Professional Practices

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IT Professional Practices

- IT professional practices encompass ethical conduct, responsible data management, continuous learning, and maintaining competency to serve individuals, organizations, and society effectively and responsibly. Key aspects include understanding and upholding codes of ethics like those from the ACM, prioritizing privacy, securing systems, respecting intellectual property, and being transparent with clients and employers about limitations and potential project issues.

- **Core Principles of IT Professional Practices**

- **Professional Ethics and Conduct:**

    Adhering to ethical principles and codes of conduct, such as those from the Association for Computing Machinery (ACM), is fundamental.

IT Professional Practices

- **Competence:**
  IT professionals must provide services in their areas of expertise and be honest about their limitations.
- **Data Security and Privacy:**
  Professionals have an obligation to protect personal information, prevent unauthorized access, and ensure transparency in data collection and usage.
- **Intellectual Property and Copyright:**
  Upholding intellectual property rights, including copyrights, patents, and trade secrets, is a key responsibility.
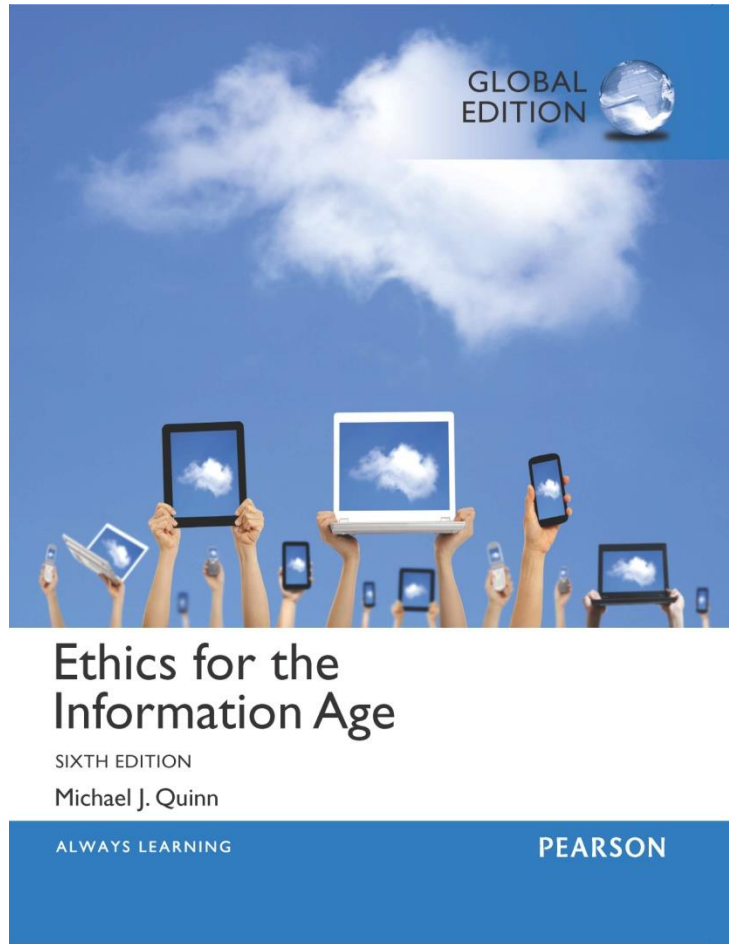
IT Professional Practices

- **Social Responsibility:**

  IT professionals must consider the broader social, legal, and ethical implications of their work on individuals and society.

