

Case 1: Website Accessibility

- 1) Creating accommodations for the blind on company websites is a somewhat complex issue from an ethical point of view. The book presents three main ethical standpoints: deontology, utilitarianism, and natural rights philosophy, and this issue can be interpreted through all three lenses. In a deontological viewpoint, action or non-action is demanded because of the inherent goodness of the action. Making a website more accessible for someone with a disability would clearly be helpful to them and make them happier, so this is a good action. Deontological ethics therefore demand that we do perform the good action, fixing the website. Utilitarianism, on the other hand, is concerned only with the aggregate happiness to all people that an action brings about. While making a website more accessible might make a single, small group of people happier, the time, energy, and financial expense to a company might make it not worth it. A utilitarian might not think the action is morally necessary or advisable. Natural rights philosophy, however, could interpret this issue in both ways. If we believe that Americans with disabilities have a positive right to accommodations for their disabilities, we think it is a moral necessity that we do everything we can to accommodate them. In this case, the website must be changed to be easier to use. However, if we see the ability to shop online only as a negative right, this simply implies that no one must stop a blind person from shopping, not that we must help them. The accommodations outlined in the Americans with Disabilities Act most definitely interprets non-discrimination towards the disabled a positive right, and one that we must uphold.

- 2) I believe that the constitution makes it clear that all Americans have the same rights to live and flourish within our country. Under Title III of the ADA, “No individual may be discriminated against on the basis of disability with regards to the full and equal enjoyment of the goods, services, facilities, or accommodations of any place of public accommodation by any person who owns, leases, or operates a place of public accommodation.” A website is clearly a public place, accessible to anyone with a working internet connection. It is my opinion that all companies with an online presence must make all possible accommodations for those with disabilities, including the blind.
- 3) Title II of the ADA concerns specifically the requirement by public institutions at all levels to not discriminate against those with disabilities. I believe the government, just as private corporations, is compelled to enforce the positive rights of the disabled.
- 4) I do not believe that the State Election board necessarily must make accommodations for those speaking languages other than English (save for sign language). Lack of knowledge of a particular language is not a disability. Having said that, I think it would be morally good to do such a thing, though probably not financially feasible in most situations. It is most definitely not a compulsory service.

Case 2: Data Collection

- 1) Aside from using Fitbit data to track and monitor the physical health of its users, it is likely extremely helpful information in other situations. For example, patients with severe anxiety issues such as a panic disorder may benefit from having a record of their heart rate spikes during a particular time frame. This information may help healthcare providers design better plans for dealing with these issues. Unfortunately,

Fitbit data could also be used in less ethical ways. The Fitbit Versa, for instance, uses GPS to record the routes of its users so they can keep track of the various places that they go. However, this information being sold or given to others without the consent of a user could be a potential violation of the privacy of users.

- 2) Fitbit must consider informed consent in the gathering and storage of user data. The ACM code of ethics encourages all computing professionals to respect the privacy of its users, which is also a right guaranteed by the constitution. Essentially, no information should be gathered, stored, examined, or sold without explicit consent of each user. Another possible concern is the ability of a company like this to treat users simply as means to the end of furthering their business. The data stored by Fitbit is incredibly personal, and because of its inherently private nature (that of all personal healthcare data), Fitbit has a responsibility to ensure that the goal of the company is always to improve the lives of its users.
- 3) The entire second chapter of GoF focuses on privacy. Invasion of someone's privacy is a serious issue and each individual's right to be left alone, have control of the information about themselves, and having freedom from surveillance must be respected to the greatest extent possible. Those who opt-in to Fitbit's monitoring of their exercise behavior and health must be completely informed of all uses of their data. If Fitbit were to, for instance, sell user data to the government, or deanonymize data that was collected with the promise of anonymity, they would be seriously infringing on the right of all people to privacy, as well as lying, which seems to always be a moral evil.

- 1) Other than honoring privacy and confidentiality, programmers working on body camera software must ensure that they are competent in the area, that they are designing systems that are incredibly secure, that they make sure the public is informed about the technology being developed, and that they are comprehensively analyzing the risks associated with a technology before they decide to release it to the public.
- 2) Releasing unedited video footage in accordance with the Freedom of Information Act is an issue because it infringes on the right to privacy of those people who are captured in the camera footage. In order for the footage to be released ethically, it is probably necessary for all people captured to give their explicit consent for video of them to be released for public consumption.

Case 4: Intellectual Property

- 1) In this situation, the programmer was commissioned to create a new product by the company, and the company owns the product.
- 2) Yes, it is. For an act utilitarian, the benefit of the act, possibly creating a useful and good technology for the benefit of society, outweighs the potential infringement, or theft, of the intellectual property of open source code.
- 3) A deontologist would likely say that using open source code in the development of a larger commercial product is always wrong. The benefit of doing so does not somehow negate the unethical act of the theft.
- 4) Natural rights would say that people have a positive right to their privacy. That is, that we are obligated to observe the privacy of other people. An opt-out approach for data collection is one that assumes a user will be okay with their data being collected

and gives them the option to later “opt-out”. A natural rights philosopher would likely say that this approach rests on an invalid assumption and pre-emptively takes away the right of privacy of a user.

- 5) The fair use doctrine is largely supported by utilitarianism. If the good of the copy and distribution of private intellectual property outweighs the negative effect it has on the individual or company who owns it, the use is protected by the law.

Case 5: Open Source in a Corporate Environment

- 1) Point 1.5 of the ACM code of ethics says that, “Computing professionals should not claim private ownership of work that they or others have shared as public resources,”.

If Open-Vis3D was created with the intention of being a public resource and given license to the public, claiming the technology as private property is a violation of ethics. In this case, Bob would be in the wrong.

Point 2.2 further goes on to say that software professionals should strive to hold themselves to professional standards and uphold ethical behavior, which Bob would not be doing. Point 2.6 also says that computing professionals should work only in areas of competence. If Bob has no clue about rendering 3D visuals, he should not be the one to do the coding for his user interface.

Finally, point 3.1 states the public good should be the principle concern of all professional computing work. If copying the open source library for private gain is not for the overall benefit of the public, Bob should not do it.

- 2) If Open-Vis3D is licensed by the GNU General Public License, Bob and his company would be obligated to follow the GNU licensing agreement. In so doing, Bob and his

company would only be allowed to sell the executable final product of the software they've created, but *not* the source code licensed by the GPL.

- 3) Code licensed by Creative Commons can be legally copied and sold only if the licensor chooses to allow it. Licensors have the option of making their code completely free to sell, to allow derivative works of the code to be sold, or to simply ban all commercial use of their software. Bob and his company would have to make sure that the Open-Vis3D CC license allows for commercial use before selling their product.
- 4) Before starting an implementation of the Open-Vis3D library, he should do copious research to ensure that the commercial distribution of Open-Vis3D is allowed under its license agreement.