Journal A Rev. B - Lyell Read

1/12/2020

I just finished putting together my proposal for this class, and as usual, I am working on it, and as usual, I finished it up the day it was due. Though I think I came up with a viable product, this got me thinking about deadlines, and how I should manage my time. Perhaps it would be better to work on assignments ahead of time, so that when the deadline approaches, I could already be into the revision process, rather than into first draft.

Overall, this process of planning ahead will be very useful at work. To be able to accurately plan the time that an assignment will take me is one of the most important things this can teach me, as at a small organization, people-hours are a valuable resource, and are budgeted. Improperly budgeting for a project can result in you over or under allocating resources, and over/under committing in terms of time. These are not ideal, and of course can be reworked, but the process of completing assignments like those in CS361, that are applicable to my current and future work, is helping me develop this time management.

Note from 1/25/2020: I know I am writing this note on the day before this assignment is due, but in the time between 1/12 and now, I have talked to friends and thought about this, and I have started to turn in other assignments early. The issues that I have seen with this are firstly that I have work (professional work) to do, so no matter how far ahead I can get around work, there will always be more to do, and also teachers frequently discuss the specifics of an assignment in class close to the due date, and sometimes change the requirements, so I need to revise my work, taking extra time.

1/17/2020

Clearview AI is a technology company that is set up to profit on a new age of computing. Their business model is to crawl the open internet for images that users have posted on sites like Venmo, Facebook and YouTube, and assembling those into an AI-searched database that is then marketed to (and successfully used by) law enforcement agencies in the US. This poses a great opportunity, as there will only be more data available, and provided that it can successfully solve crimes, this tech will become more and more prevalent.[1]

Note from 1/25/2020: Clearview is both an example of how technologies - especially government/high end/cutting edge ones are going to be designed and used in the future. These pieces will be designed to maximize their closed-source nature, and facilitate the

[1] https://www.nytimes.com/2020/01/18/technology/clearview-privacy-facial-recognition.html

collection of as much data as possible, as this can be a secondary monetary influx. Secondly, these companies will likely avoid all best software practices to get to market - avoiding open source development, penetration testing, security, and other critical parts to well designed software. As far as use, I think that technologies like this, that collect data (and that can be paired with other technologies like HD CCTV cameras) will be used more and more, turning our once free country into a surveillance state, like China.

1/18/2020

As I reflect on the process of selecting projects, I was interested by how the projects were chosen. Rather than being considered by voters with a level head, I think too little thought was put into the selection. Either voters were lazy, and simply randomly voted, or they examined the names and did not delve into the specifics of each project. This has both career implications and some other interesting things that I noticed. With regards to work relevance, I gleaned from this exercise that the way you name things is important. Projects, papers, tools all should be named in a way that describes their function *in a way that even those with no knowledge of computer science* can understand. I named my project the Chimeric File System Device - something that would make no sense to someone that did not read the project explanation. Therefore, it is essential to define acronyms everywhere you can, such that those with little background knowledge can read into the name. Further, some names like “Hear-It” are not helpful to the reader, as they provide no insight to the project’s nature. These are all lessons I will carry through to my work, as naming the project is essential to understanding what that does.

1/22/2020

After reading more about Clearview AI, and learning more about it’s legality which was in question to me, I have concluded that, though likely unethical (when considered in light of many prominent ethical theories), Clearview AI seems to hold even more promise.[2]

1/24/2020

Of note is a new outbreak of a Coronavirus. This might at first seem to be completely unrelated to technology, right? No! Technology provides a really hopeful outlook on dealing with such an outbreak (especially as the outbreak worsens). Not only can technology be used to self- report symptoms and talk with physicians, but it can facilitate minimizing human-human interaction by letting users stay at home while they are either sick or avoiding others that could be sick. This can essentially quell the spread of a

[2] https://int.nyt.com/data/documenthelper/6689-clearview-legal-memo/c8b081a0bcca12e7903a/optimized/full.pdf, https://www.nytimes.com/2020/01/18/technology/clearview-privacy-facial-recognition.html, https://docs.google.com/document/d/1AQPPNJ71PZfg3FgtFpcoM0gczUYaeinN7XwZhULglh0/edit?usp=sharing

disease, but would require either societal buy in (unlikely in America), or the outbreak to get bad enough for martial law to be imposed.

Note from 1/25/2020: Coronavirus is a great example of how technology could be designed to facilitate the resolution of world problems. If emphasis is placed on developing good, secure, non-greedy software, *and* it is used in a positive and widespread way, we can effectively stand up to the spread of disease. If used right, humans can take technology and use it to combat epidemics that would have otherwise posed a great risk to mankind.

1/25/2020

As we have recently (about a week ago) been interacting with our customers, and preparing diagrams, requirements and specs, I keep thinking about how this is applicable. I work at Galois, a small software company in Portland, OR, with a very specific structure to it - it's a flat organization, where everyone can be a customer to a performer, or can perform on an offer made by a customer. In this context, the customer's role is the exact same as in this class - they make an offer, and the performers on that offer cycle through a process where they define goals and specifications, work on that, check in and then reset goals based on the check-in. Therefore, this class is preparing me to be much more comfortable in that environment, with those interactions.

In the opposite environment, where a boss presents you with a task, and you fulfil it, I feel this class would have also prepared me for that environment. This is because, even if you are in a power structure, you will still need to read over specification, requirements or diagrams provided to you by your boss. As we are making these diagrams, we are also learning to read them, which is good news for our future preparedness.

Note: Today, I learned from some peers that it might be in the interest of my grade to provide input on the convergence article, and to take a futuristic glance (with relation to use and development of software) for the news articles I have listed above. These are added to this document (rather than being there initially) as they are not referenced anywhere in the class materials. Therefore they have also been treated as secondary to the primary goals of the Canvas page.

After reading the convergence article, I agree overall with the point. As we move forwards, I do see the fields that they refer to as "IT" and embedded systems colliding and forming a new futuristic field, and I agree that is happening daily. That said, I disagree with the usage of the term "IT" - IT emcompasses much more than the article lets on. As someone who used to work in IT, it encompasses everything from helpdesk services to asset tracking to hardware installation. What they use IT for in the article is IT in its most reduced sense - Technology that is Infrastructure. With that out of the way, I

think this change is driven by laziness, and is hardly evolving our race as humans. Unlike the advent of the computer, or the combination of AI algorithms and computers, this ‘merger’ is creating devices that do not facilitate us being better humans, and sometimes prey on our consumerism to use us as data collection points. Technologies like those listed in the article (for the majority; such as IoT devices) do not technically enhance life, they merely convince us that we need that certain device or set of devices, and their main purpose is to relay private data of ours (whether the house is inhabited or not) to the tech giants that make them. This does not seem like a great use of technology when we have more pressing issues to address. Some of those issues are resolved by this technology, though - there are significant computer-aided-medical-device advancements that are likely to happen as a result of this. So some good may come of this, but I cannot help but notice the bad too.