

UWB Sustainability Website

Stakeholder

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About

Community Partner



Alexa Russo, Sustainability Coordinator at the University of Washington Bothell

The Sustainability Website

The sustainability website is a centralized resource to share different aspects and resources of sustainability on and off the UWB campus. “The Sustainability Office at UW Bothell serves to advance the campus sustainability vision by promoting sustainability on campus and throughout the community. We are focused on connecting students, staff, faculty, and other stakeholders to the resources needed to implement sustainability solutions, while engaging students and the campus community in sustainability activities taking place on campus and in our surrounding community.” (Mission, Vision, & Commitment)

The Team

Team Name: Good Hyuck

Members: Chance, Yuyu, Hannah, Garrett, David



Executive Summary

Our goal is to improve the sustainability website by increasing its usability and the ease with which users can find information. One of our early steps we took was to figure out what the word 'usability' was going to mean for this project.

Originally we had two goals:

Making the site's information easier to find while navigating it and getting more traffic to the site by increasing awareness of the sustainability office. Later on in the research process this changed. It became clear through our consultation with Alexa that improving the web content itself was of greater interest.

The findings that we applied to our ideation process were that not many people are aware of the UWB sustainability resources, some of the website information is out of date, some of the links are dead links, and some pages could use more info and/or imagery.

The two main target users we came up with are someone who is completely unaware of what sustainability is and the sustainability resources on campus, and someone who tries to live a sustainable life but hasn't connected with the resources on campus yet.

We settled on two practical design solutions. The first was creating a document that documented broken links, outdated information, and proposing small but powerful content changes page by page. Our second solution was to add informational 360 images of the sustainability landmarks on campus to key web pages, connecting web users with the locations in a new way

Research Methods

We gathered a wide range of qualitative data for this project, then used standard qualitative coding methods to categorize the data into overall themes. We used this data to inform our solutions.

Research Overview


The high-level research question we started with was: “What can web analytics, as well as the student and staff body tell us about what people know about UWB’s sustainability services: how people perceive them and how people engage with them”. We wanted to find this out because we felt that it would help us both with outreach for students who were unaware of the office and making the website better for students who had already gone to it for information.

We collaborated with each other in class and messaged each other through Discord and Slack. We used voice calls in Slack to communicate with each other in-depth, and met in the library when there was no class and we felt it was necessary to meet in-person. We also sent emails to our stakeholder approximately once a week to keep the lines of communication open. When we started out, we wanted to meet with our stakeholder weekly, but as the quarter went on we found that meeting every week would leave us with little to talk about at some meetings. We ended up meeting with our stakeholder around once every two weeks, as this ensured that we would have a lot to present to and discuss with our stakeholder every time we met with her.

Summary of Data

We collected four distinct types of data: interviews, website analytics, website walkthroughs, and surveys. Originally, we had only collected Google Analytics (shown below) and in person interviews. Our interviews were done in-person on the University of Washington Bothell campus, where we made a written record of the interviewees’ answers and body language while answering.

We had thought that this would be enough data to help inform our design solutions. Before we started to code this data we discussed the data we had so far with



Alexa and Mark. We then realized that more relevant information related to the accessibility of the website would be necessary as well as more feedback regarding outreach via an online survey.

We were able to collect 14 surveys by posting the survey on the Connect UWB Facebook page as well as having Alexa post the survey on the UWB Sustainability Facebook and Instagram page. We also were able to conduct the five website walkthroughs. After adding these two other forms of data we felt ready to code.

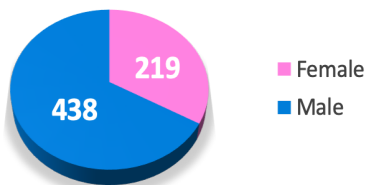
Top 10 Pages Visited

(From February 1st, 2018 to October 14th, 2019)
(www.uwb.edu/...)

