Professional Ethics

Who are these guys and what are their purported ethical lapses?

Why?

- Tanaina Database
- http://www.unemployedprofessors.com/

Ethical Drivers

- Legal
  - Government regulations, intellectual property, health and safety, data protection
- Broader personal values
  - Individual moral issues
  - e.g. utilitarian vs. deontological
- Professional
  - ACM/IEEE/BCS code of conduct

ACM Code of Ethics and Professional Conduct

- General Moral Imperatives
  - Contribute to society and general well being
  - Avoid harm to others
  - Be honest and trustworthy
  - Be fair and do not discriminate
  - Honor property rights
  - Give credit where due
  - Respect privacy of others

ACM Code of Ethics

- More Specific Professional Responsibilities
  - Strive to achieve the highest quality, effectiveness and dignity in both the process and products of professional work
  - Acquire and maintain professional competence
  - Know and respect existing laws pertaining to professional work
  - Accept and provide appropriate professional review
  - Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks
  - Honor contracts, agreements, and assigned responsibilities
  - Improve public understanding of computing and its consequences
  - Access computing and communication resources only when authorized to do so

ACM Code of Ethics

- Organizational Leadership Imperatives
  - Articulate social responsibilities of members of an organizational unit and encourage full acceptance of those responsibilities
  - Manage personnel and resources to design and build information systems that enhance the quality of working life
  - Acknowledge and support proper and authorized uses of an organization's computing and communication resources
  - Ensure that users and those who will be affected by a system have their needs clearly articulated during the assessment and design of requirements; later the system must be validated to meet requirements
  - Articulate and support policies that protect the dignity of users and others affected by a computing system
  - Create opportunities for members of the organization to learn the principles and limitations of computer systems

ACM Code of Ethics

- Compliance with the Code
  - Uphold and promote the principles of this Code
  - Treat violations of this code as inconsistent with membership in the ACM

IEEE Code of Ethics

- to accept responsibility in making engineering decisions …
- to avoid real or perceived conflicts of interest …
- to be honest and realistic in stating claims …
- to reject bribery in all its forms;
- to improve the understanding of technology, …
- to maintain and improve our technical competence …
- to seek, accept, and offer honest criticism of technical work, …
- to treat fairly all persons regardless of such factors as race, …
- to avoid injuring others, their property, reputation, …
- to assist colleagues and co-workers in their professional …

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ACM/IEEE Joint Ethics

- Complex scenarios possible but code of ethics has been adopted by ACM, IEEE
    1. **Public** – Act in public interest
    2. **Client and Employer** – Act in a manner that is in the best interests of the client and employer
    3. **Product** – Ensure their products meet highest professional standards
    4. **Judgment** – Maintain integrity and independence
    5. **Management** – Managers and leaders shall subscribe to an ethical approach to software development and maintenance
    6. **Profession** – Advance the integrity of the profession
    7. **Colleagues** – Be fair and supportive of colleagues
    8. **Self** – Participate in lifelong learning and promote an ethical approach to the practice of the profession

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Legal Examples

- Legislation still a moving target
  - Stop Online Piracy Act (SOPA)
    - Postponed Jan. 2012 after widespread concerns, especially from search engines
- Existing legislation
  - Digital Millennium Copyright Act
    - Criminalizes production and dissemination of technology, devices, or services intended to circumvent measures that control access to copyright works

Government and Privacy

- Patriot Act on collecting personal information
- HIPAA requires encryption of health data
- European Union Data Protection Directive
  - Notice. Users should be given notice when their data are being collected.
  - Purpose. Data should only be used for the purpose stated and not for any other purposes.
  - Consent. Data should not be disclosed without the data subject's consent.
  - Security. Collected data should be kept secure from any potential abuses.
  - Disclosure. Users should be informed as to who is accessing their data.
  - Access. Users should be allowed to access their data and make corrections to any inaccurate data.
  - Accountability. Users should have a method available to them to hold data collectors accountable for following the above principles.

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IEEE Code of Ethics

1. To accept responsibility in making decisions consistent with the safety, health and welfare of the public, and to disclose promptly factors that might endanger the public or the environment;

2. To avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;

3. To be honest and realistic in stating claims or estimates based on available data

IEEE Code of Ethics

4. To reject bribery in all its forms
5. To improve the understanding of technology, its appropriate application, and potential consequences
6. To maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations
7. To seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others

IEEE Code of Ethics

8. To treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin
9. To avoid injuring others, their property, reputation, or employment by false or malicious actions
10. To assist colleagues and co-workers in their professional development and to support them in following this code of ethics

Fictitional Case Study

- Derek Evans used to work for a small computer firm that specializes in developing software for management tasks. Derek was a primary contributor in designing an innovative software system for customer services. This software system is essentially the "lifeblood" of the firm. The small computer firm never asked Derek to sign an agreement that software designed during his employment there becomes the property of the company. However, his new employer did.