- **Continuous Learning:**

  The field of IT is constantly evolving, so continuous learning is necessary to stay updated with technological advancements and maintain competency.
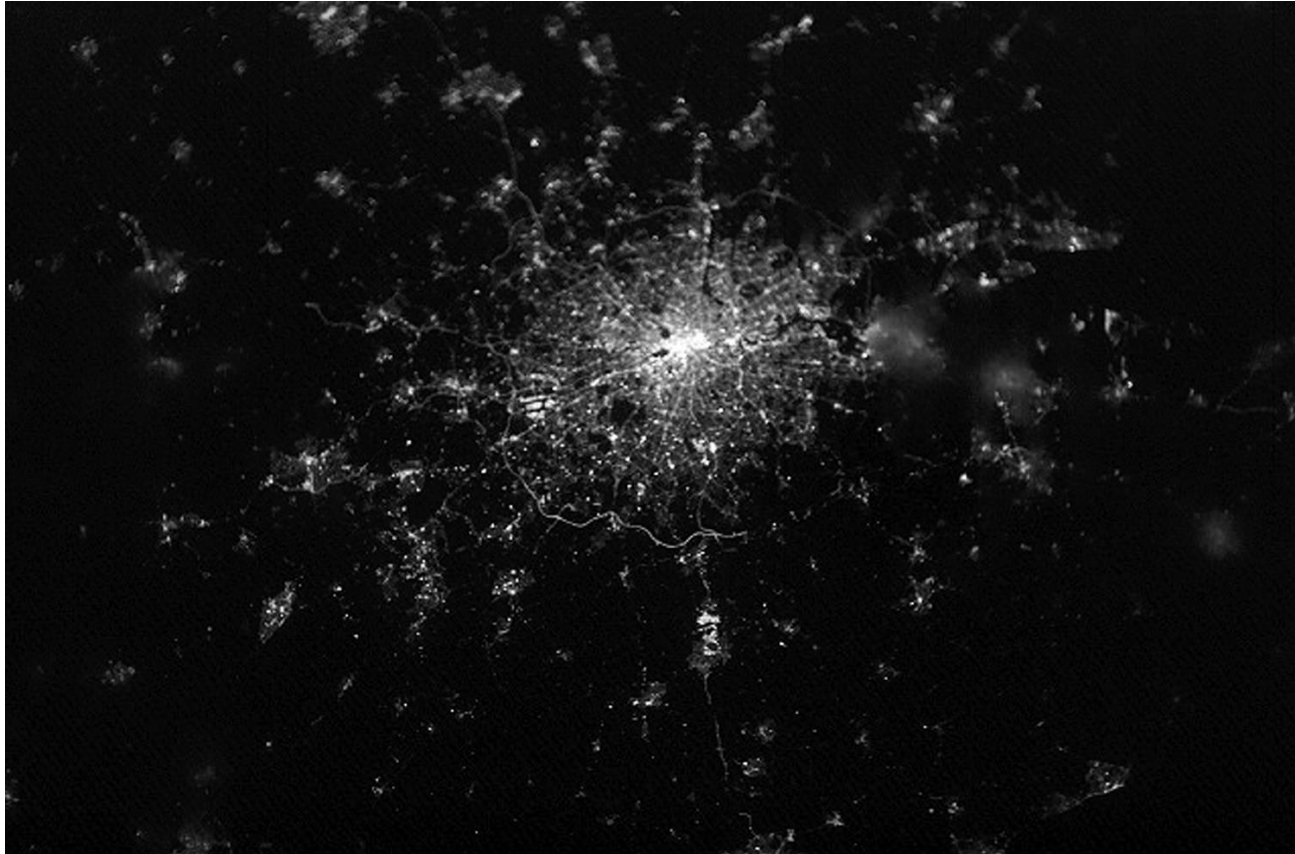
Chapter 2: Introduction to Ethics

Chapter Overview

- Introduction

- Review of nine ethical theories

- Comparing workable ethical theories

- Morality of breaking the law

2.1 Introduction

We Live in Communities
(London, England at night from space)

Courtesy of NASA

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The Ethical Point of View

- Almost everyone shares "core values", desiring:
  - Life
  - Happiness
  - Ability to accomplish goals
- Two ways to view world
  - Selfish point of view: consider only your own self and your core values
  - Ethical point of view: respect other people and their core values
- Society
  - Association of people organized under a system of rules
  - Rules: advance the good of members over time

Defining Terms

Ethics vs. Morality

Aspect	Ethics	Morality
Definition	Rules or principles that govern behavior, often established by a group, profession, or society.	Personal beliefs about right and wrong, shaped by culture, religion, and individual experiences.
Source	External (laws, professional codes, social systems).	Internal (personal values, conscience, religious beliefs).
Flexibility	Can change with societal norms or professional guidelines.	More deeply ingrained and resistant to change.
Application	Often applied in professional or societal contexts (e.g., medical ethics, business ethics).	Applied in personal and everyday life decisions.

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Defining Terms

Examples

- **Business Ethics vs. Personal Morality**
  - A lawyer may **ethically** defend a client they believe is guilty because the legal system demands fair representation.
  - However, their **morality** might make them feel guilty for helping someone they believe did wrong.
- **Medical Ethics vs. Morality**
  - A doctor may be **ethically** bound to keep patient information confidential.
  - But if keeping a secret could harm others (e.g., a patient with a contagious disease refusing to inform close contacts), the doctor's **morality** might push them to warn others.

Key Takeaway

- **Ethics** = external rules that guide behavior in society or professions.
- **Morality** = internal beliefs about right and wrong.

Why Study Ethics?

