

Professional Ethics

Lecture 9-1

Computers & Society (CPSC 430)

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Is Software Engineering a Profession?

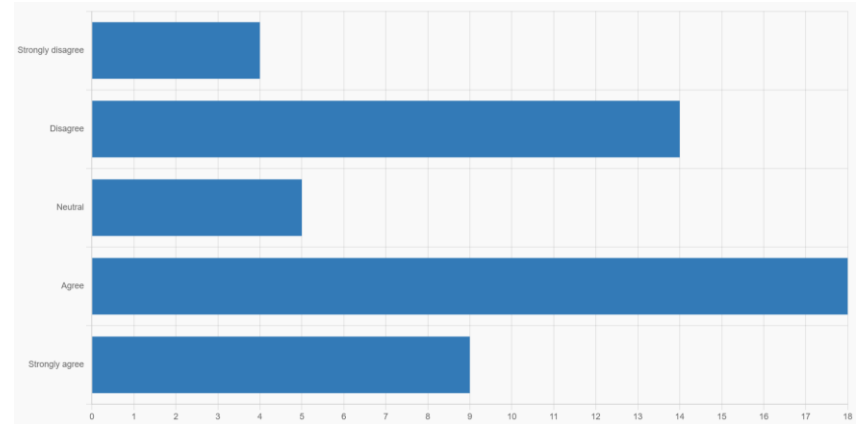
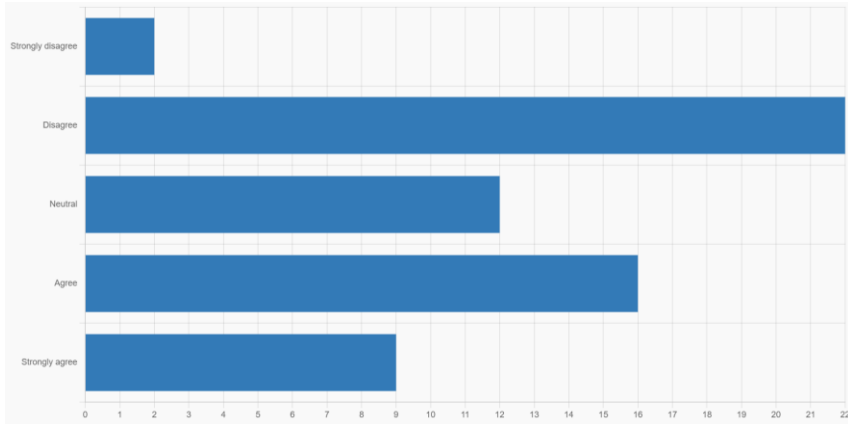
- In many ways software engineering is similar to other professions such as law or accounting
 - Dependence on professional education and practical training
 - Professional associations (IEEE, ACM)
 - Potential for bad decisions to cause significant public harm
- It's not a “full-fledged” profession:
 - No formal accreditation/licensing system
- All the same, sensible to ask software engineers to follow a code of ethics.
 - One with significant support is described in the book.
 - Nothing it says ought to come as a big surprise at this point in the course 😊.

Whistle-Blowing

- Revealing a real or potential harm to the public being caused by your employer.
 - Not an attempt to take revenge on the employer, e.g., for turning down a promotion
 - Not an attempt to avoid personal responsibility for a problem that is about to come to light anyway.
- *Under what circumstances is whistle-blowing morally **justified**? When is it morally **necessary**?*

Professional Ethics

“Computer scientists should not aid in the development of autonomous weapon systems.”



Hacking as a means of warfare/foreign policy

- **Cyberwarfare: states as actors or targets**

- North Korea vs USA gov, corporate sites (2009+)
- Russia vs Georgia, Baltic states, Ukraine (2008+)
- Stuxnet (2009+)
- A variety of government, activist sites during Arab Spring (2011)

What hacking/cyberwarfare activities are ethical?

Which are unethical?

What such capabilities should Canada attempt to develop?

What should Canada do to attempt to discourage and/or insulate itself from unethical attacks?

Software Warranties

- Software companies tend to write license agreements saying that the software may not perform as promised
 - “we expressly disclaim ... the implied warranties of merchantability and fitness for a particular purpose”
- Why is this reasonable?
 - Software is expensive
 - Other expensive goods are backed up by warranties
- *Should software come with warranties? If so, what should these warranties cover?*
- *Do software makers have a moral obligation to produce software that does what it promises?*