ray's part we weren't able to comprehensively include all that we have learned.

When we were told about the organization we were surprised that there was so little mention of their philanthropic endeavors besides a quick excerpt on their home page. When discussing this with our stakeholders we found out that this was intentional given their unique status that separates them from other non-profits. In short they had a lack of emphasis in order to reduce contact with people that just wanted funding from them. Foundry10's projects are all about working with people in the company and helping to design solutions/plans alongside. We suggested that this can be their own separate section/tab within the website, and that could help illustrate the work that they do while hopefully dissuading people from contacting foundry10 simply asking for funding.

During our discourse we discussed potential structural changes that would bring the research and other deliverables to the forefront for their extremely varies programs. They didn't quite take to the idea because that structure in their eyes would highlight how little content some of their projects have produced in terms of others. Their audio design and education VR had a healthy amount of content while their more STEM focused and performing arts programs had little in comparison.

We determined through the card sorting that combining several currently separate elements from the website would streamline access. Since Programs was already a broad sounding name we brought about the idea that we could add Team and Teacher Resources under this tab. This is so that one of their primary personas Teacher could see what foundry10 does, the people behind it, and if they are interested in conducting some of these programs themselves that have what they need right there.

# Investigation of Competitors

The competitor that was looked at first was the Bill and Melinda Gates Foundation (https://www.gatesfoundation.org). We started here because Foundry10 believed they do similar work to them. The Gates Foundation website is simple to navigate as there are sections that divide up who they are, what they do, and where they operate. There is also access to their published research, made easy to find with a search option. The website clearly shows someone new to the organization what to expect from the Gates Foundation.

A competitor that we found was the Association for Experiential Education (AEE) (https://www.aee.org). We believe that the work done here is closer to the goals and mission of Foundry10 because the focus is on the betterment of education techniques.

The website is clear to the user, with a navigation bar at the top, and not hidden like the Gates Foundation. They have access to all of their research, which, while limited, is in one centralized location. Another plus point to the layout of this website is the fact that the home page shows the upcoming events that will be taking place by the AEE.

When compared to Foundry10's website, there are some improvements that can be made all around. An important element for websites with research papers is being able to find them efficiently. The user should not have to keep clicking from page to page to find what they are looking for. The Gates Foundation and AEE eliminate this hassle by adding in a search bar to their page. A commonality that we noticed on the AEE and Foundry10 website was the navigation bar was spread horizontally across the top of the page, while the Gates Foundation had theirs vertically hidden to the side of the page. We determined that it was best to have the navigation bar laid out towards the top of every page for easy navigability to each of the sections. A third aspect that was having an overview of the research that was done or current projects on the home page. The Gates Foundation and Foundry10 does this, which is helpful for the user as it is more interactive than paragraphs and text showcasing the work.

# Original Personas

Below are all the personas we came up with based on who we thought the audience would be.
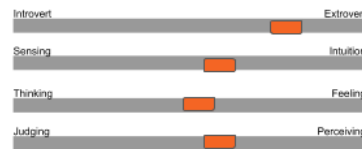
## Mrs. Jessica Smith



Make schools great again!

| AGE | 45 |
| --- | --- |
| OCCUPATION | Teacher |
| STATUS | Married |
| LOCATION | WA |
| TIER | 1 |
| ARCHETYPE | Social Justice |

| Motivated | Dedicated |
| --- | --- |
| Creative | Innovative |

### Bio

I have 15+ years of teaching experience and have worked throughout middle and high schools. I am also on the Washington state education association board and help develop curriculums for different school districts. Working to make school boards more diverse and schools open to children of color.

### Personality

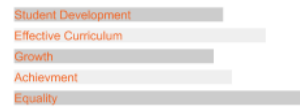| Introvert | | Extrovert |
| --- | --- | --- |
| Sensing | | Intuition |
| Thinking | | Feeling |
| Judging | | Perceiving |

### Brands



### Goals

- Find creative and entertaining curriculums to interest students
- Become National Teacher of the Year
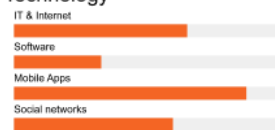- Help students find their comfort zones in school and not be insecure.