1. sustainability
2. sustainability/programs-initiatives/campus-garden
3. sustainability/campus-operations/grounds
4. sustainability/about-us
5. sustainability/campus-operations/food
6. sustainability/academics/degrees
7. sustainability/mission-vision-commitment
8. sustainability/campus-operations
9. sustainability/programs-initiatives/earth-week
10. sustainability/sustainability-action-plan

Figure 1: Top Pages Visited

Pageviews by Gender



Pageviews by Age Group

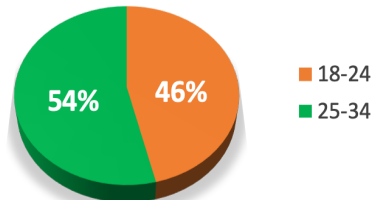


Figure 2: Pie Charts of Gender and Age

Page	Device Category	Unique Pageviews	Avg. Session Duration
/sustainability	desktop	918	325.27
/sustainability	mobile	146	655.67
/sustainability	tablet	10	1180.6

Page	Source / Medium	Sessions	Users
/sustainability	(direct) / (none)	52	146
/sustainability	bing / organic	0	21
/sustainability	facebook.com / referral	21	31
/sustainability	google / organic	480	542
/sustainability	green.uwb.edu / referral	10	10
/sustainability	m.facebook.com / referral	10	10
/sustainability	us.search.yahoo.com / referral	21	10
/sustainability	washington.edu / referral	31	42

Figure 3: More analytics data

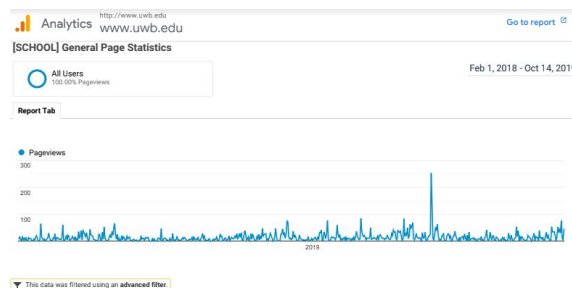


Figure 4: Line graph of analytics

Coding of Data

The three types of data we coded were observations of people navigating the website, answers to a survey given online, and answers and observations from interviews done in-person.

The observations from these types of data were so different that we thought it would be better to develop three distinct coding schemes at first. This would serve the strengths of each data type rather than trying to develop a single scheme that stretched itself out to accommodate all of them. In the end, we determined that the interviews and surveys provided data that was similar enough that we could merge their schemes.

Interviews

Two of our members coded the interview responses and body language notes. One coded the first iteration of interview questions and the other coded the second. They both commented on words or ideas that they found appeared frequently in their results. They then grouped the more common of these keywords into categories, which they color-coded on their tables. They came together when they were done and looked over each other's coding to determine which categories could be merged or removed.

Categories like the word "environment" came up rarely enough that they decided not to group them together.

The interview behavioral data showed a lot of looking around, fidgeting, and crossing of arms and legs; things that we as a group could have attributed to discomfort or nervousness. We categorized these behaviors as nervousness, but were clear with each other that this was not the only explanation for these behaviors.

We would later unify these codes with the survey question codes. The process is detailed later in this section.

Online Survey

We coded the written responses used in the Google Form online survey. Analyzing the different topic trends for each question, we tried to gauge the different identities that interacted with the survey. We were able to create coding schemes to separate responses for each question, as they hosted a diverse number of interests and ideas. As seen in other interviews, public knowledge of the trash bins is high, and people have varied interest in campus extracurriculars in general.

We would later unify these codes with the interview codes. The process is detailed later in this section.

