Ethical and legal Issues in information systems

A. MUASYA

Ethical and legal Issues in information systems

- **Ethics** relates to standards of right and wrong that individuals, acting as free moral agents, use to make choices to guide their behaviors.
- ***Information ethics*** relates to standards of right and wrong in information processing Practices
- Organizations must deal with ethical issues relating to their employees, customers, and suppliers. Ethical issues are very important since they have the power to damage the image of an organization and to destroy the morale of the employees.
- Ethics is a difficult area because ethical issues are complex. What is considered ethical by one person may seem unethical to another. Likewise, what is considered ethical in one country may be seen as unethical in another.

Ethical and legal Issues in information systems

The use of information technology raises many ethical issues.

- These range from the monitoring of electronic mail to the potential invasion of privacy of millions of customers whose data are stored in private and public databases.
- The environments that surrounded organizations are becoming more complex and turbulent. Advances in communications, transportation, and technology create many changes.
- Other changes are the result of political or economic activities. Thus, the pressures on organizations are mounting, and organizations must be ready to take responsive actions if they are to succeed. In addition, organizations may see opportunities in these pressures.

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ICT Ethics

These relate to the standards of conduct governing individual, institution’s societies’ & or international use of information & communication technology.

Domains of ICT ethics

Commercial & Legal Issues, Expression, Privacy Issues, Social Justice / Accessibility, Computer Abuse, Intellectual Property, Moral Responsibility, Risks

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Domains of ICT ethics cont'd

- **Commercial / legal issues –** Concerns Fraud, Free-trade, Gambling, Anticompetitive Practices, etc.
- ICT standards governing commercial & legal issues aim to suppress dishonest business practices and to protect and encourage fair competition
- **Expression –** Concerns**,** Free Speech, Netiquette (polite-use conventions), etc.
- ICT related standards aim to control (among other things) hate motivated or indecent communication, whilst protecting free-speech rights.
- **Privacy –** Concerns E-mail Privacy, Anonymity, and Spamming, encryption, database or personal information Privacy etc.
- Ethical standards protect personal & commercial information such as login & password info, credit card and account information and government and commercial databases. It also controls unwanted internet mail and ads (Spam).

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Domains of ICT ethics cont'd

- **Social justice – Social Justice relates to The Digital Divide (unequal ICT access),** Accessibility for students with special needs, etc.
- Ethical standards relate to making ICT available and accessible to all peoples, including the disabled and the deprived.
- **Intellectual Property** – Concerns *Intellectual Content, Student Authenticity, Software Piracy. Patents & Copyright Law, Electronic Copyright etc.*
- ICT Ethical standards aim to control plagiarism, student identity fraud, and the use of copyrighted material, etc.

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Domains of ICT ethics cont'd

Property Rights: Intellectual Property

- Trade secrets- Any intellectual work product—a formula, device, pattern, or compilation of data-used for a business purpose
- Copyright- a statutory grant that protects creators of intellectual property from having their work copied by others for any purpose during the life of the author plus an additional 70 years after the author's death.
- Patents- grants the owner an exclusive monopoly on the ideas behind an invention for 20 years.
- **Moral responsibility –** Concerns individual action such as Whistle-blowing (exposing ethical violations) and personal adherence to ethical codes.
- Ethical standards include a personal moral dimension.

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Domains of ICT ethics cont'd

Risks – Risk faced by ICT users relate to username thefts, Computer hardware & Software Reliability, etc.

•Related ICT Ethical standards govern Internet Service Providers (ISP), responsibility to protect client information and the quality of computer hardware and software.

Computer abuse- Computer abuse includes Hacking, dissemination of software Worms, software Viruses, Trojan Horses etc.

•Related ethical standards aim to penalize violators.

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UnderStanding Ethical & Social Issues Related To Systems

•Ethics is a concern for humans who have freedom of choice. When faced with alternative causes of action, what is the correct moral choice?

