



Ethics: “Its Importance, Role and Code in Information Technology”

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Abstract: “According to the new ethics, virtue is not restrictive but expansive, a sentiment and even an intoxication”. The purpose of this paper is to propose a case-based approach to instruction regarding ethical issues raised by the use of information technology (IT) in healthcare. These issues are rarely addressed in graduate degree and continuing professional education programs in health informatics. There are important reasons why ethical issues need to be addressed in informatics training. Ethical issues raised by the introduction of information technology affect practice and are ubiquitous. These issues are frequently among the most challenging to young practitioners who are ill prepared to deal with them in practice. First, the paper provides an overview of methods of moral reasoning that can be used to identify and analyze ethical problems in health informatics. Second, we provide a framework for defining cases that involve ethical issues and outline major issues raised by the use of information technology. Specific cases are used as examples of new dilemmas that are posed by the introduction of information technology in healthcare. These cases are used to illustrate how ethics can be integrated with the other elements of informatics training. The cases discussed here reflect day-to-day situations that arise in health settings that require decisions. Third, an approach that can be used to teach ethics in health informatics programs is outlined and illustrated.

Keywords - Ethics, Information Technology, Ethical Standard, Objective of Ethics, Challenges Code of Ethics.

I. INTRODUCTION

ETHICS: Ethics, also known as moral philosophy, is a branch of philosophy that addresses questions about morality - that is, concepts such as good and evil, right and wrong, virtue and vice, justice, etc.

II. OBJECTIVE OF ETHICS

1. **GROWING GLOBALLY:** Business school administrators and faculty realize that globalization should be integrated throughout b-school curricula. On campus, we are increasingly placing our students in diverse teams that mirror the workplaces they will be entering upon graduation. Off campus, we are giving students the opportunities—if not the mandate—to travel and study globally. Undoubtedly, AACSB will grow its international membership to keep pace with these trends and with the global economy. There are more than 11,000 business schools worldwide, and only 555 hold AACSB accreditation. Of those 555, fewer than 100 are found outside of the United States. These numbers reflect a great potential for growth throughout the world. With their massive populations and burgeoning economies, China and India are prime areas for management education expansion. For this reason, as part of its Asia Initiative, AACSB plans to open an office in Singapore. Africa, too,

is a potential area for expansion in AACSB membership. Although many African countries struggle to resolve[2] crises such as corruption and ethnic violence, there we want to encourage new membership and the pursuit of accreditation, we must resist the temptation to impose U.S.-centric standards. Although we always will promote academic quality, we also must respect the differences among cultures and traditions. While AACSB must maintain standards of excellence, we need to be flexible and fair in our academic requirements and keep overall quality as the overriding priority[2].

2. **PROMOTING PEACE:** While significant cultural differences exist among the world’s business schools, I believe that some principles and standards should be common to all institutions. These include honoring basic human rights and promoting diversity. As an accrediting body, AACSB must not lose sight of its responsibility to humanity to do what is right and just. As a member of AACSB’s Peace through Commerce Task Force, I am proud of our organization’s efforts to help produce leaders who are globally conscious and who use business to improve the common good. Through means such as student and faculty exchanges, research projects, and global business ventures, we can show how business and commerce can be used to promote prosperity

and peace. AACSB also recently has partnered with the United Nations Global Compact and other groups participating in the Principles for Responsible Management Education (PRME) Initiative. As of August,[3] 140 schools had signed on in support of PRME. The project will work in conjunction with more than 3,000 companies from 100 countries and 700 civil, labor, and academic organizations to address issues such as human rights, free trade, and environmental responsibility. AACSB has formed a PRME affinity group to help achieve these objectives. It is important that we continue such efforts to raise world levels of humanity while expanding our global footprint in management education.