### Frustrations

- Curriculums that dont cater to the needs of different students properly
- The amount of colored educators are minimal

### Motivations

- Student Development
- Effective Curriculum
- Growth
- Achievment
- Equality

### Technology

- IT & Internet
- Software
- Mobile Apps
- Social networks

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## Ms. Michelle Robinson



"I need new ideas to help children of all backgrounds learn and think big."

| AGE | 28 |
| --- | --- |
| OCCUPATION | 4th Grade Teacher |
| STATUS | Single |
| LOCATION | Washington |
| ARCHETYPE | Passionate Teacher |

| Dedicated | Hard-working |
| --- | --- |
| Trend setter | Caring |

### Bio

Michelle is a fourth grade teacher at a Bellevue elementary school. She loves her job, but has been finding it difficult to keep a larger class size engaged throughout the day. She would like to find alternative ways of teaching a class that involves less overhead from her.

### Personality

| Introvert | | Extrovert |
| --- | --- | --- |
| Sensing | | Intuition |
| Thinking | | Feeling |
| Judging | | Perceiving |
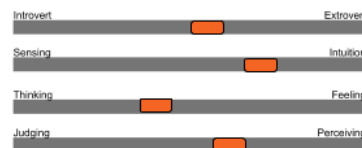
### Brands



### Goals

- Learn of different approaches to teaching
- Meet other school teachers in a similar situation
- Get tips on doing more with less

### Frustrations

- Feels school district is not listening to teachers' feedback
- Worried about how a lack of individual time with students impacts addressing their needs

### Motivations

- Achievement
- Power
- Growth
- Incentive
- Social
- Fear

### Technology

- IT & Internet
- Software
- Mobile Apps
- Social networks

## Connie Artsy

"I want to find somewhere to help me get better at multimedia art this Summer"

| | |
|---|---|
| AGE | 17 |
| OCCUPATION | Student |
| STATUS | Single |
| LOCATION | Bellevue, WA |
| TIER | 3 |
| ARCHETYPE | Passionate Art Student |

Artsy | Passionate
Busy | Studious

### Bio

Connie is a High School senior and has really enjoyed her school's art classes. However, her school doesn't have any good programs for the specific kind of art she wants to focus on. She wants to get better at her medium, but there's no one to help her.

### Personality

Introvert — Extrovert
Sensing — Intuition
Thinking — Feeling
Judging — Perceiving

### Brands

### Goals

- Get better at multimedia are
- Find other students her age that also are into MM art
- Have a product to show off to college admissions

### Frustrations

- Feels alone in her passion at school
- Classes at her school don't help her get better at what she likes

### Motivations

Achievement
Incentive
Growth
Power
Social
Fear

### Technology

IT & Internet
Software
Mobile Apps
Social networks

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## Umair Jones

"I want to learn how to develop for VR"

| | |
|---|---|
| AGE | 17 |
| OCCUPATION | HS Student |
| STATUS | Single |
| LOCATION | Kenmore WA |
| TIER | 2 |
| ARCHETYPE | STEM Student |

Studious | Curious
Driven | Calm

### Bio

Engineer centered student. Interests are more technical in comparison to others. Participates in the robotics club as well as improv. Interested in emerging technology such as Virtual Reality. Plays video game in spare time.

### Personality

Introvert — Extrovert
Sensing — Intuition
Thinking — Feeling
Judging — Perceiving
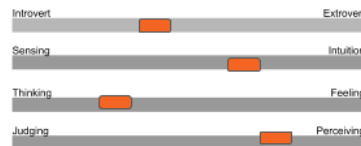
### Brands

### Goals

- Work in the Tech industry
- Be accepted into University of Washington
- Establish relationships

### Frustrations
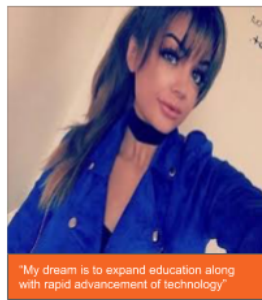
- High School Life
- Strict home environment
- Lack of advanced opportunities

