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CSCI 325-40

3 October 2019

Computer Ethics: System Creation and Usage

Programmers often must consider ethics when completing a project or inventing a product using computer science. Because the world is continuously advancing, code is being used in almost every piece of technology. The most prominent issue is that programmers must know how much code they will write and how much they should not write. While writing code for systems is very useful in most scenarios, programmers need to consider how their product, in this case, system will be used after it gets released to the public. There are many issues regarding system creation, but the biggest ethical issue of system creation is trying to predict the result of how it is going to be used.

Advancing technology is a very good thing. As a programmer/system developer, making products easier to use and more efficient for the customer is usually their number one priority. Although that is a good thing, a question in mind is “Is it safe to use?”. Though the system may have super capabilities and functions, it may pose a safety hazard for the people using it. Safety should be the number one priority in major corporations that produce products that enhance quality of life for humans. The ACM code of ethics has a section on this issue. They agree with the fact that making a product or a system more efficient and easier to use a good thing. It also states, “In cases where misuse or harm are predictable or unavoidable, the best option may be to not implement the system.” (7). In other words, if there is no other way to implement the system effectively without harming the consumer, then the idea should be discarded. Safety is not the

only factor when it comes to ethics.

When programmers implement a new system, they must consider how the system will be abused. If the system they create is easily abusable, then they must not implement it or find another way to do it. An example includes Peter Wayner's "12 ethical dilemmas gnawing at developers today". He states, "By supporting only wired protocols, he ensured that anyone in a test would need to run a wire to their neighbor's machine. He hated skipping the wireless protocols, but he felt the risk of abuse was too high." (Wayner 6). He stated this because a developer was testing networking software in a calculator. The developer feared that if this program got out, then many high school students would use the system to cheat on standardized tests. This breaks the honor code when it comes to test taking. This means that the developer knew what was going to happen and did not release it because it would cause dishonesty within the test taking community. The bible also states in 2 Corinthians 8:21, "Providing honorable things, not only in the sight of the Lord, but also in the sight of men." (NIV). The risk of abuse comes within the category of honesty. If the developer went on with the project, not only men will look down on him, but the Lord will as well. The developer's reputation would be tarnished if the abusable system was released. He was only protecting his honesty by not releasing it. Though many would look down on him, a large percentage would praise him for not violating the honor code. Being honest in not allowing abusable spread is good thing but demonstrating honesty through effective product is another thing to consider.

When a programmer develops a new system and/or new code, he/she must know that it is an effective product. They cannot randomly just release the system because it will profit him/her. As a programmer/developer, he/she must find most of the flaws/errors in the system or code. Plainly releasing a system with errors for just profit is unethical in all worldviews. In the

IEEE code of ethics, it states, “to be honest and realistic in stating claims or estimates based on available data” (1). A developer must not lie about any data on his/her system/code because although it may grant them a large sum of money, it may not turn out well for them at the end. This is especially true in the Christian worldview. This is seen as deceitful and/or not being a good steward in the Christian worldview. In Romans 16:18, it states, “For those who are such do not serve our Lord Jesus Christ, but their own belly, and by smooth words and flattering speech deceive the hearts of the simple” (NIV). Money should not be the only thing that strikes a developer’s mind. They ought to be helping people in improving their quality of life. If a consumer finds that his/her product is defective, it is going to be traced back to the developer.

A person dealing with this type of situation should do research on ethics in general. There is no known way on how to completely stop these kinds of distributions of code and systems, but by having a group of people check each other’s work can reduce the amount of distribution of bad systems/code. Having systems checked even after they are completed is another important step in reducing bad code. Code checking continuously does not guarantee perfect systems and codes, but it does guarantee less errors. Another option is to have a person govern all the developers. Not only the developers check each other, the leader of the team should do a through check. This will reduce the amount of errors immensely.

Personally, I feel prepared for situations like these. I am the type of person who does not like making careless mistakes. To prepare for a situation like this, I will have my colleagues check my work often to see if there are any errors or costly mistakes in my system and/or code. Also, starting early is a good initiative because I will not have to rush to get finished. I can start early and catch more mistakes early on than later. I know that what I create is not only for myself, but for others. In 1 Corinthians 10:23-24, it says, “Everything is permissible” – but not

everything is beneficial. “Everything is permissible” – but not everything is constructive.

Nobody should seek his own good, but the good of others.” (NIV). In order to take proper action, I must choose to put others in front of me. I must not put myself first.

Works Cited

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