Basic concepts : Responsibility, accountability, and liability

•**Responsibility** is a key element of ethical action. Responsibility means that you accept the potential costs, duties, and obligations for the decisions you make.

•**Accountability** is a feature of systems and social institutions. It means there are mechanisms to determine who took responsible action or who was responsible.

•**Liability** is a feature of political systems in which laws are in place that permits individuals to recover damages done to them.

•**Due process** is a related feature of law governed societies and is a process in which laws are known and understood and there is an ability to appeal to higher authorities to ensure that the laws are applied correctly

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Moral or ethical Dilemmas

- Situations in which two or more moral obligations, duties, rights, or ideals come into conflict.
- To resolve we must identify the factors, gather facts, rank moral considerations, consider alternative courses of actions, and arrive at a judgment.
- A hijacked plane with 200 people is approaching a building with 50,000 people. Will you shoot down the plane?
- A true moral dilemma
- Which position has the greatest weight in the circumstances?

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Ethical Analysis

When confronted with a situation that presents an ethical issue, take the following steps

- Identify the facts.
- Define the conflict or dilemma and identify the higher order values involved
- Identify the stakeholders and their positions.
- Develop and evaluate options i.e. Weigh various guidelines and principles (Virtue, Utilitarian, Fairness, Common Good).
- Consider the consequences of your decision i.e. Review your decision and valuate the results of your decision.

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Candidate Ethical Principles

- Golden Rule: Do unto others as you would have them do unto you.
- Immanuel Kant’s Categorical Imperative: If an action is not right for everyone to take, it is not right for anyone.
- Descartes’ Rule of Change: If an action cannot be taken repeatedly, it is not right to take at all.
- Utilitarian Principle: Take the action that achieves the higher or greater value.
- Risk Aversion Principle: Take the action that produces the least harm or least potential cost.
- Ethical “No Free Lunch” Rule: Assume that virtually all tangible and intangible objects are owned by someone unless there is a specific declaration otherwise.

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Ethics vs Law (legal)

Business activities take place within a framework of law. Laws are the set of clearly defined and enforceable rules applied to business activities.

Law prevails in public life while ethics prevail in private life. Thus ethics is a matter of personal opinion – what one thinks is morally right.

Laws are published while ethics are not published. Laws are consistent i.e. two laws cannot contradict while ethics can apply to different situations

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Information Rights: Privacy and Freedom in the Internet Age

•Privacy protection- the claim of individuals to be left alone, free from surveillance or interference from other individuals or organizations, including the state. Claims to privacy are also involved at the workplace:

•Fair Information Practices - a set of principles governing the collection and use of information about individuals. FIP principles are based on the notion of a mutuality of interest between the record holder and the individual.

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- The five FIP principles are:
  - There should be no personal record systems whose existence is secret.
  - Individuals have rights of access, inspection, review and amendment to systems that contain information about them.
  - There must be no use of personal information for purposes other than those for which it was gathered without prior consent
  - Managers of systems are responsible and can be held accountable and liable for the damage done by systems, for their reliability and security
  - Governments have the right to intervene in the information relationships among private parties.

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INFORMATION PROFESSIONALS (IP'S)

- This is an emerging profession. Professionals in their most general sense consist of exclusive occupational groups who apply special expertise to help human beings solve particular human problems
- Some familiar professionals include Medicine, law, Architecture and Engineering.
- With the advent of the Information explosion, a new kind profession is emerging, one that seeks to help people by providing them with information & by managing the complexity of information life cycle
- The crucial tasks these professionals perform is to "help clients [who are] overburdened with material from which they can't retrieve usable information
- Those working in this new class of profession are called Information Professionals (IPs)

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Profession

- Group identity – Member of registered institution
- Education, training -requirements for admission
- Special uncommon knowledge
- Knowledge used in the service of others… positive social need
- Involves individual judgment, (some) autonomy in decisions
- Adherence to certain values
- Penalties for substandard performance

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What is a Professional?