Department/Major	What resources have you used on the UWB website?	What sustainable initiatives/practices are you aware of on campus?	Where did you learn about these initiatives/practices?	Do you follow any UW social media account? If so, which ones?
Biology				
Health studies / biology	Major and career advising mostly	Little steps, solar panels, living roof	Orientation	Yes, different student groups mostly
Global studies	I'm not sure what this question is asking	The organizational trash bins	Seeing them	Yes- a lot of campus event pages and campus bio and health pages
IMD (Interactive Media Design)	None	Only the recycling garbage/ food that's all over campus	More info about it in class	Instagram- LSU (latinx student union) and Uwb-ceb (campus and events board)
Computer Science	Almost all categories under "Current Student"	Composting	In my environment	Study Abroad
MAPS (Master of Arts in Policy Studies)	Degree outline, financial aid, professor profiles	None		None
Interactive Media Design	Practically all.	Not very man, outreach could be better.	Few flyers or stumbling upon events.	Connected UWB, ASUWB, UWB
Interactive Media Design	Counseling Center	Waste Management (recycle, landfill, compost), Drinking Foundations	Walking around campus	uwb clamor
IMD	None	Recycling, Trash, and Compost	Seeing them	all Husky Athletics and UW Husky Drumline
Global Studies	MyPlan and Canvas.	Wetland project	Word of mouth	Clamor
Student Learning	Nearly all in the current student tab	No garbage in the classrooms?	When I needed to throw something away	Yes, insta
CLA (Culture, Literature & the Arts)	none	farm. Food forest.		UWB sustainability, campus farm
CSSE (Computer Science & Software Engineering)	None?	Recycling and composting.	Noticed myself	ASUWB and Clamor
Applied Computing	Idk	Sustainable landscape design.	Toilet door	No
	Enrollment	Toilet self flush		No
		None		

Figure 5: Coded Surveys

Website Walkthrough

We coded the website walkthrough interview questions. We found six common codes throughout the questions. The codes found were: the correct/intended page, the wrong/unintended page, if the participant read something out loud, confusion, looking around the pages, and any other feedback mentioned. The questions were asked to tell how accessible the

information on the website is and after completing the website walkthroughs with five participants there are already clear suggestions that were brought to light.

- **Categories:**

- Went to correct page
- Read out loud
- Confused
- Went to wrong/unexpected page
- Looking around
- Other feedback
- Map/Image
- Earth Week
- Excited

Question 1: What is the mission for sustainability on campus?

Went to the mission, vision, and commitment page -> read the whole paragraph super fast to finish it -> do you want me to read the vision too?
Does to mission and vision -> for a mission statement (is a few to many lines)
Mission, vision and commitment
Went to the mission, vision, and commitment page -> read the mission statement
Went to the mission, vision, and commitment page -> read it and found it easy to read

Question 4: What are the different ways you can get involved with sustainability on campus?

Get engaged -> clubs, volunteering, and earth week -> why does the club page talk about the farm? -> volunteering is the wetlands -> earth week is just around the corner... in april? its november though? -> oh its earth week 2019
Get engaged -> EARTH WEEK
Programs and initiatives tab (to see what they offer) -> then go to the get engaged to see what they can do
Went to programs and initiatives -> EARTH WEEK
Went to get engaged -> clubs, volunteer and earth week

Question 5: What classes can you take related to sustainability? What are degrees you can get related to sustainability?

Academics -> courses -> read some of them (some of these are really good) -> are these up to date? -> degree page -> you can get a lot of them! -> didn't know you could minor in human rights
Academics -> scrolled to bottom and clicked on courses -> scrolled to bottom of that page -> went to degree tab and scrolled to bottom of that page
Went back to programs (for classes) -> went to next tab (emergency management partnership) -> then went to academics -> scrolled to bottom of page and found the courses and degree page links
Went to academics page -> scrolled to bottom and found the degree and courses hyperlinks
Went to programs and initiatives, looked confused and thought maybe go to the "Community Based Learning & Research Internships" page but then looked to the left again and saw academics (clicked on page) -> scrolled to the bottom of page and found the links to courses and degrees

Question 6: What are the different types of sustainability resources on campus?