Software…

- Derek is now working for a much larger computer firm. Derek's job is in the customer service area, and he spends most of his time on the telephone talking with customers having systems problems. This requires him to cross reference large amounts of information. It now occurs to him that by making a few minor alterations in the innovative software system he helped design at the small computer firm the task of cross referencing can be greatly simplified.

Software…

- On Friday Derek decides he will come in early Monday morning to make the adaptation. However, on Saturday evening he attends a party with two of his old friends, you and Horace Jones. Since it has been some time since you have seen each other, you spend some time discussing what you have been doing recently. Derek mentions his plan to adapt the software system on Monday. Horace asks, "Isn't that unethical? That system is really the property of your previous employer." "But," Derek replies, "I'm just trying to make my work more efficient. I'm not selling the system to anyone, or anything like that. It's just for my use -- and, after all, I did help design it. Besides, it's not exactly the same system -- I've made a few changes."

Software

- What follows is a discussion among the three of you. What is your contribution?

Software

- Derek installs the software Monday morning. Soon everyone is impressed with his efficiency. Others are asking about the "secret" of his success. Derek begins to realize that the software system might well have company-wide adaptability. This does not go unnoticed by his superiors. So, he is offered an opportunity to introduce the system in other parts of the company.

Software…

- Now Derek recalls the conversation at the party, and he begins to wonder if Horace was right after all. He suggests that his previous employer be contacted and that the more extended use of the software system be negotiated with the small computer firm. This move is firmly resisted by his superiors, who insist that the software system is now the property of the larger firm. Derek balks at the idea of going ahead without talking with the smaller firm. If Derek doesn't want the new job, they reply, someone else can be invited to do it; in any case, the adaptation will be made.

- What should Derek do now?

GM

- Charged with installing computer chips that resulted in emitting excessive amounts of carbon dioxide from their Cadillacs, General Motors agreed in December 1995 to recall nearly 500,000 late-model Cadillacs and pay nearly $45 million in fines and recall costs. Lawyers for the Environmental Protection Agency and the Justice Department contended that G.M. knew that the design change would result in pollution problems. Rejecting this claim, G.M. released a statement saying that the case was "a matter of interpretation" of complex regulations, but that it had "worked extremely hard to resolve the matter and avoid litigation."

GM…

- According to EPA and Justice Department officials, the $11 million civil penalty was the third largest penalty in a pollution case, the second largest under such penalty under the Clean Air Act, and the largest involving motor vehicle pollution. This was also the first case of a court ordering an automobile recall to reduce pollution rather than to improve safety or dependability.

GM…

- Government officials said that in 1990 a new computer chip was designed for the engine controls of Cadillac Seville and Deville models. This was in response to car owners complaints that these cars tended to stall when the climate control system was running. The chips injected additional fuel into the engine whenever this system was running. But this resulted in tailpipe emissions of carbon dioxide well in excess of the regulations.

GM…

- Although the cars are usually driven with the climate control system running, tests used for certifying the meeting of emission standards were conducted when the system was not running. This was standard practice for emission tests throughout the automotive industry.
- However, EPA officials argued that, under the Clean Air Act, G.M. should have informed them that the Cadillac's design was changed in a way that would result in violating pollution standards under normal driving conditions. In 1970, the officials said, automobile manufacturers were directed not to slip around testing rules by designing cars that technically pass the tests but that, nevertheless, cause avoidable pollution. G.M.'s competitors, the officials contended, complied with that directive.

GM…

- A G.M. spokesperson said that testing emissions with the climate control running was not required because, "It was not in the rules, not in the regulations; it's not in the Clean Air Act." However, claiming that G.M. discovered the problem in 1991, Justice Department environmental lawyer Thomas P. Carroll objected to G.M.'s continued inclusion of the chip in the 1992-5 models: "They should have gone back and re-engineered it to improve the emissions."

GM…

- In agreeing to recall the vehicles, G.M. said it now had a way of controlling the stalling problem without increasing pollution. This involves "new fueling calibrations," G.M. said, and it "should have no adverse effect on the driveability of the vehicles involved."

- If you were a computer engineer working on this project what ethical responsibilities would you have?

Reddit user, Violentacrez

- Slate.com
  - Gawker's Adrian Chen revealed the real-life identity of one of social news site Reddit's most notorious users. Online, the man known as Violentacrez has been active in such Reddit forums as "Chokeabitch," "Misogyny," "Incest," "PicsofDeadKids," and "Creepshots," a subreddit that encouraged men to snap sexualized stalker photos of women in public, then share them online with creeps everywhere. IRL, Violentacrez is a 49-year-old computer programmer at a Texas financial services company named Michael Brutsch. His outing on Gawker has reopened a longstanding debate surrounding anonymity, freedom of expression, and harassment online.

Violentacrez

- Reddit… where the only community value more important than saying whatever you want is not saying who anyone else is…
- "Under Reddit logic, outing Violentacrez is worse than anonymously posting creepshots of innocent women, because doing so would undermine Reddit's role as a safe place for people to anonymously post creepshots of innocent women," Chen wrote. After Chen outed the troll, many subreddits banned all Gawker links.

- Does inappropriate behavior trump the right to privacy?