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CNIT 133I - JavaScript for IoT and XR

Homework 1 - Intro to IoT

Article: [Ovulation Tracking App Premom Will be Barred from Sharing Health Data for Advertising Under Proposed FTC Order](#)[1]

The smartphone app Premom collects user health information and is used to track ovulation cycles. Premom was caught sharing their user's personal health information to a variety of third party companies without user permission or notifying their users. This was a violation of the Health Breach Notification Rule. Besides asking the user for their health information, Premom encourages users to import their data from other apps like Apple Health. Apple Health can take advantage of IoT devices such as the [Apple iWatch to track retrospective ovulation based on wrist temperature.](#)[2]

The main concern the FTC had was that health privacy had been violated and that promises made by Premom to not share trackable data were not kept. In response to this problem. The FTC has proposed an [order to prevent Premom from sharing users' health information without consent.](#)[3] This order resulted in Premom asking advertising propagators to delete the data they had acquired, promising not to share information for advertising purposes again, and to do a privacy audit every two years for the next twenty years.

This does sound like a good resolution to the incident; I believe more legislation to protect digital information is necessary. Without a strong reason to program with privacy in mind, there will be problems with data tracking systems. In my own experience there is little motivation for companies to add in security after the fact. In those cases, programmers are likely to implement the bare minimum to satisfy the new conditions. By making privacy a priority, the app's architecture will be designed to be more robust from the beginning which will create a much stronger system.

I see a parallel to this from my time working in online gambling games. There are very strict laws for gambling that must be followed. Not following them would result in our games being shut down and our company audited and fined. Because of this we always designed with security and fairness first. This ensured our games were very transparent about how money was won so there would not be any rigging of games. If IoT developers had to follow similarly strict rules the morality of sharing data would not be an issue up for debate but would be built into the system of development.

Finally, to demonstrate an example of reproductive health data being used in nefarious ways I present an article from the World Health Organization. This article outlines how [baby formula companies use personal information for targeted exploitative marketing.](#)[4] By being able to target mothers through social media apps, companies have been able to amplify their marketing messages. In the article they say this information, "reinforces myths about breastfeeding and breast milk and undermines women's confidence in their ability to breastfeed successfully". I think this is very dangerous because once false information is believed by someone they will repeat it. Then harmful advice spreads to others and is accepted as fact.

The flow of digital information is surprisingly powerful and creates ripples in the beliefs and behaviors of real people. Though developers may not be looking to do anything harmful, by not protecting

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[1] Federal Trade Commision, "Ovulation Tracking App Premom Will be Barred from Sharing Health Data for Advertising Under Proposed FTC Order", 17 May 2023, https://www.ftc.gov/news-events/news/press-releases/2023/05/ovulation-tracking-app-premom-will-be-barred-sharing-health-data-advertising-under-proposed-ftc

[2] Apple, "Receive retrospective ovulation estimates on Apple Watch", 21 September, 2023, https://support.apple.com/en-us/HT213406

[3] Federal Trade Commision, "UNITED STATES OF AMERICA, Case No. 1:23-cv-3107 Plaintiff, v. EASY HEALTHCARE CORPORATION., a corporation, d/b/a EASY HEALTHCARE"17 May 2023, https://www.ftc.gov/system/files/ftc_gov/pdf/2023186easyhealthcarestipulatedorder.pdf

[4] World Health Organization, "WHO reveals shocking extent of exploitative formula milk marketing", 28 April 2022, https://www.who.int/news/item/28-04-2022-who-reveals-shocking-extent-of-exploitative-formula-milk-marketing

user information they open their users up to the influence of bad actors. This is why I believe we need more laws and regulations for the privacy of digital information to catch up with the current state of technology.