

Computer Ethics

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Abstract

Computers and the Internet are a relatively new addition to the human tool-belt. It is of utmost importance that those using these new technologies understand the social implications of the uses and abuses. This paper first takes a brief look at ten topical areas where ethics apply to computers and the Internet, and then suggests a general ethic for those working with technology that can and will impact society.

Introduction

Computers and the Internet represent many people, governments, and organizations. Each of these entities have different goals in regard to ethical and moral policy. They each desire to maximize the benefits they can derive from the Internet and computer technology, whether it be for financial profit or personal entertainment. In a goal driven environment it is often easy to lose site of common goals and interests. Each technical area presents new ethical challenges that need to be seriously considered. Through good cooperation and a common desire to achieve a healthier computing environment a general ethical policy can be established.

1 Topical Areas

For each area in which computer technology pervades there are different ethic issues that must be addressed. Each of the ten topics have ethical implications and will be addressed in turn from a societal point of view rather than a technical point of view. The goal is to have both the technology and society come together on each of these issues to promote sustainable and useful applications to benefit people who operate in these areas.

1.1 The Arts

The first social implication that comes to mind in respect to computers and the arts is pornographic material. The discussions along this area are difficult and often heated. The difficulty is each person has a different meter to which they measure the appropriateness of the material. Pornographic is often used in place of immoral. One person's art is another's filth. The main concern is censorship and limiting access. It could be argued that such material is too open and does not consider the different moral opinions of Internet users. The difficulty is coming up with a mechanism that solves this problem while maximizing the rights of everyone. There have been suggestions such as self-rating and self-censorship. Such a mechanism could only work if there cooperation from the providers of material that could be labeled as pornographic and those who are offended by it. One way to do this would be a polling/rating system where each person who happens upon a site can rate it according to certain guidelines. This rating system would then base overall rating on the average scores in each area. This would allow for an more objective rating system on a very subjective topic. This could also be extended to include ratings of the quality of work being present as well. This combination would not only make the web a safer environment for maintaining good personal morals, but also make finding quality artwork much easier.

1.2 Crime

Every society must make decisions on how to handle crime. In most cultures a judicial system is established. The difficulty with computer crime is it extends country boundaries and is also a topic that is subject to heavy political debate. The first issue is that of finding criminal activity. The easiest method would be a big brother approach where every computer connected to a network would be monitored for illegal activity. This could also be done in a networked approach, where each Internet Service Provider (ISP) would watch their own users and report potentially criminal behavior to authorities. In the United States, the FBI is trying to standardize this process through their Carnivore project. The ethical dilemma is that these monitoring techniques invade personal privacy while on the Internet. A system should be established that will allow people their right to privacy and free assembly while dampening the amount of criminal activity that exists today on the Internet.

1.3 Software Ownership and Intellectual Property

The challenge for both of these is to keep from equating them to physical ownership and property. Software is not the same as a physical device. It does provide value to a company, but it is only a collection of bits. The other major factor is that software is usually based upon prior work by another author. In very rare cases is a piece of software completely generated by a single company. When standing on the shoulders of giants, it is only right to give back to the giants. One excellent method is Open Source software. Under that paradigm any work derived from great intellectuals and companies must also be made available to that company. This way the naturally software ancestry awards the most innovative and allows others to derive a benefit at less cost.

On Intellectual Property. Intellectual property should, whenever possible, be shared. Each person only lives once, yet humanity continues to live on. Rather than focusing on the temporary benefits of selling inventions at absurd prices, intellectual findings should be shared so that new ideas can be created and intellectual progress can be enhanced.[1] Today's technology that is used for top secret tasks should not become tomorrow's life saving technology, but today's. The ethical dilemma is that intellectual property should not be a selfish concern for temporary profit, but rather towards maximizing the benefit of new knowledge to society.

1.4 Computer Security

Security in general both gives and takes away freedoms. It gives freedoms to the person doing the locking, by reducing their chances of being hurt, but at the same time reduces the ability for rightful access. By putting locks on every door, every computer, and even electronic media (DVDs, E-Books, etc.) an environment of distrust is caused on both sides. Those who are trying to keep something secured are looked on poorly by others as lacking trust in others, while they themselves are trying to protect their investments and information. In the end it becomes an expensive race between those who spend time circumscribing security measures and those who try to make them more secure. Security is only required in an environment where there is a large amount of disrespect between those who have something to protect and those who wish to gain that information. Computer security is not a puzzle that will be solved by computers, but rather by agreed upon and respectable behavior on both sides.

1.5 The Role of Government

Government has been tasked throughout time as the arbitrator of ethics. Governments are often required to rule between ethical and unethical behavior. These rulings are not subjective. It is therefore requisite that governments spend the time to understand computer and Internet technologies so that they are better able to resolve issues of legality. Decisions made now by the government will have a lasting impact on the future of technology and the freedoms people and organizations have in using that technology.

1.6 Social Behavior

Ethics are both designed for controlling social behavior and designed from existing social behavior. Creating a good ethical policy for social use of technology does not breed good use of that technology, but rather good use of technology breeds good ethics. Ethical policy makers should therefore look at the effects of technology on society and make choices to maximize the benefits of that technology and minimize the negative effects.

1.7 The Digital Divide

Taking care of the underprivileged has always been a struggling point for ethical policy. It is hard for some to make the decision of helping others catch up ethically appealing. It often scares people and governments to reduce the intellectual and technical gap between them. This gap becomes comfortable for the “haves,” since they will not have to worry about the “have-nots” revolting or taking over their higher positions in society. Another point of view is more positive, by making the choice to help others learn about technology they will become more productive and in the end everyone benefits.

1.8 Computer Enhanced Education

Similar to the ethical issues with the Digital Divide, computer enhanced education also should be designed to increase the educational opportunities that people can participate in. The Internet is mostly a pool of information that can be tapped for knowledge in almost any topic. Ethics in regard to computer enhanced education is to make reasonable decisions that protect people from misinformation and politically slanted information. Today to get the whole story it must be looked at from many different points of view. Bias is a killer of truth. Online content is filled with bias that could be potentially harmful for teaching correct information.

1.9 Computers and the Workplace

Employee rights are of utmost importance in the workplace. These rights are being diminished as eavesdropping technology becomes available to employers. Current law allows companies to monitor the use of their equipment at a level not allowed anywhere else, even in government surveillance. People are losing their jobs as a result of jokes that they sent to co-employees or what they view while online. While the utility of such things can be questions in respect to overall productivity, the basic right of privacy should also be maintained in the workplace.

1.10 The Future of Technology

Where is all this going? A couple weeks ago I attended a seminar on database redundancy at Lehigh sponsored by a couple student organizations. During this presentation, a rather distressing observation was made by the presenter. The presenter said by looking at the investments and funding of technology people are more concerned with their money than their health. There is no where near the desire for redundancy in computer technology that a person relies on for very life, than for that of making sure an ATM transaction goes through. It would be much better to concentrate on making sure technology improves human life over keeping the rich, rich, for the even the rich should be concerned about their quality of life and health more than their pocket books. If not, then that problem needs to be solved first, before worrying about the future of ethics as it relates to technology.

2 Ethical Statement for Computers and Society

Let desire for improving the human condition coupled with shared knowledge lead the direction and use of technology.

References

- [1] Bruce Parens. “Software Patents vs. Free Software.” <http://perens.com/Articles/Patents.html>. Last Accessed May 9, 2001.