### Motivations

SKill development
Social motivation
Building relationships

Motive

### Technology

IT & Internet
Software
Mobile Apps
Social networks

**Karen Williams**

**Bio**

Karen is a graduate student studying software engineering with a focus on the effects of virtual reality on education. Lacking equipment and support from her university, she seeks organizations or communities who would support her passion for research.
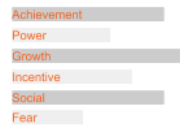
*"My dream is to expand education along with rapid advancement of technology"*

| | |
|---|---|
| AGE | 26 |
| OCCUPATION | Grad Student |
| STATUS | Single |
| LOCATION | Seattle, WA |
| TIER | 3 |
| ARCHETYPE | STEM Student |

Committed   Passionate
Open-Minded   Principled

**Personality**

Introvert — Extrovert
Sensing — Intuition
Thinking — Feeling
Judging — Perceiving
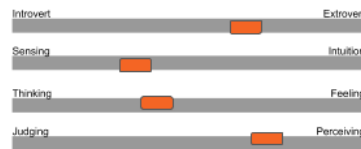
**Brands**

**Goals**
- Obtain sustainable access to VR technology
- Find a mentor that can provide some guidance
- Gain social network within the community of education.

**Frustrations**
- Lack of equipment to master the technology
- No pathways or guidance available

**Motivations**
Achievement
Power
Growth
Incentive
Social
Fear

**Technology**
IT & Internet
Software
Mobile Apps
Social networks

## Primary Personas

We eventually narrowed down these personas into two main personas that we decided would make the most sense based on our initial research and thoughts, as well as the first interview with our stakeholders. The two primary personas that we decided would be the best fit and continued to do our project based were Ms. Michelle Robinson (4th grade teacher) and Connie Artsy (high school senior).

# Usability Test

Based on the personas that we narrowed down to, we conducted usability tests with people who would fit that persona. The test that we went over with both personas were the same, even though both personas will most likely be searching for different types of information. The reason we did this is for the sake of continuity. We thought that if both groups had the same tasks to do, there is nothing that can be differentiated besides the way that they think, which is what we wanted to learn more about.

The usability test uses the current desktop iteration of the website to explore 9 scenarios. These scenarios are used as a metric on how optimized the current design is in terms of information hierarchy:

1) Find out what Foundry 10 does. (break into smaller tasks)
   a) What is Foundry10's mission? Can you explain it?
2) Who is this site for?

3) What is its function?
   a) What actions can you take with the presented information?
4) Visit all tabs in the navigation bar.
5) Find research on helping elementary kids with math.
6) Find the research team responsible for Shoreline Kindergarten Readiness.
7) Find programs and projects based on STEM.
8) What are Foundry10's main programs?
   a) Is there one that has more emphasis than others
9) Try to find relevant documents for VR centered programs.

In terms of a metric of how efficient the design is, open ended questions are used to obtain any comments regarding the website:
1) What does the color pallete convey?
2) Which is the worst section of the website?
   a) What could be improved?
3) Which is the best section of the website? Why is that so?

To obtain valuable comments regarding the comments, they are asked after the scenarios are explored. This structure is followed since the user would have more experience with the website the longer they are exposed to it.

## Teacher Usability Test

Based on the elementary school teacher persona (Ms. Michelle Robinson), we conducted a usability test with Beverly, who is a special needs teacher with International Baccalaureate (IB) experience.

In terms of the site's effectiveness in conveying their brand and value, the same question is still being asked, which is who is Foundry10 targeting, and Foundry10's identity in the existing industry of educational services. Beverly's perception is obtained due to the lack of transparency of past partners and purpose, purpose of programs. In addition, since the published research papers use the formatting of white pages, this reduces the credibility of Foundry10's research. She also noted that the lack of emphasis on the logo as it is perceived to be small and disconnected from the rest of the website's design.

In terms of the user engagement with the website, Beverly managed to accomplish all scenarios listed with minor issues. The issues occur when navigating the research webpage as there is a lack of structure and headers compared to the program research page. Since there is a lack of issues in navigation, it can be perceived that the information hierarchy is optimized for web pages excluding the program webpage.