Resources -> jobs, etc but don't seem related to on campus -> local sustainability organizations (keeps clicking on different links, why do some just go to an email?)
Resources tab -> 3 options
Went to campus operations -> then went to the sustainability action plan (sustainability and campus priorities)
Went to the resources tab and said "is that it?"
Clicked on the resources drop down -> clicked on "Local Sustainability Organizations" -> "oh i went to 21 acres for a class field trip!"

Question 2: Where is the sustainability office?

About us -> physical plant -> read the address
Campus operations (scrolled to the bottom) -> no idea -> then went to about us
Looked through whole tab list on left (was looking for map or directions tab) -> went to about us -> always wants to see a map
Clicked on the dropdown bar for campus operations (didn't see what they were looking for) -> then clicked on the dropdown bar for about us said "sustainability" and then decided to just click on about us in general and found the address -> said they didn't know where that was
Scrolled to the bottom of the page she was on -> went to the campus operations page -> said it was in the facilities service building but doesn't know where that is

Question 3: How would you contact someone in the sustainability office? And who is it?

Same page (about us) -> Alexa russo, the sustainability coordinator
About us -> Alexa
Same page (about us) -> alexa
About us page -> Alexa russo by email
Scrolled to bottom of current page she was on -> Went to get engaged tab and scrolled to bottom -> went to about us and saw you would contact Alexa by email

Question 7: What do you think campus operations is for?

Went to campus operations tab -> Managing the water, energy, and other campus sustainability resources
Went to campus operations tab -> is this the sustainability office -> oh its how the sustainability office operates on campus
Went to campus operations to read about it (their in charge of everything going on (water, energy, food, grounds, transportation, water, wetlands))
Went to campus operations page -> really liked the image -> cant tell if campus operations is an office or group or part of the school or just a phrase to describe water treatment
Campus operations page -> it stands for water, energy, food, grounds, transportation, waste, wetlands

Figure 6: Coded Website Walkthroughs

Unifying Codes (for Interview and Survey data)

- Waste Disposal
- Uncomfortability
- “Informal/Casual” Social Media
- Student Affairs
- Academics
- Library
- Disconnection

We met on Nov 15th and spent a few hours writing out the different codes and coding schemes used for both the interviews and surveys. After careful consideration, we excluded the website walkthrough data because it existed in a “sort of” vacuum. The info gathered on site functionality served a different purpose than the public perception gauged by other research gathering. “Student Affairs” is a container for responses that had to do with engaging student-oriented extracurriculars. Academics has to do with coursework and resources that students have to use to plan/continue throughout their college process. We combined the different social cues coded in the interviews into “Uncomfortability” because they all fit things that could be construed with the experience. “Disconnection” embodies any disinterest, and explicit “no’s found in responses about connections to sustainability. “Informal/Casual” Social Media pertains to responses that highlighted commonly used and accessible social media platforms (a la. Facebook, Instagram, Snapchat).

- **Key**
 - **Red** = Waste Disposal
 - **Orange** = Uncomfortability
 - **Yellow** = “Informal/Casual” Social Media
 - **Green** = Student Affairs
 - **Purple** = Academics
 - **Blue** = Library
 - **Dark Grey** = Disconnection

[illegible]

Figure 7: Coded Interviews

Findings



Figure 8: David on the sustainability website

Figure 9: Triple Bins

Figure 10: Sketch representation of the interviews

Analyzing our coded data, we were able to see some emerging patterns.

Through the interviews, a common element that came up was that students were unfamiliar with the sustainability office on campus. When asked about what sustainability was in general, we found that most students related it to environmentally specific topics, the most common of which was waste disposal and recycling.

In our analysis of the website itself, we found that some of the pages had similar information on them, creating an overlap and room for condensing. We also took note of smaller, easy-to-fix issues when we found them, such as broken links or outdated info.

