CS 3001-C: Computing, Society, and Professionalism

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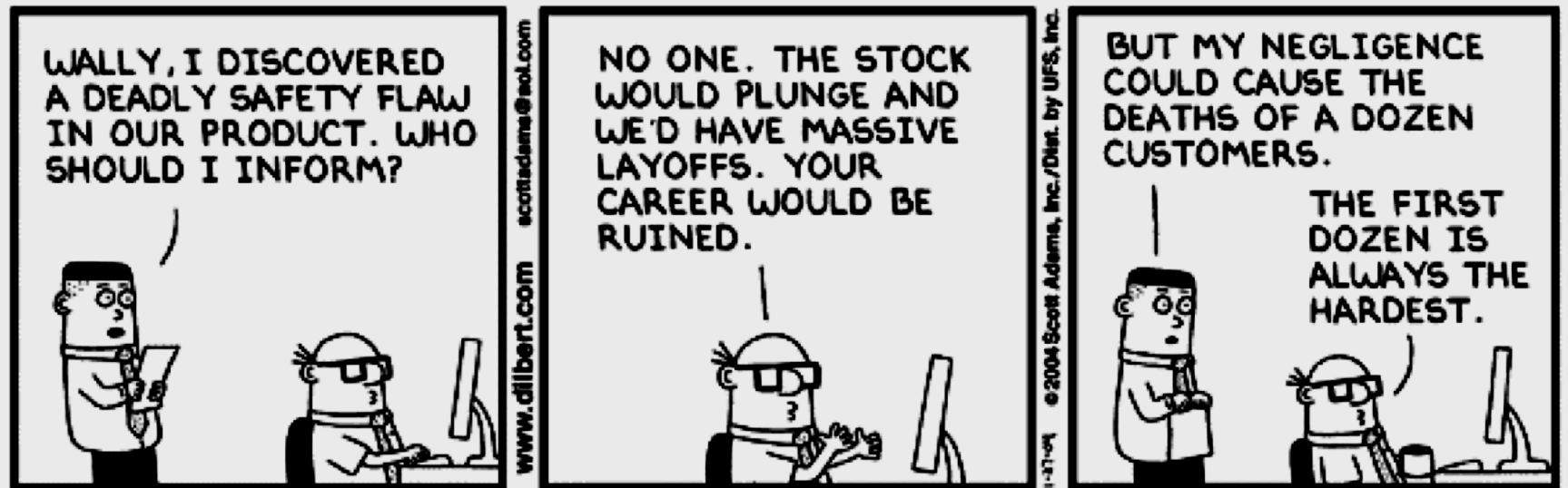
Week 5: Professional Ethics

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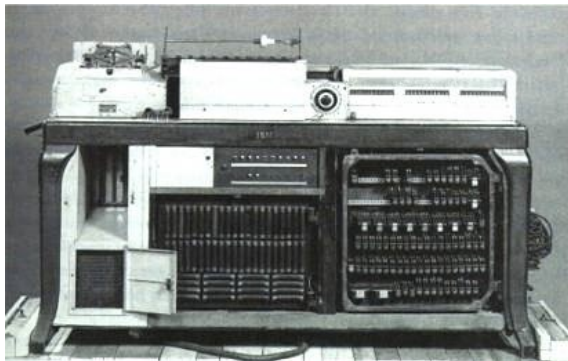# Do computer professionals need to worry about ethics like lawyers or physicians?

A Computer Professional's Story

- Jacobus Lentz, Dutch inspector of population registries before World War II

- Partnership with the Nazi Government

- Role in Hitler's Final Solution

Do computer professional need to worry about ethics like lawyers or physicians?

Privacy and security

Recall Therac-25

Financial decisions (e.g., tax software)

What is a profession?

Characteristics of a Profession

- Initial professional education
- Accreditation
- Skills development
- Certification
- Licensing
- Professional development
- Code of ethics
- Professional society

Is Computing a Mature Profession?

Preamble of Code

Software Engineering Code of Ethics: 8 Key Principles:

- Public

- Client and Employer

- Product

- Judgment

- Management

- Profession

- Colleagues

- Self

PUBLIC - Software engineers shall act consistently with the public interest

CLIENT AND EMPLOYER - Software engineers shall act in a manner that is in the best interests of their client and employer, consistent with the public interest

PRODUCT - Software engineers shall ensure that their products and related modifications meet the highest professional standards possible

JUDGMENT - Software engineers shall maintain integrity and independence in their professional judgment

MANAGEMENT - Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance

PROFESSION - Software engineers shall advance the integrity and reputation of the profession consistent with the public interest

COLLEAGUES - Software engineers shall be fair to and supportive of their colleagues

SELF - Software engineers shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession

Analysis of the Code

- Questions demonstrating the multi-faceted grounding of the code:
  - Who is affected?
  - Am I treating other humans with respect?
  - Would my decision hold up to public scrutiny?
  - How will those who are least empowered be affected? Are my acts worthy of the ideal professional?

Alternative List of Fundamental Principles

- Be impartial

- Disclose information that others ought to know

- Respect the rights of others

- Treat others justly

- Take responsibility for your actions and inactions

- Take responsibility for the actions of those you supervise

- Maintain your integrity

- Continually improve your abilities

- Share your knowledge, expertise and values

Class Discussion– Analyze the Software Engineering Code of Ethics

Class Discussion -- Software Recommendation

- Relevant fundamental principles:
  - Be impartial
  - Disclose information that others ought to know
  - Share your knowledge, expertise, and values

Class Discussion -- Software Recommendation

- List of clauses associated with these fundamental principles:

  - (Public) 2.06   Be fair and truthful in all matters
  - (Public) 2.08   Donate professional skills to good causes
  - (Judgment) 3.06   Disclose conflicts of interest
  - (Judgment) 3.07   Avoid conflicting financial interests
  - (Profession) 6.09   Place professional interests before personal
  - (Profession) 6.13   Share software knowledge

Conclusion

- Professor Smith should have revealed her conflict of interest to Mr. Shaw.

Whistle-Blowing

- Examples situations:

  - Actions/products of employer can potentially harm the public

  - Fraudulent use of tax dollars

Morality of Whistle-Blowing

Whistle-Blowing as a Moral Duty