

A. Main ethical questions

1. How can we ensure that old location data isn't accessible from the API's archived web logs so that the company's statement about discarding users' locations actually holds true?
2. How is the location data anonymized and is this process reversible?
3. Which entities is the anonymized location data being sold to?
4. Is there another move, aside from selling user data, that can satisfy the CEO's desire to generate more revenue?

B. Each stakeholder's relevant rights

Customers

- Opting-out of data collection
- Keeping their information confidential

Employees

- At minimum, have a say in what product features are implemented

Company heads

- Push for implementation of features that promote revenue generation

Investors

- Revoke support of the startup for financial reasons

C. Missing information that would be helpful to have

- The algorithm used to anonymize the location data
- How far out in the future the CEO may want to start selling the data
 - How much time is there to prevent this from happening
- The entities the location data would be sold to
- How the server supposedly discards users' locations
- How influential the CTO is

D. Possible actions + consequence of those actions

1. Suggest an idea that could generate more revenue that doesn't center around data collection. This could be creating a premium version of the app that provides more features at a higher price. The consequences of this could be that this idea is shot down since implementing more features may not be feasible or that there isn't a demand for such a product development. But, expansion of some sort could be appealing to higher ups since most apps have premium versions.
2. Vouch for the option that customers can opt out of having the app store their location data. This may not be the CTO's most preferred course of action since customers may

not opt out, but it offers some transparency to customers over how their location data is being used by the company. Those in favor of selling location data may be in support of this decision since the results of this follow that they will most likely end up being able to sell user data.

3. Check if the user location data really is stored in the log. If they are, the query strings in the URL could have been deleted since the company seems to pride itself on its server discarding user location data. If this is the case, then the process of being able to sell anonymized data could be delayed and more time could be bought to follow through with other actions.

E. Is the ACM Code of Ethics relevant?

In terms of “minimizing harm” (section 1.2), “being honest” (1.3), and other general statements of ethicality, the ACM code is fairly relevant. Someone who has only recently joined the company should be careful with how they interact with higher ups and voicing opinions. If their job is at stake, then “blowing the whistle if leaders do not act to mitigate risks” (1.2) may not be in their best interest if it isn’t likely that any good may come of it.

The Code of Ethics also specifically mentions how computing professionals should go about handling user data. Section 1.6 cites that “precautions to prevent re-identification of anonymized data” should be taken, which supports those in favor of selling location data. This section also states that personal information should be used for “legitimate ends” so the Code of Ethics has information relevant to both sides of the argument.

F. Describe + justify recommended actions + answers to other questions in A

My recommendation would be allowing users to have the option to opt out of letting the app store their location data. To ensure that users are aware that the app is collecting data, a pop up could come up as soon as the app is opened and provide the user with the option to have their data deleted (from all archive logs) after a map is generated. This makes it so that opting out isn’t super misleading since it’s common for such features to be hidden in the settings menu, but it is still not ideal. Ideally, having people opt-in to such features is more ethical since people are making an active choice to have the app store their data. While this approach isn’t the most ethical, someone new to the company should be wary of what input they provide higher ups with, and refrain from completely shutting down certain practices if their career could be on the line. Staying with the company and slowly taking measures to promote ethicality would be more beneficial than being let go from the very start.

From Part A, questions 1 and 4 are answered/considered in part D, and questions 2 and 3 are beyond the scope of the information provided.