

## Ethical analysis of a security-related scenario

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- A. Should we report the bug? Do we have a moral obligation to report the bug?  
What should we do? Do we have the right to notify the users before reporting it to InstaToonz?
- B. We have identified three stakeholders which include users, “us”, and Instatoonz
  - a. Users - They have their rights to privacy
    - i. In theory, we could educate the users that there is a potential breach in their privacy without specifically mentioning the bug.
  - b. “Us” - We have the right to educate InstaToonz of the problem with the bug and how it’s affecting the users.
  - c. InstaToonz - They have the right to refuse to fix their system.
- C. As a user, if we come across a bug, do we have any rights in regards to reporting it. Do we have any way of documenting/proving that we aren’t actively looking for these bugs so that InstaToonz won’t label us as “security researchers”. It’d be helpful to have InstaToonz’s Terms of Service.
- D. One possible action is to privately let InstaToonz know about this bug. Likely consequences of this action would be InstaToonz treating us as the first bug-reporter. Another possible action is to let the users know that their privacy is in danger without mentioning the specific bug that is causing it. Likely consequences regarding this action would be that it will hurt InstaToonz because users would now be wary of their security. Another consequence could be that the users wouldn’t trust us because without mentioning the bug, there would be no proof of harm. Another possible action would be to report the bug to the users/general public. In this scenario, InstaToonz would likely take legal action against us and sue us. Another possible action would be to just ignore the bug entirely. A likely consequence of this would be that another user at some point will find the bug.
- E. Section 1.6 introduces respecting privacy which the bug is violating. Section 2.2 talks about maintaining high standards of professional competence, conduct, and ethical practice. InstaToonz is not maintaining any high standards in this case if they go about ignoring the bug and suing those who do find it. Section 2.4 talks about accepting and providing professional review. InstaToonz is not accepting the review, which in this scenario, is catching the bug. Section 2.8 introduces the idea of accessing computing and communication resources only when authorized or when compelled by the public good. The privacy of the users are in jeopardy, so we are authorized to report this bug for the good of the public. Section 2.9 talks about designing and implementing systems that are robustly and useably secure. With this bug, InstaToonz’s systems are, in fact, not secure and that their

security should now be their first consideration when designing it. Section 3.1 enforces the idea that the good of the public is the primary concern in computing. Section 3.2 says that we should evaluate social responsibilities. Reporting this bug would fulfill those social responsibilities that are talked about in this section.

- F. We believe our recommended action would be to inform the users and general public about the situation, without exposing the bug itself. We would take this course of action because we already know what InstaToonz will do if we inform them privately about the bug. As a result, informing the users without exposing the bug itself would be the best because we would have the support of the users in this case whereas if we tell InstaToonz privately, we would not have that kind of support. Even if the users do not believe us, we are absolved of any further moral conflict because we did all we can do by letting them know of the situation. By doing this, we are taking into consideration the ACM code of ethics and acting in accordance with it.

### Scenarios

1. Suppose the bug involves the encryption and copy-protection of the music shared by InstaToonz users. You are not a lawyer, but you're concerned that your uncovering of this bug may put you in violation of Section 1201 of the Digital Millennium Copyright Act.

In this case, the main questions we would be asking is, what can we do and is it worth it to violate section 1201 of the Digital Millennium Copyright Act in order to fight for the users and their privacy. We believe that the best course of action in this case is not to report the bug because it would put us in violation of section 1201 of the DMCA. The Electronic Frontier Foundation has criticized the anti-circumvention clauses of the DMCA by stating that it “chills free expression and scientific research” jeopardizes fair use, impedes competition, and innovation<sup>1</sup>. This further supports our decision to not report the bug.

2. Suppose the bug does not involve encryption or copy-protection.

If the bug does not involve encryption or copy-protection, we are not in violation of section 1201 of the DMCA. Therefore, our course of action would be the same as described in parts A-F.

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<sup>1</sup> <https://en.wikipedia.org/wiki/Anti-circumvention>