Lecture 33: Software Engineering III - Your Life

11/13/2020

Overview

- Software has completely reshaped society
- We'll discus your role in the future we're creating

Workplace Preference

- Income and pay
- Passion about a subject
- Marquee branding for your career
- Security of career
- Skill sets
- Different cultures

The Ledger of Harms

Concerns Expressed by Tech Leaders

- "I think we have created tools that are ripping apart the social fabric of how society works."
- "God only knows that it's doing to our children's brains"
- "The technologies we were most excited about 10 years ago are now implicated in just about every catastrophe of the day"
- "Facebook appeals to your lizard brain -- pimarily fear and anger

Hug's Thoughts

- Technology companies do inflict significant negative externalities upon society
  - Most of them are still a net positive, e.g. I personally use and enjoy facebook
- My personal sense is that these are largely unintended consequences by well intentioned people
  - Yes, there are some bad actors, but I don't think they are common
  - Workers and executives at these companies do care
    - ...but money does skew people's perspective in strange ways

The Center for Humane Technology and the Ledger of Harms

- The Center for Humane Technology was founded by current and former tech workers to raise awareness and try to combat harmful side effects of internet tech platforms
- In 2018, they created a Ledger of Harms "collect those negative impacts of social media and mobile tech that do not show up on the balance sheets of companies, but on the balance sheet of society."
  - "aimed at guiding rank-and-file engineers who are concerned about what they are being asked to build"

The Ledger of Harms

- Their concerns:
    - Attention: Loss of ability to focus without distraction
    - Mental Health: Loneliness, depression, stress, loss of sleep, increased risk of suicide
    - Relationships: Less empathy, more confusion and misinterpretation
    - Democracy: Propaganda, lies, an unreliable and noisy place to talk
    - Children: New challenges learning and socializing

Your Life

The Power of Software

- Unlike other engineering disciplines, software is effectively unconstrained by the laws of physics
    - Programming is an act of almost pure creativity!
- The creates limitation we face in building systems is being able to understand what we're building!

The Limiting Reagent

- You are a rare commodity
- The skills you are building will be in high demand from companies, non-profits, government agencies, educational institutions, and more
    - The choice of how to spend your career is yours

Steering the Course

- Quite a lot of you will likely end up working at some sort of tech company at some point in your life
- There's nothing (IMO) wrong with working at profit driven tech companies
    - Please do realize that even as a rank and file employee, you have the power to effect change, particularly if you are paid in stock (because then you are a partial owner)

TIme

- You get some number of decades on the planet
- Each week is 168 hours
    - 40 hours of work
    - 56 hours of sleep
    - 72 hours for everything else
- Spend your time wisely, in both your career and personal life