

# Ethics and Computing

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# Chapter 1

## Getting Started

**ethics** – the study of the general nature of morals and of the specific moral choices to be made by the individual in his relationship with others. the rules or standards governing the conduct of the members of a profession.

**moral** – of or concerned with the judgment principles of right and wrong in relation to human action and character. teaching or exhibiting goodness or correctness of character and behavior.

**right** – conforming with or conformable to justice, law or morality. in accordance with fact, reason or truth.

– *The American Heritage Dictionary*

### 1.1 Why study ethics and computing?

Since you have begun reading this book, you are likely about to devote considerable effort to the study of ethics and computing. In this chapter, I try to set out answers for the why, what and how questions of this study:

*Why study ethics and computing?*

*What topics are relevant to this study?*

*How is the material best studied?*

The *Why?* question comes first because the answer should set the context for answering the other questions. Why should you study ethics and computing? I assert that there can be just one worthwhile reason –

**The goal of studying “ethics and computing” must be to cause you to become a more ethical person, particularly in your career as a computing professional.**

If the goal is anything less than this, then the effort spent in this study is wasted!

This statement of the goal for your efforts may seem bold. Perhaps you are tempted to the knee-jerk response of “it isn’t *me* that needs to improve *my* ethics.” But if you are honest

you know that you are far from perfect in your ethical knowledge, judgment and behavior. Every person can improve their own personal ethics and do a better job of encouraging ethical behavior in those around them. Once you decide that you want to improve yourself on the ethical dimension, studying this book should help you to realize that desire. If for some reason you do **not** desire to improve yourself ethically, studying this book will at least make you more aware of the ethical norms and expectations that apply to computing professionals.

Also, note that the statement of the goal mentions “person” first and “computing professional” second. There is a reason for this. It is hard to see how one can cultivate ethical behavior as something that is switched on only in your professional life, and is left in neutral in your personal life. It seems more likely that your professional ethics will be closely related to your overall personal ethics.

Our second question is – what topics are relevant to the study of ethics and computing? It should be clear that we do not mean to study all of the field of ethics or all of the field of computing. Our focus is on the practical intersection of these two fields; that is, on studying what constitutes ethical behavior for professionals in information systems, computer science and software/computer engineering. A pre-requisite for success in this study is to have good critical thinking skills. For this reason, I have included a chapter on critical thinking as the second chapter in this book. The critical-thinking chapter is followed by chapters that address core topics in ethics and computing. The following list of questions should illustrate the range of topics involved in this study.

- What context do professional codes of ethics provide for decision-making?
- What ethical and legal issues are involved in computer “cracking” and security?
- How does concern for privacy interact with concern for law enforcement and commerce?
- What are the professional responsibilities in developing safety-critical systems?
- What is the professional responsibility to “blow the whistle” on unethical behavior?
- What are the ethical and legal issues surrounding protection of intellectual property?
- How has the computing industry faced up to issues of use of natural resources?
- What are the standards for ethical interaction with others in the workplace?
- How should ethical concerns interact with how you manage your career?

With some idea of the topics to be covered, the third of the three questions to address in this section is – how is the material best studied? To a large degree, the teaching style of this book is structured around three basic premises. The first premise is that it is useful to get into detailed, real-world case studies as soon as the basic issues of a topic are introduced. The depth of each topic is explored through the various case studies contained in the text, reprints, exercises and worksheets. The second premise is that active learning is better than just reading. For this reason, there are lots of exercises and worksheets included in the book. You should do as many of these, especially the worksheets, as time will allow. You will cheat yourself out of much of the learning experience if you skip doing the exercises and

worksheets. The third premise is that it is often useful to read original papers by authors who have distinguished reputations. This can expose you to different viewpoints and styles, and give you a sense of historical context. Reprinted papers that fall into this category include the one by Ken Thompson in the Cracking and Computer Security chapter, and those by David Parnas and Nancy Leveson in the Safety-Critical Systems chapter.