- The term professional derives from the latin root word of *Pro* meaning " *before*" and *facteor*, meaning " to *avow*"
- This suggests " the notion of a covenant, a declaration or a vow to be faithful for something to someone"
- In most professionals, the "*someone*" is the *professional's clients* and the "*something*" is the *Professional's special expertise*.
- Possesses specialized knowledge and skills
- Belongs to and abides by the standards of a society
- Serves an important aspect of the public good

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Set of criteria used to define a professional

- A professional consists of a group of people who follow a calling, the successful completion of which requires specialized knowledge – knowledge usually obtained after a long, intensive academic preparation.
- Members of a given profession possesses similar knowledge and skills and are committed to high ethical standards
- A professional possesses and draws on a store of knowledge that is more than ordinary

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Set of criteria used to define a professional cont’d

- A professional possesses a theoretical and intellectual grasp that is different from that of a technician’s practice
- A professional applies theoretical & intellectual knowledge to solving human and social problems
- A professional strives to add and improve it’s body of knowledge through research
- A professional passes on the body of knowledge to novice generation for continuity purposes

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What is an Information Professional?

- A large number of occupations that are being created and are highly information intensive and rely on one's knowledge and skills for handling information
- IP's possess specialized knowledge about knowledge itself which they use to improve the intellectual state of people
- That is, IP's empower their clients to understand and to know as distinguished from the power to will or to feel
- This empowering information as Fritz Machilup once described it, consists of signs and models one mind uses to influence another mind

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What is an IP cont'd?

- To be more precise, IP's are mediators between one mind, let us call it the "Source" mind and another, the "Client" mind
- The IP's possess specialized knowledge about information, Knowledge and IT
- That is they are skilled at processing symbols
- Technology is an important part of the information professional's specialized knowledge
- IPs secure information from Information givers and orchestrators. They interact with their clients information

Certifications And Professional Organizations

- A number of professional organizations have established codes of conduct and/or codes of ethics that members are expected to follow
- Codes of ethics can have a positive effect on an individual’s judgment regarding computer use
- Reminds individual responsibility of security professionals to act ethically and according to the policies and procedures of their employers, professional organizations, and laws of society

Certifications And Professional Organizations

Association of Computing Machinery(ACM)

- ACM is a respected professional society, originally established in 1947 as “the world's first educational and scientific computing society”

- strongly promotes education and provides discounted membership for students

- ACM’s code of ethics requires members to perform their duties in a manner befitting an ethical computing professional

Association of Computing Machinery(ACM)

It has four sections …

Section 1: General moral imperatives.

Section 2: More specific professional responsibilities.

Section 3: Organizational Leadership Imperatives.

Section 4: Compilance with the code

Association of Computing Machinery(ACM)

General moral imperatives

As an ACM member I will...

1.1 Contribute to society and human well-being.

1.2 Avoid harm to others.

1.3 Be honest and trustworthy.

1.4 Be fair and take action not to discriminate.

1.5 Honor property rights including copyrights and patent.

1.6 Give proper credit for intellectual property.

1.7 Respect the privacy of others.

1.8 Honor confidentiality

Association of Computing Machinery(ACM)

More Specific Professional Responsibilities:

As an ACM computing professional I will ….

2.1 Strive to achieve the highest quality, effectiveness and dignity in both the process and products of professional work.

2.2 Acquire and maintain professional competence.

2.3 Know and respect existing laws pertaining to professional work.

2.4 Accept and provide appropriate professional review.

2.5 Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.

2.6 Honor contracts, agreements, and assigned responsibilities.

2.7 Improve public understanding of computing and its consequences.

2.8 Access computing and communication resources only when authorized to do so.

Computer Ethics (from The Computer Ethics Institute)

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

Corporate Code of Ethics

According to Laudon and Laudon's five moral dimensions, businesses and their managers should recognize:

- The information rights to privacy and freedom
- The property rights to individual ideas and efforts
- The accountability, liability and control issues involved in using technology
- The system quality requirements of businesses and individuals
- The quality of life impact of technology