3. **Assuring Learning Outcomes:** Assessment and assurance of learning (AoL) also will be areas of great importance to the organization in the coming year. Businesses that hire our students expect them to be ready to contribute from day one. Both on the undergraduate and graduate levels, those companies are making a large investment. They expect to benefit from a high value-added component when those investments—our students—hit the front door. Students also rightfully expect that the thousands of dollars they invest in their educations will benefit them, immediately and in the long run. That expectation is shared by government leaders, particularly in the case of public universities where elected officials expect a solid return on taxpayers' investment. And don't forget our alumni, who are aware that the values of their degrees are in part affected by the quality of the institution going forward. As an important component of the AACSB accreditation process, seven of the 21 standards focus on AoL. They require schools to define learning goals for their programs and to link their students' learning goals to the mission of their schools. There is no doubt that AoL is difficult to measure precisely. AACSB will need to stay flexible to help schools monitor and achieve their learning objectives. Even so, schools must meet AoL standards to ensure that their graduates enter the business world with the knowledge they will need to be successful business leaders. Our students, government leaders, and taxpayers demand that outcome; our hiring companies expect it. As AACSB institutions, we also should demand and expect it from ourselves.

4. **EVALUATING RESEARCH:** A natural extension of learning assessment is a discussion of the meaning and value of our research. After all, it is our faculty's business school research that forms the basis of much of the knowledge we impart to students. For this reason, AACSB convened the Impact of Research Task Force, which drafted recommendations of ways to increase the overall value and visibility of business school scholarship. Task force members gathered input on the initial draft from nearly 1,000 business school professors,

deans, and directors and used that input to develop a final report.[5]

For example, task force members suggested that AACSB include in its standards a requirement that schools demonstrate the impact of their faculty's research, encourage recognition of the diversity of faculty members' research contributions, and promote greater interaction between business academics and practicing managers.

Before any of these recommendations can be adopted, though, there first must be an understanding that the mission of each school will define the type of research that institution produces—and the impact that school wants to make. In addition, we must carefully evaluate how the Task Force's recommendations can be implemented. Once we have defined a framework for these possibilities, we will be better able to improve the efficiency and effectiveness of our research.

III. ENGAGING BUSINESS

As AACSB continues to grow the organization and expand its footprint globally, we will need more volunteers. Increasing numbers of accreditation reviews will require several hundred peer review team members each year. We will need a diverse set of trained volunteers to meet the growing demands. Many of those new volunteers will come from the academic world, but some will come from business. That represents another challenge. We must do a better job of engaging business leaders with AACSB. We must improve the connection between industry and business schools. For that reason, AACSB must promote greater advocacy and build a bridge to the business community. We need businesses to help us increase the public's understanding of the importance of AACSB accreditation, to raise awareness of the roles that business schools play, and to encourage financial investment in our institutions.

IV. INFORMATION TECHNOLOGY

Information technology (IT) is the branch of engineering that deals with the use of computers to store, retrieve and transmit information.[1] The acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by microelectronics-based combination of computing and telecommunications are its main fields.[2] The term in its modern sense first appeared in a 1958 article published in the Harvard Business Review, in which authors Leavitt and Whisler commented that "the new technology does not yet have a single established name. We shall call it information technology (IT)."[3] Some of the modern and emerging fields of Information technology are next generation web technologies, bioinformatics, cloud computing, global information systems, large scale knowledge bases, etc. Advancements are mainly driven in the field of computer science.[7]

V. IMPORTANCE OF INTEGRITY

Integrity is a cornerstone of ethical behavior. People with integrity act in accordance with a personal code of principles. Extend to all people the same respect and consideration that you desire. Apply the same moral standards in all situations.

• ETHICAL STANDARDS SET BY BOARD OF DIRECTORS

Board responsible for supervising management team. Directors of company are expected to conduct themselves according to the highest standards of personal and professional integrity. Set standard for company-wide ethical conduct. Ensure compliance with laws and regulations[7].

• ETHICS IN INFORMATION TECHNOLOGY

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Every advancement in information technology is accompanied by at least one ethical quandary. From Facebook to email updates, computer users are unaware of the fine balance between ethics and profit struck by providers. Software developers, businesses and individuals must think about the rights and wrongs of using information technology every day. The fundamental issues underlying the world of information technology are the end user's expectation of privacy and the provider's ethical duty to use applications or email responsibly[3].

