

IT 164

Information Assurance and Security 2

Chapter 10: Ethical Considerations in Information Security

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INSTRUCTOR



In law a man is guilty when he violates the rights of others.
In ethics he is guilty if he only thinks of doing so.

-IMMANUEL KANT (1724-1804)

Objectives

- Differentiate between law and ethics.
- Understand the definition of ethics vs moral.
- Understand the ACM Code of Ethics and Professional Conduct.
- Understand USENIX Ethics, Copyright, Creative Commons, and FSF and GNU.
- Provide and relate ethical scenarios based on personal experience.

Law vs Ethics

Law	Ethics
Created by members of the society to balance individuals' right to self-determination .	Do not carry sanctions of a government entity.
Rules adopted and enforced by government	Based on cultural mores, relatively fixed moral attitudes of societal group.
Carries sanctions of a government authority.	The branch of philosophy that considers nature, criteria, sources, logic, and the validity of moral judgment.

Ethics vs Morals

- Ethics and Moral both relates to “**right**” and “**wrong**”.
- ***Ethics*** are set of principles of conduct **that apply to an individual or a group** and are provided by an **external source**, such as society or a profession.
- ***Moral*** are an individual’s own principles regarding right and wrong.



Ethics vs Morals Examples

Respect

Truthfulness

Generosity

Honesty

Fairness

Patience

Integrity

Loyalty

Four ethical standards

- **Rights** Individuals' basic needs and welfare.
- **Justice** How the costs and benefits of an action or a policy can be distributed fairly among members of a group.
- **Utility** The positive and negative effects that an action or a policy has on the public.
- **Care** The relationships we have with other individuals.

Traditional foundation and frameworks of ethics

- **Normative ethics:** the **study of what makes an action right and wrong**, also known **moral theory** that is, *how should people act?*
- **Meta-ethics:** the **study of the meaning** of ethical judgments and properties that is, *what is right?*
- **Descriptive ethics:** The **study of the choices** that have been made by individuals in the past that is, *what do others think is right?*
- **Applied ethics:** An approach that applies moral codes to actions drawn from realistic situations.
- **Deontological ethics:** The **study of the rightness or wrongness of intentions and motives** as opposed to the rightness or wrongness of the consequences. Also known as **duty-based or obligation-based ethics**.

Ethical Standards

- **Utilitarian approach**- Emphasizes that an ethical action is one that results in the most good, or the least harm;
- **Rights approach**- Suggests that the ethical action is the one that best protects and respects the moral rights of those affected by that action.
- **Fairness or justice approach**- Founded on the work of Aristotle. The idea that all persons who are equal should be treated equally.
- **Common good approach**- a notion that life in community yields a positive outcome for the individual, and therefore each individual should contribute to that community.
- **Virtue approach**- ethical actions ought to be consistent with so-called **ideal virtues** (honesty, courage, compassion, generosity, tolerance, love, fidelity, integrity, fairness, self-control, and prudence).

The Ten Commandments of Computer Ethics

1. Thou shalt not use a computer to harm other people.
2. Thou shalt not interfere with other people's computer work.
3. Thou shalt not snoop around in other people's computer files.
4. Thou shalt not use a computer to steal.
5. Thou shalt not use a computer to bear false witness.
6. Thou shalt not copy or use proprietary software for which you have not paid.
7. Thou shalt not use other people's computer resources without authorization or proper compensation.
8. Thou shalt not appropriate other people's intellectual output.
9. Thou shalt think about the social consequences of the program you are writing or the system you are designing.
10. Thou shalt always use a computer in ways that ensure consideration and respect for your fellow humans.

Source: Computer Professionals for Social Responsibility.

Three General Unethical Behavior

➤ **Ignorance**

➤ **Accident**

➤ **Intent**

Association for Computing Machinery (ACM)

- **established in 1947** as the world's first educational and scientific computing society.
- requires members to perform their duties in a manner **befitting an ethical computing professional**.

ACM Code of Ethics and Professional Conducts (<https://ethics.acm.org/>)

- Also called “the Code”.
- designed to inspire and guide the ethical conduct of all computing professionals.
- the code contains protection of confidentiality of information, protection of privacy of others, and respecting intellectual property and copyrights of others.
- the Code serves as a **basis for remediation when violations occur**.

Association for Computing Machinery (ACM)

- **Section 1:** outlines fundamental ethical principles that form the basis for the remainder of the Code.
- **Section 2:** addresses additional, more specific considerations of professional responsibility.
- **Section 3:** guides individuals who have a leadership role, whether in the workplace or in a volunteer professional capacity.
- **Section 4:** Commitment to ethical conduct is required of every ACM member, and principles involving compliance with the Code

The Code is not an algorithm for solving ethical problems; rather it serves as a basis for ethical decision-making.

USENIX Ethics

- **USENIX** originally was called **Unix Users Group** when the organization was founded in **1975**.
- In **1977**, the name was changed because they were informed that UNIX was trademarked.
- Since then, they've been **USENIX**: The Advanced Computing Systems Association.
- USENIX is **not an acronym**.
- The USENIX Association is a 501(c)(3)—US tax exempted nonprofit organization.
- Known for organizing conferences and publishing research.