Community sustainability organizations in the Puget Sound Region

We are lucky to live in a region that has many awesome organizations working to advance sustainability! Here is a sample of the amazing organizations working on making this area an ecologically healthy, socially equitable, and vibrant place to live and work:

- 21 Acres
- Friends of North Creek Forest
- Recology
- City of Bothell BeCool
- Puget Soundkeeper Alliance
- SAGE
- Sustainable Seattle
- The Mountaineers
- Full Circle
- Smith Brothers
- Mountains to Sound Greenway
- Farmer Frog

- Farmer Frog
- Songala Cohousing Community
- Sound Salmon Solutions
- Washington Toxics Coalition
- Mercer Slough Pacific Science Center
- UW Farm
- Washington Trails Association
- EarthCorps
- King County Metro
- Community Transit
- Brightwater Management
- Cedar Grove Composting
- Waste Management
- Total Reclaim
- Seattle Electric Bike
- Forterra
- Puget Sound Energy
- Molbaks Nursery

Figure 11: Broken Links

Programs & Initiatives

- CCUWBee Research Initiative
- Campus Farm
- CBLR Internships
- Chancellor's Advisory Committee on Environmental Sustainability

Emergency Management Partnership

Academics

Campus Operations

News

Resources

About Us



CCUWBee Research Initiative



Earth Week



Get Engaged

- Clubs
- Earth Week
- Volunteer

Figure 12: Duplicate Information

Disconnection:

33

Figure 13: Unclear of sustainability resources

Waste Disposal:

20

Figure 14: Relating sustainability to environmental sustainability topics

Personas and Scenarios

Potential Payton

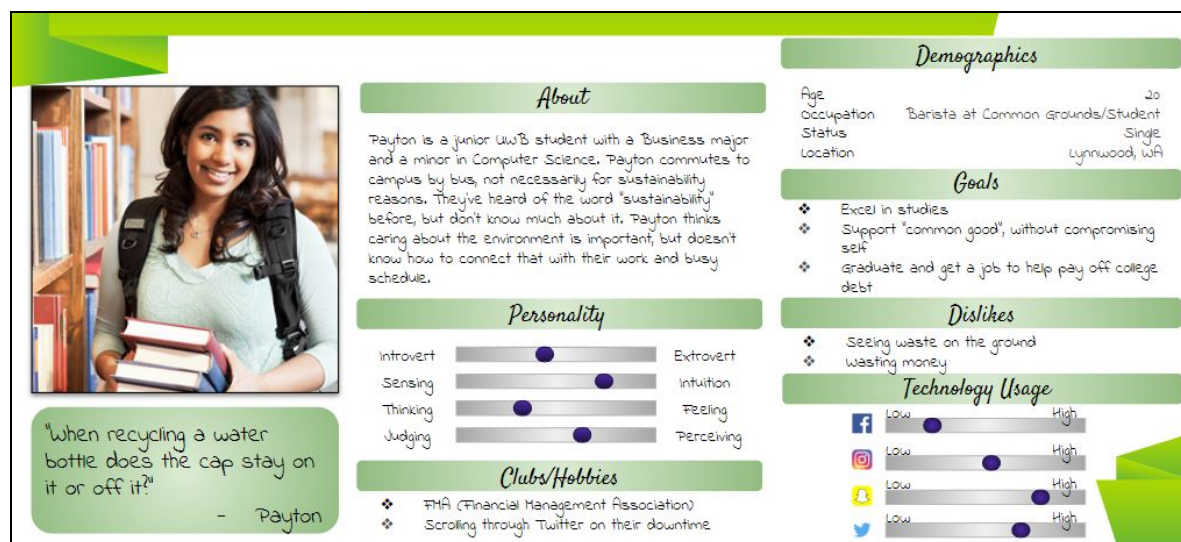


Figure 15: Potential Payton Persona

Our first persona is someone who has a lot of potential as a not-yet sustainable student. Payton is unaware of the sustainability resources on campus but believes in caring for the environment.