Information ethics is the field that investigates the ethical issues arising from the development and application of information technologies. It provides a critical framework for considering moral issues concerning informational privacy, moral agency (e.g. whether artificial agents may be moral), new environmental issues (especially how agents should behave in the info sphere), problems arising from the life-cycle (creation, collection, recording, distribution, processing, etc.) of information (especially ownership and copyright, digital divide). Information Ethics is related to the fields of computer ethics and the philosophy of information.

Dilemmas regarding the life of information are becoming increasingly important in a society that is defined as "the information society". Information transmission and literacy are essential concerns in establishing an ethical foundation that promotes fair, equitable, and responsible practices. Information ethics broadly examines issues related to ownership, access, privacy, security, and community[8].

Information technology affects fundamental rights involving copyright protection, intellectual freedom, accountability, and security[3].

A new field has recently sparked a great deal of attention from philosophers all over the world. With the explosion of the Internet into the most widely used information medium today, the need to study the correct computer ethics has become imperative to our future as computer users. As the technology underlying computers continues to change, so too must our way of going about ethically using computers to further our society. There are many different areas where the study of computer ethics could be considered applicable.

The use of computers in large corporations is just one sector of computer ethics that needs to be fully understood. As computers are essential to the way big business makes their yearly profit, they can also serve to be enticing devices for employees to use as their own personal hubs for entertaining themselves. Many people have lost their jobs due to their complete lack of ethical behavior in the realm of using their computer at work for strictly business purposes. In large corporations, it becomes more difficult to monitor individual usage, and it is wasting upper-level management's time to have to deal with a computer ethics issue[3].

There is also the matter of using computers for criminal reasons. Due to the very nature of the information that is transferred through computers, they lend themselves to being targets for unsavory characters to attempt to exploit. From implantable viruses to the most advanced hacking software, criminal behavior in relation to the use of computers is a burgeoning problem that has been, and will continue to be, stringently addressed [1].

While the study of computer ethics is not necessarily an exact science, it continues to develop and progress as more information becomes available about the technological power that computers can harness. As the world continues to rely more and more on the transmission of data between computer systems, computer ethics will undoubtedly become more of a focus for many of the world's most schooled philosophers.

The field of computer ethics is a new and growing one. Computer ethics is a recent development, closely related to information ethics. The two fields are related like the concepts of theory and practice. The conceptual foundations of computer ethics are investigated by information ethics, while the practical applications of information ethics are carried out by computer ethics. Some common questions addressed by both fields have to do with copyright infringement of software, such as online music and movie piracy. The question is typically put like this: Is it morally wrong to copy software, music and movies? If so, why?

Computer ethics has developed its own version of the Ten Commandments.

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world of information technology are the end user's expectation of privacy and the provider's ethical duty to use applications or email responsibly[5].

1. **DATA MINING:** Data mining covers a wide range of activities that turn numbers, words and other data into distinguishable patterns. In the hands of a responsible agency or business, data mining can determine a probable next step for a terrorist cell or determine buying patterns within demographic groups. This practice has been assailed in the post 9/11 world as part of a widespread pattern of invasions of privacy carried out by America's intelligence experts. The practices of the Total Information Awareness Program in particular were thought to pry into the day-to-day lives of innocent people by IT ethics experts and civil libertarians[6].
2. **SOCIAL NETWORKING:** The social networking craze may allow people around the world to speak with each other but it has also brought up several IT ethics issues. Facebook initiated a program called Beacon in 2007 to turn each user's personal information into an advertisement, allowing a greater amount of connectivity between the website's members. Facebook's developers failed to create an opt-in system that gave willing users the chance to participate of their own accord. Beacon came under fire for pulling information from Facebook profiles and breaking down privacy boundaries common in the real world.[6] Another ethical issue for social networking websites is the amount of security they should use when registering members. Several abductions in recent years have been connected to MySpace, bringing up concerns that social networking sites aren't doing enough to protect young users[4].
3. **E-MAIL SPAM:** Spam is defined broadly as emails with commercial or profane messages that are sent blindly to hundreds and thousands of users. Aside from the content of spam email, the major ethical issues for service providers and individuals alike involve identifying spammers. Email programs through AOL and Yahoo! may identify some spammers who are brazen enough to send out millions of emails but their spam programs rely largely on user feedback. While some users will identify legitimate spammers carrying viruses and pornographic messages, there is the potential for users to identify legitimate companies as spammers.[7]
4. **INTELLECTUAL PROPERTY AND INFORMATION TECHNOLOGY:** The merger of intellectual property rights and information technology has been rough going since the 1990s. The advent of Napster, Lime wire and other peer-to-

