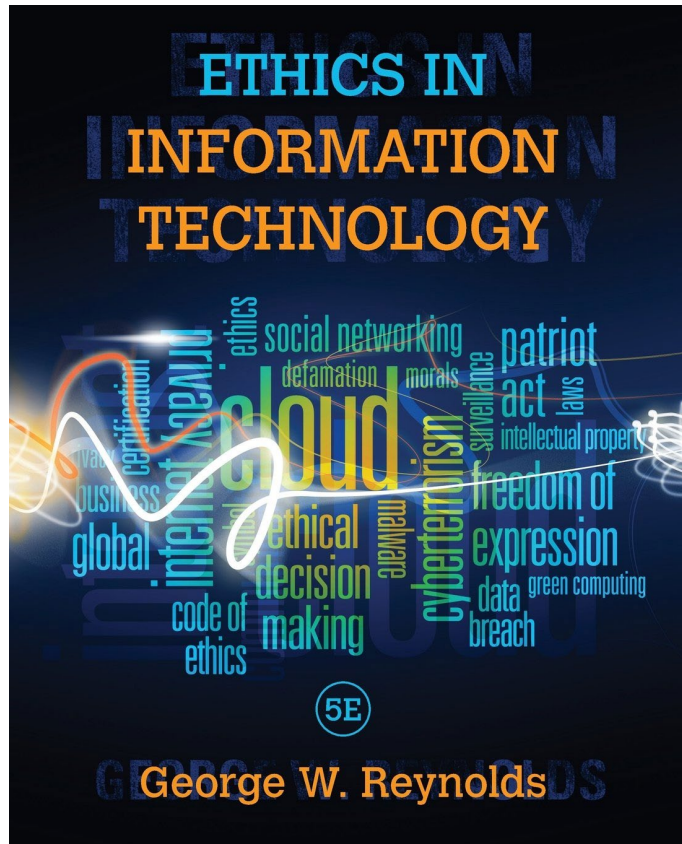


TICT 3142 Social and Professional Issues in IT

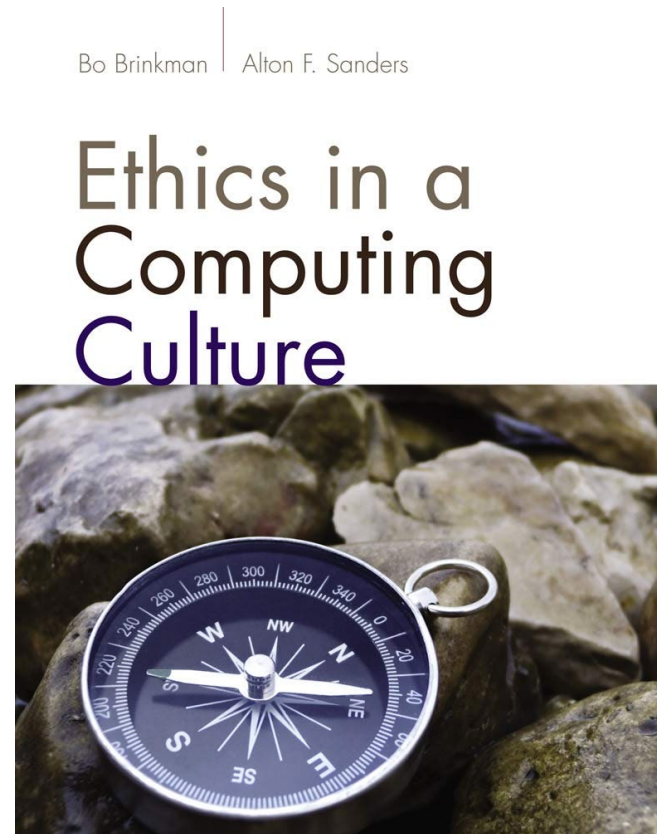
Lesson 01 Introduction to Ethics

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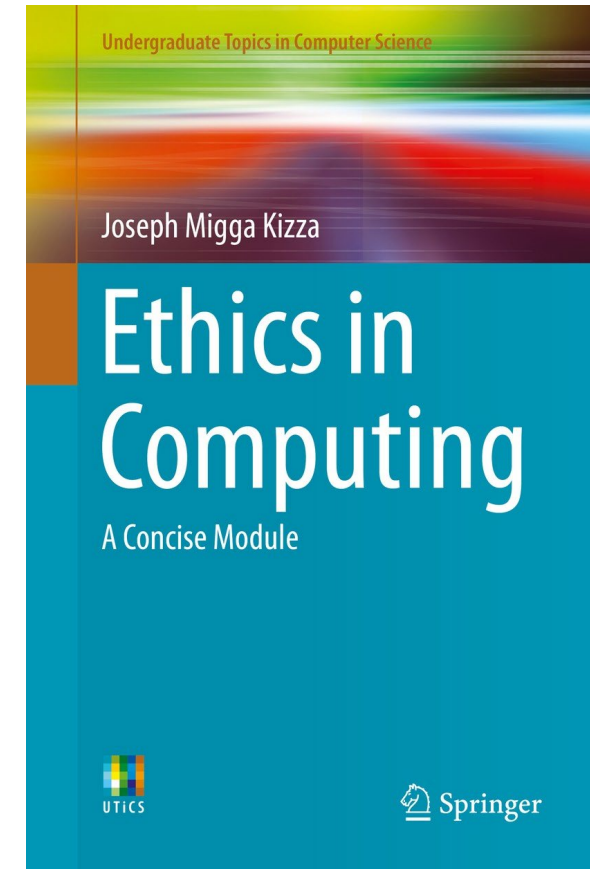
REFERENCE BOOKS



George Reynolds. (2014) Ethics in Information Technology. 5th Ed.



