Study Away Silicon Valley:
Experiences, Reflections, and Takeaways

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During the week of May 20th, I had the honor of participating in the second annual Study Away Silicon Valley (SASV) program with four other passionate undergraduate and graduate students from the Allen School. We traveled with Dr. Richard Ladner, Professor Emeritus in the Allen School. As someone who was introduced to the importance of accessible technology at UW, I was extremely curious and excited to partake in a program that would "bring together students, faculty, and industry partners to explore the field of accessible technology design and development" (Study Away Silicon Valley 2019). Though the program was only a week long, SASV has easily been one of the best, most impactful experiences that I have had in college – it has inspired me to be more mindful about accessible design and to continue advocating for accessibility in both education and industry.

The curriculum of the week included working in teams to create prototypes and mockups of projects related to accessibility. My team was comprised of computer science, user experience, and psychology students; we also all studied at different universities. I appreciated the diversity in perspective that existed in my group, and I thoroughly enjoyed meeting so many amazing students and faculty from different backgrounds.

Though my group had decided on a general direction prior to SASV, we spent most of the week refining our idea and determining which aspects of our project already existed. Many tools, such as color blindness filters like Toptal, are easily available on the App Store, Play Store, or online;

when we discovered this, it encouraged us to think outside of the box and create a project that filled a gap in the existing technology. Our final project, Chromeye, was a suite of mini-games designed to teach graphic designers and developers about color blindness and help them pick accessible color schemes for their products. With the coloring book game, we focused on increasing awareness about the importance of incorporating high-contrast designs as a universal practice. Furthermore, to engage users, we incorporated collaboration elements with the jigsaw puzzle by labeling the sides with colors instead of using traditional jigsaw shapes. Our final presentation featured a slide deck with a color scheme based on the colors that many people with protanopia see – this reinforced the idea that designing with high-contrast and color blindness in mind can still lead to beautiful products.

While creating the project, we encountered a couple of important questions and concerns regarding the ethics behind it – would the app impart a negative impression of color blindness, or would it even make an impact for those who are color blind? In order to answer these questions and finish

the project, we would need to conduct further research and test extensively to ensure that the program accurately represents the experience of color blind people. To create the app itself, we would need to become familiar with app development and user experience design.

In addition to working on the group project, we also traveled to six different companies to learn about their approaches to accessibility. I enjoyed visiting so many companies during the week, as it helped me contextualize the magnitude of accessibility efforts all throughout Silicon Valley. All of the companies emphasized their commitment to improvement, continual growth, and progress. However, one of the most interesting aspects of visiting these companies was learning about their past efforts and how they were planning on expanding upon those in the future. Our first stop on the trip was at Walmart Labs in Sunnyvale, where they introduced us to their accessibility program and discussed how they had just begun implementing more accessible features. Carrie, the Walmart employee who hosted us, was also responsible for encouraging the company to begin considering accessibility – it was inspiring to see how one person was able to begin changing the culture of an entire company.

Our next stop, Google, served as a juxtaposition to Walmart's accessibility group. As a company that has been working on accessibility for much longer than Walmart, our host Laura introduced us to their groundbreaking work in terms of both education and engineering. Their "Tripod" approach was especially interesting, as it utilized more than just their engineers as problem solvers – it included the community of universities, organizations, companies, and users to give feedback about their products and continually push them to make more accessible products. One impactful quote from Google stated that "we have the power and responsibility to remove barriers and empower all users to be productive and connected" (Google Accessibility), and this encouraged me to consider the accessibility of my work while completing my final project for HuskyADAPT through the end of the quarter at UW.

Google's extensive history and commitment to improving accessibility throughout all products was similar to the mission of Verizon Media. Our host for the day, Larry, was heavily involved with introducing closed captioning to television programs in the 1970s and he introduced us to the importance of both captioning and verbal description of videos. The focus at Verizon Media, as would be expected, was primarily on implementing accessibility measures in media such as television programs, movies, and games. Mike, another engineer at Verizon Media, was also one of the founders of VoiceOver. It was extremely interesting to hear their perspectives on accessibility, especially as they have been working in this field for quite a while.

Our fourth day involved three companies in a sense – we visited LinkedIn headquarters and learned about Microsoft's work in accessibility, and then traveled to Apple. Mary, the Microsoft employee who hosted us, described the company culture and how they have constantly been conducting research to make their entire line of products more accessible as well. Their demos of Seeing AI and Code Jumper were both extremely engaging, showcasing the possibilities of cutting-edge technology to enhance the lives of all people. I particularly liked the mission of Code Jumper, as it aims to increase access to writing code and computer science to students who are blind or visually impaired. As Mary mentioned, coding should be accessible to anybody who wishes to learn, so Microsoft's work in terms of expanding this is extremely impactful.

Sarah from Apple also introduced us to their accessibility measures, and she focused on their dedication to creating one system that is inherently accessible. By integrating VoiceOver and other features straight into their operating systems, it ensured that they were not afterthoughts and were simply part of the design. I was also inspired by Jordyn's enthusiasm for her work as well, and her presentation was extremely engaging. Although Apple's work with accessibility was interesting, they seemed rather secretive about many of their upcoming features.

We spent our final day at Facebook's headquarters in Menlo Park. Jesse Beach, the Accessibility Engineering Manager, discussed Facebook's integration of automatic alt-text and optical character recognition to make their visual media, such as images, more accessible to screen reader users. During a panel with a few of their accessibility researchers and engineers, they also mentioned their current work and research and how Facebook is aiming on increasing its accessibility both on Facebook and within other products such as Instagram and WhatsApp. Similar to the other companies, they emphasized the impact of their work so far while also acknowledging their commitment to improving in the field of accessibility.

After the busy five days, I returned to UW with a newfound sense of purpose and motivation to create and design accessible technology. Throughout the rest of spring quarter, I drew on ideas and principles that I learned from SASV to guide my design practices, and I hope to become even more involved in working on accessibility in college and beyond. As someone who has only taken a few computer science classes at UW, such as CSE 143, CSE 331, and CSE 311, I hope to continue exploring the courses in the Allen School to further my knowledge and understanding of accessibility.

I strongly believe that accessibility topics should be taught in courses at UW and the Allen School as accessible design expands the possibilities for people of all abilities to use technology. While introductory courses such as CSE 142 and CSE 143 may be heavily focused on Java, there are a few class periods that are led by guest lecturers on any topic of their choice. It will be beneficial

for students in these classes to receive exposure to the field of accessibility at this stage – not only does it help them search for research opportunities, but it also sets the precedent for future courses to go into accessibility in more depth. Furthermore, I believe that CSE 154 and CSE 331 will benefit greatly from an entire unit on accessibility. Especially as both are focused on designing websites, apps, or software for consumer use, it is imperative that students understand the importance of accessibility and that they learn the right practices from the very beginning.

Accessibility should not be just another point on the rubric, another box to check, or an afterthought that gets sloppily tacked onto a project. The Allen School is responsible for teaching students about how to create programs to best serve their users, so it is important that they are considering users of all abilities and backgrounds. Educating students about the impact of their work and enforcing accessible design measures will ensure that students in the Allen School are creating accessible and well-designed products that can, ultimately, change the world.

Works Cited

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