

ETHICS AND PROFESSIONALISM

Chapter 6

Learning Outcomes

After accomplishing this chapter, you should be able to

- ▮ Distinguish the link between **ethics** and **technology**
- ▮ Explain general, professional and leadership **ethical questions**
- ▮ Explain what **digital privacy** is, its components and why it is important
- ▮ Discuss the importance of **accountability** and **trust** in emerging technologies

Technology and ethics

From your civic (public) and ethical education course, what do you understand about the word **ethics**?

Ethics:

The **b** branch of **k** knowledge that deals with **m** moral principles.

the principles of right and wrong behavior.

Ethics & Professionalism

Generally,

ethics tell us what we should not do

and

professionalism deals with what we should do.

Why study ethics?

Ethics is a **central** component of **any** **happy**, **healthy**, and **mature** life.

Knowing **right** from **wrong** is one of the qualifications for being a **fully functional** adult.



It is associated with

guilt,

shame,

indignation

resentment

empathy,

compassion,

and care.

(anger),

(dislike),

(responsiveness, Identification)

(concerned & Kindness)

It is interested in **character** as well as conduct.



Why are ethics important?

- **E**thics are **important** because without ethics people would not have ideas of **right** and **wrong**.
- Ethics help to make the society more stable.
- **Ethics** help to choose **right actions** over **wrong one**.
- **Ethics** is very important since it is an **essential part** of the basic **civilized society**, so the society with **lack of ethics** will **fail** sooner or later.



In addition ethics is important because of the following:

1. Satisfying Basic Human Needs:

- Being fair, honest and ethical is one the basic human needs.



FOOD



WATER



SHELTER

- Every employee desires to be such himself and to work for an organization that is fair and ethical in its practices.



CLOTHING



HEALTH



EDUCATION

Profession:

- ❖ Is a type of **Job** that **requires** special **education**, **training**, or **skill**.
- ❖ A **profession** is an **occupation** founded upon specialized educational training, the purpose of which is to supply objective counsel and service to others, for a direct and definite compensation, wholly apart from expectation of other business gain.



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MORALS

ETHICS

Chapter 6 Ethics and Professionalism
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Difference b/w **Morals** and **Ethics**?

Morals define **personal character**,

While

Ethics stress a **social system** in which those morals are applied.

In other words Ethics point to standards of behavior,

This could be **National Ethics**, **Social Ethics**,
Company Ethics **Professional Ethics** or even **Family Ethics**.

Technology and ethics

Technology along with its plethora (Embarrassment) of uses also has some problems or issues

For examples, privacy violations

Technology can serve to promote or restrict human rights

The Information Society should foster the **use of emerging technologies** in such a way as **to maximize the benefits** that they provide while **minimizing the harms**

- The ethics of emerging technologies is that between stand-alone and enabling technologies.
- Enabling technologies are technologies that provide innovation across a range of products, industrial sectors, and social domains.
- They combine with a large number of other technologies to yield innovative products and services.
- Examples of enabling technologies are steam engine technology, glass making technology, integrated circuit technology, thermal energy storage technology, genetic engineering and nanotechnology.
- Five distinct types of approaches to emerging technologies have emerged.
- These include technology assessment (TA), futures studies, impact assessment, risk assessment, risk-benefit analysis, cost-benefit analysis and cost-utility analysis, and, as well as approaches focused on public and stakeholder engagement, democratization, and deliberative decision-making.

The link between ethics and technology

New ethical questions

Bias and Discremination

Learning algorithm outputs can be based on biased data, which could lead to discriminatory outcomes
When systems learn from real-world data, there is a significant risk that those systems simply recreate the past and subsequently build in errors or systemic biases

Importance of **ethics**

- First,
the **importance** of **ethics** among **information technology** professional is responsible to ensure that computer **technology** does not used in the wrong ways which can harm people, environment and the society. ... With the **ethics** of the employee directly they can contribute better for an organization.

What is computer ethics and why is it important?

What are the ethical issues in information technology?

What are some examples of computer ethics?

However, as **information technology** becomes increasingly influential, the **ethical** and **legal considerations** become similarly relevant.

...

Here are the five most pressing ethical and legal issues confronting the industry today.

1. Privacy. ...
2. Digital Ownership. ...
3. Data Gathering. ...
4. Security Liability. ...
5. Access Costs.

- **Computer ethics** are increasingly becoming **important** because of the rising number of cyber crime issues, including software piracy, unauthorized access, pornography, spamming, target marketing, and hacking.

Examples of computer ethics

- Avoid from use the computer to harm other people such as create a bomb or destroy other people works.
- Users also should not use a computer for stealing activities like breaking in to a bank or company.
- Make sure a copy of software had been paid by the users before it is use.

General ethical principles

1. Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing.
2. Avoid harm.
3. Be honest and trustworthy.
4. Be fair and take action not to discriminate
5. Respect the work required to produce new ideas, inventions, creative works, and computing artifacts.
6. Respect privacy.
7. Honor confidentiality

What is ethics and professionalism?