USENIX'S MISSION

- Foster technical excellence and innovation
- Support and disseminate research with a practical bias
- Provide a neutral forum for discussion of technical issues
- Encourage computing outreach into the community at large

More about USENIX: <https://www.usenix.org/about>

USENIX System Administrator's Code of Ethics

- This code of ethics **emphasizes the importance of professional integrity and ethical behavior** in the field of system administration.
- USENIX grants permission to reproduce this code, provided the wording remains unchanged, and the signatories (USENIX, LISA, and LOPSA) are included without adding other logos or signatories.
- the document includes a **commitment by professional System Administrators** to adhere to the highest standards of ethical and professional conduct, guided by this code of ethics.
- the draft from **September 12, 2003**, was **approved by the SAGE Executive Committee** and the **Ethics Working Group**, with co-signatures from USENIX, LISA, and LOPSA in 2006
- Link: <https://www.usenix.org/system-administrators-code-ethics>

Copyright

- **Copyright law** is the body of law that relates to the **appropriate use of a person's intellectual property**—written documents, pictures, musical compositions, and the like.
- Copyright literally refers to a **person's right to copy the work** that they have create.
- for works created after 1977, the duration of a copyright spans the **author's life plus 70 years**.
- If the author performed a “work for hire,” copyright lasts the shorter amount of **120 years after the work was created** or **95 years after it was published**.
- infringing on copyright can be brought to court under a civil case, and when applicable, they can also be prosecuted under a criminal case.

International Copyright

Berne Convention for the Protection of Literary and Artistic Works

- Also known as **Berne Convention** or **Berne** was established in **1886** in Berne, Switzerland.
- It provides **protection for literary and artistic works across** international borders.
- Deals with the protection of works and the rights of their authors.
- It provides creators such as authors, musicians, poets, painters etc. with the means to **control how** their works are used, **by whom**, and **on what** terms.
- **Summary of Berne Conention:**
https://www.wipo.int/treaties/en/ip/berne/summary_berne.html

International Copyright

Buenos Aires Convention

- Also called **Buenos Aires Convention on Literary and Artistic Copyright**.
- It was signed in **Buenos Aires on August 11, 1910**.
- The countries that signed this treaty agreed **to mutually recognize copyrights for creative works**, provided that the work contains a notice indicating the creator's claim to copyright.
 - Creative works: refers to something that someone has made using their imagination and skills, such as a painting, a song, or a story.
- **Buenos Aires Convention:**
- <https://www.wipo.int/wipolex/en/text/366495>

International Copyright

Universal Copyright Convention (UCC)

- an international instrument drawn up in **1952** under the auspices of **UNESCO**.
- aims to protect the **rights of creators** and facilitate the international circulation of literary, scientific, and artistic works.
- adopted in Geneva, Switzerland, in 1952, and came into force in 1955
- **UCC:** <https://courier.unesco.org/en/articles/universal-copyright-convention>

International Copyright

Agreement on Trade-Related Aspects of Intellectual Property Rights

- A comprehensive multilateral agreement on **intellectual property (IP)** established by the **World Trade Organization (WTO)**.
- plays a central role in facilitating trade related to knowledge and creativity.
- It resolves trade disputes related to IP and ensures that WTO members can achieve their domestic policy objectives.
- The agreement recognizes the link between IP and trade, emphasizing innovation, technology transfer, and public welfare.
- **Full text:** https://www.wto.org/english/docs_e/legal_e/trips_e.htm

International Copyright

WIPO Copyright Treaty (WCT)

- a special agreement under the Berne Convention that addresses the **protection of works and the rights of their authors in the digital environment**.
- complements the rights recognized by the Berne Convention, granting certain economic rights to creators.
- extends copyright protection to two specific subject matters: Computer Programs, Compilations of Data or Other Material (Databases).
- **Summary:**
 - <https://www.wipo.int/treaties/en/ip/wct/>
 - https://www.wipo.int/treaties/en/ip/wct/summary_wct.html

International Copyright

Marrakesh VIP Treaty

- adopted on June 27, 2013, in Marrakesh, Morocco.
- its primary goal is to address the global “book famine” faced by individuals with visual impairments and print disabilities.
- the treaty establishes mandatory limitations and exceptions to copyright for the benefit of the following groups: Blind and visually impaired individuals and Otherwise print disabled (VIPs).
- **Summary:**
 - <https://www.wipo.int/treaties/en/ip/marrakesh/>

Creative Commons

- a set of legal tools and a nonprofit organization that enables people to share their creativity and knowledge.
- provides a global network and a movement inspired by people's willingness to share their work.
- enabled by a set of open copyright licenses that allow creators to share their content more flexibly.
- when creators use Creative Commons licenses, they can specify the terms under which others can reuse their content.
- **Lists of CC: <https://creativecommons.org/about/>**

Free Software Foundation (FSF) and GNU

Free Software Foundation (FSF)

- The FSF is a nonprofit organization founded by Richard M. Stallman (RMS).
- Its mission is to advocate for and defend user freedom in the realm of software.
- The FSF sponsors the GNU Project and supports its ongoing efforts to provide a complete operating system licensed as free software.
- Some of the services provided by the FSF to GNU include:
 - Fiscal sponsorship: Supporting financial aspects of GNU's work.
 - Technical infrastructure: Assisting with technical resources.
 - Promotion: Advocating for GNU software.
 - Copyright assignment: Ensuring proper licensing and copyright management.
 - Volunteer management: Coordinating community contributions.

Free Software Foundation (FSF) and GNU

GNU Project

- It aims to create a fully free operating system.
- It provides essential software components, including a kernel (Hurd), shell utilities, libraries, and more.
- GNU/Linux systems combine the GNU software with the Linux kernel to create popular operating systems.
- **Text:**
 - <https://www.gnu.org/gnu/linux-and-gnu.html>
 - <https://www.fsf.org/about>