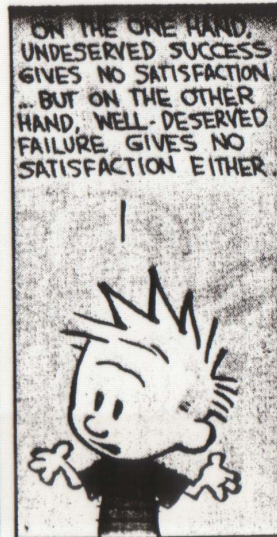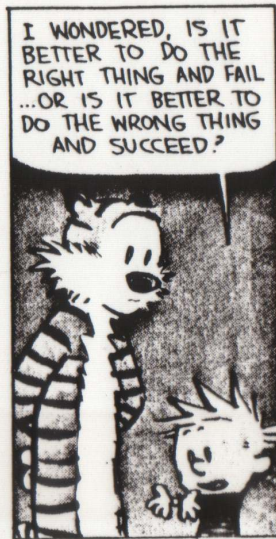**Ethics in**

Electrical and Computer Engineering
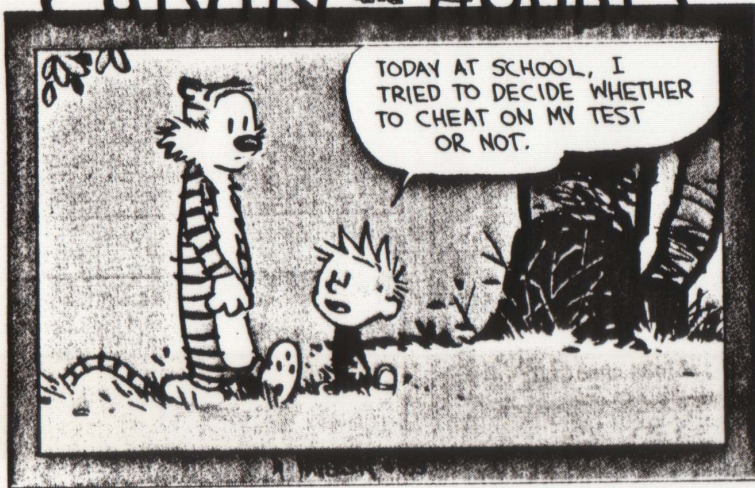
Lecture #11: Honesty
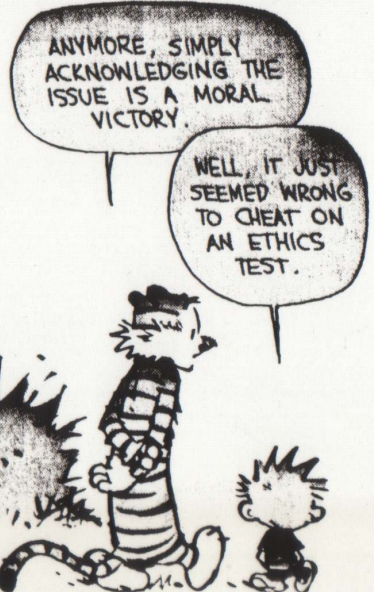
Prof. K.M. Passino

The Ohio State University

Department of Electrical and Computer Engineering
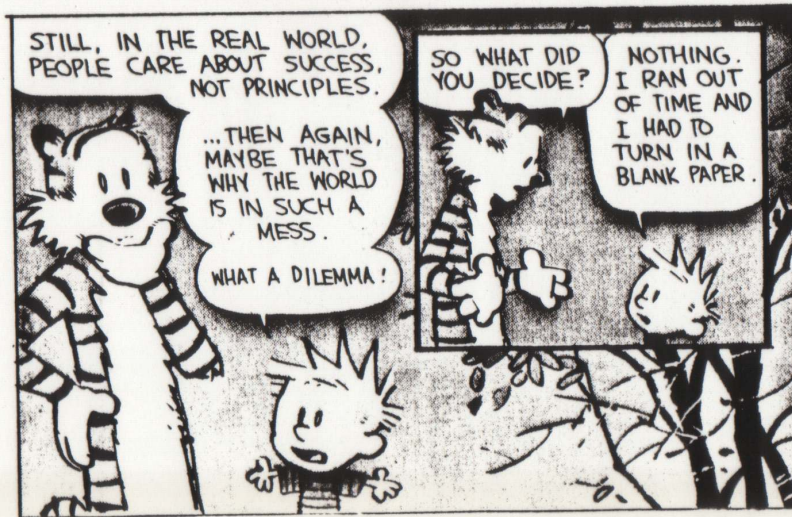
Truthfulness and Trustworthiness