Two points deserve special emphasis with regard to how to study the material. The first point is that you must learn to suspend your initial reaction and think carefully and completely about a topic or issue. This is the critical-thinking aspect of your study. Without the exercise of strong critical-thinking skills, your study may reduce to a sequence of automatic “Yes!” and “No!” responses that simply reflect whatever initial prejudices you brought to the topic. Conscious application of critical-thinking skills will help you to internalize lessons that may include changes in your own personal ethical framework.

The second point is that you must learn to imagine yourself in the roles of the various persons in each case study. You should try to imagine how you would want to react when you unexpectedly find yourself in a similar situation. This is important. When you are unexpectedly confronted with an ethically challenging situation, and have not previously thought of how you would want to respond, there will be tremendous pressure to take the “path of least resistance.” You could find yourself signing off on software that has not been tested as called for, agreeing to keep some important safety problem quiet “for the good of the company,” using intellectual property that you know was not legally obtained, or taking any of a variety of other actions that you would regret later. On the other hand, if you have thought deeply about a related situation beforehand, and established in your own mind what an ethical response would be, you are much less likely to give in to the pressures of the moment.

## 1.2 A fundamental prerequisite

For your study of ethics and computing to make sense, it is necessary to accept the existence of good and evil. Most people share a similar informal understanding of these terms. If you need definitions, the American Heritage Dictionary defines “good” as “having positive or desirable qualities” and “evil” as “morally bad or wrong; wicked” [1]. These definitions appropriately suggest abstract concepts that are polar opposites.

Why have we digressed into discussing the terms good and evil? The answer is simple. If you accept that concepts of good and evil exist and have meaning, then you can consider how these concepts apply to various decisions, actions, and outcomes. This is necessary in order for our study of ethics and computing to have any substance. In particular, we want to be able to discuss how good and evil relate to decisions, actions, and outcomes that **you** are potentially involved in.

Doesn't everyone automatically agree that concepts of good and evil exist? Actually, no. The framework of "ethical relativism" asserts that good and evil are defined only relative to a particular individual, at a particular time, or in a particular society. In this framework, there are no standards or rules of behavior that can reasonably be applied at all times and in all places. Motivation for this framework comes from the observation that what is considered ethical varies over time within one culture, as well as across different cultures at the same point in time. This observation is certainly correct. For example, at earlier times in the United States, slavery was legally sanctioned, women did not have the right to vote and child-labor practices were essentially unregulated. While these things have all changed in the United States, they are still prevalent in various other cultures around the world.<sup>1</sup> But the fact that different people, societies or times have endorsed different behaviors as ethical does not prove the absence of absolute ethical standards. It proves only that human beings find it difficult to discover, acknowledge and adhere to absolute ethical standards. Since ethical relativism denies the existence of universal ethical standards, it leads toward each person deciding for themselves what is moral. With each person's judgment as valid as another person's, there is no right and wrong, only different. The result is moral anarchy. For these reasons, the theory of ethical relativism has received severe criticism. The article by McFarland at the end of this chapter gives a more detailed critique of ethical relativism.

Our study of ethics and computing is explicitly based on the assumption that standards of right and wrong can and do exist. This does not mean that all such standards of right and wrong are known to, or accepted by, all people. Nor does it mean that it will be easy to decide the right and wrong of each situation you encounter. The real world often presents situations in which every available alternative appears to involve some degree of wrong. In fact, these are the situations in which your need for a strong personal ethical foundation is greatest.

### 1.3 Ethical theory and professional ethics

*Ethical theory* is the study of ethics at a conceptual or philosophical level. *Applied ethics* is aimed at the everyday life of the typical person, while *professional ethics* is aimed at a person engaged in the practice of a particular profession. The study of the theory of ethics is naturally the most general, but in being the most general, it is also necessarily less specific in the details of its application. The study of applied ethics is meant to result in more specific guidelines for use in real-world situations. Of course, the emphasis on specific real situations naturally results in relatively less emphasis on general theories. The study of

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<sup>1</sup>For example, around the time this is being written, news accounts have discussed slavery in the Sudan, treatment of women in India and China, and child labor practices in many countries that manufacture goods sent to the United States.

professional ethics addresses the details of situations and issues that arise specific to some profession, but that might be irrelevant to some other profession.