The main summary of positive aspects of the website is that they convey engagement with communities and kids, professionalism with color palette, and an engaging root principle on their approach for research. The main summary of pain points of the website include the use of white papers formatting in their published research, lack of transparency of stakeholders and purpose of programs in communities, and the entire program webpage. Compared to the research webpage, the program webpage lacks the structure that the rest of the website acquire. Thus, it does not appear to have an optimized information hierarchy.

## Student Usability Test

Based on a highschool senior (Connie Artsy), we conducted a usability test with Karina, who is a student at UW Bothell.

When asked about the home page, Karina noticed there were a lot of "buzz words," such as philanthropy and virtual reality. She inferred this meant the company does something with helping people through VR. After she was asked what Foundry10 does, she wasn't quite sure if they were a corporation or a non-profit organization. She also could not really explain what Foundry10 besides they try to solve problems with a "diverse set of people," as she mentioned there was a lot of diversity in the people that were on the website. When she was asked who would probably use this website, she answered by saying, "people who want to work with Foundry or help fund it." She also noted that since there was no clear indication of a social media page, this would be a very formal and professional company.

After this, we asked Karina to find some specific content on the website. We started by having her look for a math research paper aimed for elementary school children. She had a hard time finding it under the research tab because of how long the page was and how "the categories do not match" the research paper. Ultimately, she used the browser's search feature to locate the exact research article, but did not like that she had to click on it once to go to its page and then click again to read the actual document.

When prompted to look for STEM programs, she was surprised to find things that Foundry10 does with STEM. She said that the home page gave a sense of more art focused programs, a theory further pushed by the Student Works page only having artwork. Here, she found there to be too many words crammed into a small area, which she initially skimmed over, but as the interview progressed, she "got bored of reading so much."

Also, on the Programs tab, Karina felt that all of the sections there were shown as though they are equal to each other, but elsewhere on the site, they are not shown as such. She mentioned that the Student Works tab has more to do with artwork, but "where was the focus on VR?" She thought it was unfair to show the research as equal to other types of research but not have that be the case for the work that students do.

On a final note, Karina was asked about the overall look and feel of the website. She prefaced this as her own personal taste, but she did not like the color scheme of orange/black/white as it gave off a "halloween vibe." She also was not a particular fan of the logo, which she thought was just text at first.

# Final Suggestions

After interviews and usability tests, we have identified several suggestions that would improve the organization, usability, and purpose of the Foundry10 website.

1. Promote Foundry10's mission as Research first.
    a. While Foundry10 operations include research, programs, events, and philanthropy, research is at its core.
    b. Allow visitors of the website to understand the research mission while recognizing all of the different work they also do.
    c. Clear and concise messaging of Foundry10's mission will foster greater respect and use of the organization.
2. Allow direct searching for research documents.
    a. Adding a search bar for finding research documents will allow visitors to get to what they are looking for easier and more quickly.
    b. Querying through a search bar matches the mental models of visitors who use search engines to gather information.
    c. Organize research by themes for increased ease in finding the right material.
3. Use consistent design and organization throughout the website.
    a. The "Programs" section of the current website was regarded as the most well designed page.
    b. Since all research, programs, and events fall under themes/teams, organize these areas under themes/teams similar to what is found on the "Programs" page.
    c. Cohesive and consistent design makes visitors more comfortable using the website due to the decreased need to learn where and how things will be found from page to page.
4. Create a "News & Events" page.

       a. To highlight the past, current, and future work of Foundry10, including the organizations news and events in an easy-to-find location improves the optics for Foundry10.

       b. Connect this page with social media accounts that link to and from the Foundry10 website.

       c. Allow visitors to become more involved and interested in the work Foundry10 does.

5. Reorganize "Student Work" page.

       a. Instead of a page filled with artwork, organize student work into themes similar to the "Programs" page.

       b. Promote ALL student work.

       c. Include a small showcase of timely student work.

