Ethics in Computing

What are some ethical issues in computer science?

What ethical guidelines do computer scientists have?

- https://www.acm.org/about-acm/acm-code-of-ethics-and-professional-conduct
  - 1.1 Contribute to society and human well-being.
  - 1.2 Avoid harm to others.
  - 1.5 Honor property rights including copyrights and patent.
  - 1.7 Respect the privacy of others.
  - And others…

What are some ethical issues in computer science?

- Digital ethics and the future of humans in a connected world
  - https://www.youtube.com/watch?v=bZn0IfOb61

- The Filter Bubble
  - https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles

- Additional dilemmas
  - Should a self-driving car ever sacrifice its passenger to prevent fatalities of multiple pedestrians? (http://moralmachine.mit.edu/)
  - Even more: https://www.infoworld.com/article/2607452/application-development/12-ethical-dilemmas-gnawing-at-developers-today.html

How should ethical decisions be evaluated?

- https://www.ted.com/talks/damon_horowitz

How should ethical decisions be evaluated

- Deontological ethics – we are morally obligated to act according to rules and principles regardless of outcome
    - Rules can come from religious doctrines, or laws
    - Rules can come from "reason" (Kantian ethics)
        - Can I rationally will that *everyone* act as I propose to act? If the answer is no, then we must not perform the action.
        - Does my action respect the goals of human beings rather than merely using them for my own purposes? Again, if the answer is no, then we must not perform the action.
- Utilitarianism / consequantialism (John Stuart Mill)- decisions should be judged based on their likelihood of increasing overall human happiness.
    - "The ends justify the means"
- The Rights approach, Virtue approach, and others (https://www.brown.edu/academics/science-and-technology-studies/framework-making-ethical-decisions)

Example dilemma

- A cybersecurity official working for the NSA discovers a "backdoor" allowing access to all cellular communications.
  - Should this backdoor be reported immediately to the relevant companies?
  - Should the backdoor be utilized to detect potential terror threats?
- Following Kantian ethics, which decision would be correct?
- Following utilitarianism, which decision would be correct?