Intro to Methods of Software Engineering

Fall 2016

Lecture 10 — November 15, 2016

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"With great power there must also come great responsibility¹"



Today's topic is professional responsibility. Of course, engineers have a responsibility to not design bridges that fall down, but none of you are going to design bridges. However, some of you are likely to work at Facebook, and we'll talk about them today. My objective is to provoke thought.

Engineers have a responsibility to the public. The question that comes up, then, is what should Facebook do with its responsibility.

I want to start by examining Facebook's motives. We've shot a glancing look at Facebook's motives earlier in the term, but I want to examine this in more depth.

- As a corporation, what is Facebook primarily trying to do?
- How does it make money?
- How does it make more money?

Group discussion 1. How can Facebook affect behaviour, and how do we know that Facebook affects behaviour? This part of the assignment is a research assignment; find some evidence to support this claim, cite it, and summarize it in one paragraph. (15 minutes)

Group discussion 2. Let's discuss the implications of changes in FB's news feed algorithm. The exercise is to propose any change (e.g. only show posts with green pictures, show posts randomly) to FB's news ranking algorithm, and discuss the economic, social and technological implications. (15 minutes)

Group discussion 3. The final part of today's discussion will explore Facebook's responsibilities with respect to the public interest. Let's first talk about responsibility to the public in general. Clearly, you mustn't design bridges that are going to cause harm to the public. Facebook isn't going to literally fall on anyone's head, but it can still cause harm to the public.

¹http://quoteinvestigator.com/2015/07/23/great-power/.

We could talk about abstract harms, but let's keep it concrete. I'd like you to look up specific examples. Categories of harms include cyberbullying, misinformation, and locking people out of their accounts. (15 minutes)

Summary. We started class today by talking about social responsibility versus Facebook profits. In some ways, these work at cross purposes: one can maximize profits while abdicating social responsibility. But I don't believe that the world actually works that way. A prosperous, healthy society is going to produce more long-term profits than a dysfunctional society.

As an individual contributor, social responsibility is not generally something that you will think about every day. But it is important, and there will be times in your career when you can make a difference. Please, look out for those times, and do the right thing when you can.

Digression. By the way...

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