MICHIGAN STATE
U N I V E R S I T Y

11/23: Ethics and Professionalism

CSE 498, Collaborative Design

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Ethics vs Law

- Ethics
  - "Good" vs "Evil" or "Right" vs "Wrong"
  - Moral Judgment
  - Choice
- Law
  - Legal vs Illegal
  - Legal Judgment
  - No Choice

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Professional Ethics

- Set by…
  - Professional Society
  - Licensing Agency
  - Government
  - Company
  - Etc…
- Must obey if you want to…
  - …be a member
  - …be licensed
  - …do business
  - …keep your job
  - …etc

Really More
Like Law

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Lots of Variables

- Who Your…
  - …Employer Is
  - …Customers Are
- Very Different Rules/Laws/Policies
  - Industry
    - Privately Held
    - Publically Held
  - Government
  - Government Contractor
  - Educational Institution
  - Etc…

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Resources

- University of Virginia
  http://repo-nt.tcc.virginia.edu/ethics/index.htm

- Texas Tech
  http://www.niee.org/pd.cfm?pt=NIEE

- ACM
  http://www.acm.org/constitution/code.html

- IEEE
  http://www.ieee.org/portal/pages/about/whatis/code.html

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ACM (1 of 5)

- Code of Ethics and Professional Conduct
- http://www.acm.org/constitution/code.html

1. General Moral Imperatives
2. More Specific Professional Responsibilities
3. Organizational Leadership Imperatives
4. Compliance with the Code

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ACM (2 of 5)

1. General Moral Imperatives
    1. Contribute to society and human well-being.
    2. Avoid harm to others.
    3. Be honest and trustworthy.
    4. Be fair and take action not to discriminate.
    5. Honor property rights including copyrights and patent.
    6. Give proper credit for intellectual property.
    7. Respect the privacy of others.
    8. Honor confidentiality.

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ACM (3 of 5)

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

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ACM (4 of 5)

3. Organizational Leadership Imperatives
    1. Articulate social responsibilities of members of an organizational unit and encourage full acceptance of those responsibilities.
    2. Manage personnel and resources to design and build information systems that enhance the quality of working life.
    3. Acknowledge and support proper and authorized uses of an organization's computing and communication resources.
    4. 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.
    5. Articulate and support policies that protect the dignity of users and others affected by a computing system.
    6. Create opportunities for members of the organization to learn the principles and limitations of computer systems.

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ACM (5 of 5)

4. Compliance With The Code
    1. Uphold and promote the principles of this Code.
    2. Treat violations of this code as inconsistent with membership in the ACM.

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IEEE (1 of 2)

We, the members of the IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting a personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:

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;

4. to reject bribery in all its forms;

5. to improve the understanding of technology, its appropriate application, and potential consequences;

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IEEE (2 of 2)

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;

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 action;

10. to assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

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School vs. Work World

What happens if you break the "rules"?

- School?
  - Slap on the Wrist
  - Flunk an Assignment or Course
  - Kicked out of School (...but Go to a New School)
  - Etc...
- Work World?
  - Fired
  - Blacklisted
  - Prosecuted
  - Etc...

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Ethics / Legal Issues

Is it...
  - ...ethical
  - ...legal
...for...
  - ...University
  - ...Employer
  - ...Government
...to monitor...
  - ...email?
  - ...internet usage?
  - ...text messages?
  - ...phone usage?

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Use of Email

- Institutional vs. Personal
- Policies/Legalities
  May be...
  - Against Company Policy
  - Public Information (FOIA-able)
  - Subpoena-able
  - Etc.
- Etiquette
  Watch...
  - What You Write
  - How You Write
  - Who You cc and bcc
  - Reply All
  - Etc.

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Use of Hardware/Software

- Institutional vs. Personal
- May Be Specific Policies
  - Use
  - Loading Software
  - Etc.
- Software "Borrowed" From...
  - Relative or Friend
  - Bit Torrent
  - Open Source
  - Etc.

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Intellectual Property

- "Ideas" Worth Money
  - Trade Secrets
  - Copyrights
  - Patents
  - Etc..
- Like...
  - How to Make Something
  - How to Do Something
  - Work of Art (Music, Photo, Painting, Novel, Etc.)
  - Piece of Software
  - Etc...
- Must Protect
- Check with an IP attorney.

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Patent vs Copyright

- Patent
  - Own "Idea"
  - Via Patent Process
  - "Easier" to Protect
- Copyright
  - Own "Text"
  - Via
    - "Automatically"
    - "© 2009 by Wayne Dyksen. All Rights Reserved."
    - By Formally Registering
  - "Harder" to Protect

Check with an IP attorney.

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Use of Webware

- Webware
  - Open Source
  - Shareware
  - Freeware
  - Exampleware
  - Etc.
- Scenario
  - You're writing software to sell.
  - You google "C# linked list".
  - You find well written well documented library of linked list functions (insert, delete, sort, search, etc..).
  - The site says "Feel Free To Use This Code" so you do.
  - Who owns what?

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Ethics/Legal Scenario

- If a **novice** user, say the business next door, does not restrict access, is it ethical to browse or take their computer files? Legal?

- What if the business next door is an **expert** user, say a computer security firm?

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Ethics/Legal Scenario

- You miss a meeting for your capstone team. You were at Midnight Madness, but you tell your teammates that you were sick. Is this ethical? Legal?
- You are being deposed under oath and you say that you missed your capstone meeting because you were sick when you were really at Midnight Madness. Is this ethical? Legal?

(Note: Rules and Consequences Change When You Leave the University. Be careful!)

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Ethics/Legal Scenario

- For your English literature class you are assigned a paper on Stephen Crane's novel *The Red Badge of Courage*. You buy a paper on termpaper.com and submit it. Ethical? Legal?

- You work for a consulting firm and are assigned the task of evaluating routers and writing a whitepaper for a client. You google and find performance data and writing, which you use in your paper. Ethical? Legal?

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Ethics/Legal Scenario

You work at a company that stores sensitive data (medical records, social service records, etc.). You have access to data, and download them to your notebook computer, and bring it home to finish a report. You also back up a copy of the data to your home computer in order to work at home.

Is this ethical? Legal? Against company policy?

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Ethics/Legal Scenario

You work as a software engineer on an medical equipment. The project is late and the software does not work to specifications. You think the issues are safety critical, but your boss says it's of no concern. And, after all, the project is late and over budget.

What should you do? What would you do?

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Ethics/Legal Scenario

You are a consultant, asked to evaluate designs and recommend a solution for a company. You conclude that one particular company has the best solution. However, you do not mention that you have a significant financial interest in the company you recommended.

Is this ethical? Legal?

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Ethics/Legal Scenario

You have an idea for a company and a web site. You hire another MSU student to do some design work and initial programming. The student does some work. Then he/she goes off and start his/her own competing company and web site based on your same fundamental ideas. His/her web site is a phenomenal hit. His/her company is valued at over $1B. Your company is valued at $0.

Is this ethical? Legal?

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Ethics/Legal Scenarios: Freebies

From a customer and/or vendor can you accept…
- …shirts? SWAG?
- …lunch or dinner?
- …golf outing in Florida?
- …golf clubs?
- …educational cruise in the Bahamas?
- …consulting contract for you?
- …consulting contract for a family member?
- …job for a family member?
- …etc…?

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