

INFT 3800

Professional Practice in IT

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LECTURE NOTE – WEEK 2

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Professional Ethics I

- Professionalism and approaches to professional practice
- Combination moral, ethics and law
- Evolution of moral and ethics
- Computing professionals
- Professional Codes of conduct
- Social Impacts of ICT
- Cultural Considerations in ICT
- Understanding and Applying Cultural Standards
- Managing workforce culture
- Key cultural issues impacting e-inclusion.

Professionalism and approaches to professional practice

Professionalism: It`s not the job you do; It`s how you do the job.

- Professionalism, is more than doing a job. It is a key cluster of social and ethical responsibility, commitment, knowledge and skills and judgment in the sociologies of work, occupations, professions and organizations.

Professionalism and approaches to professional practice

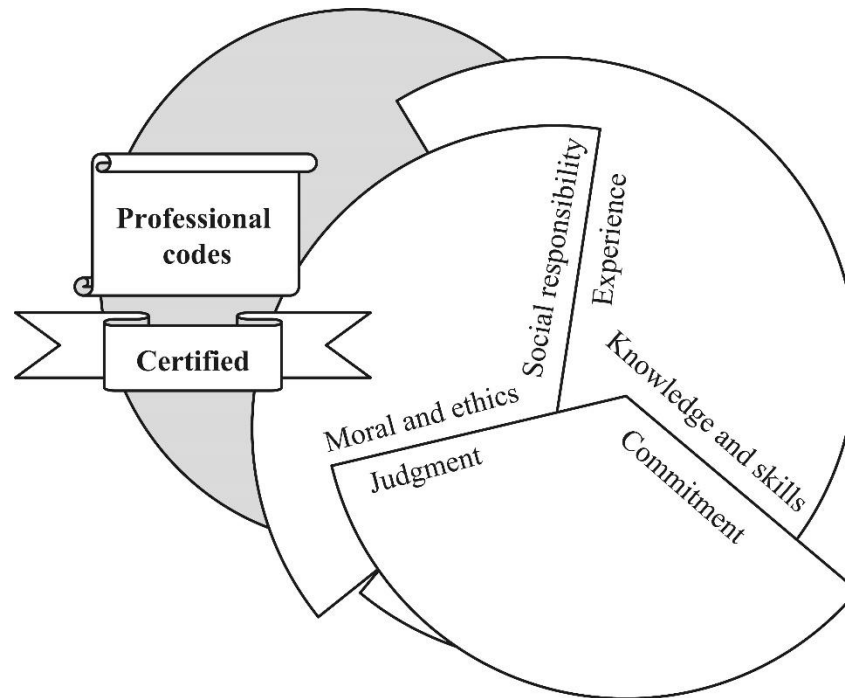


Fig 1. Main Characteristics of professionalism

Professionalism

According to Goode (1957):

- A profession is a community characterized by the members` sense of identity that binds them together, and usually membership is a permanent status.
 - Eg. Australian Computer Society (ACS), Engineer Australia (EA) etc.
- Professionalism is the conduct and standards which guide the work of professionals.
- It describes the qualities, skills, competence, and behaviours they are expected to bring to the workplace.

Professionalism

- Traditionally, professionalism has been seen in terms of fulfilling a list of requirements;
 - Membership of professional body (by obeying the code of ethics)
 - Attainment of a specified training level
 - Pursuit of ongoing professional development
 - Licensing from the government

Professionalism

- Professionalism in the workplace means:
 - **Taking responsibility** for work.
Eg. Complete the works that have been assigned in a timely manner.
 - **Pride in the quality** of work.
Eg. Your name is on it, build a reputation for good work.
 - **Acting ethically** to clients, colleagues, management, community and the environment.
Eg. Being trustworthy, respect privacy, respect toward colleagues etc.
 - **Understanding risks and inhibiting failures.**
Eg. Financial loss, bankruptcy, being hacked, disaster etc.
 - **Persistent improvement** of the profession and technology.
Eg. Willingness to learn new skills, never giving up

Professionalism

Examples of IT risks

Threats to IT systems can be external, internal, deliberate and unintentional.

