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PHIL 355E: Cybersecurity Ethics

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## **Professional Ethics Case Analysis**

### **INTRO**

"The code I'm still ashamed of" by Bill Sourour details his experience of coding a quiz to push a drug toward teenage girls. However, the quiz's questions only led to the drug being the answer, as the client intended it to be. The drug's side effects were severe depression and suicidal thoughts, and a teenage girl who took the quiz and the drug ended up also taking her own life. When Sourour learned what happened, he resigned. When he looked back at the event, he later realized that he should have questioned the ethics of his code, but at that moment, he had only perceived it as a job to do. In this Case Analysis, I will argue that Contractarianism shows us that the code was morally problematic because it only acknowledged the contract between professional and client and didn't consider the effect it would have on the user. Furthermore, Sourour should have done something differently because that code's violation of the social contract between professional and user directly threatened the lives of people who took the quiz.

### **CODE OF ETHICS**

Using the code of ethics from the ACM, IEEE, and NSPE, each code contains concepts that can further explain why Sourour's code was morally wrong. One of the ACM's guidelines includes a professional's contribution to society. The guidelines also state that "When designing or implementing systems, computing professionals must attempt to ensure that the products of

their efforts will be used in socially responsible ways, will meet social needs, and will avoid harmful effects to health and welfare.” Furthermore, with the concept of unintentional harm, developers need to “carefully consider the potential impacts on all those affected by decisions made during design and implementation (ACM, 2018, p. 2). Sourour didn’t follow through on either concept because he did not consider the possibility of social harm with the code he later felt was “designed to trick young girls” (Sourour, 2016).

Next, the first and second rules for the IEEE’s code of ethics focus on the need to “disclose promptly factors that might endanger the public or the environment” and “to avoid real or perceived conflicts of interest whenever possible, and to disclose them to affected parties when they do exist” (IEEE, 2020). Sourour realized afterward that he also failed to uphold these rules by not speaking out about the potential ethical issues with the client or recognizing the public’s safety as a possible conflict due to the quiz. Furthermore, the NSPE’s code of ethics highlights this potential issue with the Rules of Practice. It states, “If engineers’ judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate” (National Society of Professional Engineers, 2019, p. 1). As stated before, Sourour didn’t question or notify the client about the ethical dilemma of their requirements, which resulted in no changes being made to the code before its complete implementation and its resulting side effects of someone dying by suicide due to the drug’s symptoms.

Applying Contractarianism to the case further supports the concepts of each code of ethics. A commonality between each code is the importance of public and acknowledgment of social responsibilities. Therefore, while an implicit contract exists between a professional and a client, an implicit contract also exists between the professional and the public, and both need to

be upheld due to their implicit nature. Yet, when Sourour was coding the quiz, the only thing he could say was, “I had a job to do, and I did it,” not considering that thinking about people’s well-being by receiving a product of a profession is just as critical as fulfilling the profession itself (Sourour, 2016). From a contractarian perspective, while Sourour maintained his contract with his client, he failed to maintain the social contract with the public by putting them in danger due to the quiz’s code.

However, there were ways for this ethical dilemma to be addressed. With the codes of ethics and contractarianism, the primary action Sourour could have taken was to speak out about this ethical issue to the client. Had he recognized the potential public issue and brought it to the client, the requirements could have changed, creating a less dangerous quiz for the public. Moreover, if the client wasn’t willing to budge regarding changing requirements after learning about possible dangers, another option would have been to become a whistleblower and out the dangers the quiz could bring to the public. According to the ACM code of ethics, “If one’s superiors do not act to curtail or mitigate such dangers, it may be necessary to ‘blow the whistle’ to help correct the problem or reduce risk” (ACM, 2018, p. 2). These actions incentivize change from the client in acknowledging the risk from the code and continuing to maintain the social contract between the professional and the public.