- Ethics can be understood as guidelines that are imposed on a particular set of individuals.
- An ethical code assists the employee to work transparently within the corporate setting.
- But the term professionalism is a bit different to ethics.
- What Is the Importance of Ethics in Information Technology?
- Ethics in information technology is important because it creates a culture of trust, responsibility, integrity and excellence in the use of resources.
- Ethics also promotes privacy, confidentiality of information and unauthorized access to computer networks, helping to prevent conflict and dishonesty.

Professional responsibilities.

1. Strive to achieve high quality in both the processes and products of professional work.
2. Maintain high standards of professional competence, conduct, and ethical practice.
3. Know and respect existing rules 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. Perform work only in areas of competence.
7. Foster public awareness and understanding of computing, related technologies, and their consequences.
8. Access computing and communication resources only when authorized or when compelled by the public good.
9. Design and implement systems that are robustly and usably secure.

Professional leadership principles.

1. Ensure that the public good is the central concern during all professional computing work.
2. Articulate, encourage acceptance of and evaluate fulfillment of social responsibilities by members of the organization or group.
3. Manage personnel and resources to enhance the quality of working life.
4. Articulate, apply, and support policies and processes that reflect the principles of the Code.
5. Create opportunities for members of the organization or group to grow as professionals.
6. Use care when modifying or retiring systems. Interface changes, the removal of features, and even software updates have an impact on the productivity of users and the quality of their work.
7. Recognize and take special care of systems that become integrated into the infrastructure of society.

New ethical questions

Personalization

The impact of tailoring decisions very specifically to individuals, based on preferences, activities and other features

While personalization can be beneficial for many, others can lose out, and outcomes can again seem unfair or unethical

New ethical questions

How much reliance can we place on data and models?

What is the role of human judgment?

How do we ensure that we understand the decision-making process?

Basic principles

The code for professional ethics is based upon five principles

Integrity

Objectivity

Competency and due care

Confidentiality

Professional behavior

General ethical principles

Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing

Avoid harm

Be honest and trustworthy

Be fair and take action not to discriminate

General ethical principles

Respect the work required to produce new ideas, inventions, creative works, and computing artifacts

Respect privacy

Honor confidentiality

Professional responsibilities

Strive to achieve high quality in both the processes and products of professional work

Maintain high standards of professional competence, conduct, and ethical practice

Know and respect existing rules pertaining to professional work

Accept and provide appropriate professional review

Professional responsibilities

Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks

Perform work only in areas of competence

Foster public awareness and understanding of computing, related technologies, and their consequences

Access computing and communication resources only when authorized or when compelled by the public good

Professional responsibilities

Design and implement systems that are robustly and useably secure

Professional leadership principles

Ensure that the public good is the central concern during all professional computing work

Articulate, encourage acceptance of and evaluate fulfillment of social responsibilities by members of the organization or group

Manage personnel and resources to enhance the quality of working life

Articulate, apply, and support policies and processes that reflect the principles of the Ethics Code

Professional leadership principles

Create opportunities for members of the organization or group to grow as professionals

Use care when modifying or retiring systems

Interface changes, the removal of features, and even software updates have an impact on the productivity of users and the quality of their work

Recognize and take special care of systems that become integrated into the infrastructure of society

Digital privacy

Digital Privacy is the **protection** of **personally identifiable or business identifiable information** that is collected from respondents through information collection activities or from other sources

It encompasses three sub-related categories;

information privacy, communication privacy,
and **individual privacy**

Information Privacy

Information privacy is the notion that **individuals should have the freedom, or right, to determine how their digital information**, mainly that pertaining to personally identifiable information, **is collected and used**

Communication Privacy

Communication privacy is the notion that **individuals should have the freedom, or right, to communicate information digitally with the expectation that their communications are secure**

Messages and communications will only be accessible to the sender's original intended recipient

Failure to read a company's privacy policy regarding communications on their platform could lead one to assume their communication is protected when it is in fact not

Individual Privacy

individual privacy is the notion that **individuals have a right to exist freely on the internet, in that they can choose what types of information they are exposed to**, and more importantly that **unwanted information should not interrupt them**

Below are examples of breach of individual privacy

- an internet user receiving unwanted ads and emails/spam

- a computer virus that forces the user to take actions they otherwise wouldn't

Some digital privacy principles

Data Minimization

Collect the minimal amount of information necessary from individuals and businesses consistent with the department's mission and legal requirements

Transparency

Notice covering the purpose of the collection and use of identifiable information will be provided in a clear manner

Some digital privacy principles

Accuracy

Information collected will be maintained in a sufficiently accurate, timely, and complete manner to ensure that the interests of the individuals and businesses are protected

Security

Adequate physical and IT security measures will be implemented to ensure that the collection, use, and maintenance of identifiable information are properly safeguarded and the information is promptly destroyed in accordance with approved records control schedules

Accountability and trust

While emerging technology creates far-reaching and rapid change, it can also bring new risks

Understanding and mitigating the risks will help to build confidence

Often legal and regulatory frameworks haven't kept pace with digital transformation, and organizations are seeking guidance

Accountability and trust

Emerging technologies can provide improved accuracy, better quality and cost efficiencies for businesses in every sector

They can enhance trust in the organization's operations and financial processes, which is crucial for sustainable success

But the very solutions that can be used to better manage risk, increase transparency and build confidence are often themselves the source of new risks , which may go unnoticed

End of Chapter!