Getting on the same page

- Readings - make sure you keep up
- General Ethical concepts
  - do a little research, read Johnson chapter
- SE Code of Ethics reading (pop quiz)
- Paper proposal coming up!
  - What is the format?

Tip

- I suggest a current events presentation
  - 1 or 2 minutes
  - you choose the topic in general computing
  - what is new, interesting or controversial?
  - where is there further information?
  - as part of your class participation grade

Basic CSC 300 Issue List

- Hacking - black and white hat
- Downloading copyrighted files
- Pornography
- Replacement of human judgment by deterministic machines
- Safety of computer controlled systems
- E-voting
- Privacy
- Video game violence

Topics, top level

- Broad ideas can be explored:
  - EIR model for software development
  - Ethical distance "increased" by computing
  - Software systems as "agents" of humans
    - vis a vis moral / ethical responsibility
  - Copyright as applied to object is unethical
    - hides the "innovative ideas" contrary to US Const
    - patent applied to software is better (exposes ideas)

Other Possible General Paper Topics

- Intellectual Property in software
  - Open Source, GPL?
- Online gaming addiction
  - "addiction" to software?
- Military use of software for smart bombs
  - software as decision maker?
  - Expert Systems and personal responsibility
- Database / Network privacy
  - Spyware and the "free market"?
- Software Engineering - Cal Poly's B.S. program?
- Wardriving as a "service" ?

Topic Thoughts

- My Passions:
  - The "Requirements" problem
  - "Design" considerations
  - "Licensing" and "Liability" issues
  - Abstraction as Reification
- What is YOUR passion?
  - the lens with which you can view the entire course?

Ethical parameters at Issue Here?

- Private property
  - theft and morality: IP, downloading, cheating
  - trespass: hacking, spam
- Anonymity
  - privacy, pornography, marketing, spam
- Privacy
  - "right to be left alone"
  - data mining, spam

- Others?
  - dependence (backup systems?)
    - could we survive without all the chips functioning?
  - distribution of control / centralized control
  - right to know (connected, secret databases)
    - accuracy, ownership / control of "information?
  - responsibility ("many hands")
  - cause ("traceability")

What is "*new*" about computing?

- Are these computing ethics issues special?
  - why can't you take a GE in "Ethics" and be done with it?
- Fred Brooks "Mythical Man-Month" says
  - complexity
  - conformity
  - changeability
  - invisibility

Computing Uniqueness

- Johnson sees differences -
  - new entities
  - scale of activities
    - new kinds of activities heretofore impossible?
  - inherent unreliability
    - reliability is always an issue (can't have statistical reliability models?)
  - power and pervasiveness

Johnson goes Deeper

- "Instrumentation of human action"
  - what is this?
- Johnson has a problem with analogical reasoning in computing activities

Philosophical Ethics

- Critical examination of beliefs for
  - consistency?
  - rationality?
  - logic?
    - what sort of meaning do we look for?
- What is the method she recommends?
  - Dialectic to "find" the underlying principle

Utilitarianism

- Utilitarianism
  - act-utilitarians
  - rule-utilitarians
  - egoists
- Pros and Cons of Utilitarianism

Deontology

- the principle inherent in the action is decisive
  - do consequences count?
- Kant's "categorical imperative" says
  - "never treat another human being merely as a means …" (compare Buber's "I-thou"?)

Rights

- Positive rights
- Negative rights

Claims about the World

- Normative
- Descriptive

Parnas view on What We Do

- What is a "Rational" design process
  - and why is it called "Rational" Corp? :-)
- What is the reality?
- Does Parnas advocate dishonesty?
  - what is the difference between the rational process and his process?
  - why?
  - impact on SE Code analysis?

Reminder: Highest level CSC 300 concerns

- Our subject is [pure] ABSTRACTION
  - what is that?
  - how does it work?
  - how good is it, how can we tell it is "good"
    - or "better" than another one?
- What are the basic issues in abstraction of reality?
- Anyone know about the Sapir-Whorf-Korzybski hypothesis in the field of general semantics?
  - what might it mean for CSC/SE/CPE and ….. does it infect everyone to such an extent?

- **What is the basis for doing CSC, CPE, SE**
  - development
    - science, too?
      - who "supports" science and why?
  - what is needed to make all this happen?
    - educated workers
      - loans, contracts, money
    - socialized workers
      - law, ethics, morality
    - "level" playing field for innovation and profit
      - contracts, roads, buildings, health system
  - could any of this happen in a vacuum?