CPSC 499: Computers & Society

Lecture 2: Professional Ethics

Exercise Set 2 out

Highlights from last time ...

1. Ethics broadly about how “best to live” (right/wrong actions)

2. In a professional setting, ethics often expressed through
   formal codes & standards

3. Software engineering ethics more than avoiding
   catastrophes (e.g., privacy, financial loss, social implications)

Today: Professional ethics & the IEEE/ACM Software

Engineering Code of Ethics
Professionals Contribute to the “Good Life”

Medical professionals (public health & well being)

Legal professionals (system of justice)

Educators …

Engineers …

What does it mean to be a professional?

Software engineers are professionals (practice a profession)

1. It is your vocation (your “calling”, your “trade”, life’s work)
   ● Drawn to it
   ● Committed to it
   ● Identified by it
   ● Well suited, trained, and/or qualified for it
What does it mean to be a professional?

Software engineers are **professionals** (practice a **profession**)

2. An **investment and commitment** to the field

   - Partly why expected to undertake advanced education and training (in addition to knowledge/expertise)
   - Entering the field is taken as evidence of having a sincere interest in the field (don’t become an MD to just get a job)
   - You want your own personal good & sense of self to be intertwined & identified with the good of the profession
   - People often change jobs but not professions!

What does it mean to be a professional?

Software engineers are **professionals** (practice a **profession**)

3. More than just a skill, professionals **protect a vital public good**

   - Without doctors, public health would suffer and a good life is virtually impossible without some measure of good health
   - Without judges and attorneys, public would have no formal access to justice
   - Without scientists, the public would be deprived of reliable and carefully tested knowledge
What does it mean to be a professional?

Software engineers are professionals (practice a profession)

4. Receive the public’s support, respect, and trust

- And with this, the power of influence over how people live
- E.g., doctors influence public health decisions
- Scientists influence public policy
- What about software engineers?

Thus, professionals have special ethical obligations to the public they serve (... which includes software engineers!)

IEEE/ACM Software Engineering Code of Ethics

Emphasizes rules and principles

- E.g., “Ensure products meet highest standards possible”
- As opposed to virtues (individual responsibility, honesty, sense of fairness, etc.)

Each principle is composed of a set of clauses

- E.g., “Ensure adequate testing, debugging, and review of software and related documents on which they work”
- “The list of principles and clauses are not exhaustive”
IEEE/ACM Software Engineering Code of Ethics

The 8 principles in the code

1. **Public**: act consistently with the public interest
2. **Client/Employer**: act in the best interests of their client and employer, consistent with the public interest
3. **Product**: ensure products meet the highest professional standards possible
4. **Judgement**: maintain integrity and independence in their professional judgement
5. **Management**: subscribe to and promote an ethical approach to management of projects

6. **Profession**: advance the integrity and reputation of the profession consistent with the public interest
7. **Colleagues**: be fair to and supportive of their colleagues
8. **Self**: participate in lifelong learning and promote an ethical approach to the practice of the profession

In the code, the public interest always **comes first**
The code is not an algorithm …

- “... not a simple ethical algorithm that generates ethical decisions”
- “... standards may be in tension with each other”
- “... require the software engineer to use ethical judgement to act in a manner which is most consistent with the spirit of the [code] given the circumstances”
- “Ethical tensions can be addressed by thoughtful consideration of fundamental principles, rather than blind reliance on detailed regulations ..."

Question 5 in exercise set 2 is to write a case study (scenario)
- You will do this in teams of 2
- You will have 2 weeks to finish this …

Today:
- Find someone to partner with
- Select one of the areas to work on
- Brainstorm ideas
- Do in-class exercise sheet

Next time:
- Quiz
- Time to work on your case studies (come prepared)