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Mini Essay 2

Compounding on the learnings reflected upon in Mini Essay 1, I have built upon my knowledge about how to attack a given problem. In mini essay 1 I talked about how framing the design space has helped changed the way I think about solving problems by first considering what the problem is, who it affects, what their needs may be, etc. I have always struggled with diving headfirst into problems without first setting out to understand them, which leaves me lost when I run out of knowledge of the subject. By learning about how to first frame the problem instead of looking to solve it, I can take a step back and delve deeper with the research, data gathering, and data analysis techniques that I have learned since.

After first framing the problem, the next step would be to begin researching the problem to see where exactly the problem lies within its space. Research consists of many steps, however the two main steps that I’ve learned about so far are data gathering and data analysis. Before getting into what I have learned about these specifically, it is first necessary to preface by saying that the methods chosen for each depends on the goals of the study in the first place. When a study has clear-cut goals or open, answerable questions that can be studied through research, it makes choosing applicable data gathering methods and analysis techniques more streamlined because everything should link together naturally. My group, for example, wants to study sports betting and statistics websites for any glaring issues that people may find, so we came up with a few questions that we wanted to answer in GP1. We established our problem space to “thoroughly tackle the market of those people that are looking for or require sports data for any tasks, particularly tasks that involve fantasy and sports betting.”, and as such our choices for gathering data and analyzing that data fell into place.

For GP2, we decided to gather our data using semi-structured interviews and observations to best answer our questions from GP1. The reason why we did this is because a lot of what our project is about is qualitative. There are some quantitative measures that we can use to better understand the problem space, like the number of clicks it takes for a user to get to the data that they want or the amount of time it takes the user to get that data, however most of it is how the user feels about the UIs that they are using. Which tools are their favorites and why? Are there any pain points in those tools? Any features that they wish that they could have? These are some of the questions that we want to know if we want to better understand exactly where problems lie in the space that we have chosen to study so we can look to improve upon those problems. The textbook is what convinced us that semi-structured interviews would work in our case, because it combined the advantages of both structured interviews and unstructured interviews. In section 8.4.2 the textbook talks about the advantages of structured interviews being standardized and how that could lead to nice discrete data for us to later analyze, while in class we talked about how unstructured interviews could lead to more natural answers and a better reflection of the feelings of the interviewees. We decided to combine these methods because the people we are interviewing are generally going to be people we know in some way, so allowing them to speak freely about a topic but with some guidance to make it comparable between interviews seemed ideal.

As far as analysis is concerned for the data gathered during GP2, we have not discussed which data analysis techniques that we want to use. However, after considering these options on my own, I think that since most of our data is qualitative from the interviews we would want to apply some qualitative data analysis techniques to the data. Based on the data that we have gathered so far, I think that we should apply an inductive approach to our qualitative data analysis and let the data speak for itself. I think that we can find some commonalities among our data to study and draw conclusions from. A great way that we could do that is affinity diagrams, something that I have learned more about from the in-class excersize and the textbook section 9.4.1.

These methods like affinity diagrams, qualitative data analysis methods, and data gathering techniques like interviews and observations have further changed the way that I think about attacking problems. There are many problems that I can think of that these ideas can be applied to, mainly in my other classes while I am programming. If I have some sort of software or algorithm to develop, these ideas can really help me properly shape the problem, understand it further, and develop possible solutions.