



Ethics and Students in the Information Professions: A Survey of Beliefs and Issues in Information Ethics Coursework

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INTRODUCTION

The ideas of computer or information ethics are not novel; the formal use of the term "computer ethics" dates to 1976 with Walter Maner, while somewhat more recently in the late 1980s, Robert Hauptman in the US and Raphael Cappura in Germany began using the term "information ethics." What these terms mean in both theory and practice varies across information-related professions and disciplines, as well as professional organizations. One commonality, however, is emerging, and this is the fact that many computer and information professional organizations want or require students to have some training and education in ethics as part of their curricula prior to assuming job responsibilities in the "real world." The university classroom is the ideal place to build an understanding of ethical theories, to introduce a growing array of topics surrounding computer/information ethics, and to conduct case studies and role playing around ethical dilemmas.

Such professional organizations as the ACM have recommended that all computer science students receive required coursework in ethics totaling 16 hours, with 10 Social/Professional/Ethical units. Others, such as the ALA, has a code of ethics but does not require students in library and information science programs to take ethics courses. While codes of ethics exist across professional organizations, they are often not adequate tools to assist professionals when they are facing ethical dilemmas in the workplace. Thus, many computer/information studies programs have elective courses in ethics. The remainder of this paper will discuss student perspectives on information ethics, and it will conclude with brief recommendations for developing an information ethics course.

CONTEXT

The perspectives reflected in this paper are based on informal surveys conducted in an Information Ethics course, comprised of both graduate and undergraduate students. Surveys were collected from 64 students, from four sections of the course taught over two years, beginning in 2000. Thus, this population is fairly small, and future research will present on greater numbers of students across longer spans of time. The students are either pursuing a Bachelor of Science degree in Information Resources or a Master of Library and Information Science. Students are asked as part of their first session to respond anonymously to a brief survey, which includes the following questions:

1. What does "ethics" mean to you?
2. Do you consider ethics to be the same as religion? As law? Why or why not?
3. What do you hope to gain from taking an ethics course?
4. Identify the single most important ethical issue facing information professionals today. Why is this important?
5. Have you ever encountered an ethical issue in your work or personal life? How did you resolve it?
6. Should an ethics course be required for information professionals? Why or why not?

Responses were coded, using qualitative coding techniques, and tallied, and are presented in percentages; due to space limitations, not all survey questions are described herein.

WHAT ARE ETHICS?

The area of philosophy known as ethics deals with morality, how to make moral decisions, and how to lead a "good life." Ethics, more specifically, is the formal study of morality and what we do and how we act as rationale human beings.¹ For simplicity's sake, ethics can be broken into three major realms: *Descriptive ethics*, which focus on existing situations, for example, "Joe is a computer hacker." *Normative ethics* take us into the realm of evaluation, what ought to be. For example, "Joe should not be a computer hacker because computer hacking is wrong." It is between the descriptive and the normative where most of the discussions in computer and information ethics occur. The third area of ethics is *meta-ethics*, which is the "logical analysis of moral language and the aim to make precise the meaning of moral terms and clarify the moral arguments that are at stake" (Buchanan, 2000, p. 524). For instance, what does it mean to say hacking is wrong?

Understanding student beliefs on ethics helps frame formal coursework. Coming into an information ethics course, the students surveyed here represented some interesting views in their understanding of ethics. The question "What do ethics mean to you" elicited the following responses²:

<i>Right/Wrong</i>	32%
<i>Moral Code/Rule/Guideline/Principle</i>	26%
<i>Way of Acting/Thinking</i>	24%
<i>Belief/Value System</i>	13%
<i>Moral Standard</i>	4%
<i>Other</i>	1%

WHAT ETHICAL ISSUES ARE MOST IMPORTANT?

Areas of coverage in computer/information ethics courses vary among institutions. Typically, such areas as privacy, intellectual property issues, intellectual freedom, computer crime and security, and professional ethics are included for discussion and study.

In keeping with many American's concern for privacy, the largest area stated was privacy, followed by censorship. Given these students' disciplines, this is not a surprising report. In sum, students reported the following areas of concern in response to this question:

<i>Privacy</i>	41%
<i>Censorship/Freedom of Information/Access</i>	28%
<i>Copyright</i>	9%
<i>Surveillance</i>	5%
<i>Data Integrity</i>	3%
<i>Filtering</i>	3%
<i>Data Mining</i>	2%
<i>Plagiarism</i>	2%

<i>Illiteracy</i>	2%
<i>International/Global Policies</i>	2%
<i>Don't Know</i>	3%

SHOULD ETHICS COURSES BE REQUIRED?

