

Course: Professional Issues in Information Technology

Week 1: Introduction to Professional Issues

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Course Description

- The course begins with an introduction to terminologies like profession, data and Information Technology. This will be followed by a coverage of the data processing cycle, an introduction to Law, Ethics and the Concept of privacy. Cyber crimes will then be covered to see what the law says in relation to cyber crimes.
- A detailed coverage of Intellectual property rights will then follow with the learners being exposed to various property rights and the glaring issue of plagiarism.

Course Description ...

- The four dimensions of ethical dilemmas will then follow to enable learners apply wisdom in matters related to ethical decision making.
- An evaluation of the effect of Information Technology in employment will culminate the course where learners will cover issues related to health and safety at work, Netiquette, Software contracts, major internet security issues and Computer misuse.

Course objectives

Upon successful completion of the Professional Issues in Information Technology course, the learners should have an understanding of the ethical, social and political issues surrounding the Information Technology profession.

The learning outcomes of the course will be to enable learners:-

- (i) Describe various ethical issues in Information Technology,
- (ii) Identify social, ethical and political issues related to Information Technology careers
- (ii) Describe how Information Technology affects employment.

Learning outcomes Week 1:

Introduction to Professional Issues

At the end of the lecture, you will be able to:

- (i) Define a profession
- (ii) Describe the characteristics of a profession
- (iii) Explain the importance of ethics in the IT Profession.

What is a profession?

- There is no single definition of the word profession. The meaning depends on who is using it and the context of use¹. A profession comprises of a **group of people who follow a certain calling to serve humanity.**
- People achieve this after **successfully completing studies and acquiring specialized knowledge in a certain subject area.**
- This knowledge is acquired after a **long intensive academic preparation.**

1 Professional Issues in Information Technology. Bott, F. British Computer Society, UK. (2005)

Common features of professionals

- Members of a given profession possess similar knowledge and skills in a certain subject matter²
- They provide similar services to their clients
- They are committed to high ethical standards.

Who is a professional?

- A professional is an individual who offers some specific services to clients, i.e. offering something to someone³
- In most cases the “**someone**” is the professional’s **client** ... and “**something**” is the professional’s **special expertise** being offered to the client.
- In many organizations, customers are referred to as **clients** not directly as customers

Professions as occupational groups

- A profession consists of **exclusive occupational groups who apply special expertise to help human beings (clients) solve particular human problems as they earn a living.**

Characteristics of a profession:

- i. Competitive*
- ii. Informative*
- iii. Ethical*

Characteristics: of a profession

1. Ethical

- Ethics deals with what is considered to be right and wrong in a society.
- A profession includes a code of ethics to adhere to, which are put across by professional bodies or organizations⁴
- Ethics comes hand in hand with accountability since individuals, organizations, and societies should be held accountable to others for the consequences of their actions

Characteristics: of a profession...

2. Informative

- A profession needs to enlighten others outside the said profession e.g. clients⁵
- A professional provides skilled services to clients and hence must be enlighten others (clients)
- A profession is based on truth and loyalty. The parties involved must be committed to the terms and agreements therein

Characteristics: of a profession...

3. Competitive

- A profession requires extended practical training and knowledge acquisition due to the changing demands
- For one to remain relevant in a profession, their skills must be up-to-date and not obsolete⁶
- This is more important in IT careers and it assures members of a profession of a specified career in their work life without becoming redundant

Some examples of professions include;

- Law,
- Medicine,
- Teaching,
- Architecture,
- Engineering,
- Information Technology
(IT) etc.

Information Technology (IT)

- IT enables organizations use technology to optimize their operations (activities) through proper processes.
- This calls for having the right infrastructure (both hardware and software)
- There is **ambiguity** over what an IT professional does due to the fact that IT is about the many aspects of computers and what they do especially when **tasks are automated**

Training IT Professionals

- IT professions are trained in computer science, or Information Technology backgrounds
- Technology keeps evolving and this calls for IT professionals to engage in continuous training and completion of certification courses

IT professionals ...cont.

