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."

Responses for Poll: Professional Ethics
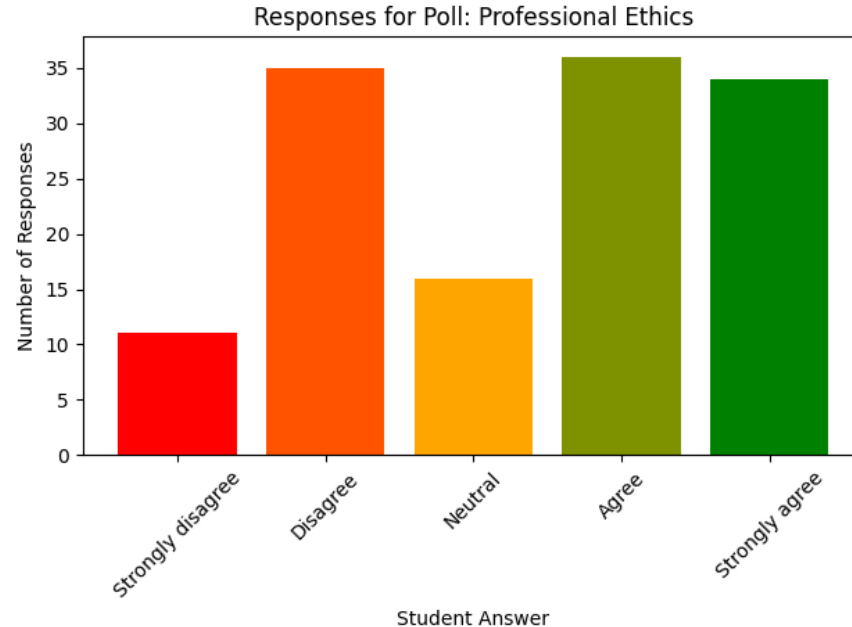
Hacking as a means of warfare/foreign policy

- **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?