# Mockup

The image below presents a mockup of all recommendations implemented for the research, student artwork, and a new events web page. We thought these new implementations would make the site more accessible to all users as well as organize the structural elements of the site better. We made sure to take into consideration the needs and wants of the stakeholders as well.

**Research Page**
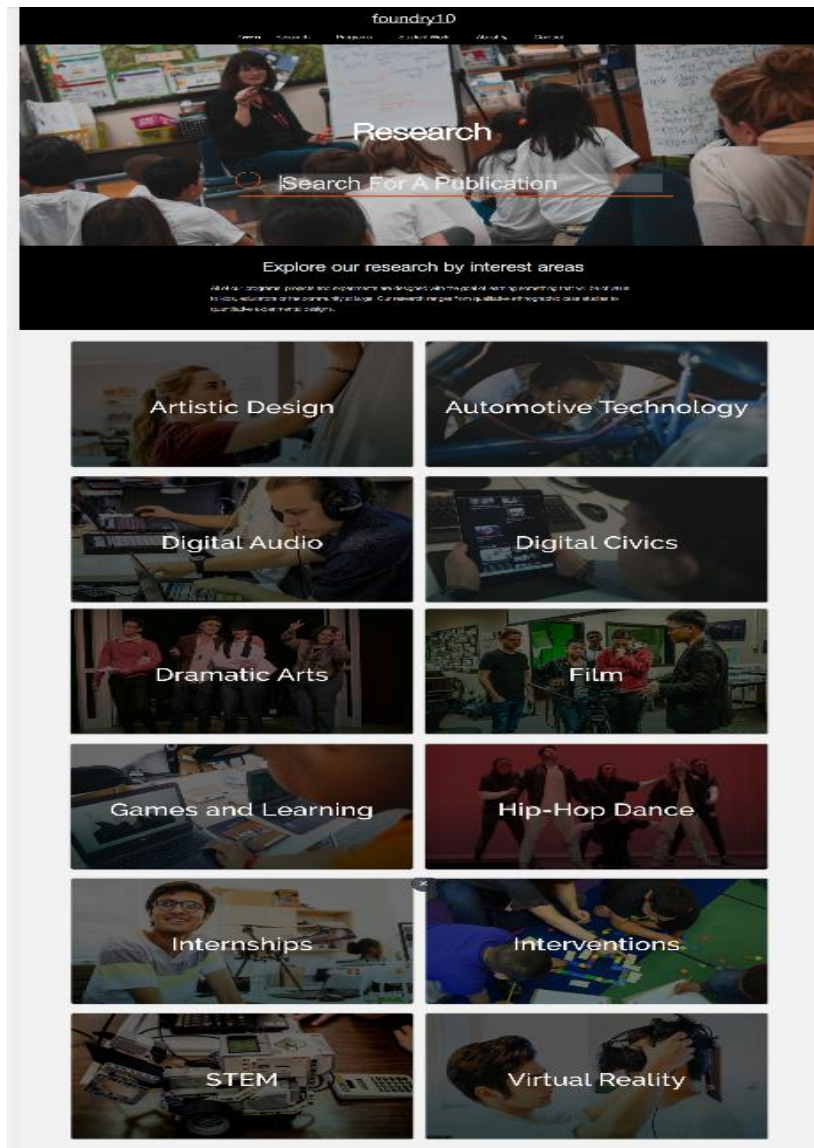
The recommendations that are implemented in the research page includes the search function and the adoption of theme based structure. The search function allows users of the website to search for any research paper published by Foundry10. With this functionally, the user's activity flow should be much quicker than it was originally. The adoption of theme based structure is a recommendation, which allows researchers to be grouped along with their respective educational themes. Originally implemented in the program webpage, the research webpage borrows this structure so that the user can better understand the overview of all areas researches Foundry10 has covered.