Our study of ethics and computing is clearly a study of professional ethics. We do not attempt any history, survey, or comparison of ethical theories, even only the “major” and/or “modern” theories. These topics are appropriately the subjects of other books. For those who are interested, MacIntyre provides a short historical perspective on the development of “western” ethical philosophy [8]. Wilkens provides a short, readable critique of the popular incarnation of a number of different ethical systems [15].

Professional ethics can be different from general ethics to the extent that professional ethics must take into account

- relations between practicing professionals and their clients,
- relations between the profession and society in general,
- relations among professionals,
- relations between employee and employer, and perhaps most importantly,
- specialized technical details of the profession.

While the context for our study is the computing professions, the basic underlying ethical issues are really not specific to, or generated by, computing technology. I can think of only one ethical issue that might be considered as “new” in the sense of being generated by the development of computing technology. This is the question – how much decision-making should be entrusted to a machine? But aside from this question, the core ethical issues are typically as ancient and as simple as basic greed and dishonesty. This is true because a computer is just a tool that lets people solve larger problems faster than they could manually. In this view, the presence of the computer cannot generate new ethical concerns. However, computers may shift the level of practical concern on some ethical issues. Consider the issue of privacy of communications between individuals. The letter carrier has always had the potential to open any envelope and read any letter. But in practice, opening and reading *all* letters is impossible due to the magnitude of the manual effort involved. However, much personal communication now takes place in computer networks. In a computer network, it becomes quite conceivable that literally every communication could be automatically scanned for certain words or phrases. Thus, while the core issue of privacy is not new, computers have turned a mostly theoretical concern into a real one.

## 1.4 Guidance for living ethically

Since ethical behavior is often in conflict with short-term self-interest, you should not expect ethical behavior to be an easy habit to develop. It is not something that, like a set of facts or equations, you can learn simply from reading a book. (Even this one!) Reading can help you learn about things like codes of ethics and resolutions of particular ethical conflicts, but ethical behavior is a way of life. As such, it is best learned through experience; that is, by continually living ethically yourself. A relevant quote attributed to Aristotle is – *We are what we regularly do. Excellence therefore is not an act, but a habit.* More than “book knowledge” is required to learn to live ethically. It requires that you have a deep desire and conviction to live ethically.

Fairburn and Watson observe that the primary factor leading us to stray from what we know to be correct ethical behavior is our tendency toward compromise in favor of our own short-term self-interest [5]. Some level of self-interest is perhaps necessary for survival. But an obsession with any particular worldly appetite (money, food, sex, praise, power, ...) can ruin your life. Fairburn and Watson suggest three steps toward better ethical behavior:

1. Have high standards of ethical conduct;
2. Boldly live with the belief that this is the way to conduct yourself even though you may be giving up more immediate gains; and
3. Serve a larger purpose – truth, reason, customers, society, the community, human advancement, God.

Thus the core themes of guidance for living ethically are relatively simple. Most people in most situations can reasonably easily determine what would constitute ethical behavior. But this behavior is quite often in conflict with what we perceive to be our own short-term self interest. So we are tempted to rationalize and compromise. Therefore, living ethically requires the courage of strong convictions and a substantial degree of self-discipline. The presence or absence of strong ethical convictions and self-discipline is by nature pervasive throughout your life; at work or at play, in your personal life or in your professional life.

As a last motivational quote for this section, consider the following description of the type of person needed in the world today–

The world needs men [and women] ... who cannot be bought; whose word is their bond; who put character above wealth; who possess opinions and a will; who are larger than their vocations; who do not hesitate to take chances; who will not lose their individuality in a crowd; who will be as honest in small things as in great things; who will make no compromise with wrong; whose ambitions are not confined to their own selfish desires; who will not say they do it “because everybody else does it”; who are true to their friends through good report and evil report, in adversity as well as in prosperity; who do not believe that shrewdness, cunning, and hardheadedness are the best qualities for winning success; who are not ashamed or afraid to stand for the truth when it is unpopular; who can say “no” with emphasis, although all the rest of the world says “yes.”

