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Ethics in Computer Science

Computer science is an interesting field that is not heavily regulated and the decisions on how to best implement programs are left to individuals. A computer programmer does not need to be certified to show that they are efficient and reliable like engineers, but their jobs are very important, and they should work diligently. Software developers often work in groups for a large company. Companies have the responsibility of making sure their software team is complete by having both developers and testers. If for some reason it is an inconvenience to the company to have sufficient testing, they should accept the issue and not shortcut on ensuring that the programs they are pushing out are optimal. In some cases, an overlooked flaw in some code could be dangerous for consumers and the company as well. I believe that sufficient testing of programs is always important.

With regards to the situation in ‘Therac-25’, the blame should not be placed on the single programmer who made the software (2024). There does not exist a human who is perfect and everyone makes mistakes. Although he could have taken more time to ensure his program was sufficiently tested, he worked for a company that did not invest financially in the testing of his program. Companies should do what is best for the consumers even if it costs more money (1 Corinthians 10:24). If his program was sufficiently tested, simple bugs in the code would have been found and the deaths could have been avoided. I do not think it is smart or justifiable to

gamble with a product that ‘might work’ when people’s lives are involved. There are ways to help more people afford the treatment if it has been made expensive. I personally would not use the machine if I was aware of the risk. In the healthcare industry reliability of health equipment is of high importance.

Although non-software engineers need certification to ensure that they can build a reliable product, I do think it would be helpful in some cases like when it is known that programs will have important uses. However, I do not think it is necessary and should be required. In my opinion I think that when a company has programmers developing code, they should also have testers to sufficiently test all the code. I am aware that this is not guaranteed to result in perfection, but it will ensure that all software produced by the company is optimal. This will ensure that consumers get the best product, and the company minimizes their chances of getting sued which will save them money in the long run.

Each computer programmer should take their job seriously and be aware of how important it is that their programs are optimal. “Professional competence starts with technical knowledge and with awareness of the social context in which their work may be deployed” (2019). This is especially true in healthcare and other fields where software needs to be reliable like transportation and finance. Once a consumer decides that they want or need to use a product they should not have to worry about the software having serious bugs that will affect its performance. They should have peace of mind that the product they are using was designed by professionals who ensured their code is very useful and reliable in all its uses.

Works Cited

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