Overwhelming, students believed that an ethics course should be required for the information professions. Of the 64, 59 (92%) believed an ethics course should be required, two (3%) held it should not be, while three (5%) were not sure. A recurrent comment, too, suggested that not only information professionals be required to take an ethics course, but any degree-seeking student should be aware of the ethical issues surrounding the uses of technologies today. This is encouraging, given the complexities of technologies and the many ways in which breeches of ethics are occurring vis-à-vis technologies. If our upcoming professionals feel strongly that ethics are indeed important, our future looks hopeful.

One student succinctly stated: "The world is becoming more complex yet more accessible at the same time. Information professionals will be faced with difficult ethical decisions. The right thing may not always be readily apparent. By requiring that IP's take an ethics course, it will help to guide us in future situations by providing us with the knowledge of where to look and how to determine the ethical connotations of the situation."

The students surveyed here represent only a small group of forthcoming information professionals, but show great promise for the future of our professions, as they reveal an awareness and an interest in ethics. While not described in this paper, most of the responses to the question "What do you hope to gain from taking an ethics course" revolve around a desire to understand and know how to respond appropriately to ethical challenges. From an instructor perspective, it is encouraging to have an audience of students want to engage with ethics and their professional work. Given the responses to the surveys, which are ongoing, a number of lessons for teaching information ethics can be described.

LESSONS LEARNED FROM DEVELOPING AND TEACHING INFORMATION ETHICS

When the IE course was first conceived in 1998, I thought I would spend the majority of time on professional ethics and codes of ethics. After one semester with this focus, it became evident that this was too narrow and not as preparatory for students as I had hoped. The course was revised to include a thorough introduction to ethical theory, after which applied ethics were introduced. Since most students in the IE course do not have philosophy backgrounds, or any knowledge of ethical theory, presenting complex theories as presented in primary philosophical texts proved difficult and impractical. Thus, secondary texts such as Baase (2002), Johnson (2001), or Tavani (forthcoming) are useful in presenting both theory and practical issues.

What should be covered in an IE course? As mentioned above, typical coverage includes such areas as privacy, intellectual property, intellectual freedom, computer crime and security, and professional ethics and codes of ethics. Given the rich landscape of ethical dilemmas current in the news, using current events and real-world examples proves beneficial in elucidating the theory behind these areas while highlighting the practical significance of ethical issues. A common example has been Napster, with which most university student are familiar. Through a discussion of Napster, one can look at an array of issues, including copyright, ownership, theft, technological distance from a crime, and whether technology crimes, where there is no tangible object, are different from "physical" crimes, for instance.

IE courses benefit greatly from case studies and role playing, where students have the opportunity to debate ethical dilemmas and engage in ethical decision making. Spinello's (1997, 2003) case study text is useful, as it provides scenarios representing various areas of computer and information work, and affords thoughtful, provoking questions for discussion. Giving students the opportunity to engage in such decision making will assist them when facing ethical dilemmas in the workplace.

Finally, spending time on professional ethics, including codes of ethics and organizational statements helps students understand their roles as members of a profession. While breaching a code of ethics in such professions as librarianship or computing does not mean lose of licensure or ability to work, as with law or medicine, it is highly important to instill a sense of professional responsibility in students. As we see in this day and age of corporate scandal, irresponsibility, and ethics violations, instilling a sense of ethics and responsibility is a necessity, not an elective. It is my hope that information ethics courses ground students in an ethical framework from which they make decisions, choose their actions, and serve their profession and the public.

CONCLUSION

It is my belief that computer and information ethics education begins well before students enter a university classroom. Students in the K-12 settings need to be introduced to the complexities of computer and information technologies, including ethical complexities (see Lipinski and Buchanan, 2002). By introducing ethics to our youngest students, we can instill a sense of ethical responsibility that parallels technical know-how: Ideally, while students continue to learn the latest programming language or technique in information organization as they progress through schooling, too they continue to learn and practice ethics. As professionals in the computing and information fields, we owe it to our students, who are our future, to assist them in identifying, understanding, and making sound ethical decisions around the complexities of computer and information work.

ENDNOTES

- ¹ For more on the distinction between ethics and morality, see Buchanan, 2000.
- ² If students responded with multiple answers, all were included in the coding for this question.

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