- Truthfulness:
  - Standard of truthfulness in engineering is very high, much higher than in everyday life
  - Ethicists feel that deception is sometimes a necessary evil, and, in moderation and prudence is a healthy part of living – e.g., to protect innocent lives, lie and say someone's clothes look nice, withholding truths in order to protect privacy rights

- Because so much is at stake in terms of human safety, health, and well-being, engineers are required and expected to seek and to speak the truth conscientiously and to avoid all acts of deception (in conduct of their professional duties)
- Two of the six Fundamental Cannons in the NSPE Code of Ethics focus on honesty…

- Cannon 3 requires engineers to "Issue public statements only in an objective and truthful manner"
- Cannon 5 requires engineers to "Avoid deceptive acts"
- IEEE Code of Ethics: "to be honest and realistic in stating claims or estimates", "to seek, accept, and offer honest criticism of technical work"

NSPE BER Case No. 90-4

- An engineer who is an expert in hydrology and a key associate with a medium-sized engineering consulting firm gives the firm her two-week notice, intending to change jobs. The senior engineer-manager at the consulting firm continues to distribute the firm's brochure, which lists her as an employee of the firm.

- Violates NSPE Code of Ethics

NSPE BER Case No. 89-2

- A city advertises a position for a city engineer/public works director, seeking to fill the position before the incumbent director retires in order to facilitate a smooth transition. The top candidate is selected after an extensive screening process, and on March 10 the engineer agrees to start April 10. By March 15 the engineer begins to express doubts about being able to start on April 10, and after negotiations the deadline is extended to April 24, based on the firm commitment by the engineer to start on that date. On April 23 the engineer says he has decided not to take the position.

- This violates NSPE Code of Ethics. Why?

NSPE BER Case No. 92-6

- An engineer working in an environmental engineering firm directs a field technician to sample the contents of storage drums on the premises of a client. The technician reports back that the drums most likely contain hazardous waste, and hence require removal according to state and federal regulations. Hoping to advance future business relationships with the client, the engineer merely tells the client the drums contain "questionable material" and recommends their removal, thereby giving the client greater leeway to dispose of the material inexpensively.

- Violates NSPE Code of Ethics. Why?

Engineer's truthfulness responsibility…

- Forbids lying
- Forbids intentional distortion and exaggeration
- Withholding relevant information (except for confidential information)
- Claiming undeserved credit
- Other misrepresentations designed to decieve

Trustworthiness

- Honesty:
  - Truthfulness
  - Trustworthiness: centers on meeting responsibilities about trust (so that the public, clients, etc. can trust in the expertise of the engineer)
- Engineering is based on exercising expertise within fiduciary (trust) relationships in order to provide safe and useful products

Academic Integrity, Undergraduate Students, Graduate Students

- **Cheating:** Intentionally violating the rules of fair play in any academic exercise, for example, by using crib notes, copying from another student during a test. Case

- **Fabrication:** Intentionally falsifying or inventing information, for example by faking the results of an experiment. Case

- **Plagiarism:** Intentionally/negligently submitting others' work as one's own, for example, by quoting the words of others without using quotation marks and citing the source. Case

- **Facilitating academic dishonesty:** Intentionally helping other students to engage in academic dishonesty, for example, by loaning them your work. Case

Academic Integrity, Undergraduate Students, Graduate Students

- **Misrepresentation:** Intentionally giving false information to an instructor, for example, by lying about why one missed a test. Case

- **Failure to contribute to a collaborative project:** failing to do one's fair share on a joint project. Case

- **Sabotage:** Intentionally preventing others from doing their work, for example, by disrupting their lab experiment. Case

- **Theft:** Stealing, for example, stealing library books or other students' property. Case

Academic Integrity: Faculty, Implications for Future

- **Faculty unethical behavior:**
  - Failure to show up for class; condescending
  - Failure to monitor exams?/report unethical behavior, re-use of old exams? Cases?

- **Is above related to the engineering workplace?**
  - Give credit where credit is due (in IEEE Code of Ethics)
  - Misrepresentation of expertise
  - Setting up a professional environment

Attendance Question

- **Rate on a scale of 0 to 1, the likelihood that a person who has low academic integrity will have high unethical behavior in the workplace.**

- **Provide a single number as an answer (0=unlikely, 1=likely)**

Please: Put your name on the sheet of paper and turn it in...