Charles Swindoll, *Living Above the Level of Mediocrity*

## 1.5 Case study – Goodearl and Aldred versus Hughes

The case study presented here involves *whistle blowing*. Whistle blowers are people “who ... make revelations meant to call attention to negligence, abuses or dangers that threaten the public interest. They sound an alarm based on their expertise or inside knowledge, often from within the very organization in which they work...” [4]. Whistle blowing is the subject of an entire chapter later in the book, but it is useful to have a short introduction and example here. Common examples of situations that lead to whistle blowing are when an employee discovers that their company is knowingly supplying an unsafe product to customers, or when someone discovers that tax dollars are being wasted in a fraudulent or



flagrant manner. The particular incident discussed here combines both of these concerns. The description of this incident is adapted from [3].

This case study involves the (lack of) testing of micro-electronic chips supplied to the military to be used in weapons systems. The particular chips involved are called “hybrids” because they combine analog and digital logic on the same chip. It is standard practice to test chips in various ways before they are delivered to the customer. A contract to supply chips to a customer may state that various tests must be done and the results certified before the chips are to be delivered.

The False Claims Act (31 U.S.C. 3729-31) is a federal law that allows an individual to file a civil suit against a business that defrauds the federal government. The False Claims Act states that a whistle blower may receive between 15 and 25 percent of the recovered funds if the government chooses to participate in the suit. If the government decides not to participate in the suit, the whistle blower may receive between 25 and 30 percent of the recovery, plus legal fees and expenses.

### **The cast of characters.**

The Micro-electronic Circuits Division of Hughes Aircraft is located in Newport Beach, California. This division manufactured hybrid chips that were supplied to the United States military. The particular chips in question were used in about 75 different weapons programs, including aircraft, missiles and tanks. The results of chip failures in the field could be varied. One scenario that was suggested was that faults in a hybrid chip could cause failure in the radar that a fighter plane uses to direct its weapons!

Margaret Goodearl and Ruth Aldred were employees at the Hughes Micro-electronic Circuits Division at the time that the chip-testing fraud occurred.

Donald Anthony LaRue was a shop foreman who also worked at Hughes.

### **The sequence of events.**

Between 1985 and 1987, Hughes shipped hybrid chips to the U.S. military without performing all of the tests that were required by their contract. Employees were told to omit tests, shorten tests, falsify documents, and otherwise contribute to and cover-up fraud in certifying that chips has passed tests that they in fact had not passed. This resulted in “false claims” being submitted to the government for the chips that were delivered, making Hughes open to criminal charges of fraud and to a civil suit under the False Claims Act.

Goodearl and Aldred’s attorney, John Phillips, stated that “When they [Goodearl and Aldred] became aware of the problems with testing procedures at the plant, they tried to bring the matter to the attention of upper management. But they were told to keep quiet and warned that they might get fired if they didn’t do so” [14]. It was also alleged that the whistle-blowers were “harassed by means of racial and sexual slurs and verbal comments, in addition to physical gestures and menacing postures” and that one day when Goodearl left work she “found a butchered pig’s head in a brown paper bag on the hood” of her car [6].

In 1988, Aldred felt that her job had been stripped of real responsibility and she left Hughes. In 1989, Goodearl was laid off from her job at Hughes.

Goodearl and Aldred also informed government officials about their concerns over the falsified chip testing. But they felt that government officials were moving slowly, if at all, to do anything about the incident. Then Goodearl and Aldred found out about the False Claims Act.

The two women filed civil suit against Hughes under the False Claims Act in 1990. The government then joined the civil suit in 1992.

In addition to the civil suit, there was a separate criminal trial against Hughes for the fraud. In the criminal trial, Hughes was convicted in 1992 of criminal conspiracy and fined \$3.5 million. Goodearl and Aldred were witnesses in the criminal trial, along with others. Shop foreman Donald Anthony LaRue was charged along with Hughes in the criminal trial. In a comment typical of those directed toward whistle-blowers, it was claimed that LaRue had told Goodearl that she “was not part of the team” [9]. However, LaRue was acquitted in the criminal trial, as he had apparently been pushed to meet production quotas by higher-level management.

Hughes lost the civil trial in 1996. This time the settlement was just over \$4 million. Under the terms of the False Claims Act, 22% of the civil settlement, or approximately \$900,000, went to the whistle-blowers Goodearl and Aldred. Hughes paid an additional \$450,000 for the legal costs involved in Goodearl and Aldred bringing the civil suit.

