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[Go to next item](#)

Week 1 Quiz - Introduction and Data Privacy

Latest Submission Grade 60%

1. Scenario A

1 / 1 point

(The next 5 questions are based on this scenario)

Airbnb scrapes the Internet for clues that a guest might not be a reliable customer. According to [patent documents](#), Airbnb gathers data on everything from a registered user's criminal record to their social media posts to rate their likelihood of exhibiting 'untrustworthy' traits — including narcissism, Machiavellianism, and even psychopathy.

Imagine that you are a data scientist working at Airbnb and you just heard about this program. Answer the following questions *based on the information given above and the material in this course*. (That is, you don't need to search the Web for more information about this scenario in order to answer these questions correctly.)

Which of the following ethical issues from this list is the most salient?

- ☐ A) public opinion
- ☐ B) institution-based privacy dependencies
- ☒ C) informed consent
- ☐ D) compliance
- ☐ E) none of these are salient



Correct

Correct answer: informed consent.

The introductory lectures distinguished compliance and public opinion from ethics. Institution-based privacy dependencies is a made-up term. From this list, consent is the best answer. It is explained in the privacy material and as one of the five Cs.

At the time of writing, Airbnb does have this message on their Web site: "Every Airbnb reservation is scored for risk before it's confirmed. We use predictive analytics and machine learning to instantly evaluate hundreds of signals that help us flag and investigate suspicious activity before it happens." It is not clear to us that this message constitutes effective consent.

2. If we use the "five Cs" data science ethics framework in Loukides et al., which of these would be relevant to one of the Cs? (note the wording has been changed from the book.)

0 / 1 point

- ☐ A) Past unethical behaviors by Airbnb
- ☒ B) Laws broken by Airbnb in this case
- ☐ C) The standard technical definition of fairness
- ☐ D) The job title of the person who approved this program
- ☐ E) None of these are relevant to the five Cs



Incorrect

Correct answer: Past unethical behaviors by Airbnb.

Loukides et al. argue that data science ethics is partly about "Consistency and Trust" (the third C), and that users and customers evaluate the ethics of a scenario based on the past behavior of an actor.

3. Again using the "five Cs" framework, what information could be provided to users to improve Airbnb's ethical position in this scenario? (Check all that apply.)

0 / 1 point

- ☒ A) A list of what information is being collected



Correct

Correct answer: Everything EXCEPT "A dollar estimate of the costs vs. the benefits." A dollar-value cost/benefit analysis was not part of the five Cs (and you were warned against using it in the class introduction lectures).

☒ B) How the data are going to be used



Correct

Correct answer: Everything EXCEPT "A dollar estimate of the costs vs. the benefits." A dollar-value cost/benefit analysis was not part of the five Cs (and you were warned against using it in the class introduction lectures).

☒ C) How users can request removal of their data from the system



Correct

Correct answer: Everything EXCEPT "A dollar estimate of the costs vs. the benefits." A dollar-value cost/benefit analysis was not part of the five Cs (and you were warned against using it in the class introduction lectures).

☐ D) What are the predicted risks of this system

☐ E) A dollar estimate of the costs vs. the benefits

You didn't select all the correct answers

4. You are asked to analyze the personal data from this system. You have ethical concerns about this system. Which of these is true?

1 / 1 point

- ☐ A) You have no ethical responsibility if ethics isn't a part of your job description.
- ☐ B) You have no ethical responsibility if you didn't personally make the relevant individual decisions.
- ☐ C) You have no ethical responsibility if the system was implemented before you were hired.
- ☐ D) You have no ethical responsibility if your job is technical.
- ☒ E) None of these is true.



Correct

Correct answer: None of these is true.

The introductory lectures emphasized that many ethically problematic systems are produced by individuals who each think they are doing the right thing. We also noted that individual decisions that seem correct in isolation can produce an ethical problem when considered in a larger context. The lectures highlighted that technical jobs have a key role to play in professional ethics -- indeed technical expertise is necessary to identify some ethical problems. Finally, they emphasized that we all collectively share responsibility in many situations.

5. When discussing this scenario at work, a co-worker tells you, "If we check for murder convictions, there is no privacy problem if you don't have any murder convictions to hide." How would Solove refute this statement?

1 / 1 point

- ☐ A) Privacy is not just about individual harms
- ☐ B) Privacy is not just about hiding bad information
- ☐ C) Privacy has many dimensions
- ☐ D) Privacy harms can be small and incremental -- not just "dead bodies"
- ☒ E) All of the above



Correct

Correct answer: All of the above

As Solove writes, "Many commentators who respond to the [I've got nothing to hide] argument attempt a direct refutation by trying to point to things that people would want to hide," but the real issue is that privacy has many dimensions and the "nothing to hide" statement ignores most of them. The answers given here are taken from his refutation.

