Computer (and information security) Ethics

News: Ethics of self-driving cars

http://science.sciencemag.org/content/352/6293/1573

http://www.nytimes.com/2016/06/25/technology/when-machines-will-need-morals.html

http://www.nytimes.com/2016/06/24/technology/should-your-driverless-car-hit-a-pedestrian-to-save-your-life.html

- Concern about the decisions to be made by self-driving cars, especially if viewed from a utilitarian position.
- If your car has to crash, hurting the driver, to avoid hitting lots of pedestrians....

First? death with self-driving cars

http://www.bbc.com/news/technology-36680043

http://arstechnica.com/cars/2016/06/teslas-autopilot-being-investigated-by-the-government-in-a-fatal-crash/

http://www.nytimes.com/2016/07/02/business/a-fatality-forces-tesla-to-confront-its-limits.html

- This was clearly going to happen.
- What does it mean for cars to get good at avoidance strategies? Do drivers become less good, due to a lack of practice?
- "The technology [Autopilot] was so out in front of federal highway regulations that there were no rules against it."

Technology as religion?

- http://www.theatlantic.com/technology/archive/2015/01/the-cathedral-of-computation/384300/
  - Atlantic article, looking at whether algorithms have become a new "religion".
  - "The next time you hear someone talking about algorithms, replace the term with “God” and ask yourself if the meaning changes. Our supposedly algorithmic culture is not a material phenomenon so much as a devotional one"

Why computer ethics?

- Is there a specific need to be discussing computer ethics, rather than just discussing applied ethics?

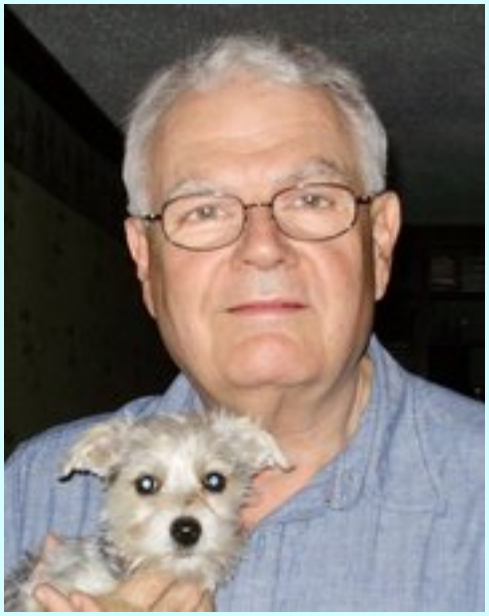
Yes!

- Otherwise, there would be no point to this class, and I would be out of a job ☹

More seriously…

- What is different about computers, computing, information, and information security to warrant their own specific course?

Walter Maner



"Computer ethics is an academic field in its own right with unique ethical issues that would not have existed if computer technology had not been invented. The failure to find satisfactory non-computer analogies testifies to the uniqueness of computer ethics. Lack of an effective analogy forces us to discover new moral values, formulate new moral principles, develop new policies, and find new ways to think about the issues presented to us."

Fron: Maner, W. Unique ethical problems in Information technology. *Science and Engineering Ethics, volume 2,* number 2 (April, 1996), pages 137-154.

Maner, continued

"[C]ertain ethical issues are so transformed by the use of computers that they deserve to be studied on their own, in their radically altered form"

"[T]he involvement of computers in human conduct can create entirely new ethical issues, unique to computing, that do not surface in other areas."

Deborah Johnson

"Computers pose new versions of standard moral problems and moral dilemmas, exacerbating the old problems and forcing us to apply ordinary moral norms in uncharted realms."

Deborah Johnson

"[It is] useful to think of the ethical issues surrounding computer and information technology as new species of generic moral issues…. [W]hile ethics is always about human action, technology instruments human action and technology makes it possible for individuals and institutions to behave in ways they couldn't behave without technology. Traditional ethics and ethical theories have largely ignored the instrumentation of human action."

Don Gotterbarn

There is little attention paid to the domain of professional ethics --the values that guide the day to day activities of computing professionals in their role as professionals. By computing professional I mean anyone involved in the design and development of computer artifacts. The ethical decisions made during the development of these artifacts have a direct relationship to many of those issues discussed under the broader concept of computer ethics. I believe many of those issues are the result of bad computer ethical decisions made during software development.

D. Gotterbarn. 1991. Computer Ethics: Responsibility regained. In National Forum, 71:26-31.

James Moor

- What are your reactions to Moor's article?
- What is meant by a policy vacuum?
  - How should/could ethics influence public policy?

James Moor

"Some have argued that the ethical problems in the [computing] field are unique. This is difficult to show because the problems involving computing usually connect with our ordinary ethical problems in some way.

From "An interview with James Moor", as quoted in M. Quinn's Ethics for the information Age.

Moor, continued

- "[W]hat makes the field of computer ethics special and important…is the technology itself."
  - "Computers are logically malleable machines"
  - "Computers are universal tools."
  - "Because they are used in so many ways, new situations continually arise for which we do not have clear policies to guide actions."

Computer ethics and utilitarianism/deontology

- Challenges to existing theories
  - Networking
  - Data mining
  - Other examples?

Information security ethics

- I am unaware of any philosophers focusing on information security ethics the way Maner, Johnson, Gotterbarn, and Moor have focused on computer ethics.
  - Melissa Dark, published 2010 Information Assurance and Security Ethics in Complex Systems: Interdisciplinary Perspectives in 2010,
  - Perhaps the situation is changing