- IT professional build, test, install, repair and maintain software within an organization
- They also manage the complex processes in the information life cycle.

IT Professionals...cont.

- Due to **information explosion in the current world**, Information Technology professionals are seen to be in an **imaginary** profession.
- Many people feel they can do anything related to computers once they learn the basic computer literacy
- IT professionals help clients retrieve and interpret information

IT Professionals...cont.

- An important task done by IT professionals is user support.
- They help clients who are **overburdened** with material from which they cannot retrieve useful information.
- Like in any other profession, information professionals also face some difficult and challenging issues in their careers.

Truth and Loyalty

- A profession is based on truth and loyalty.
- The parties involved must be committed to the terms and agreements therein⁷
- Profess means declaration of a vow.
- This means there is a covenant /agreement or a declaration of a vow to be faithful for something or to someone.

Information Professionals

- An information professional is an individual who preserves, organizes, and distributes information to those who need it.
- Information professionals retrieve recorded knowledge.
- Traditionally, their work dealt with print materials, but these skills are now used with electronic, visual, audio, and digital materials.

Hire or Outsource?

- Some organizations hire in-house IT teams, others outsource IT professionals for specific tasks when need arises
- Outsourcing is a contractual arrangement whereby an organization engages a third party to handle a certain business function on their behalf within a specified time frame⁸

Types of Information Professionals

Information professionals work in a variety of public, private, non-profit, and academic institutions.

They include:-

- Information Systems Auditor
- Researchers
- Database and Data administrators
- Network Administrators
- System Analysts
- Record Managers

1. Information Systems Auditor

- This is an IT professional who performs a detailed evaluation and internal audit of computer information systems
- They evaluate risks and document the processes involved in day-to-day activities of an information system

2. Database administrators

- These are professionals who are in charge of databases in an organization
- They create, add, remove or modify database records

3. Network administrators

- These IT professionals install and maintain computer networks to ensure networks are secure and running smoothly
- Skills needed for this profession include hands on networking skills, hardware and programming skills

4. System analysts

- They bring together business and IT sectors for optimal business performance
- They ensure operations are smooth and effective

5. User Support

- When a computer hardware device or network connection develops an issue, a computer user support specialist provides a solution to the users

6. Record Managers

- These are IT professionals who oversee record creation and preservation in an organization
- They develop new record management systems, while also evaluating and maintaining the existing systems

What does it take to succeed in IT profession?

- i. Good communication skills to work well with people and teams
- ii. Patience, understanding and empathy with the clients who are not as skillful as one is
- iii. Commitment, keen interest, passion and devotion to the profession
- iv. Honesty and integrity - IT solutions are expensive and this requires a detailed breakdown of individual items or services with their cost to clients

Other Professions include

- Engineers
- Historians/ archivists
- Accountant.
- Psychiatrist
- Consultants.
- Journalists etc.

Review Question

The introduction of new Information Technology (IT) has a ripple effect, raising new ethical, social and political issues that must be dealt with on the individual, social and political levels. Discuss the moral dimensions to these issues

Solution:

Take an example of a technology like cell phones and the social media impact

Content Covered in Week 1:

Introduction to Professional Issues

- (i) We have defined what a profession is
- (ii) We have introduced the importance of ethics in the IT profession.
- (iii) We have described the characteristics of a profession
- (iv) We have looked at various Information Technology professionals

Course Text Books

1. Professional Issues in Information Technology. Bott, F. *British Computer Society, UK.* (2005)
2. Ethics in Information Technology, 4th ed. Reynolds, G. *Course Technology, Boston, USA.* (2011)
3. Computers in Society: Privacy, Ethics and the Internet. George, J.F. *Pearson Prentice Hall, New Jersey.* (2004)
4. Cyber-ethics: Morality and Law in Cyberspace, 5th ed., Spinello, R.A. *Jones & Bartlett, Burlington, Mass., USA.* (2013)
5. Contemporary Issues in Ethics and Information Technology. Schultz, R.A. *IRM Press, USA.* (2005)