

CS 3001-A: Computing, Society, and Professionalism

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Week 5: Professional Ethics
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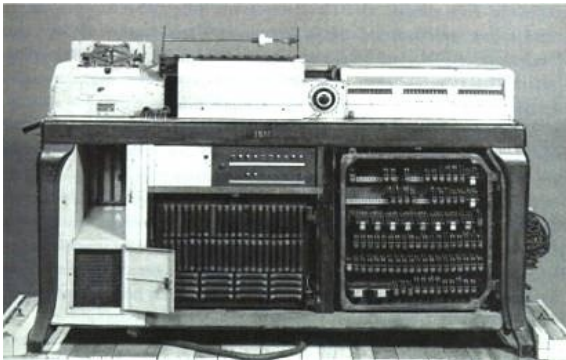


Do computer professionals need to worry about ethics like lawyers or physicians?

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?

Recall Therac-25

Privacy and security

Financial decisions (e.g., tax software)

Societal decision (e.g., AI that predicts recidivism)




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

- 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

Class Discussion -- Software Recommendation

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



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

Richard De George's five questions:

- Do you believe the problem may result in “serious and considerable harm to the public”?
- Have you told your manager your concerns about the potential harm?
- Have you tried every possible channel within the organization to resolve the problem?
- Have you documented evidence that would persuade a neutral outsider that your view is correct?
- Are you reasonably sure that if you do bring this matter to public attention, something can be done to prevent the anticipated harm?

Whistle-blow is your right if you answer “yes” to the first three questions. If you answer “yes” to all five, then it is your moral duty.



Consider this part of the ACM code of conduct:

3.7 Recognize and take special care of systems that become integrated into the infrastructure of society.

“Even the simplest computer systems have the potential to impact all aspects of society when integrated with everyday activities such as commerce, travel, government, healthcare, and education. When organizations and groups develop systems that become an important part of the infrastructure of society, their leaders have an added responsibility to be good stewards of these systems. Part of that stewardship requires establishing policies for fair system access, including for those who may have been excluded. That stewardship also requires that computing professionals monitor the level of integration of their systems into the infrastructure of society. As the level of adoption changes, the ethical responsibilities of the organization or group are likely to change as well. Continual monitoring of how society is using a system will allow the organization or group to remain consistent with their ethical obligations outlined in the Code. When appropriate standards of care do not exist, computing professionals have a duty to ensure they are developed.”