Professional Ethics

Chris Reedy
based on briefing by
Bill Hurd
CS 225
Are we to be considered “professionals” like doctors, lawyers, certified public accountants (CPA’s), Licensed geological engineers, etc.?
What makes a profession?
What makes a profession? (Answer 1)

- Professionals have special knowledge and exercise expert judgment
- Professional decisions impact public safety
What makes a profession? (Answer 2)

- Certification
  - Education + Experience + Test
- Licensing
- Malpractice Insurance
Figure 9.1 A mature profession has eight attributes that enable it to certify new members and support existing members [1].
Do we have these?

- Professional Education in University/College
- Accreditation
  - An agreed upon “Body of Knowledge”
- On going skills development
- Certification programs
- State Licensing
- Code of conduct
- Professional representation
Is software engineering a profession?

- Do we have licensing?
- Do employers only hire people with University degrees?
  - with CS degrees?
- Do most people belong to a professional organization?
- Do most people serve some sort of apprenticeship?
- Do most student graduate from accredited programs?
ACM Position on Licensing

ACM is opposed to the licensing of software engineers at this time because ACM believes it is premature and would not be effective at addressing the problems of software quality and reliability.

ACM is, however, committed to solving the software quality problem by promoting R&D, by developing a core body of knowledge for software engineering, and by identifying standards of practice.

See: http://www.acm.org/serving/se_policy/ (dated July 17, 2000)
ACM Code of Conduct

- Developed together with IEEE
- Eight principles (1-8)
  - Clauses under each principle
- Preamble
  - Code is not legalistic and must be interpreted by individuals involved
  - Individuals must be prepared to resolve conflicts among principles
ACM Code of Conduct

- 2.02 Not knowingly use software that is obtained or retained either illegally or unethically.
  - How could this be in your own best interest?
- 2.03 Use the property of a client of employer only in ways properly authorized, and with the client’s or employer’s knowledge and consent.
Code of Conduct

2.05 Keep private any confidential information gained in their professional work where such confidentiality is consistent with the public interest and consistent with the law.

- When is it OK to violate this principle?
- Do you know what an Non Disclosure Agreement is (NDA) is?
Code of Conduct

- 2.09 Accept no outside work detrimental to the work they perform for their primary employer.

- Do you know what a non compete clause is?
Figure 9.4  Software engineers shall ensure proper and achievable goals and objectives for any project on which they work or propose (Clause 3.02).

Project Goals:
Work from Web browser
Easy to learn
Capture 100% market share

What would you do?
5. Management
5.05 Ensure realistic quantitative estimates of cost, scheduling, personnel, quality and outcomes on any project on which they work or propose to work, and provide an uncertainty assessment of these estimates.

Do you know how to do this?