

UNIT 1

An Overview of Ethics, Ethics for IT Workers and IT Users

(10 Hours) — Cyber Law & Professional Ethics (CACS401)

*Please read: These notes are prepared as a study aid and **may contain errors** or out-of-date details, especially section numbers, penalties, dates, case names and statistics. Always cross-check with your prescribed textbook, class lectures, and the official text of any law (Nepal Law Commission website) before relying on them in an exam or in practice.*

1.1 Ethics

Ethics is the branch of philosophy that studies what is right and wrong in human conduct. In everyday use, it means a set of beliefs about right and wrong behaviour within a society. Three closely related terms are often confused, so it helps to separate them:

Term	Meaning	Example
Morals	Personal beliefs about right and wrong, shaped by family, culture and religion.	"Lying is wrong."
Ethics	Shared standards of conduct for a group, profession or society.	A code that forbids engineers from falsifying test results.
Law	Rules made and enforced by the state, with penalties for breach.	Copying licensed software is punishable.
Values	Deeply held principles that guide choices.	Honesty, fairness, respect, responsibility.

Note: Something can be legal but unethical (e.g., selling user data in a way the law does not yet forbid) or ethical but illegal (e.g., civil disobedience). Law is the minimum standard; ethics goes further.

Major Approaches to Ethical Reasoning

Approach	Core idea	Question it asks
Virtue ethics	Right action comes from good character (honesty, courage, compassion).	What would a person of good character do?
Utilitarian	The best action produces the greatest good for the greatest number.	Which option gives the best overall consequences?
Deontological (duty-based)	Some acts are right or wrong in themselves, regardless of outcome (Kant).	Which rule or duty applies? Would I want everyone to act this way?

Approach	Core idea	Question it asks
Fairness / justice	Equals should be treated equally; burdens and benefits shared fairly.	Is anyone being treated unfairly?
Common good	Actions should support the community's shared welfare.	Does this help or harm society as a whole?

1.2 Ethics in the Business World

Businesses operate through people, so business decisions carry ethical weight. Ethical behaviour is not just a moral duty; it is also good business. Organisations that ignore ethics risk lawsuits, fines, loss of reputation and loss of customer trust. Well-known failures include **Enron** (accounting fraud, collapsed 2001) and **Volkswagen's emissions-test cheating scandal** (2015).

Why should organisations promote good business ethics?

- **Gaining the good will** of the community, customers and investors.
- **Creating an organisation that operates consistently**, because shared values guide daily decisions.
- **Fostering good business practices** that improve long-term profit, e.g., fair dealing with suppliers.
- **Protecting the organisation and its employees from legal action** and penalties.
- **Avoiding unfavourable publicity** that can damage the brand overnight.

1.3 Corporate Social Responsibility (CSR)

Corporate social responsibility is the concept that an organisation is accountable not only to its shareholders but to all its **stakeholders** (employees, customers, suppliers, the community and the environment) for the effects of its actions.

- **Triple bottom line:** measuring success by People (social), Planet (environmental) and Profit (economic).
- **Carroll's CSR pyramid:** economic responsibility (be profitable), legal (obey laws), ethical (do what is right and fair), and philanthropic (give back to the community).
- **Supply chain responsibility:** a firm should ensure its suppliers also follow labour, safety and environmental standards (e.g., avoiding child labour).
- **Sustainability:** meeting present needs without harming the ability of future generations to meet theirs.

Arguments FOR CSR	Arguments AGAINST CSR
Builds reputation and customer loyalty	Milton Friedman: the only social responsibility of business is to increase profit within the law
Attracts and retains talented employees	Diverts money from shareholders; may raise costs
Reduces risk of regulation, boycotts and lawsuits	Managers are not experts in social policy
Leads to long-term sustainable growth	Can become "greenwashing" (only for image)

1.4 Fostering CSR and Good Business Ethics

An organisation must actively build an ethical culture rather than assume it will appear on its own. Typical steps are:

- **Tone at the top:** the board of directors and senior executives visibly model ethical behaviour.
- **Written code of ethics** stating the organisation's values and expected conduct.
- **Corporate ethics officer** or ethics committee to guide and investigate.
- **Ethics training** for every employee, with real scenarios.
- **Confidential reporting channel** (hotline) with protection against retaliation.
- **Legal frameworks:** in the US, the Sarbanes-Oxley Act (2002) requires public companies to maintain internal controls and a whistle-blower process after the Enron scandal.

1.5 Improving Business Ethics

Common steps used to improve ethics inside an organisation:

- **Appoint a corporate ethics officer** responsible for ethics policy and compliance.
- **Require the board of directors to set high ethical standards** and review them regularly.
- **Establish a corporate code of ethics** (see below).
- **Conduct social audits** that review how well the firm meets its ethical and social goals.
- **Require employees to take ethics training** and periodically renew it.
- **Include ethical criteria in employee appraisals** so that good ethics is rewarded.
- **Create an ethical work environment** where people can question decisions without fear.