### **Conclusions and questions.**

In terms of the legal resolution, it is tempting to say that Goodearl and Aldred “won” and Hughes “lost.” However, this may not accurately describe the situation for Goodearl and Aldred. Their lawyer [Phillips] argued that – “The reward is good but not that much considering what they’ve gone through. We feel good that they will be able to get on with their lives, but it’s a long difficult road for anyone who wants to go against their employer with the False Claims Act” [6]. Remember that Aldred and Goodearl left their jobs with Hughes in 1988 and 1989, and the civil suit was not completed until 1996. Aldred was temporarily on welfare before finding a new job in 1991. Goodearl and her husband were forced to file for bankruptcy and their marriage eventually broke up. Goodearl then moved to Washington, D.C. and worked as a housekeeper. With all of this in context, it is perhaps not so easy to say that Goodearl and Aldred “won.”

The incident described here is reasonably typical of the “successful” cases of whistle-blowing. The whistle blowers lost their jobs, went through great turmoil in their personal lives, and were unable to find similar work. Then, after a number of years, their actions were finally vindicated through court decisions. In less successful cases, the whistle-blower may be intimidated into silence or may be worn down and eventually give up.

The dilemma for the whistle-blowers is that they discover information that potentially places them in a “no-win” situation. If the management in the company will not address the problem, then the employee is faced with deciding either (1) to become silent and let the problem go on uncorrected, or (2) to “blow the whistle” and live with the resulting disruption in their professional and personal lives. It is in some ways a classic case of either giving in to immoral activity in order to preserve monetary benefits or standing up against immoral activity in spite of the cost.

To repeat part of a quote from the previous section, whistle blowers must be people “... who cannot be bought ... who put character above wealth ... who will make no compromise with wrong ... who will not say they do it “because everybody else does it” ... who are not ashamed or afraid to stand for the truth when it is unpopular ...” [11].

Points To Remember

You will face a variety of ethically challenging situations in your career.

Productive use of your knowledge about ethics requires that you accept personal responsibility for your actions.

Your ability to consistently make appropriate ethical choices will be helped by not focusing on your own self-interest.

Your ability to consistently make appropriate ethical choices will be greater if you have carefully considered ethical issues before they confront you in the workplace.

Situations that present a continuing ethical challenge can wear you down. To the extent possible, avoid such situations.

**Worksheet – “Urgency of ethical standards intensifies”**

Read the article by Michael McFarland that is reprinted from *Computer* magazine at the end of this chapter. Then answer the following questions.

It is suggested that “... if George chooses not to authorize release of the system, it would be done anyway without his approval. So, his sacrifice would have no practical effect.” What effects, “practical” or otherwise, could come from George’s refusal to authorize release of the system, even if it is then done anyway without his approval?

Briefly explain the “two fallacies about ethical knowledge” that McFarland describes.

Briefly outline the analogy with Physics that McFarland uses to explain how “ethical knowledge is a dynamic reality.”

What are the four “meta-ethical principals” that McFarland explains as required in order for an ethical argument to be valid?

What is *utilitarianism* and what are the problems that McFarland identifies in it?

Re-read the description of George’s dilemma in the second paragraph of the section “Ethics as a social activity.” How accurate is this description? Will you sometimes find yourself in such a situation?

**Worksheet – “Anatomy of a fraud” (part 1)**

Read the short article titled “Anatomy of a fraud” that ran in *Business Week* on September 16, 1996. Then answer the following questions.

What is Kurzweil Applied Intelligence’s area of business?

What is an *initial public offering*?

What are *receivables* and why were “soaring receivables” a “telltale signal” of the fraud?

Who were the direct victims of the fraud?

How does the article suggest that the fraud got started?

How were the auditors fooled?

What was Murray’s role in the fraud?

What was Campbell’s role in the fraud?

What was Bradstreet’s role in the fraud?

What was the role of the “low-level staffers” in the fraud?

**Worksheet – “Anatomy of a fraud” (part 2)**

Read the short article titled “Anatomy of a fraud” that ran in *Business Week* on September 16, 1996. Then answer the following questions.