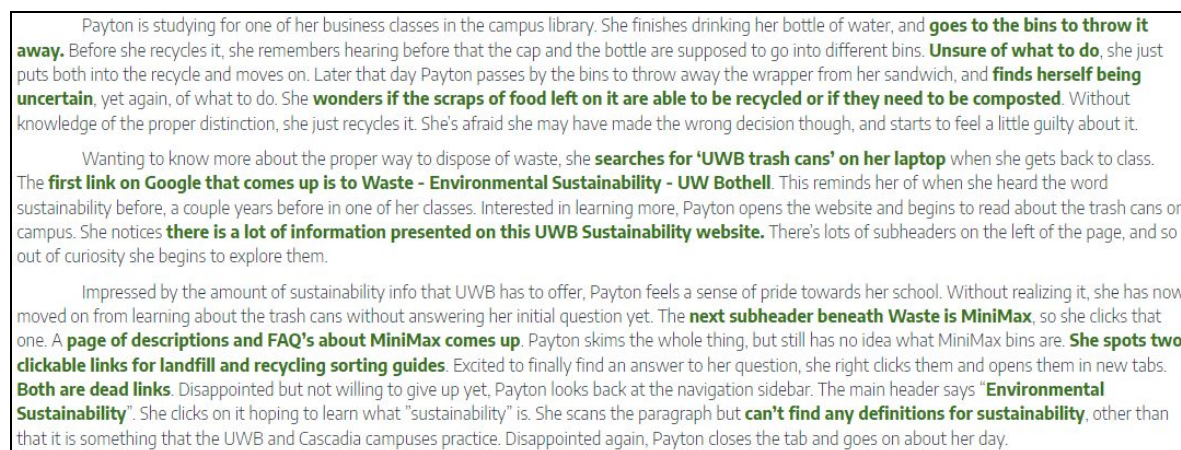


Figure 16: Potential Payton Scenario

The scenario for Potential Payton is that they never know which triple bin to throw their stuff in, this leads them to look into UWB's trash cans on their laptop. And while they find lots of information on the website and end up exploring, some end up being dead links.

Searching Sam

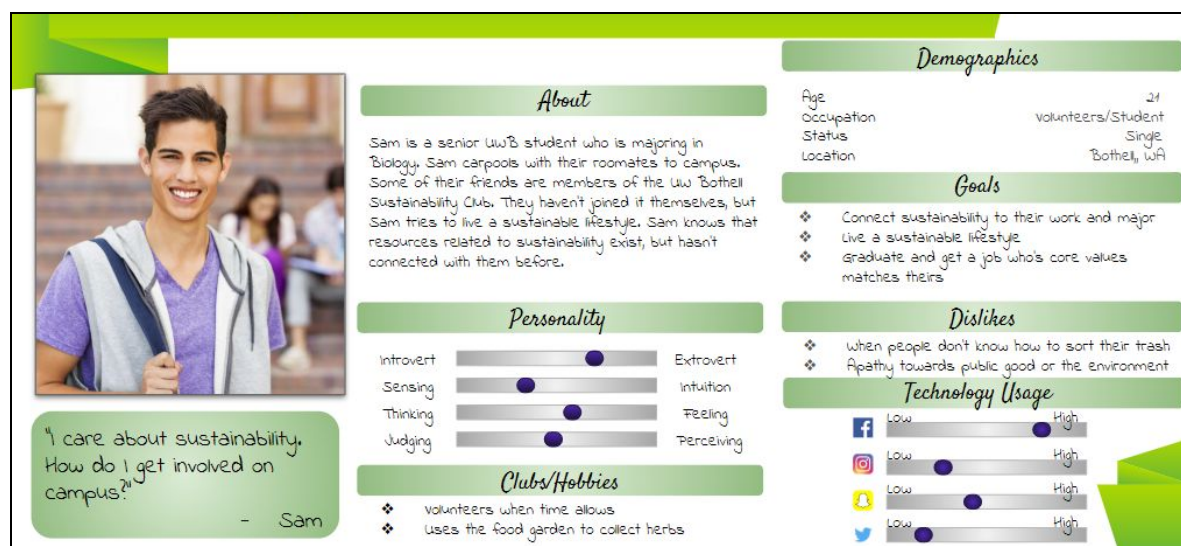


Figure 17: Searching Sam Persona

Our second persona is someone searching for more info about UWB's sustainability efforts. Sam is aware of what sustainability is but hasn't yet connected with any resources on campus.

