

# Ethical Hacking Scenario

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- 1. Identify the main ethical question or questions faced by the main character ("you") in the scenario. This will certainly include "what should you do?", but there may be other interesting questions to consider.**
  - a. Do you report or not report a bug that could significantly compromise InstaToonz users' private information and which you know you might be able to help solve?
  - b. Do you risk violating the anti-circumvention laws (if encryption is involved in Instatoonz's music and you must decrypt it somehow to fix the bug)
    - i. Laws depend on jurisdiction, so best rely on precedents?
    - ii. If there is no encryption of data involved, this might be a less significant issue.
  - c. When do people have a responsibility to report a bug? Is it only when it could significantly compromise the private information?
  - d. There are precedents for lawsuits initiated by InstaToonz against bug reporters. There's no guarantee that you will be excused from it.
- 2. For each stakeholder (or category of stakeholders) in the scenario, identify the stakeholder's relevant rights.**
  - a. Instatoonz - Right to its technology and copyright([Section 1201 of the Digital Millennium Copyright Act](#))
  - b. You - From an ethical point of view, we think, within the legal limits, we have a right to explore the construction of a public software. There are limited exceptions made for security professionals to do "research" on systems. We can argue that finding this bug is part of our research. But the legal rights of an ethical hacker depends on jurisdictions.
  - c. InstaToonz customers - Right to have their data remain protected/confidential and to be aware of any risks to that right
- 3. List any information missing from the scenario that you would like to have to help you make better choices.**
  - a. How we found the bug (was there any violation of the Circumvention Laws? Was it intentional vs. unintentional?)
  - b. The details of the previous lawsuits (How did it get dropped before, etc)
- 4. Describe your possible actions, and discuss the likely consequences of those actions.**
  - a. Don't report it - Users' data is still being compromised without anyone's knowledge
  - b. Report it privately - Might get into a lawsuit
  - c. Report it publicly - Might get into a lawsuit but the public would be aware of the details of the bug
- 5. Discuss whether the [ACM Code of Ethics and Professional Conduct](#) offers any relevant guidance.**

- a. 2.5 “Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.” - This code makes explicit the responsibility of computing professionals to provide objective, credible, evaluations, and testimonies to “employers, employees, clients, users, and the public.”
- b. 1.1 “When the interests of multiple groups conflict, the needs of those less advantaged should be given increased attention and priority.” - In this case the interests of the public conflict with the interests of InstaToonz, but the public does not have control over their data and thus are less advantaged; their needs should be prioritized.
- c. 2.8 “Access computing and communication resources only when authorized or when compelled by the public good.” - This code, while acknowledging that systems and data should not be broken into randomly, does make an exception for the case where there is “a reasonable belief that...it is consistent with the public good.” In this case, the public good would be to inform the users and public of the bug and to try to fix it.
- d. 3.1 “Ensure that the public good is the central concern during all professional computing work.” - The users of a software should always be the central concern. In order to keep this focus, it is important to focus on and prioritize the rights of the software users.
- e. 3.2 “Articulate, encourage acceptance of, and evaluate fulfillment of social responsibilities by members of the organization or group.” - This states that “leaders should encourage full participation of computing professionals in meeting relevant social responsibilities and discourage tendencies to do otherwise.” By reporting the bug, you are meeting the relevant social responsibilities mentioned and should be encouraged by leaders(including InstaToonz) to do so.

**6. Describe and justify your recommended action, as well as your answers to any other questions you presented in part A.**

- a. Report the bug privately, and do so in a manner that emphasizes the ACM Code of Ethics. Perhaps we can follow the responsible bug reporting principle. We tell them about the bug, and also tell them that they have a month to fix it.
- b. Give a detailed report of the bug, how we came across it (to prove that we weren’t engaging in attempted thievery of trade secrets), and be transparent about what we found and our motives.
  - i. Describe the ways in which we did not violate [Section 1201 of the Digital Millennium Copyright Act](#), and if we did then take responsibility for it. The rights of the public outweigh the risks of taking responsibility for violation of this act.
- c. Although this still might result in legal action being taken against us, it is our responsibility as ethical computer scientists to protect the interests of the public, especially if we know for a fact that their rights are being compromised.