peer downloading networks brought the issue of infringing on artistic[7] property to the fore. NBC's exclusive rights to the 2008 Olympic Games were challenged by bloggers and online pirates who placed footage on YouTube. The ethical issue that arises when dealing with intellectual property in the virtual world is the length to which content producers should pursue permission to reprint images and articles. While lifting entire articles for a term paper is clearly unacceptable, there are questions from ethicists about the practicality of seeking out unknown artists and writers for something as minor as a blog.

5. **FILTERING ONLINE CONTENT:** Comcast has come under fire in the past two years for blocking downloads from Bit Torrent. The Internet service provider (ISP) has claimed that "throttling down" downloads via Bit Torrent is a reasonable element of maintaining high-speed service. Religious groups, adult websites and others have banded together in an unusual alliance to fight Comcast's effort to filter content. The major ethical debate raged between ISP, the Federal Communications Commission (FCC) and end users is whether Internet service should be content-neutral[6].

VI. CHALLENGES CODE OF ETHICS

- No Form of licensing for computer professionals
- Results in no real way to enforce ethical standards within the computing field
- There is movement within the industry to create a licensing process but there are many issues to be resolved
- What will be included on the exam?
- How often will an IT professional be required to renew the license?
- Developed by several organizations
- Adoption
- Implementation
- Monitoring

CHALLENGES: WEB DESIGN

- Implementation of features
- Pop ups
- Blocking/filters
- Aliases and redirecting
- Cookies
- Privacy policies
- Security policies
- Spyware
- Use of other design features
- Javascript
- Graphics - pictures, buttons, logos, icons
- Content
- Design layout
- Accountability/responsibility
- Outdated material, inaccurate material

CHALLENGES: COMMERCE

- Fraud
- Taxation
- Free Trade
- Gambling
- Auctions
- Spamming
- Who were Canter and Siegel?
- Spamming cell phones?
- Term papers for sale
- Atlanta Journal Constitution article

CHALLENGES: WORKPLACE

- Accessibility
- Ergonomics
- Outsourcing
- Telecommuting
- Customer relationships – Vendor relationships

- Should IT professionals be in the ethics business or should other areas of the business handle these issues?
- Monitoring
- Should your employer have the right to monitor private email messages?
- What are the two most popular Web sites for American workers? *Playboy and ESPN*
- 62% of employers monitor employees' eMail and Internet use.
- 68% cite legal liability as the primary reason to monitor.
- 87% of companies that monitor have a written eMail Policy,
- 83.1% an Internet Policy,
- 68% a Software Policy.
- 51% of employers have disciplined or terminated employees for violating ePolicy.
- 35% of organizations have eMail retention & deletion policies in place.
- 10% of companies have been ordered by courts to turn over employee eMail related to workplace lawsuits.
- 8.3% of organizations have battled sexual harassment and/or sexual discrimination claims stemming from employee e-mail and/or Internet use.
- Source: The 2001 Electronic Policies & Practices Survey from The American Management Association, US News & World Report, and The ePolicy Institute-Click Here for Survey Results.

VII. CONCLUSION

- Ethics is the part of every one's life.
- It is useful in technology for security purpose and by which we can't do any illegal work.

- It is very useful to create a good repo in any organization or any field.
- To follow code of ethics in each and every field.

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