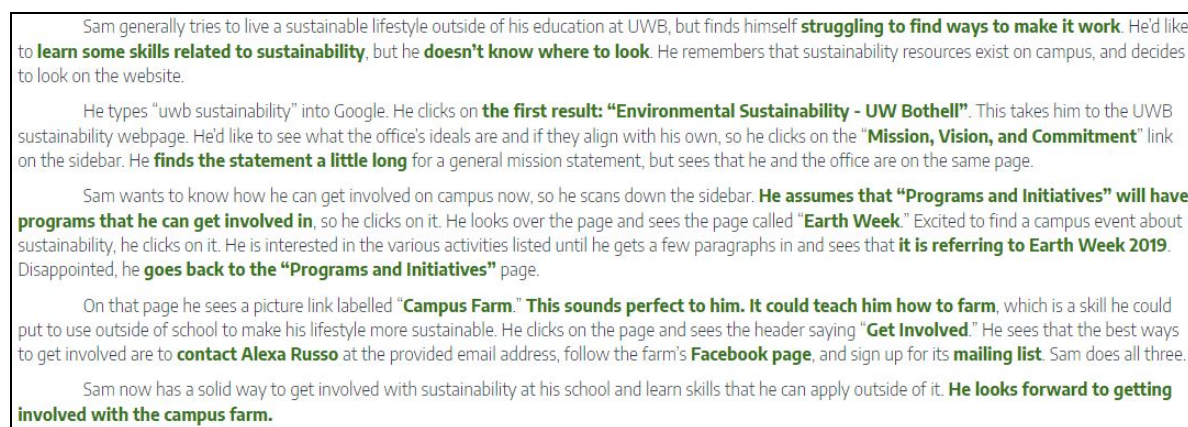


Figure 18: Searching Sam Scenario

The scenario for Searching Sam is that they wanted to find more ways to make their life more sustainable. They decided to search "uwb sustainability" in Google and went straight to the mission, vision, and commitment page. As they continue to explore the page they find some information to be out of date. They then stumble upon the campus farm page and decide to get involved in all ways possible.

Design Proposals

Site Improvements

Using the knowledge we gleaned from our research process, we decided that making various small and precise changes to the website would improve accessibility and user retention while taking less time for our stakeholder to implement. We created an extensive document that examined the University of Washington Bothell Sustainability Site page by page, offering multiple proposals.

One example of this is with the Earth Week page, where we proposed creating a template for the page that could be easily updated each year. The current Earth Week page has outdated information from last year, so a more general write-up of what it is and what's gone on in past events would be more helpful for site users. This would eliminate the need to update the content as much, as often, and also expand the user's understanding of what Earth Week has been and could be. Showing some highlights (text or images) from previous Earth Weeks could help with this, as well as breaking up the text with additional formatting such as subheadings or listed quick facts.

