WHAT'S ALL THIS ABOUT ETHICS?

Eugene H. Spafford

Purdue CS

Sept 2009

KNOWLEDGE

- Ethics is the field of Philosophy devoted to the study of what we should do because it is right, or alternatively, how to achieve good

- Why do we care about Philosophy?

  - You want to get a PhD – Doctor of Philosophy!

  - Professional ethics plays an important role in what you do

WHAT ARE ETHICS?

- Various classes of ethics study, including normative, applied, and meta-ethics

  - We are more concerned here with normative ethics – what you should do in any given situation

- Various classes of application, including personal, professional, and societal

  - We are interested in professional ethics, which should match personal ethics

BASIC ETHICS

- Which is more the goal – to do what is right (deontological), or to do what brings the best results (ontological, or consequentialism)? Do ethics really matter at all (cf. nihlism and existentialism)?

- Our society is primarily based on deontological grounds, with some consideration of utilitarianism.

  - "It isn't whether you win or lose, it is how you play the game"

  - "I had to follow orders"

  - Dismissal of charges if procedures (e.g., Miranda) not followed

SCIENTIFIC ETHICS

- Respect for science

- Respect for colleagues

- Respect for subjects

- Respect for the public

RESPECT FOR SCIENCE

- Fundamental issue is to adhere to good scientific principles

  - Do not misrepresent results

  - Always present full results

  - Be open to alternative results and refutation

  - Disclose and avoid conflicts of interest

  - Do not represent expertise you do not have

- Most all – remain objective!

RESPECT FOR COLLEAGUES

- Always provide credit for those who contribute to your results

- Do not take credit for work you did not do

- Cite support work appropriately

- Evaluate new and contradictory results as objectively as possible, or declare conflicts

- Always evaluate results rather than colleagues

- Provide reasoning and citations in reviews

RESPECT FOR SUBJECTS

- Be aware of rules for human research (and animal research, if appropriate)

- Treat subjects as people rather than as items

- Respect and protect privacy; provide appropriate security

- Provide opportunities for informed consent, and withdrawal (autonomy)

- Never use improperly-obtained results

- Do not blame subjects for unexpected results

RESPECT FOR SOCIETY

- Do not endanger others with experiments

- Be aware of impact of results, and seek to mitigate harmful results

- Respect property rights

- Be prudent in use of public funding

- Seek to integrate new knowledge into common use

- Use your expertise when you see a problem

ENGINEERING ETHICS

- Design and build with failure consequences and modes in mind

- Protect privacy

- Protect property rights

- Know personal limits and represent them accordingly

    - Includes staying current

- Recognize social norms and accommodate them if possible

SUMMARY CONCEPT

Present in many systems of ethics:

"Treat others – colleagues, subjects, and the public – as you would wish to be treated in a similar situation."

ISSUES

- Plagiarism

- Fabrication of data/results

- Whistleblowing

- Misconduct of various forms

  - Academic

  - Professional

- Leadership

FOR MORE INFO

ACM Code of Ethics <http://www.acm.org/about/code-of-ethics>

SE Code of Ethics <http://www.acm.org/about/se-code>

IEEE Code of Ethics <http://www.ieee.org/portal/pages/iportals/aboutus/ethics/code.html>

CITI <http://www.citiprogram.org/>

National Academies "On Being a Scientist" <http://www.nap.edu/openbook.php?record_id=4917>

LANGURE Intro Course <http://faculty.chass.ncsu.edu/comstock/langure/Corecourse.htm>

13