Lecture 20
Professional Ethics
Participation Quiz

What country is this?

A. Iran
B. Jordan
C. Saudi Arabia
D. Iraq
E. Syria
Computer Simulations

• Simulations are used to answer questions about scenarios that can’t be easily observed in the real world
  – 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?
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?
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

“A UBC CS sysadmin accidentally discovers pornography in a student’s private department file space, depicting a woman the sysadmin believes may be under 18. The sysadmin should inform the department head.”
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.

• Question: Under what circumstances is whistle-blowing morally justified? When is it morally necessary?