William John Brinkman. (2012) Ethics in a Computing Culture. 1st Ed.



Joseph Migga Kizza. (2016) Ethics in Computing: A Concise Module (Undergraduate Topics in Computer Science).

Learning Outcomes

At the completion of this lesson students should be able to,

- "By the end of this topic, students will be able to identify and explain the responsibilities of IT professionals in legal, ethical, organizational, and societal contexts, and apply these responsibilities when dealing with real-world ICT scenarios within the framework of Sri Lankan law."
- Introduction to Ethics



SOCIAL AND PROFESSIONAL ISSUES

WHAT IS A SOCIAL ISSUES ?

- is a problem that affects many people within a society. It is a group of common problems in present-day society and ones that many people strive to solve. It is often the consequence of factors extending beyond an individual's control.



WHAT IS A PROFESSIONAL ISSUES ?

- are areas of debate about ethical or practical conduct that underpin good professional practice.

SOCIAL ISSUES



10 Social Issues Computers Have Created

- Communication Breakdown
- Defamation of Character
- Identity Theft
- Cyber Bullying
- Gaming Addiction
- Privacy
- Health & Fitness
- Education
- Terrorism & Crime

PROFESSIONAL ISSUES



CHALLENGES FACING IT PROFESSIONALS

- Workload
- Cybersecurity
- Skills gaps
- Digital transformation
- Cloud computing
- Hiring
- Budget
- Leadership support
- Analytics and data management
- Automation
- Project management
- Career growth

What is Computer Ethics?

- Analysis of the nature & social impact of computer technology and the corresponding formulation & justification of policies for the ethical use of such technologies



IT Issues

❑ Email

- Easy way to keep in touch
- Spam has become a real problem

❑ Web

- Free access to huge amounts of information
- Harmful consequences of some sites

❑ CDs, MP3s, MP4s

- Free or cheap copies readily available
- May be unfair to musicians

❑ **Telecommuting**

- Saves time, allows more flexible work hours
- Can lead to longer work hours
- May result in fewer chances for promotion

❑ **Improved global communication network**

- Allow companies to sell to entire world
- Allow companies to move jobs out of their home countries.
Harmful consequences of some sites

❑ **World Wide Web**

- A conduit for democratic ideas?
- Another tool for totalitarian governments

❑ **Credit cards**

- Convenience over cash and checks
- Increases possibility of identity theft
- Who owns information about transactions

1. Why We Need Ethics & Culture

☐ Ethics

Company has a general sense of ethics that drives the policies it sets

☐ Moral

Accepted from an authority, usually cultural or religious

☐ Policy

Provides the framework in which a company's employees are to act in response to various situations

☐ Law

Is a separate matter from ethics

☐ Culture

Mixture of norms, standards, and expectations for members of a community

Why We Need Ethics & Culture

- Cooperation is easier and conflicts are limited when people share convictions. We therefore need to look for ethical principles that are shared worldwide.
- Standards and values are an integral part of any culture; hence, culture is the bedrock supporting every development



1. Why We Need Ethics & Culture



1. Why We Need Ethics & Culture

Evaluate Ethics of an Organization

☐ Formal Ethics

Opinion or perceptions officially written and share among employees.

☐ Informal Ethics

Describe a body of information that is either not written down or poorly documented, but that nevertheless is consistently and powerfully held in an organization.

☐ Ethical Leadership

Positive or Negative ethical Leadership.

2. Social & Professional Issues (Vulnerability Disclosure)

VULNERABILITY NON- DISCLOSURE

- ☐ Sign nondisclosure agreement
- ☐ Non will report vulnerability details to the outside (general public)
- ☐ Motivation - keep system away from intruders till the fixes are done

2. Social & Professional Issues (Vulnerability Disclosure)

VULNERABILITY NON- DISCLOSURE

- ❑ Can you really control information? - Adopting nondisclosure policies
- ❑ Advantages
 1. Nondisclosure empowers management
 2. Control over information within the organization
- ❑ Four main reasons to consider this as bad
 1. Leaked or simultaneously discovered
 2. Not discovered publicly admins do not have Opportunity
 3. No pressure for S/W vendors
 4. Difficulty of selecting trusted individuals
- ❑ The black hat community - Vulnerability issues and organizations
 - They practice policy of nondisclosure

2. Social & Professional Issues (Vulnerability Disclosure)

VULNERABILITY FULL-DISCLOSURE

- ❑ The process of broadly disseminating as much information as possible regarding product or system vulnerabilities so that potential victim's possess the same information as the potential attackers.
- ❑ Revealing of all vulnerability details including the technical details and scripts prior to patches, which fix the vulnerabilities.

2. Social & Professional Issues (Vulnerability Disclosure)

VULNERABILITY FULL-DISCLOSURE

❑ Potential victims are aware when

1. Implementing IDS
2. Shutting down some vulnerable services
3. System admins activities
4. Product reviews from programmers of the vendor

❑ Ethically handling system vulnerabilities - Who do you notify

❑ Performing full disclosure - How much do other know already?

END