

# **ETHICS IN INFORMATION TECHNOLOGY**

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Lecture Slide#1

# Introduction

- Course code: **SE511**
- Title: **Professional Ethics for Information Systems**
  - (2credit theory +1 credit lab)
  - Continuous Evaluation: 50%  
(attendance/quiz/**assignment/presentation**/mid-term/in-course exam/**lab works**)
  - Final exam: 50%
- **Reference Book**
  - **ETHICS IN INFORMATION TECHNOLOGY (5<sup>th</sup> Edition)**  
By: George W. Reynolds

# What is Ethics

- Ethics is a set of beliefs about right and wrong behavior within a society.
- Ethical behavior conforms to generally accepted norms—many of which are almost universal.
- A **virtue** is a habit that inclines people to do what is acceptable (e.g., fairness, generosity, and loyalty), and a **vice** is a habit of unacceptable behavior (e.g., greed, envy, and anger).
- Virtues are like habits; that is, once acquired, they become characteristics of a person. The virtuous person is the ethical person.

# The Difference Between Morals, Ethics, and Laws

- **Morals** are one's personal beliefs about right and wrong
- **Ethics** describes standards or codes of behavior expected of an individual by a group (nation, organization, profession) to which an individual belongs.
  - For example, the ethics of the law profession demand that defense attorneys defend an accused client to the best of their ability, even if they know that the client is guilty of the most heinous and morally objectionable crime one could imagine.
- **Law** is a system of rules that tells us what we can and cannot do. Laws are enforced by a set of institutions (the police, courts, and law-making bodies).
- **Legal acts** are acts that conform to the law. Laws can proclaim an act as legal, although many people may consider the act immoral—for example, abortion. Legal acts are subjective.

# Ethics in Business World

- Ethics has risen to the top of the business agenda because the risks associated with inappropriate behavior have increased, both in their likelihood and their potential negative impact.
- It is not unusual for powerful, highly successful individuals to fail to act in morally appropriate ways
- The moral corruption of people in power, which is often facilitated by a tendency for people to look the other way when their leaders act inappropriately has been given the name **Bathsheba syndrome**.

# Most Common forms of Employee Misconduct

Type of employee misconduct	Percent of surveyed employees observing this behavior
Misuse of company time	33%
Abusive behavior	21%
Lying to employees	20%
Company resource abuse	20%
Violating company Internet-use policies	16%
Discrimination	15%
Conflicts of interest	15%
Inappropriate social networking	14%
Health or safety violations	13%
Lying to outside stakeholders	12%
Stealing	12%
Falsifying time reports or hours worked	12%

Please visit  
<https://www.ethics.org/>

# Conflict of Interest

- A conflict of interest occurs when an entity or individual becomes unreliable because of a clash between personal (or self-serving) interests and professional duties or responsibilities.
- A situation in which someone cannot make a fair decision because they will be affected by the result
- Example:
  - *I need to declare a conflict of interest here - one of the candidates for the job is a friend of mine.*



# Conflict of Interest

- Example:
  - Representing a family member in court
  - Advising a client to invest in a company owned by your spouse
  - Hiring an unqualified relative or friend
  - A conflict of interest in research can be defined as a situation in which an individual has "interests in the outcome of the research that may lead to a personal advantage.
  - An academic who has a senior editorial position with a commercial journal is also on a University library committee that recommends journal subscriptions
  - The researcher conducts a clinical trial which is sponsored by any person or organisation with a significant interest in the results of the trial.
  - In the peer review and publication process, an author, reviewer or editor allows personal conviction, financial interests, or personal views (of amity or enmity) to influence the work improperly.
- *What about our doctors and medical representatives?*



# Corporate Social Responsibility

- **Corporate social responsibility (CSR)** is the concept that an organization should act ethically by taking responsibility for the impact of its actions on the environment, the community, and the welfare of its employees
- Setting CSR goals encourages an organization to achieve higher moral and ethical standards.
- Supply chain sustainability is a component of CSR that focuses on developing and maintaining a supply chain that meets the needs of the present without compromising the ability of future generations to meet their needs.
- Supply chain sustainability takes into account such issues as fair labor practices, energy and resource conservation, human rights, and community responsibility.

# Types of Corporate Social Responsibility

- Environmental Responsibility
  - Reducing pollution, waste, natural resource consumption, and emissions through its manufacturing process.
  - Recycling goods and materials
- Ethical Responsibility
  - Fair treatment across all types of customers regardless of age, race, culture, or sexual orientation.
  - Positive treatment of all employees including favorable pay and benefits in excess of mandated minimums.
- Philanthropic Responsibility
  - Whether a company donates the profit to charities or causes it believes in.
  - Whether a company supports employee philanthropic endeavors through time off or matching contributions.