1. Physical threats
2. Electronic threat
3. Technical failure
4. Infrastructure failure
5. Human error

Approaches to professional practice

Characteristics of practice

- Professionals were those:
 - Who professed their specialized knowledge and skill to others,
 - Vowed to perform their professional to the highest standard, and
 - Acquired special rights and responsibilities.
- Practice involves “practical reasoning”, using knowledge in the face of uncertainty, understanding that the historical consequences of practice in a particular case will only become apparent in the future and then only if people reflect critically on what was done.

Approaches to professional practice

- The concept of professional practice refers to the work that professionals actually do and the context within which the work is done.
- It is based on the competence of the professionals
- Associated with the knowledge base of the professional practice.
- Traditional perspective:
 - Professional practice is regarded as referring to applied science, technology, and policy; application of knowledge grounded in theories, technologies, and techniques developed through science or as instrumental problem-solving.

Approaches to professional practice

- True professionals possess a number of important characteristics that can apply to virtually any type of discipline.
- All practices are enacted based on certain theories, public or private.
- Practice is a composite of:
 - Saying: talk
 - Doing: action
 - Relating: relationship

Approaches to professional practice

- Saying involves:
 - Particular ways of thinking and learning about what the practice is and its means.
 - Example: Think and talk by following the code of conduct in your profession
- Doing involves:
 - Different activities and work for professional practitioners.
 - Different kinds of activities and consequences for others involved in and affected by the practice.
 - Professionals must obey a strict code of ethics.
 - Even if the organization does not have a written code, displaying ethical behaviour is mandatory at all times.
 - Actions should obey the code of conduct in all situations

Approaches to professional practice

- Relationships involve:
 - Different kinds and complex relationships between practitioners and those involved in and affected by their practices.

Example:

- Responding to people and duties promptly
- Important to follow through on actions in a timely manner as this demonstrates reliability.

Approaches to professional practice

- Good workplace practice:
 - Staying positive
 - Being responsible
 - Taking initiative
 - Think critically to solve problem
- Poor workplace practice:
 - Prohibited practices
 - Incompetent attitudes
 - Abusing agreements
 - Making choice for one's personal advantages

Approaches to professional practice

- Critical question:
 - If the practice is enshrined in laws, regulations, rules, policies or social technologies are sustainable?
- Answer:
 - In general, practices are not sustainable if they do not meet criteria necessary for their continuation dimensions:
 - Personal
 - Social
 - Political
 - Environmental
 - Economic

Combination moral, ethics and law

- **Morals** refer to social conventions about right and wrong that are shared so that they become the bases for an established consensus.
- **Ethics** comes from the Greek word “ethos” and is defined as the study of standards and codes of behaviour expected of an individual by a group.
- Both morals and ethics have to do with differentiating the differences between good and bad or right and wrong.

Combination moral, ethics and law

- Ethics is a major characteristics of professionalism.
- It is about developing the ability of practitioners:
 - To see the ethical dimensions of problems,
 - To reflect issues,
 - To take difficult decisions and
 - To be able to justify these decisions and
 - Act with integrity
- Ethics include attitude, communication skills, behaviour toward colleagues, honesty , and responsibility.

Combination moral, ethics and law

- Law is a system of rules that tells what one can and cannot do.
- Laws are enforced by a set of institutions such as the police, courts, and law making bodies.
- The legal system is a set of acts that conform to the law.
- Moral acts conform to what an individual believes to be the right thing to do.
- Laws can proclaim an act as legal, although many people may consider the act immoral.

Combination moral, ethics and law

- The combination of morals, ethics, and law provides a framework of the rules of behaviour that are moral, fair, and proper for a true professional.
- Ethical conduct is behaviour anticipated by society and is above and beyond the minimum standards of the law.
- Therefore, morals, ethics, and law, while different, are not independent.