- Ethics: a way to decide the best thing to do

- New problems accompany new technologies

- "Common wisdom" may not exist for novel situations brought about by new technologies

Scenario 1

Alexis, a gifted high school student, wants to become a doctor. Because she comes from a poor family, she will need a scholarship in order to attend college. Some of her classes require students to do extra research projects in order to get an A. Her high school has a few older PCs, but there are always long lines of students waiting to use them during the school day. After school, she usually works at a part-time job to help support her family. One evening Alexis visits the library of a private college a few miles from her family's apartment, and she finds plenty of unused PCs connected to the Internet. She surreptitiously looks over the shoulder of another student to learn a valid login/password combination. Alexis returns to the library several times a week, and by using its PCs and printers she efficiently completes the extra research projects, graduates from high school with straight A's, and gets a full ride scholarship to attend a prestigious university.

Scenario 1

- Did Alexis do anything wrong?
- Who benefited from Alexis's course of action?
- Who was hurt by Alexis's course of action?
- Did Alexis have an unfair advantage over her high school classmates?
- Would any of your answers change if it turns out Alexis did not win a college scholarship after all?
- Are there better ways Alexis could have achieved her objective?
- What additional information, if any, would help you answer the previous questions?

Scenario 2

An organization dedicated to reducing spam tries to get Internet service providers (ISPs) in an East Asian country to stop the spammers by protecting their mail servers. When this effort is unsuccessful, the antispam organization puts the addresses of these ISPs on its blacklist. Many ISPs in the United States consult the blacklist and refuse to accept email from the blacklisted ISPs. This action has two results. First, the amount of spam received by the typical email user in the United States drops by 25 percent. Second, tens of thousands of innocent computer users in the East Asian country are unable to send email to friends and business associates in the United States.

Scenario 2

- Did the antispam organization do anything wrong?

- Did the ISPs that refused to accept email from the blacklisted ISPs do anything wrong?

- Who benefited from the organization's action?

- Who was hurt by the organization's action?

- Could the organization have achieved its goals through a better course of action?

- What additional information, if any, would help you answer the previous questions?

Scenario 3

In an attempt to deter speeders, the East Dakota State Police (EDSP) installs video cameras on all of its freeway overpasses. The cameras are connected to computers that can reliably detect cars traveling more than five miles per hour above the speed limit. These computers have sophisticated image recognition software that enables them to read license plate numbers and capture high resolution pictures of vehicle drivers. If the picture of the driver matches the driver's license photo of one of the registered owners of the car, the system issues a speeding ticket to the driver, complete with photo evidence. Six months after the system is put into operation, the number of people speeding on East Dakota freeways is reduced by 90 percent. The FBI asks the EDSP for real-time access to the information collected by the video cameras. The EDSP complies with this request. Three months later, the FBI uses this information to arrest five members of a terrorist organization.

Scenario 3

- Did the East Dakota State Police do anything wrong?
- Who benefited from the actions of the EDSP?
- Who was harmed by the actions of the EDSP?
- What other courses of action could the EDSP have taken to achieve its objectives?
- What additional information, if any, would help you answer the previous questions?

Scenario 4

You are the senior software engineer at a start-up company developing an exciting new product that will allow salespeople to generate and email sales quotes and customer invoices from their smartphones. Your company's sales force has led a major corporation to believe your product will be available next week. Unfortunately, at this point the software still contains quite a few bugs. The leader of the testing group has reported that all of the known bugs appear to be minor, but it will take another month of testing for his team to be confident the product contains no catastrophic errors. Because of the fierce competition in the smartphone software industry, it is critical that your company be "first to market." To the best of your knowledge, a well-established company will release a similar product in a few weeks. If its product appears first, your start-up company will probably go out of business.

Scenario 4

- Should you recommend release of the product next week?

- Who will benefit if the company follows your recommendation?

- Who will be harmed if the company follows your recommendation?

- Do you have an obligation to any group of people that may be affected by your decision?

- What additional information, if any, would help you answer the previous questions?

A Good Ethical Theory Supports Persuasive, Logical Arguments

2.2 Subjective Relativism

What Is Relativism?

- Theory of Ethical Relativism
  - No universal norms of right and wrong
  - One person can say "X is right," another can say "X is wrong," and both can be right
  - Two Kinds : Subjective and Cultural relativism

- Subjective relativism
  - Each person decides right and wrong for himself or herself
  - "What's right for you may not be right for me"

Case for Subjective Relativism

- Well-meaning and intelligent people disagree on moral issues (e.g., taxation & wealth disparity)

- Ethical debates are disagreeable and often get us nowhere

Case Against Subjective Relativism

- Blurs line between doing what you think is right and doing what you want to do
- Makes no moral distinction between the actions of different people
  - The fact is that some people have caused millions to suffer, while others have led lives of great service to humanity. Suppose both Adolf Hitler and Mother Teresa spent their entire lives doing what they thought was the right thing to do. Do you want to give both of them credit for living good lives?