**Student Work**
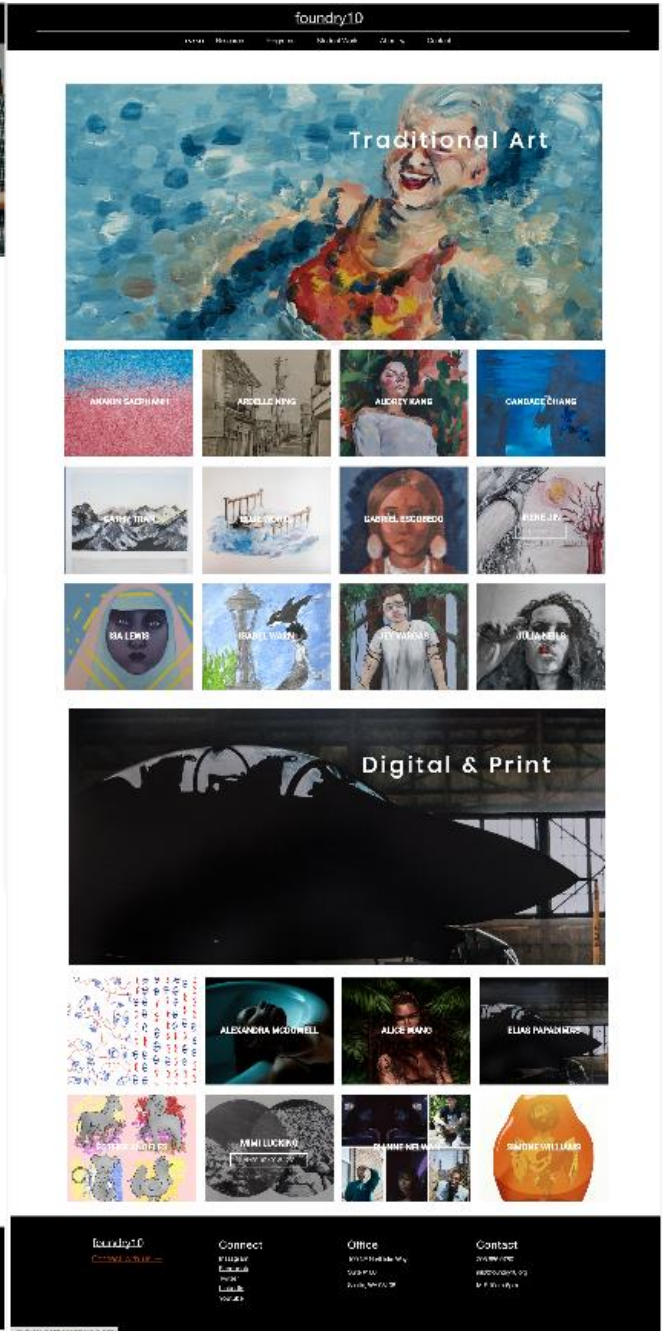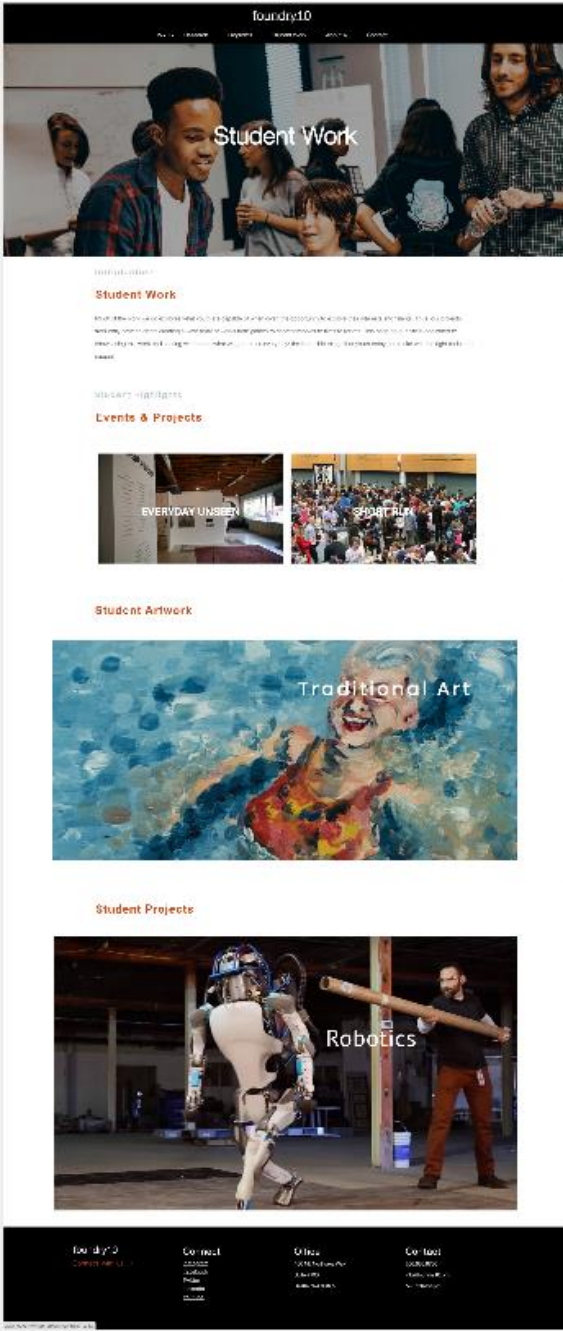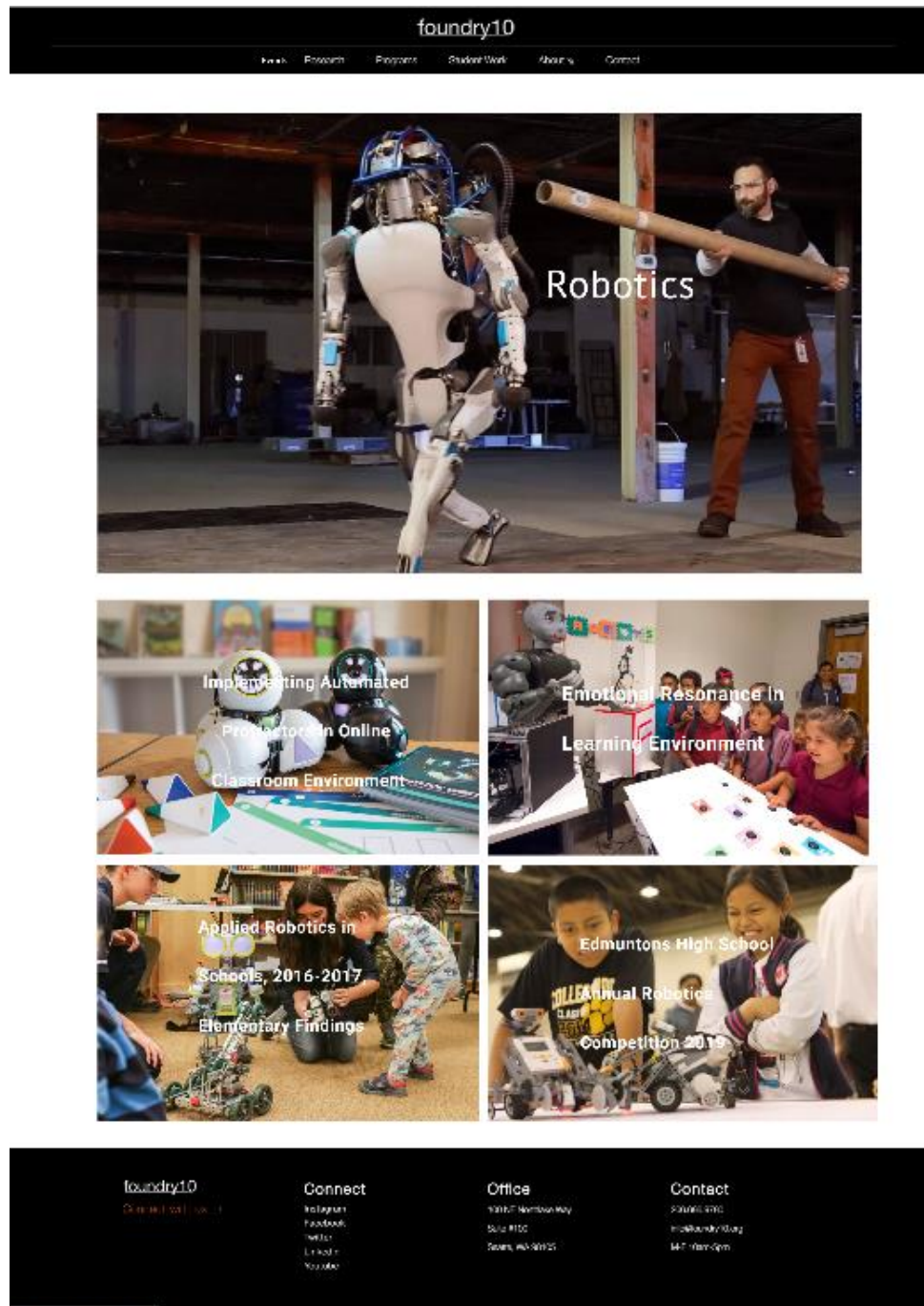
The recommendations that are implemented in the student work section includes separating student artwork and student projects. This is done so that projects that are art and technology based are living in their own webpage. The goal of such separation is to portray a balance between student artwork and student projects in foundry10.
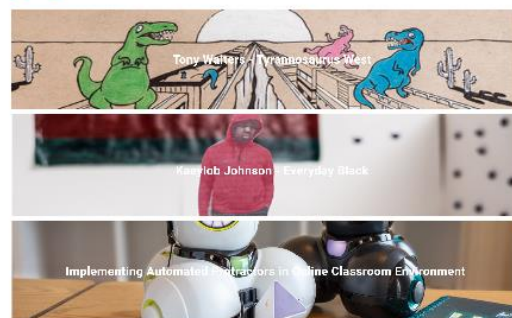
**Events Page**