Evolution of moral and ethics

- Socrates (470 – 399 BC)
 - “No person should ever willingly do evil”
- Confucius (551 – 479 BC)
 - Emphasizes the role of ideal character traits.
- Some moralist connected ethics with religion.
- Immanuel Kant (1724 – 1804)
 - Connected duty to ethics.
 - Morality is grounded with reason, not in tradition, intuition, conscience, emotion, or attitudes such as sympathy.
 - Two categories of duties:
 - A perfect duty: duty not harm another person
 - Imperfect duty: acting with kindness

Evolution of moral and ethics

- John Stuart Mill (1806 – 1873)
 - Actions are ethical if they promote happiness.
- Darwin (1809 – 1882)
 - By introducing the idea of evolution into the study of organic life, he opened a new era in philosophy, and his later sketch of the development of the moral sense turned a new page in ethics.

Evolution of moral and ethics

Some giant company slogans:

- Google “Don’t be evil” originated 2001
- Alphabet “Do the right thing” originated 2015
- Microsoft “ Empowering us all”
- Apple “Think Different”
- Facebook “It`s quick and easy”
- Twitter “See What`s Happening”
- Youtube “Broadcast Yourself”
- Netflix “One Story Away”
- Cisco “Tomorrow Starts Here”
- Amazon “Work Hard”
- IBM “Think”

Computing professionals

- Most of codes of ethics created by professional organizations have two kinds of harmonizing standards:
 1. Outline what the organization aspires to become (code of ethics)
 2. List rules and principles by which members of the organization are expected to abide to avoid possible disciplinary action (code of professional conduct)
- Both codes are guidelines that set satisfactory behaviours for a profession.
- The code of ethics is a comprehensive guide to professional conduct.
- Every profession has its professional ethics; engineers, lawyers, physicians to adhere.

Three branches of ethics

Ethics can be divided into three branches:

Branch	Outline
Metaethics	Addresses the origin and definition of people`s ethical principles. Deals with morality, universal truth & God`s will. Eg. Killing someone or lying are morally wrong.
Normative	Refers to generally accepted standards of right and wrong in society. Often learned during childhood. Eg. Making other people happy, visiting an ill friend at the hospital are the act of kindness. Bullying is wrong.
Applied	Involves the application of normative ethical theories to <i>particular</i> cases. Deals with difficult moral questions and controversial moral issues in various areas; computer ethics, medical ethics, environmental ethics, business ethics etc. Eg. Trolley problem

Professional Codes of conduct

- Example of professional codes:
 - IEEE (Institute of Electrical and Electronics Engineers)
 - WPI (Worcester Polytechnic Institute) code for robotics
 - ACM (Association for Computing Machinery)
 - ACS (Australian Computer Society)
- IEEE code of ethics begins with the phrase:

“to hold paramount the safety, health, and welfare of the public, to strive to comply with ethical design and sustainable development practices, to protect the privacy of others, and to disclose promptly factors that might endanger the public or the environment”
- IEEE`s code is very general aiming to provide ethical rules for all electrical and electronics engineers.

Professional Codes of conduct

- Ten attributes of IEEE ethical commitment (June 2020):
 1. to hold paramount the safety, health, and welfare of the public, to strive to comply with ethical design and sustainable development practices, to protect the privacy of others, and to disclose promptly factors that might endanger the public or the environment;
 2. to improve the understanding by individuals and society of the capabilities and societal implications of conventional and emerging technologies, including intelligent systems;
 3. to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist;
 4. to avoid unlawful conduct in professional activities, and to reject bribery in all its forms;
 5. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, to be honest and realistic in stating claims or estimates based on available data, and to credit properly the contributions of others;
 6. to maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
 7. to treat all persons fairly and with respect, and to not engage in discrimination based on characteristics such as race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression;
 8. to not engage in harassment of any kind, including sexual harassment or bullying behaviour;
 9. to avoid injuring others, their property, reputation, or employment by false or malicious actions, rumours or any other verbal or physical abuses;
 10. to support colleagues and co-workers in following this code of ethics, to strive to ensure the code is upheld, and to not retaliate against individuals reporting a violation.

