

CS1952B Final Project: Privacy-Focused Period App

Abstract

The rise of menstrual tracking apps has significantly contributed to destigmatizing menstruation and enhancing female health awareness. These apps, used by millions globally, offer valuable features such as cycle prediction, health insights, community support, and contraceptive guidance. However, they also manage highly sensitive personal data, raising substantial privacy concerns, especially in light of recent legal changes like the overturning of *Roe v. Wade*. My final project for CSCI1952B: Responsible Computer Science in Practice aims to design a privacy-focused menstrual app that balances robust data privacy with functional usability. By incorporating advanced privacy measures such as end-to-end encryption via Oblivious HTTP (OHTTP) and limiting data storage on external servers, the app seeks to protect user data from unauthorized access and potential legal exploitation. Through interviews with long-term app users, the project explores the trade-offs between privacy and usability, emphasizing the need for features that maintain the app's practical benefits while safeguarding sensitive information. The resulting design includes essential functionalities like cycle tracking and symptom logging, personalized health insights, and an anonymous community forum, all implemented with privacy-preserving technologies to ensure user data security. This work underscores the importance of privacy in health tech and offers a model for developing secure, user-friendly menstrual tracking applications.