Case Against Subjective Relativism

- – A modification of the original formulation of subjective relativism might be, "I can decide what's right for me, as long as my actions don't hurt anybody else." That solves the problem of Adolf Hitler versus Mother Teresa.

Case Against Subjective Relativism

- ## SR and tolerance are two different things
  - Subjective relativism holds that individuals decide for themselves what is right and what is wrong. If you are a tolerant person, is it okay with you if some people decide they want to be intolerant? What if a person decides that he will only deal fairly with people of his own racial group? You can't say that racial bigotry is wrong without undermining the foundation of subjective relativism, because any statement of the form, "People ought to be tolerant," is an example of a universal moral **norm**, or rule.

Case Against Subjective Relativism

Relativism is based on the idea that there are *no* universal moral norms, so a blanket statement about the need for tolerance is incompatible with subjective relativism.

- Decisions may not be based on reason
  - If individuals decide for themselves what is right and what is wrong, they can reach their conclusions by any means they see fit. They may choose to base their decisions on something other than logic and reason, such as the rolling of dice or the turning of tarot cards. This path is contrary to using logic and reason.

- Not a workable ethical theory

2.3 Cultural Relativism

Cultural Relativism in a Nutshell

- What is "right" and "wrong" depends upon a society's actual moral guidelines

- These guidelines vary from place to place and from time to time

- A particular action may be right in one society at one time and wrong in other society or at another time

Examples:

Moral in USA	Immoral in
Eating Beef	India
Drinking alcohol, Gambling	Middle Eastern Islamic Countries
Women in school or business	Afghanistan under the Taliban
Women wearing shorts, face uncovered	Iran, Saudi Arabia, Sudan

Case for Cultural Relativism

- Different social contexts demand different moral guidelines

- It is arrogant for one society to judge another

Case Against Cultural Relativism

- Because two societies **do** have different moral views about right and wrong doesn't mean they **ought to** have different views

- It doesn't explain how moral guidelines are determined
  - Suppose I am new to a society and I understand I am supposed to abide by its moral guidelines. How do I determine what those guidelines are?

- What if there are no cultural norms?

  - For example, the Internet has made possible massive exchanges of digitized information. Millions of Americans seem to think sharing copyrighted music is okay, but other groups insist this activity is nothing more than stealing. Who is correct?

- It doesn't account for evolution of moral guidelines.

Case Against Cultural Relativism

- Until the 1960s many southern American states had segregated universities. Today these universities are integrated. This cultural shift was accelerated by the actions of a few brave people of color who challenged the status quo and enrolled in universities that had been the exclusive preserve of white students. At the time these students were doing what they "ought not" to have done; they were doing something wrong according to the dominant culture of those states at that time. By today's standards they did nothing wrong, and many people view them as heroic figures. Doesn't it make more sense to believe that their actions were the right thing to do all along?

Case Against Cultural Relativism

- It provides no way out for cultures in conflict

  Think about the culture of the Palestinians who have been crowded into refugee camps in the Gaza Strip for more than 60 years. Some of these people are completely committed to an armed struggle against Israel. Meanwhile, some people in Israel believe the Jewish state ought to be larger and are completely committed to the expansion of settlements into the Gaza Strip.

- Existence of many acceptable practices does not imply all practices are acceptable (many/any fallacy)

  - To illustrate this fallacy, consider documentation styles for computer programs. There are many good ways to add comments to a program; that does not mean that any commenting style is good.

Case Against Cultural Relativism

- Societies do, in fact, share certain core values
  - For example, newborn babies are helpless. A society must care for its infants if it wishes to continue. Hence a core value of every society is that babies must be cared for. Communities rely upon people being able to believe each other. Hence telling the truth is another core value.

Case Against Cultural Relativism

- Only indirectly based on reason
  - Traditions develop because they meet a need, but once a tradition has been established, people behave in a certain way because it's what they're supposed to do, not because they understand the rationality deeply embedded within the tradition.

- Not a workable ethical theory

2.4 Divine Command Theory

Overview of Divine Command Theory

- Good actions: those aligned with God's will

- Bad actions: those contrary to God's will

- Holy books reveal God's will

- We should use holy books as moral decision-making guides

Divine Command Theory in Action

Case for Divine Command Theory

- We owe obedience to our Creator
- God is all-good and all-knowing
- God is the ultimate authority

Case Against Divine Command Theory

- Different holy books disagree on certain teachings

- Society is multicultural, secular

- Some modern moral problems not directly addressed in scripture

- Based on obedience, not reason

- Not a workable ethical theory for our purposes