



User research into one of the most popular tools in tech

Objective(s):

GitHub is an online collaboration tool targeted to students and employees practicing software development. Users are able to upload their work to a repository. Users are able to have a “master branch” which is their primary body of work and “commits” (secondary body of work) which allow them to write and edit code without affecting the “master branch.” This setup allows for multiple people to be working on the same bit of code. It sounds simple but there are a lot of added features that nuance the experience. It’s not clear how the features provide a supposed integrated experience. If anything, it's very confusing and technical. I suspect students are only familiar with how to upload code to a repository and make commits based on my conversations with other students. I assume they are not making use of the other features offered. I want to examine the features being used, the extent of knowledge on how to use the interface, and the difference in use between students and employees. The answers to these questions are important as GitHub is a very popular tool amongst the Information field. It will be beneficial to study the value it supposedly provides.

Research Questions:

- What do the 3 most common features used by students and employees convey about the value of GitHub?
- Is there a significant difference in how students and staff navigate GitHub versus employees?

Hypotheses:

From talking to students that use GitHub regularly, it appears that their use is limited to two things: uploading files to a repository and “committing” changes. Outside of that, the scope is pretty non-existent. I believe the most commonly used features will be: uploading files to repositories, “committing” changes, and utilizing the search function to find their desired course. I think anything outside of this will be deemed too intricate for a student’s purpose. Employees will be using GitHub quite differently. From speaking to professors and grad students, they will have more familiarity with the added features like the marketplace and troubleshooting queue. The marketplace allows them access to perform intricate commands and the queue allows them to collaborate with colleagues on bugs found. I cannot predict what the most common features of employees will be because their use of GitHub is more expansive. I predict the aforementioned features will be used though. In short, students will be focused on uploading content and saving changes requiring basic knowledge of GitHub. Whereas employees are focused on building

intricate systems and isolating complex problems which require an extensive knowledge of GitHub.

Methods:

I would have 2 focus groups: students and employees. I would assign the students the task of uploading content and committing changes to them. I would perform a task analysis to see how they are accomplishing these tasks. This would allow me to see the most common features being used. I would then perform a contextual inquiry on how students use GitHub to complete an assignment. I would simply observe what they do from start to finish. I would ask questions to get a better understanding of *why* they just did that. I would review my answers to construct a clear picture of why GitHub exactly used. I would perform a contextual inquiry on my focus group of employees using GitHub to work on a project. I would ask questions to fill in the gaps on each action that was performed to get a clear understanding of how GitHub provides value in the workplace. I would be able to see the most common features being used during this project as well. I cannot assign a specific task to this focus group because their work is so broad it will be more revealing to let them naturally use GitHub.

Iteration:

I decided to use GitHub because it is one of the most popular platforms in SI. Most of the courses require you to use it for your work. It would be insightful to see how beneficial GitHub is. Is it a passing trend or a useful tool? I consulted with the discussion instructor and she recommended I specify my questions even further. So, instead of asking what the most popular features are, it's important to understand why these features are popular. So, I framed my question to reflect how GitHub provides value to the user. Furthermore, I wanted to see how GitHub can be used by different groups of people. So, it would be insightful to know if there's a significant difference in how they are used. This will bring to light the plentiful features. I constructed my methodology to contextualize why users performed actions on GitHub. This aligns with the purpose of user behavior. Thus, allowing me to better understand the user.