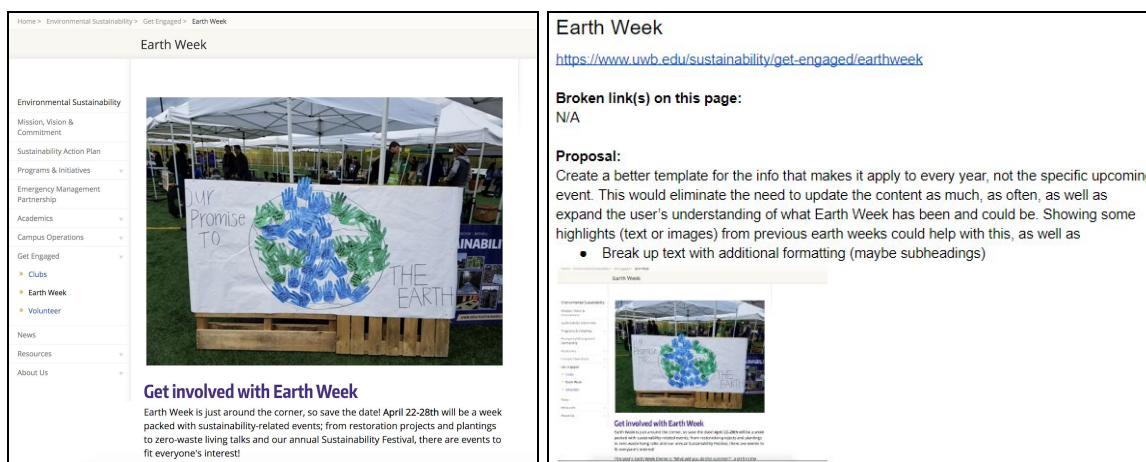


Figure 19: Earth Week suggestion

360-Degree Photos

Since a lot of people didn't know what sustainability resources there were on campus, they obviously hadn't noticed resources like the food garden or the campus farm, despite walking by them potentially dozens of times. For the website, we would have to give them a very clear picture of where the on-campus resources are, since they don't seem to be drawing attention to themselves.

We remembered working with 360-degree video in a previous quarter. We felt that 360-degree video and photography gave a greater sense of presence than traditional video and photography. They would allow viewers to see the landmarks all around a sustainability-related location, and viewers would be able to determine the exact location of the photo by where landmarks such as the library, sports field, or various other buildings were.

To assist with this, we put labels on certain buildings in some of our photos. The Sustainability Office photo has UW1 and UW2 labeled so that the viewer can more easily identify the buildings and where the sustainability office is in relation to them. Being able to view the landmarks from street level gives the viewer a better idea of what to look for when they're actually searching for the location.



Figure 20: 360 photo examples

Next Steps and Final Remarks

If we were to continue on with this project we would work on the design solutions we suggested in order from easiest/least amount of time to implement to hardest/most amount of time to implement. First, we would fix the broken links and outdated info. Then, we would take the 360 photos and add them to the site. Lastely, we would work on larger content changes on the website like combining pages and adding content.

Appendix

Appendix A: Research Overview

https://docs.google.com/document/d/11i5MOcnnSAHqE0e0rFnWAsoKm1ADNm_wDatXaZyWWNMs/edit?usp=sharing

Appendix B: Summary of Data

https://docs.google.com/document/d/19BM0CsfXNX8PUI1ou6Mg333IZ_CSX2C5_P9039D_GQSo/edit?usp=sharing

Appendix C: Coding of Data

https://docs.google.com/document/d/1wOUglpQU4MCqnM10RP3QMx4nbow_StYwqw-VM-ljBMY/edit?usp=sharing

Appendix D: Personas

<https://docs.google.com/presentation/d/1QSnvMprSGUTJmN6qRPpY3JzBOxlgPF434ocjeOBuBLc/edit?usp=sharing>

Appendix E: Scenarios

https://docs.google.com/document/d/1CROcohQIQGUSH8yhUT0_JrTtO_kEFzuyryhd7pxFalg/edit?usp=sharing

Appendix F: Design Idea 1

https://docs.google.com/document/d/1hCWIHu6BKgTTZYCX9_Jg017QC5waFWV-QxWa7qX0lf4/edit?usp=sharing

Appendix G: Design Idea 2

<https://davidhudson42.wixsite.com/sustainabilitymockup>

Works Cited

Mission, Vision, and Commitment. (n.d.). Retrieved Dec. 10, 2019 from

<https://www.uwb.edu/sustainability/mission-vision-commitment>