**Social Media Feed**
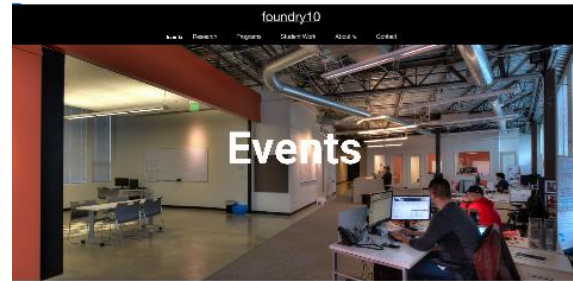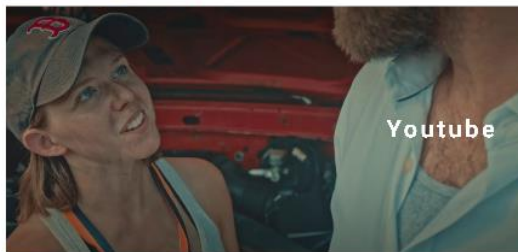
The recommendations that are implemented in the events webpage is the entire web page itself. The goal of implementing this recommendation is to provide users a sense present. This allows Foundry10 to be perceived as an active organization. In addition to creating a sense of time, the webpage also creates a sense of community. This is supported by displaying highlights of the month, recent Foundry10 news, and highlights of their social media activities. Thus, this webpage can be perceived as the heart of the website, as it is promoting their activities to show that they are an active organization.

# Conclusion

Overall it was a great challenge to go through the whole process of researching and interviewing individuals to find the best usability practices in order for our team to successfully complete a redesign of the Foundry10 website. We learned a lot through the process, from our stakeholders and our usability testers which led us to the ideas and modifications we came up with in our mockups. We believe with the additions to the website that have been suggested, the website would become more accessible and easier to use. We also believe that more people will be inclined to explore the website now due to the simplicity of organization and information and elements. We were able to maintain the desired requests of the stakeholders by keeping the most important and relevant information around, but also making it more clear what the organization actually does, which was probably the biggest obstacle.

Further research can be done on this website as well, such as exploring the effect of these suggested modifications. We also suggest to conduct usability tests of the website with current employees and interns to find out what the most important items are on the website and what should be showcased. Sometimes having a cleaner and more accessible site for users is more appealing to go through than sites with tons of information.

It was a pleasure working with our stakeholders from Foundry10. We hope that our modifications and suggestions are implemented, and we hope to connect in the future!