# Fostering Corporate Social Responsibility and Good Business Ethics

- Organizations have at least five good reasons for pursuing CSR goals and for promoting a work environment
  - Gaining the goodwill of the community
  - Creating an organization that operates consistently
  - Fostering good business practices
  - Protecting the organization and its employees from legal action
  - Avoiding unfavorable publicity

# Examples of IT organizations' socially responsible activities

Organization	Examples of socially responsible activities
Dell Inc.	Dell partners with nonprofit organizations to develop ways of using technology to help solve pressing problems. Its “Powering the Positive” program initiatives include Children’s Cancer Care, Youth Learning, Disaster Relief, and Social Entrepreneurship. <sup>19</sup>
Google	Google recently invested over \$250 million in solar and wind power projects. <sup>20</sup>
IBM	IBM employees donated 3.2 million hours of community service in 120 countries in 2011. <sup>21</sup>
Oracle	Oracle supports K-12 and higher education institutions with technology education grants and programs that reach 1.5 million students each year. <sup>22</sup>
SAP, North America	SAP supports several major corporate responsibility initiatives aimed at improving education, matches employee gifts to nonprofit agencies and schools, and encourages and supports employee volunteerism. <sup>23</sup>
Microsoft	Microsoft conducts an annual giving campaign, and its employees have contributed over \$1 billion to some 31,000 nonprofit organizations around the world since 1983. <sup>24</sup>

# Improving Corporate Ethics

- Some of the following actions corporations can take to improve business ethics
  - Appointing a Corporate Ethics Officer
  - Ethical Standards Set by Board of Directors
  - Establishing a Corporate Code of Ethics
  - Conducting Social Audits
  - Requiring Employees to Take Ethics Training
  - Including Ethical Criteria in Employee Appraisals

# Approaches for Ethical Decision Making

- **The Utilitarian Approach**

- The ethical action is the one that provides the greatest good for the greatest number.
- To analyze an issue using the utilitarian approach, we first identify the various courses of action available to us. Second, we ask who will be affected by each action and what benefits or harms will be derived from each. And third, we choose the action that will produce the greatest benefits and the least harm

- **The Virtue Approach**

- The virtuous person is the ethical person. Honesty, courage, compassion, generosity, fidelity, integrity, fairness, self-control, and prudence are examples of virtues frequently cited throughout the world. This approach focuses on attitudes, dispositions, or character traits that enable us to be and to act in ways that develop our human potential.

# Approaches for Ethical Decision Making

- **The Fairness (or Justice) Approach**

- Greek philosopher Aristotle, who said that “equals should be treated equally and unequals unequally.” The basic moral question in this approach is: How fair is an action? Does it treat everyone in the same way, or does it show favoritism and discrimination?
- “Treat people the same unless there are morally relevant differences between them.”

- **The Common Good Approach**

- In this approach, we focus on ensuring that the social policies, social systems, institutions, and environments on which we depend are beneficial to all. Examples of goods common to all include affordable health care, effective public safety, peace among nations, a just legal system, and an unpolluted environment.
- This ethical choice advances the common good.

# Approaches for Ethical Decision Making

- **The Rights Approach**

- The basic idea here is that people have a right to be treated with respect and dignity.
- **The right to the truth:** We have a right to be told the truth and to be informed about matters that significantly affect our choices.
- **The right of privacy:** We have the right to do, believe, and say whatever we choose in our personal lives so long as we do not violate the rights of others.
- **The right not to be injured:** We have the right not to be harmed or injured unless we freely and knowingly do something to deserve punishment or we freely and knowingly choose to risk such injuries.
- **The right to what is agreed:** We have a right to what has been promised by those with whom we have freely entered into a contract or agreement.



# Approaches for ethical decision making

Approach to dealing with ethical issues	Principle
Virtue ethics approach	The ethical choice best reflects moral virtues in yourself and your community.
Utilitarian approach	The ethical choice produces the greatest excess of benefits over harm.
Fairness approach	The ethical choice treats everyone the same and shows no favoritism or discrimination.
Common good approach	The ethical choice advances the common good.

# IT Professional

- A profession is a calling that requires
  - ✓ Specialized knowledge
  - ✓ Long and intensive academic preparation.
- Professionals:
  - i. Require advanced training and experience
  - ii. Must exercise discretion and judgment in their work
  - iii. Cannot standardize their work
  - iv. Carry special rights and responsibilities.

