Lecture 9-1
Professional Ethics
Participation Quiz

What country is this?

A. Iran
B. Jordan
C. Saudi Arabia
D. Iraq
E. Syria
“Self-driving cars should be allowed to operate on public roads once they have been shown to be at least slightly safer than the average human driver.”
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 😊.
Professional Ethics

“It is unethical for computer scientists to aid in the development of autonomous weapon systems.”

Course Website: http://cs.ubc.ca/~kevinlb/teaching/cs430
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?
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
- Do software makers have a moral obligation to produce software that does what it promises?
Computer Simulations

• Simulations are used to answer questions about scenarios that can’t be easily observed in the real world
  – Hurricanes
  – Nuclear explosions
  – Climate change
  – Car crashes

• Models are only useful if they accurately describe reality

• What would you need to see to trust a simulation?
• How accurate does a simulation have to be to be useful?