### **ARMSTRONG**

Armstrong also introduces several concepts that argue for the necessity of public interest. She claims, "All professions, by their nature, must be concerned with and must strive to advance the public interest" (Armstrong, 1994, p. 71). The first concept is of “positive duties” and “negative duties,” with the positive duties being necessary actions along with the effort to create a good result and negative duties requiring inaction to form a non-harmful result (Armstrong,

1994, p. 73). In Sourour's case, he chose to fulfill a negative duty by only following the client's requirements instead of attempting a positive action to prevent harm to the public.

Another concept introduced by Armstrong that highlights this issue is internal and external classifications for professionals. External professionals will directly interact with their clients. In contrast, internal professionals are hired by employers. They are responsible for "employee loyalty to their employer, to their employer corporations, and the requirements shared by all professionals to adhere to their profession's promulgated standards" (Armstrong, 1994, p. 75). Therefore, an argument can be made that Sourour followed the guidelines of an internal professional to the detriment of the public due to seeing his requirements for the quiz as "marketing" and not perceiving the idea of his profession as something that could largely affect the public (Sourour, 2016).

However, a final concept introduced by Armstrong is the requirements for infringing on "prima facie" duties. "Prima facie" duties are tasks that need to be executed unless something is pertinent to counteract that necessity. Those requirements include a moral objective of being realistic in achievement, the change having "no morally preferable alternative actions that could be substituted," the change being small but still being equal to the original goal, and a minimization of negative effects. These requirements are in the context of "not causing harm" or "preventing harm" to the public. Applying this to Sourour's case, he had a valid reason to speak up about the clash between the quiz requirements and its effect on the public due to the potential for harm.

Contractarianism with Armstrong's concepts still supports challenging the requirements Sourour was given for the quiz as a morally correct option. While prima facie duties and negative duties of an internal profession exist between the employer, employee, and client, the

public is also involved as they receive something due to the contract. Positive duties and infringement on prima facie duties exist as a means to maintain the contract with the public and prevent harm. However, Sourour's actions of neglecting a positive duty by not recognizing the unethical nature of the code broke the contract when the result harmed the public.

Utilizing the concepts of Armstrong and Contractarianism, actions such as consideration of ethical issues when it comes to coding as a positive duty can maintain the social contract between a professional and the public. The extent of that consideration is infringing on the prima facie duties of a profession to better suit the welfare of the public. According to Armstrong, "In grappling with the confidentiality problem, engineers have concluded that the duty to the public's safety, health and welfare is a higher duty than the other, conflicting, prima facie duties" (Armstrong, 1994, p. 83). While the prima facie duties of a profession are important to apply, when those duties conflict with the public's safety, pushing back against them may be a necessary infringement. Furthermore, spreading more awareness about the dangers of not considering the ethics of the code is another positive duty. Fortunately, Sourour has taken advantage of this action with the case itself and noted that developers need to "take a stand and ensure that our ethics are ever present in our code" (Sourour, 2016).

## CONCLUSION

In conclusion, while Sourour had realized past the initial event the mistake he made, it didn't mean that his code wasn't morally wrong. The ACM, IEEE, and NSPE Code of Ethics all emphasize the importance of ensuring that potential harm doesn't happen to the public, the need to notify an employer or client about dangers to the public that can occur from a profession, and whistleblowing if they're not willing to change. Sourour didn't follow these actions and simply did his job without question, resulting in harm. Furthermore, Armstrong's points highlight the

value of the public and how, at times, pushing against prima facie duties is necessary if there is a conflict of interest. This also ties in with the theory of contractarianism and how the value of all parties exists under an implicit contract meant to benefit everyone. However, Sourour didn't apply that principle by only following the rules set by the client and not acknowledging the contract with the public for the profession. Although, an argument could be made for why Sourour wouldn't need to change the code. Some may argue that because it was a job he had to do, and there was a legal obligation to write the code and do what the client asked, then there shouldn't be a change because no malpractice happened. However, while there was no legal repercussion for following the client, there was still moral irresponsibility in doing so, which led to someone dying by suicide after taking the quiz. Even if a professional does right by the client, that action can still be wrong for the public, and action needs to be taken to prevent harmful situations and maintain the contracts that exist between all parties.

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