The Ethics of Apple and Google's Covid-19 Contact Tracing Protocol

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In 2020, Apple and Google partnered to develop the "Privacy Preserving Bluetooth Protocol" to automate contact tracing and combat the Covid-19 Pandemic. The best way to assess if the protocol truly is ethical and privacy preserving is by viewing it through the lens of the Belmont Principles. These principles consist of: 1) respect for persons 2) beneficence 3) justice.

Respect for persons has two tennents: 1) "individuals should be treated as autonomous agents 2) persons with diminished autonomy are entitled to protection" (United States Department of Health, Education, and Welfare, 1979 p. B). The protocol does require either users to opt-in to the service with an additional consent required prior to uploading a positive test result, or a mandate by a health authority (Apple | Google, 2020). However, there is a lack of information regarding protections for those under guardianship and is therefore insufficient. Second is beneficence; maximising benefits while minimizing harms (United States Department of Health, Education, and Welfare, 1979). The protocol uses a multi-layered approach of engineering and administrative safeguards including device level data storage, non-resolvable identifiers, timely data deletion, and access controls to the API (Apple | Google, 2020). As a result, it is difficult to misuse collected data. These safeguards result in maximising user exposure notifications while minimizing the risk of surveillance. Finally, justice; who receives the benefits and the burdens United States Department of Health, Education, and Welfare, 1979)? The burden falls on the users who contribute their data to the program and as a result society benefits, including those who don't participate in the program. Researchers believe that one person could transmit up to 3.5 secondary cases on average (Eisenberg, 2020). Those who quarantine as a result of contact tracing prevent further transmission into the population.

Homeland Security operationalized for harm includes loss of privacy and victims as potential non-subjects of research (United States Department of Homeland Security, 2012). This contact tracing protocol has multiple stages of consent, only collects the data it needs when it needs it,

and deletes obsolete data in a timely manner all to protect user privacy and minimize harm.

Overall, I believe this protocol is within the intent of the Belmont Principles, The Menlo Report, and is an ethical solution to a complex problem.

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