

In this Case Analysis, I will argue that the ethical tool of Utilitarianism shows us that the code was morally problematic because it led to harm for users who were misled by the software into making poor health choices, prioritizing the company's profits over the well-being of individuals and that Sourour should have done things differently. Sourour had a moral duty to prioritize the greatest good by producing the least harm for the greatest number of users.

In "The code I'm still ashamed of," Bill Sourour describes an email between him and a client manager when Sourour wrote code for a prescription drug quiz. One particular exchange sticks out when Sourour questioned why the quiz always led to the client's drug, except in cases where someone is allergic... *"That's what the requirements say to do. Everything leads to the client's drug"* (2018). Sourour questioned the integrity of the quiz, and the manager responded by emphasizing adherence to the requirements, stating that "everything leads to the client's drug" (2018). This approach prioritizes the client's interest over the well-being of users, as it maximizes profit at the potential expense of user health, challenging the principle of the greatest good for the greatest number of users, and also does not limit the harm done to the users on the website. Sourour is right to publish the interaction and experience, but that does not undermine the idea that it should have come sooner, for example, when writing the code versus after. Mary Beth Armstrong, in the article "Confidentiality: a comparison across the professions of medicine, engineering and accounting" on page four, writes professionals are "*permitted* to go user" and Quotes De George if "the harm that the product will do to the user is serious or and considerable" "[an] obligation to safeguard patient confidences is subject to certain exceptions" (1994).

On page six, Armstrong quotes Peterson and Farrell: "The engineer to discharge his duties with fidelity to the user, his employers and clients, and with fairness and impartiality to

all.” He must interest himself in user welfare. Furthermore, a person needs to be ready to apply his special knowledge for the benefit of humanity (1994). Armstrong delves into confidentiality's ethical complexities and potential limits across various professional fields. Armstrong highlights situations in which professionals may, or even should, disclose confidential information to serve the greater user interest. Armstrong cites the perspective of ethicist De George, who argues that professionals can go user if the harm is great. In this case, every user or every person taking the quiz was subject to harm because the suggestion for a prescription drug never changed. This principle suggests that the obligation to maintain client or patient confidentiality is not absolute; instead, it is set aside when failing to disclose information would likely lead to significant harm. It minimizes harm and promotes the greater good (Armstrong, 1994). Peterson and Farrell articulate the engineer's responsibility to their employers, clients, and society. According to them, engineers are duty-bound to discharge their duties with fidelity and fairness, holding a unique obligation to protect user welfare and to apply their expertise impartially. The responsibility extends beyond immediate stakeholders to include the broader impact on society. They advocate for engineers to take an active interest in user welfare, suggesting that a professional's specialized knowledge should serve humanity whenever possible (Armstrong, 1994). One can argue that the code Sourour wrote was a "client [who] wanted to target teenage girls" (2018) specifically. Through these perspectives, Armstrong illustrates how professionals in different fields may be compelled to prioritize actions that maximize user welfare, even at the potential cost of breaching confidentiality. The duty to protect the user from harm can and should supersede the duty of confidentiality in cases where the harm is “severe depression and suicidal thoughts” (Bill Sourour, 2018).

Harming the user in ways such as depression and suicidal ideation is a consequence worth avoiding when it impacts a user. The users are the majority, not the client. In professional engineering, the ethical duty to user welfare over profits, there is value in the actions that produce the greatest good for the greatest number of users. According to the National Society of Professional Engineers (NSPE), engineers must “hold paramount the safety, health, and welfare of the user.” This principle reinforces that engineers' primary duty is not merely to their clients or employers but to society. Engineers work in fields where their decisions can significantly impact user safety and well-being through infrastructure, environmental projects, or product design. Thus, in situations where user welfare is at harm, coders should take steps to prevent harm and protect user interests, even if they might conflict with client interests or financial goals. Another NSPE code of ethics clause, "Engineers shall avoid conduct or practice that deceives the [user].” This guideline goes beyond simply prohibiting fraud; it emphasizes that engineers should prevent the user from making decisions based on misinformation or misunderstandings that could endanger their health or safety. For instance, if an engineer is involved in developing a consumer product and finds it can cause harm, coders must disclose these harms or prevent the product from reaching the market. Allowing it to proceed without proper warnings would prioritize corporate profits over user safety, leading to potential widespread harm that could have been prevented. Coders should place the user's long-term well-being above immediate gains; this thinking maximizes the benefits to users while minimizing harm.

Additionally, the ethical principle that "engineers shall avoid deceptive acts" reinforces engineers' responsibility to communicate honestly and transparently, ensuring that all parties, particularly the user, know of any harm. Deception or withholding crucial information not only endangers users but can also erode user trust in engineering as a profession. When the user feels

deceived, whether it is due to faulty products or unsafe infrastructure, their trust in engineering standards and practices diminishes, potentially reducing the effectiveness of future user safety initiatives and regulations. By avoiding deceptive acts and ensuring transparent communication, engineers safeguard individual welfare and the broader social trust that allows them to serve users effectively. Following the mentioned NSPE principles, coders must prioritize user safety, transparency, and honesty. Their actions directly impact lives and communities, so their choices must focus on achieving the maximum benefit for the user, minimizing harm, and fostering trust. Engineers are uniquely positioned to make informed decisions. Therefore, they must adhere to ethical guidelines to ensure their actions align with the principles of maximizing positive outcomes for the greatest number of users. This approach to professional ethics ensures that engineers act not just as technical experts but as guardians of user welfare, maintaining a commitment to protect and promote increased good for users.

While it might be argued that users could have chosen not to take the quiz or ignored it entirely, this reasoning has a flaw. The website specifically targeted a group, teenage girls, without disclosing that the quiz was designed to lead to the same result, regardless of users' answers. This lack of transparency means users were misled to believe the quiz would provide personalized recommendations based on their responses. In reality, the quiz was structured to promote a single drug, prioritizing the client's interests over the well-being of the users. As Sourour explains, this deceptive design misrepresented the quiz's nature and exploited a specific audience likely to trust the recommendations provided. By failing to disclose the lack of valid variation in results, the website compromised user happiness, leading to a situation that harm users by promoting a product they might not need and ultimately harming the greater majority, the users.

References

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