# IT Professional

- In other words, professionals such as doctors, lawyers, and accountants require advanced training and experience; they must exercise discretion and judgment in the course of their work, and their work cannot be standardized.

# IT Workers Professionals?

- A partial list of IT specialists
  - IT specialists include programmers,
  - Systems analysts,
  - Software engineers,
  - Database administrators,
  - Local area network (LAN) administrators
  - Chief information officers (CIOs)
- Many business workers have duties, backgrounds, and training that qualify them to be classified as professionals, including marketing analysts, financial consultants, and IT specialists such as mobile application developers, software engineers, systems analysts, and network administrators.
- One could argue, however, that not every IT role requires “knowledge of an advanced type in a field of science or learning customarily acquired by a prolonged course of specialized intellectual instruction and study
- From a legal perspective, IT workers are not recognized as professionals
- They are not licensed by the state or federal government

# Professional Codes of Ethics

- A professional code of ethics states the principles and core values that are essential to the work of a particular occupational group. Practitioners in many professions subscribe to a code of ethics that governs their behavior.
- An important point to make is that laws do not provide a complete guide to ethical behavior. Just because an activity is not defined as illegal does not mean it is ethical.

# Professional Codes of Ethics

- Benefits individual, profession, and society as a whole:
  - Ethical decision making
  - High standards of practice and ethical behavior
  - Trust and respect from the general public
  - Evaluation benchmark for self-assessment
- **No universal code of ethics for IT workers.**  
some organizations: **ACM(Association for Computing Machinery),  
IEEE-CS(IEEE-Computer Society),  
AIPS (Association of Information Technology Professionals),  
SANS (SysAdmin, Audit, Network, Security Institute)**

# Relation Between IT workers and IT users

- The term IT user distinguished the person who uses a hardware or software product from the IT workers who develop, install, service, and support the product
- IT users need the product to deliver organizational benefits or to increase their productivity
- IT workers have a duty to understand a user's needs and capabilities and to deliver products and services that best meet those needs.

# Some Ethical Issues in IT

- Software piracy / Access right
- Misuse of Personal Information / Personal Privacy: Companies often gather information to hyper-personalize our online experiences, but to what extent is that information actually impeding our right to privacy?
- Misinformation and Deep Fakes
- Use of AI
  - Facial recognition
  - Replacement of human jobs
  - Health tracking
  - Bias in AI technology
- Inappropriate use of computing resources
- Inappropriate sharing of information



# Supporting the Ethical Practices of IT Users

- Establishing guidelines for use of company software
- Defining the appropriate use of IT resources
- Structuring information systems to protect data and information
- Installing and maintaining a corporate firewall
- Respect for Employees and Customers
- Moral Use of Data and Resources
- Create a Culture of Responsibility

# Some Important Terminologies

- **Trade Secret** is information, generally unknown to the public, that has economic value and the company has taken strong measures to keep confidential.
- **Patents:** A patent can preserve the unique and secret aspect of an idea. Obtaining a patent is very difficult as compared with obtaining a copyright. A thorough disclosure is required with the software. The patent holder has to reveal the full details of a program to a proficient programmer for building a program.
- **Copyright:** Copyright law automatically protects original works of authorship, such as books, articles, songs, photographs, sculptures, choreography, sound recordings, motion pictures, and other works.
- **A patent protects new inventions, processes, or scientific creations, a trademark protects brands, logos, and slogans, and a copyright protects original works of authorship.**

# Some Important Terminologies

- **Whistle Blowing** is an effort by an employee to attract attention to a negligent, illegal, unethical, abusive, or dangerous act by a company that threatens the public interest.
- **Fraud** is the crime of obtaining goods, services, or property through deception or trickery
- **Misrepresentation** is the misstatement or incomplete statement of a material fact
- **Breach of contract** occurs when one party fails to meet the terms of a contract
- **Bribery** involves providing money, property, or favors to someone in business or government to obtain a business advantage.
- What are the differences between gifts and bribery?

- **What are the abnormalities in this lecture slide??**

# Assignment

- **Task#1:** Make groups of maximum 4 students and carefully solve the discussion questions of Chapter 1 and Chapter 2 of your referenced text book (Ethics in Information Technology).
- **Task#2:** Carefully read and analyze the situations described in the section **What Would You Do** in chapters 1 and 2. Select any 4 situation randomly, make a PowerPoint presentation recommending a course of action for each individual situation you selected. You have to present your opinion in the next scheduled class.