Example: Contents of a Corporate Code of Ethics

A good code usually includes: (1) statement of purpose and core values, (2) rules on conflicts of interest, gifts and bribery, (3) honest record-keeping and reporting, (4) confidentiality and data-protection duties, (5) fair treatment and non-discrimination, (6) how to report violations, and (7) consequences for breaches.

1.6 Ethical Considerations in Decision Making

A structured process helps people avoid decisions based only on emotion or pressure. A commonly taught model has five steps:

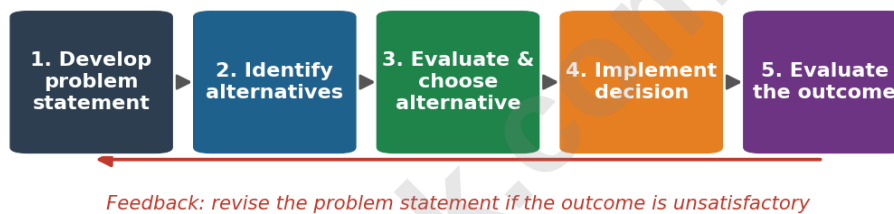


Figure 1.1: A five-step ethical decision-making process

- **Develop a problem statement:** describe clearly what needs to be decided and who is affected.
- **Identify alternatives:** brainstorm several possible actions, not just two.
- **Evaluate and choose:** test each alternative against law, company policy, professional code, and ethical approaches (utilitarian, duty, fairness, virtue).
- **Implement the decision:** act, and communicate the reasons.
- **Evaluate the outcome:** check results and learn; revise if needed.

Example 1.1: A Dilemma at a Software Firm

You are a developer. Two days before launch, you find a bug that occasionally exposes customers' email addresses to other users. Your manager says, "Ship it now and fix it in the next release." What should you do?

Solution

Problem: Meeting the deadline versus protecting user privacy.

Alternatives: (a) ship silently; (b) delay the launch and fix; (c) ship with the feature disabled; (d) escalate to a higher manager or security team.

Evaluation: (a) breaches privacy and may break data-protection law, and fails the duty and fairness tests. (b) and (c) protect users at limited cost. (d) is proper if the manager refuses.

Decision: Choose (c) or (b), and document the issue in writing. Escalate if pressured. **Review:** Suggest adding security testing earlier in future projects.

1.7 Ethics in Information Technology

IT raises ethical issues because it lets organisations collect, copy and process information on a massive scale, quickly and cheaply, while users often cannot see what is happening. Key areas are: **privacy** of personal data, **security** of systems, **intellectual property** and piracy, **freedom of expression**, **software quality** and safety, **digital divide**, **e-waste** and environmental impact, and **bias in algorithms and AI**.

Real cases show the stakes: the Facebook–Cambridge Analytica affair (2018) involved harvesting profile data of tens of millions of users for political profiling without meaningful consent.

Why IT ethics matters more today: IT workers have special knowledge that most people lack, so society must trust them. A single programmer's decision can affect millions of users.

1.8 Managing IT Worker Relationships

IT workers have professional relationships with many parties, and ethical issues arise in each of them.

Relationship	Typical ethical issues	Key idea
IT worker – Employer	Software piracy, misuse of company resources, trade secrets, whistle-blowing, inflated résumés	Loyalty, but not at the cost of law or public safety
IT worker – Client	Misrepresenting skills, cost overruns, delivering poor-quality work, hidden conflicts of interest	Honesty and fair dealing; avoid fraud
IT worker – Supplier	Bribes, gifts, kickbacks, unfair pressure on prices	Fair, transparent procurement
IT worker – Other professionals	Résumé inflation, plagiarism, misuse of peers' work, violating professional codes	Respect and integrity

Relationship	Typical ethical issues	Key idea
IT worker – IT users	Selling defective or unsafe products, ignoring user needs, inadequate documentation	Duty of care to users
IT worker – Society	Safety, privacy, environmental effects, accessibility	Public good comes first

Key legal and ethical terms:

- **Fraud:** deliberately deceiving someone to gain something of value.
- **Misrepresentation:** a false or misleading statement of fact that causes another to act (or not act).
- **Breach of contract:** failure to perform obligations agreed in a contract.
- **Breach of fiduciary duty:** failing to act in the best interest of someone who trusts you (e.g., a consultant using a client's confidential data for personal gain).
- **Bribery:** giving or accepting something of value to influence a decision. Different from a small, open, customary gift, but the line must be defined in policy.
- **Conflict of interest:** personal interest that could influence professional judgment.

1.9 Encouraging Professionalism of IT Workers

A **profession** is an occupation that needs specialised knowledge, has a body that sets standards, follows a code of ethics, and often requires certification or licence. Doctors, lawyers and civil engineers are typical professions. IT is still not a full profession in the strict sense because there is **no single mandatory licence** for IT workers; instead professionalism is encouraged through four tools.

