Heroes for Healthcare: 2D Interface Design

Jacob Patrick

Heroes for Healthcare (HFH) is a non-profit charity based in Wisconsin. They work with Military veterans, reserves and active duty soldiers, to help them acclimate to civilian life, with services that help military personnel find work, attend college, identify potential college grants, find housing and many other services. HFH’s mission is to help military personnel with training in healthcare fields transition into civilian life. However, from the founding of the charity all documentation was done on paper. As the charity grew paper documentation became a limitation to helping military personnel in a timely fashion. My team, Sidekicks for Healthcare, was tasked with digitizing their entire program for use by HFH staff members.

Sidekicks for Healthcare consisted of 22 High School Juniors and Seniors, under the direction of Mr. Osterberg, and a college Freshman, who had been part of a similar team the summer before. Mr. Osterberg is a High School Computer Science and Mathematics teacher who pioneered the school districts computer science track. He advocates and oversees the incorporation of college classes and group mentorships with local colleges and software companies at the high school level. This project was one such mentorship which was done in collaboration with Milwaukee software developers SafeNet Consulting. Sidekicks for Healthcare, our high school development team, was under the direction of Mr. Osterberg and SafeNet Consulting, and our team created and developed a data interface for HFH. Sidekicks for Healthcare interacted with HFH staff, and developed client and server side portals to interact with a database. Our team work independently of SafeNet Consulting during this project.

HFH walked Sidekicks for Healthcare through their program. Initially military personnel met with a HFH team member to start the application process. A HFH team member collected, name, demographic data, military and service records, and worked with the military personnel to identify goals, and plan out a path of transition to the civilian world. For each military personnel a bound notebook was used to track their progress through the program. This along with the application and military and service records created a wealth of paper, that inhibited timely access to critical information, especially when looking for qualifiers for special grants and programs. To visualize HFH’s paper crisis, they had three six drawer filing cabinets for just 80 military personnel.

The first thing Sidekicks for Healthcare did was split into teams to start breaking down the project. The first group’s task consisted of figuring out how the data could be stored and accessed. The second team’s task comprised of picking the first design elements, such as general page layout, font type and size, along with text and background colors. The goal of the second team was to make a style tile, or reference sheet so all future design felt cohesive. Once the data interaction was figured out, we reformed into three new brainstorming teams. Each of the new teams set out to flow map and mockup their version of the software. These flow maps and mockups went through many revisions, as people brought up issues or concerns, or had new ideas, this process had its challenge.

There were conflicts of interests. Most of the people on the project were computer science majors. In my experience computer science majors find complex webs of information very interesting and appealing. Complexity is not a user-friendly design especially for generations that did not grow up with computers. The oldest person on Sidekicks for Healthcare was 18, and the majority were 17; whereas, the youngest person on the HFH team we met with was in her 40’s. The computer science majors liked and found it easy to interpret the complex webs of information, however it is critical to design for the product owner, not oneself.

Some team members struggled to maintain a simplistic design. While I was not the only one to realize the issues presented by the complexity to the end user, I was the first to address the issue. For me, design for a specific end user appears a very intuitive process; however, I find it hard to put in words the source of my insight to the nature of the design. Having extra pages that served highly limited purposes made for unneeded complexity. By simply removing the pages and keeping the user within one or two pages of the home screen simplifies the flow of the website. Within my group I advocated the idea of clean, simplistic, and streamlined design with limited ‘page depth’. This philosophy was embraced by my team early in the design process. However, when discussing the design with other teams, my ideas for a more simplistic design were meet with some resistance. We eventually ended up presenting mockups of each team’s design to the HFH team. They took pieces of each teams, but kept the short, simplistic layout of my teams’ mockup, with the more complex journal entry of another team.

Once we presented the mockups to HFH and we took their feedback, we designed the master copy of the mockup, flowcharts, and stylesheet. With these master copies the group split into many smaller teams of two to four each working on parts of the project. While each student was required to know each part of the process involved in creating the website, server, and database, teams often organized around what each was best at. This means that most of the original design team was left with the task of copying the mockups into the computer from scratch using HTML and CSS.

At this point in the project I had the option to go two ways, to continue working on the project, or to move onto projects of my own. I chose to move onto my own projects for several reason, but the biggest was that while U.I. design experience was good, building HTML sites was not my passion. I knew even though I was passing up a major opportunity at a paid internship, that it was not my goal. My passion is to pursue a career in game design, I took this time to identify and apply to school that will help me to achieve this goal. DigiPen is my number one choice.

I learned many things about both design and teamwork while working on this project. One of the most impactful things is that having differing opinions on the best way to design something is not inherently a bad thing, rather something that can, and should be used to spur on a new design that combines the best of both ideologies. Teamwork is a conglomerate of ideas and work, welded together into one whole, not one adopted doctrine from a single source.