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CS350

Case of the Killer Robot Assignment 2

1. I think the theory that *the operator-robot interface designer should be put on trial*, though not unfounded, is misguided. The testimony submitted by the “expert in user interfaces” leaves much to be assessed besides the user interface designer. I feel that (even if the operator-robot interface was mostly responsible for the killing) many other processes in the development had to be ignored for this incident to take place.
2. I think that Shneiderman’s Eight Golden Rules are a solid set of guidelines by which to develop a user interface. I do not, however, feel they are the tipping point between a well functioning system and a lethal one. Rules like “Strive for consistency” set a stage for comfortable interaction with a software system, but I find it hard to believe that inconsistent border colors or button shapes were responsible.
3. I think rule eight: “Reduce short-term memory load” is the most important. As a technician in a mental health hospital, I often interact with people with very serious memory problems who would otherwise be able to perform higher functions (reading, test taking, etc.). I know that most people do not have these difficulties, but I can imagine that many people do have some memory problems of a lesser degree. Requiring users to memorize long file paths, for example, could become prohibitive for some users.
4. The goal of everything should be perfection. I think it does depend somewhat, on the purpose of the software, how determined the pursuit of perfection is. In the case of a robotics system that is going to involve humans in the vicinity, the pursuit of perfection should be very determined. Such a degree of perfection comes not only from solid system design, but rigorous system testing.
5. I do not agree that covert surveillance of other people is ethical. Certainly unethical is the release of surveillance material to the public without consent by all parties involved.
6. Most usually, when my boss asks me to do something, I take her direction. In the case that any managerial figure asked me to do something illegal or against policy, I would first approach that manager and explain to him/her why I felt the request was inappropriate. If that manager was unreceptive or threatening I would then have the choice of going to his/her superior with a complaint, or leaving the organization. That choice would depend largely on the specifics of the situation.
7. These days, there is a lot of free / uncopyrighted material to be found. Some of it is software code. I do not see any ethical problems with using code that was written to be copied or shared with the public. I do, however, find it inappropriate to copy any code that has been trademarked or unreleased by its writer. Using another person’s code shows moral shortcomings and legal ineptitude.
8. Yes. They were dishonest about testing procedures (dishonesty of work is against code). I also thought that some of the programmers were dishonest about competency in their area of work (dishonesty about personal ability is against code).
9. a) Test Test Test! Even if a software system is over-budget and behind schedule, it doesn’t pay to skip testing. I feel that the lack of testing is what contributed the most to the death of the operator. I disagree with poor interface design, incompetent programming, covert surveillance, poor project budgeting/scheduling, and managerial ignorance (all of which I felt were present in Silicon Techtronics), but I feel strongly that most problems could have been caught and corrected if proper testing was applied to this system.

b) I learned that a giant advantage is to be had by a project when it is planned correctly and scheduled appropriately. Many of the problems stemmed from management’s stress over project planning.

c) I also learned that following a code of ethics, though not always legally required, is always a good idea. It’s a good idea for any one programmer to be honest about his/her work and ability, and for entire corporations. This helps to raise the standard and reputation of the field of computer science.