Who did the legal system treat most appropriately in the incident? Who least appropriately? How would you change their punishments?

What do you see as the main temptation that Bradstreet succumbed to? How can you go about trying to avoid similar temptations?

What can you do to avoid becoming a “low-level staffer” who willingly (even enthusiastically) gets caught up in such a fraud?

Debra Murray turned herself in, gave detailed testimony against a person that she had worked with for nine years, and pled guilty to charges relating to her own role. Was it out of noble or selfish motivation? If you found yourself involved in a similar incident, would there be a better way to handle it?

Make a list of the positive comments that were made about Bernard Bradstreet’s moral character by people who knew him. Would your colleagues’ comments about you be this positive? more? less?

**Worksheet – Child pornography on the Internet**

Read the reprinted article from *The Tampa Tribune* titled “Internet pornographer draws long sentence.” Then answer the following questions.

What was the size of “... what investigators believe is the nation’s largest documented case of Internet child pornography?”

What sentence did Robert Wallace Hudson received? Is it appropriate, too short, or too long? Why? If they were found, what sentence should the adults in the videos receive?

What would you do if you notice pornographic images on someone else’s computer when you are using it? That is, if you find yourself in the position of the consultant hired by Hudson?

During the trial, Hudson’s defense argued that he “... found the child pornography on his hard drive ... but he did not put it there.” Is this at all believable? Do Hudson’s comments at sentencing essentially admit that this defense was a lie?

Hudson was quoted as saying “I’m not as evil as they paint me to be.” So, just how evil do you think he is?

Does the Internet make the problem of child pornography any better or worse? How? What measures could you suggest to combat the problem of child pornography being exchanged on the Internet?

Is the commercial use of images such as those made (in)famous in Calvin Klein advertising likely to have any effect on the problem of child pornography? What kind of effect? Why?

**Worksheet – Prioritizing Concerns about Ethical Problems**

What are the three most important ethical problems that confront you as a student pursuing your education?

What are the three most important ethical problems that you expect to confront you as a professional in your career?

What are the three most important ethical problems that confront our society in general?



## Additional Assignments

1. **Theodore R. Johnson.**

Theodore R. Johnson is not someone you have likely heard about. He worked for United Parcel Service and never earned a big salary, but he invested wisely. When he turned 90, he decided to give \$36 million of his \$90 million fortune to various charities [10]. Report on how he made his money, who he gave it to, and why.

2. **Inaki Lopez.**

In 1993, Inaki Lopez left General Motors Corp. to join Volkswagen. A number of GM executives followed him in switching companies. GM filed suit against VW. Look into the details of this incident. Do you believe Lopez is a positive role model for corporate executives? Does he have the type of reputation you would want to have?

3. **Lawrence Adler.**

Lawrence Adler admitted paying a friend to take the SAT exam for him [7]. Report on as many of the specifics of this incident as you can. What is your impression of Adler, the Educational Testing Service, and the judge who heard Adler's case?

4. **The FBI sting at NASA.**

The FBI's Operation Lightning Strike was a sting operation at the NASA Johnson Space Center. One corporation and nine individuals were charged as a result of the investigation [12]. Report on as many details of the sting operation and the subsequent charges as you can find.

5. **The US Navy/Solar Turbines Incorporated incident.**

The US Navy contracted for \$55 million with Solar Turbines Incorporated to develop new equipment. But it appears that some people at the Navy did not want the new technology and developed a strategy to "let Solar Turbines spend so much of its own money on RACER that it would finally throw in the towel" [13]. Report on as many details of this incident as you can find out, especially the roles of the officials involved on the US Navy side.

6. **Arrest for threatening stories on the Internet.**

Jake Baker was a student at the University of Michigan who posted a story to a "sex stories" Internet mail group. The story would have been X-rated in any interpretation, as it described the rape, torture, and murder of an individual. In this instance, Baker actually named a real person. Baker was arrested and charged with interstate transmission of a threat [2]. The punishment is up to five years in prison. Look into this case and report on the final decision and your opinion about Baker as an individual.