The above Airbnb scenario is true. Curious about this scenario? For more information, see:

<https://futurism.com/the-byte/airbnb-ai-predict-psychopaths>

<https://www.standard.co.uk/tech/airbnb-software-scan-online-life-suitable-guest-a4325551.html>

<https://www.airbnb.com/help/article/2356/what-does-it-mean-when-someones-id-has-been-checked>

6. Scenario B

1 / 1 point

(The next 5 questions are based on this scenario)

Some social media platforms like 23andme or Ancestry.com provide a social network organized around genetic testing. Partly to allay ethical concerns, these sites have an extensive notice and consent process for their users.

According to Cate or Solove, how could the notice and consent process itself be harmful?

- ☐ A) It might produce a false sense of security.
- ☐ B) It might be expensive and burdensome without actually protecting privacy.
- ☐ C) The text might never be read.
- ☐ D) It might not be comprehensible.
- ☒ E) All of the above.



Correct

Correct answer: All of the above

Cate is a critic of what are called the "fair information practices principles," or the "notice and choice" conception of privacy that is organized around consent. He deems this conception a failure for all of the above reasons, plus a few more. Solove is also critical, and states some of these concerns as well (although this specific list is taken from Cate).

7. Genetic data is shared with your biological family members. When a family member consents to share non-medical ancestry data, your data is also included. Assume that a close family member purchased a non-medical ancestry test and consented to terms and conditions of the provider for data sharing.

0 / 1 point

What is a privacy protection that you can utilize against your information being shared with law enforcement?

- ☐ A) HIPAA (Health Insurance Portability and Accountability Act)
- ☒ B) GINA (Genetic Information Nondiscrimination Act)
- ☐ C) Right to be excluded
- ☐ D) None of the above



Incorrect

Correct answer: None of the above. The HIPAA Privacy regulations require health care providers and organizations, as well as their business associates, to develop and follow procedures that ensure the confidentiality and security of protected health information (PHI) when it is transferred, received, handled, or shared. Non-medical ancestry platforms are not considered health care providers or organizations and therefore are not subject to HIPAA requirements. GINA protects against discrimination on the basis of genetic information with respect to health insurance and employment, not law enforcement. Since your parents are customers of the commercial product, they are the party which is covered by right to be excluded and platform's terms and conditions.

8. Which one of the below is not a true statement?

1 / 1 point

- ☒ A) As long as the data shared with third parties is not individual level but aggregate group level, all the possible harms are removed
- ☐ B) Researchers using data collected by a third party have a responsibility to address the terms under which data are collected
- ☐ C) Even if a research is not subject to institutional review requirements, big data researchers should still debate ethical issues related to the data
- ☐ D) A dataset created responsibly for one context can still be used to harm data subjects or groups if used for another context
- ☐ E) None of the above



Correct

Correct answer: A) Aggregate data can still be used to make inferences or decisions at group level which may be used to stigmatize, manipulate or oppress the group.

9. How the consent is framed can change a user's answer. According to Solove, what kind of issue is this?

1 / 1 point

- ☐ A) Institutional

- ☒ B) Cognitive
- ☐ C) Structural
- ☐ D) Social
- ☐ E) Perennial



Correct

Correct answer: Cognitive

Solove explains that "Privacy self-management envisions an informed and rational person who makes appropriate decisions... people's actual ability to make such informed and rational decisions does not even come close to the vision." Several examples of different consent framings are given, including graphical vs. textual messages, a binary vs. a continuum of options, and more.

10. Why is it **not** a good idea to rely on health privacy law (e.g., in the US, HIPAA) to protect users who disclose genetic information on social media sites like 23andme? Choose the best answer.

0 / 1 point

- ☐ A) Laws written about health contexts may not apply to other contexts like social media apps.
- ☐ B) Health privacy laws don't consider the role of hospitals and doctors.
- ☒ C) Health privacy laws have a strict statute of limitations.
- ☐ D) There are no health privacy issues.
- ☐ E) None of the above are correct, you **should** rely on health privacy law.



Incorrect

Correct answer: Laws written about health contexts may not apply to other contexts like social media apps.

The main thing to get here is that changing the context is likely to create a problem. A number of examples in lecture raised the problem that a privacy analysis written for one context might not apply if the context is changed. This is also true of laws. A number of examples were given, e.g., that health privacy laws (e.g., HIPAA) do not apply to social media or fitness apps. Likewise, educational privacy laws (e.g., US FERPA) do not protect people outside of educational settings, etc. This specific example of HIPAA not applying to 23andme was also mentioned in readings.