A. Professional Codes of Ethics

A **professional code of ethics** states the principles and core values that members are expected to follow. It highlights issues and gives guidance, but by itself it cannot punish. Main benefits: it guides decision making, promotes trust, and sets a benchmark for discipline.

- **ACM Code of Ethics and Professional Conduct** (revised in 2018): general principles such as contribute to society, avoid harm, be honest, respect privacy, and honour confidentiality.
- **IEEE Code of Ethics:** commits members to public safety, honesty and fair treatment of all persons.
- **ACM/IEEE-CS Software Engineering Code of Ethics:** eight principles (Public, Client and Employer, Product, Judgment, Management, Profession, Colleagues, Self).

- **AITP Code** (Association of Information Technology Professionals) and the **BCS Code of Conduct** (British Computer Society) are other examples.

B. Professional Organisations

Organisations such as ACM, IEEE Computer Society, AITP, BCS, and in Nepal the **Computer Association of Nepal (CAN)**, provide a code of ethics, publications, training, networking and lobbying. Membership signals commitment to standards, although joining is usually voluntary.

C. Certification

Certification is a voluntary credential showing that a person has passed an exam or met set requirements. Types:

- **Vendor certifications:** tied to a company's products, e.g., Cisco CCNA, Microsoft Azure, Oracle, AWS.
- **Industry association certifications:** vendor-neutral and broader, e.g., CompTIA Security+, (ISC)² CISSP, ISACA CISA, PMI PMP.
- **Benefits:** proof of skills, higher pay, career progress. **Limits:** exams may test memory rather than judgement, and certificates expire or need renewal.

D. Government Licensing

Licensing is a legal permission from a government authority to practise an occupation; practising without it is illegal. In most countries software work is not licensed. Reasons: rapid technology change makes fixed exams hard, there is no widely accepted body of knowledge, and it would limit the freedom of developers. Supporters argue that licensing would raise quality and accountability, especially in safety-critical software. In Nepal, engineers (including computer engineers) register with the **Nepal Engineering Council**; general software practice has no licence.

Feature	Certification	Licensing
Issued by	Vendor or professional body	Government
Legal requirement	No (voluntary)	Yes (mandatory to practise)
Purpose	Show skill in a specific area	Protect the public
Example	CCNA, CISSP	Registered professional engineer

1.10 Encouraging Ethical Use of IT Resources among Users

Users (employees, students, customers) also create ethical and legal risks. Common misuses and controls:

Misuse	Why it is a problem	Control
Software piracy	Illegal copying or use beyond licence terms; legal penalties and malware risk	Software asset management, licence audits, use of open-source alternatives
Inappropriate use of computing resources	Games, personal business, streaming, mining, or offensive content at work	Acceptable Use Policy (AUP), filtering and monitoring
Inappropriate sharing of information	Leaking confidential, personal or classified data; posting sensitive data online	Data classification, access control, training, NDAs
Weak security habits	Shared passwords, clicking phishing links	Awareness training, multi-factor authentication

Acceptable Use Policy (AUP): a written document that explains what users may and may not do with an organisation's IT resources, that users must acknowledge, and that states the consequences for violation. An effective AUP is clear, specific, communicated, and enforced consistently. Organisations also apply **monitoring** (with notice to employees), **software controls** and **disciplinary action**.

Example 1.2: Software Piracy at a Small Office

A small company of 20 staff has purchased 10 licences of a design program, and installs it on all 20 PCs to save cost. Is this ethical and legal?

Solution

No. Using more copies than licences purchased is **software piracy** and breaches the licence agreement and copyright law. It exposes the company to fines and damages and harms the developer. The ethical solutions: buy the missing licences, purchase a volume/site licence, or switch to free/open-source software, and adopt an AUP with regular licence audits.

1.11 Important Short Questions (Exam Practice)

- Define ethics. How is it different from law and morality?
- What is CSR? Explain the triple bottom line.
- List the steps of improving business ethics in an organisation.
- Explain the five-step ethical decision-making process with an IT example.

- Differentiate between certification and licensing.
- What is an Acceptable Use Policy? Why do organisations need it?

Key Takeaways

- ✓ Ethics = shared standards of right and wrong; law is only the minimum.
- ✓ Good ethics protects organisations from legal, financial and reputational harm.
- ✓ CSR extends duty from shareholders to all stakeholders (people, planet, profit).
- ✓ Ethical culture needs a code, ethics officer, training, audits and a safe reporting channel.
- ✓ Use a structured decision process: problem, alternatives, evaluate, implement, review.
- ✓ IT professionalism relies on codes, organisations, certification and (limited) licensing.
- ✓ Users must follow an AUP; piracy and misuse of resources are ethical and legal violations.

— *End of Unit 1* —

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