## References

- [1] *The American Heritage Dictionary*, Houghton Mifflin Company, 1982.
- [2] Associated Press report, Student called “ticking bomb” after Internet threat, *The Tampa Tribune*, February 11, 1995.
- [3] K.W. Bowyer, Goodearl and Aldred versus Hughes Aircraft: a modern case study in “whistle blowing,” *looking.forward* 6 (1998), pages 2-4.
- [4] S. Bok, The morality of whistle blowing, in *Computers, Ethics & Society*, M.D. Ermann, M.B. Williams and C. Gutierrez (editors), Oxford University Press, New York, 1990.
- [5] D.T. Fairburn and C.E. Watson, In pursuit of ethics, *Simulation*, June 1992, pages 427-432.
- [6] C. Gewertz, *Whistle-blower suit filed against Hughes*, *Los Angeles Times*, February 24, 1990.
- [7] V.T. Jennings, Maryland teen fined \$5,000 for SAT lawsuit, *The Washington Post*, June 27, 1992.
- [8] A. MacIntyre, *A Short History of Ethics*, MacMillan Publishing Company, New York, 1966.
- [9] J. Mathews and S. Pearlstein, Hughes charged with falsifying test data, *The Washington Post*, December 13, 1991.
- [10] A. Moore, Millionaire donates tuition money for the disabled, *The Orlando Sentinel-Tribune*, February 27, 1992.
- [11] C. Swindoll, *Living Above the Level of Mediocrity*, Word Books, 1990.
- [12] FBI sting nabs NASA employees, *The Tampa Tribune*, February 23, 1994.
- [13] Double cross: how not to do business, *US News & World Report*, July 13, 1992.
- [14] H. Weinstein, Two Hughes whistle-blowers to split \$891,000, *Los Angeles Times* September 11, 1996.
- [15] S. Wilkens, *Beyond Bumper Sticker Ethics*, InterVarsity Press, 1995.

(McFarland article, page 77 of Computer, vol. 23, no. 3, March 1990)

(McFarland article, page 78 of Computer, vol. 23, no. 3, March 1990)

(McFarland article, page 79 of Computer, vol. 23, no. 3, March 1990)

(McFarland article, page 80 of Computer, vol. 23, no. 3, March 1990)

(McFarland article, page 81 of Computer, vol. 23, no. 3, March 1990)

## Internet Pornographer Draws Long Sentence

By Bill Heery of *The Tampa Tribune*

The former owner of a video store was sentenced Monday to 45 years in prison in what investigators believe is the nation's largest documented case of Internet child pornography. A jury last month found Robert Wallace Hudson, 48, guilty of 280 counts of possessing child pornography and 48 counts of distributing it. Hudson was arrested in April after a compute consultant he had hired told police about the more than 2,000 pornographic pictures of children stored on his home computer hard drive.

The images showed children, the youngest about 6 months old, engaging in explicit sex acts. Authorities said the children had not been identified. They said there was no reason to believe that the pictures were taken locally.

State sentencing guidelines called for Hudson to receive up to 47 years in prison. But prosecutor Brad Copley asked Circuit Judge Donald Jacobsen for a life sentence. Lakeland attorney William Kilpatrick, representing Hudson, asked for the minimum 28-year sentence. He said it was the first time Hudson had been in serious trouble with the law and he had no background of violence. Hudson, who owned Front Row Video, 8219 U.S. 98 N. in Lakeland at the time of his arrest, told the judge, "I'm not as evil as they paint me to be. I just got caught up in something and got in way over my head. I tried to get out of it. I just waited too long."

Copley said the pictures and computer videos of grown adults engaging in sex acts with 2-, 3-, 4- and 5-year-old children represented violence. "I don't see what could be more violent other than an murder scene. A child was victimized each time those pictures were sent out" on the Internet. Authorities do no believe Hudson distributed child pornography through his business.

Hudson should have been forewarned when he was convicted in 1991 of three counts of the sale of obscene materials, Copley said. Kilpatrick countered that those were misdemeanor charges resulting from sales at a video store and had nothing to do with child pornography.

The defense contended during the trial that Hudson found the child pornography on his hard drive, a computer disc that holds vast amounts of data, but he did not put it there.

Following the sentencing on Monday, Hudson's wife of 15 years, Julie, said she didn't believe the charges against her husband.