Professional Codes of conduct

- WPI code to address current state of robotics engineering:
 1. Consider and respect people`s physical well-being and rights
 2. Not knowingly misinform, and if misinformation is spread, do my best to correct it
 3. Respect and follow local, national, and international laws whenever applicable
 4. Recognize and disclose any conflicts of interest
 5. Accept and offer constructive criticism
 6. Help and assist colleagues I their professional development and in following his code

Professional Codes of conduct

- Six core ethical values of ACS code:
 1. The primacy of the public interest
 2. The enhancement of quality of life
 3. Honesty
 4. Competence
 5. Professional development
 6. Professionalism

Social Impacts of ICT

Common ethical issues for computing

- National and cultural differences may make it difficult to determine what is and is not ethical in computing.
 - Eg. [Cell Phone Privacy](#) (1:33min video)
- Difficulties arise when one nationality's or culture's ethical behaviour violates the ethics of another nationality or culture.
 - Eg. Gender conflict, holidays.
- Computing has not only brought benefits to society, but has been misused too that may lead to serious ethical issues.
 - Eg. [Selling You As Data](#) (2:43min video)

Social Impacts of ICT

Among the ethical challenges that are faced by computing today:

- Lack of privacy
- Security issues
- Identity theft
- Stalking
- Copyright infringement
- Other computer crimes
- Computing professionals have ethical responsibilities to not cause harm or unreasonable risk of harm not only to individuals affected by their work but also to public welfare or the public interest.

Cultural Considerations in ICT

Neutrality of Information and Communication Technology in Australia.

“According to a the socio-political perspective view, technology is inseparable from the social, cultural, historical and political context which produced it. It is ‘part of a social environment, an agent of social change, the physical medium through which symbolic values are expressed, the trace of a civilization’.

Cultural Considerations in ICT

Some cultural considerations in Australia:

- ICT adoption by indigenous Australians
- ICT access
- Attitudes toward ICT
- Indigenous ICTs in Practice

Cultural Considerations in ICT

ICT adoption rates by indigenous Australians:

- Low rates of computer ownership
- Poor computer literacy levels
- Low enrolments in university IT courses
- Few indigenous ICT professionals

ICT Access by indigenous Australians:

- Cost
- Environmental constraints
- Difficulty in acquiring better computer skills

Cultural Considerations in ICT

Attitudes toward ICT

School children and ICT

- Eager to learn
- Expose to different software
- Proficient in operating both hardware and software

Eg. The Redfern Kids Connect project

- Tertiary students and ICT
 - Enthusiasm in learning IT subjects; web design, internetworking, programming in VB .NET.
 - In favour to learn via remote technologies.
- Computer attitudes in the workplace
 - Low participation in the Australian workforce

Cultural Considerations in ICT

Indigenous ICTs in Practice

- Information Systems for cultural maintenance
- Language learning
- Protection of indigenous intellectual property
- Management of secret knowledge
- Sorry business
- Indigenous e-Commerce
- Web design

Understanding and Applying Cultural Standards

- A technology cannot be detached from its cultural context.
- Technology is produced through intentional and rational processes influenced by the cultural background of different stakeholders.
- Respecting cultural aspects when conceiving a technology, analysing possible positive and negative impacts of technology adoption by a social group.

Managing workforce culture

Managing workforce culture will improve productivity in ICT workplace. The following areas are will impact attraction and retention in ICT Workplace:

1. Organisational change
2. Employee participation and involvement
3. Flexibility at work
4. Staff engagement and motivation
5. Managing diversity
6. Work/life balance

Key cultural issues impacting e-inclusion.

- There has always been a gap between those people and communities who can make effective use of information and communications technology (ICT) and those who cannot.
- Now, more than ever, unequal adoption of and access opportunities to ICT exclude many from benefiting from the advantages related to the introduction of technologies in many fields of social life

Key cultural issues impacting e-inclusion.

- The term **digital divide** refers to the gap between those who can effectively use new ICT tools, such as the Internet, and those who cannot.
- In fact there is not just one digital divide but multiple divides which relate to a variety of factors such as: gender; age; “ethnic clustering”; uncertainty of living/financial conditions; work insecurity, and social insecurity.

Summaries

- Differentiate between profession, professional and professional practice.
- What are the three major ethical theories?
- How does ethics differ from law?
- What do professional ethics include?
- What is the purpose of professional code?

Next Week

- Quiz 1 – During lab session
 - Random set of questions
 - Password protected
 - 20 Questions
- Accessibility Considerations in ICT
- Gender Equality in ICT Profession
- Unconscious gender bias and stereotyping
- Addressing gender inequality

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