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Computer Science: The three ethical dilemmas

The three biggest ethical dilemmas that young professionals in the field of computer science face are issues with consumer privacy, creating safe and productive code, and being honest! If a company you work for asks you to do something unethical it does not mean you have to do it. You have the right to work ethically in your workplace and we must be prepared to become the solution. By being honest to ourselves and others, and following the ACM and IEEE's code of ethics we programmers should strive to be responsible and understand our professional ethical duties to our workplace and eliminating the unethical issues around us.

The loss of consumers privacy is an ethical dilemma! Most programs are written and provided and laid out for companies to use to whatever best meets their needs, however, those needs might not be ethical. For example, a company asks the user for certain private information to create an account, that information is then stored by the code and allows the user to use the website freely. Your boss then asks you to have all consumer information transferred and sold to a third party to cover web costs. A data leak occurs and your bosses tell you to keep it classified and correct the issue. Ethically this is not correct, the customer's information was stored and manipulated without consent and the event of a leak was not disclosed to the public. In my opinion, the consumer's privacy is no longer being respected and IEEE's code of ethics agrees, "to hold paramount the safety, health, and welfare of the public, to strive to comply with ethical design and sustainable development practices, to protect the privacy of others, and to disclose

promptly factors that might endanger the public or the environment." In other words, one must protect the consumer at all costs and if any dangers to their privacy are to occur then the consumer should be warned as well as an appropriate action must be taken to secure their privacy again.

Now moving onto the next biggest unethical practice we have, creating hazardous and unproductive code! All code should be written to be safe, protecting all information securely, and providing code that is beneficial and reliable. Code that is supported by malicious software or even malicious third party ads is considered an unethical practice. For example, you the programmer are providing software for free to tons of local students. However, it cost to maintain this software and your way of making money is providing ads. What you do is allow the ads that make you more money to load onto the user except these ads are malicious and do not display user-friendly ads. Ethically this is not correct because your program is damaging your consumer and the consumer must be treated well. Just as you would like to be treated you should treat others and the Bible also states in 1 Corinthians 10:23-24, "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." In this case, one can create a program but that does not mean that the program is practical or helpful, taking that into consideration everything you program must be for the better of the consumer.

Being honest to yourself and others is simply not practiced enough in our field of work! Programmers should not allow programs to operate and be available to the public until all errors/bugs have been fixed! It is simply unknown how much damage a bug could cause to the consumer and by lying and allowing a program to be sold while error-prone is dishonesty. Programmers should also not copy software that is not theirs and implement it into their own

program. The code could be error-prone, copyrighted, or even have security issues when implemented into one owns code. Although copying software is permissible when it has been bought through a license. If a license does not exist do not use software that is not yours. Both of these practices are unethically correct because it is dishonest work! As young professionals in our field, we must strive to be honest in all our code created otherwise the practice is unethical. ACM's code of conduct also agrees by stating, "A computing professional should be transparent and provide full disclosure of all pertinent system capabilities, limitations, and potential problems to the appropriate parties. Making deliberately false or misleading claims … and other dishonest conduct are violations of the Code." Alternatively, a programmer should be honest in demonstrating what the program does and its errors/limitations. Giving false information or accepting bribes to lie is dishonest and is against the code of ethics. As young professionals in our field, we must not fall under these unethical practices in the world we live in today.

Let the new young professionals of the computer science field rise up and be achievers, honest workers, and bright programmers. The best course of action to become ethical programmers is following and understanding the ACM and IEEE Codes of ethics! The ACM general ethic principles are as follows, "1. Contribute to society and to human well-being acknowledging that all people are stakeholders. 2. Avoid harm. 3. Be honest and trustworthy. 4. Be fair and take action not to discriminate. 5. Respect the work required to produce new idea. 6. Respect privacy. 7. Honor confidentiality" while the IEEE principles are as follows, "1. To uphold the highest standards of integrity, responsible behavior, and ethical conduct in professional activities. 2. To treat all persons fairly and with respect, to not engage in harassment or discrimination, and to avoid injuring others. 3. To strive to ensure this code is upheld by colleagues and co-workers." One could compare the code of ethics more thoroughly by

observing both documents and how they handle situations. The links to both of these documents can be found in the work cited page of this essay. In the end, both documents end up teaching you how to appropriately deal with situations ethically. A good practice would be before publishing a program or starting a task asked by a higher-up, make a checklist of all the ethics and make sure it does not interfere with the ethics that should be followed. Another thing a young professional could do is use the greatest resources known to man, the “Bible”. The Bible teaches man the correct ethics and morals that should be displayed in the world to others around us. One could also phone-an-expert who is experienced in the field of computer science. However, one should be careful due to the fact that this person could also have unethical practices that the learner is not yet aware of.

Personally, I am prepared to acknowledge these issues from what I have seen and investigated from both codes of ethics. Originally before writing this document I was unaware of how unethical computer science practices could be. However, the ACM and IEEE codes of ethics helped me understand how to be ethical in my workplace. I will approach every task by first acknowledging that none of the code of ethics has been violated. Finally, I will make sure that no one is ever harmed by my software and that the product is what my consumer needs with the ethical approach in mind.

The major ethical dilemmas that have been explained being the issue of the consumer's privacy, safe and productive code, and honesty that needs to be overcome. How we overcome and understand these issues come from the code of ethics from ACM and IEEE. These are not the only resources as one could also use the Bible or even a friend in the same field. We must be prepared as young professionals in the field of computer science to step up and make sure we do not fall under the line but significantly improve and change the game.

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