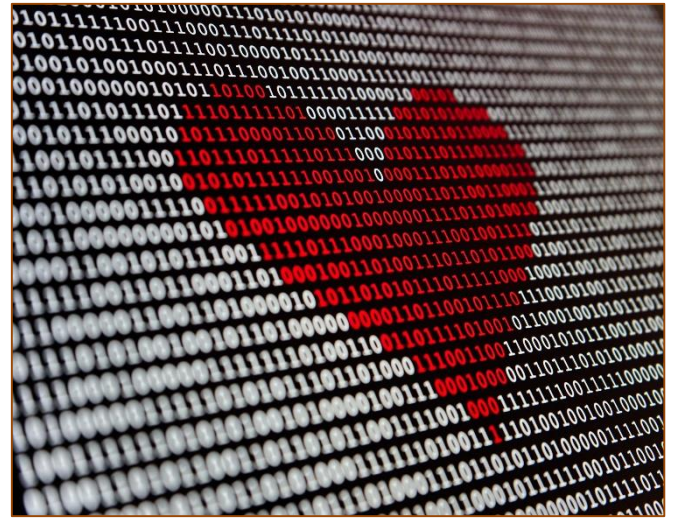


THE ETHICS OF DIGITAL CONTACT TRACING: USING DIGITAL DEVICES TO STOP THE SPREAD OF COVID-19

As medical professionals work around the clock to find vaccines and effective treatments for COVID-19, some researchers have considered the role technology could play in mitigating infection rates in the meantime. At the height of the pandemic, Tech giants Apple and Google announced that they would utilize their platforms to “enable Bluetooth-based COVID-19 contact tracing” (Greenberg, 2020). This “completely opt-in participation” feature will utilize Bluetooth to “track physical proximity between phones” (Greenberg, 2020). In turn, if a user reports a positive COVID-19 diagnosis, the program would notify those who have been within six to ten feet of the reporter that they may have been exposed. Given the virus’ highly contagious nature, information about potential contact with a carrier is pertinent to make quick decisions to get tested or self-quarantine – not only for the sake of individuals’ own health, but also to flatten the curve overall and stop the spread.



Despite its potential for good, this use of digital tracing was nonetheless met with disapproval. Concerns for privacy immediately flooded public discussions when news of Apple and Google’s plans spread online. In particular, critics are worried about the risk infected users may be taking when they report their diagnosis status. Scott Leibrand, the lead for another contact tracing project, warns that “if [users] choose to submit a report, they’re possibly disclosing to their friends and random strangers the fact of this exposure” (Greenberg, 2020). Such a revelation may not only be embarrassing but it could be likened to doxing or revealing that individual as having done something wrong. As emotions run high during the pandemic, a person carrying the virus may be blamed for potential of its spread within a neighborhood and receive undue communal backlash.

In response, Apple and Google have emphasized that the digital contact tracing “collects no location data from users, no data at all from anyone without a positive COVID-19 diagnosis... and only anonymous data from people who are infected” (Greenberg, 2020). Furthermore, they claim that the system utilizes specific Bluetooth codes, which “limits any snoop’s ability to eavesdrop on those codes to track a person’s movements by switching up the numbers every 10 or 15 minutes” (Greenberg, 2020). Thus, these unique



and rotating codes serve as a privacy protocol for users. Additionally, digitized contact tracing could prompt greater efficiency in terms of speed and success that human contact tracing is limited to. Currently, human contact tracers rely on phone calls and interviewing to “track people’s movements, and rely almost entirely on people’s memory” (Albergotti & Harwell, 2020). Proponents of digital contact tracing argue that, rather than rely on such a time-consuming and error-prone process, the important job of slowing COVID-19’s spread can be completed by an automated system.

Despite these attempts to placate concerns about privacy and convince the public that their system will be more efficient, the tech companies have not been completely persuasive. Though the Bluetooth coding is safer than GPS-based approaches, this is only mildly comforting considering that “contact tracing apps that use Google and Apple’s Bluetooth-tracing functionality will inevitably ask for location data anyway” (Greenberg, 2020). Thus, their promise of anonymity is undermined as concerns of whether an IP address of a COVID-19 positive user can be traced, revealing both the location and identity of the user. Furthermore, as health officials around the United States and Canada increasingly sidestep theoretical privacy concerns and invite these tech companies to collect information essential to practical contact tracing, new anxieties arise. For example, the practicality of a Bluetooth-based approach and its potential for success remains untested. Those who doubt Google and Apple’s method point to the high likelihood that reliance on Bluetooth will result in inaccurate information and unnecessary contacting of users. For instance, factors such as physical obstacles could result in misinforming neighbors of potential exposure. Because viruses don’t leak through walls like Bluetooth does, “it’s hardly useful to be warned that you were exposed to COVID-19 just because your upstairs neighbor or someone in the adjoining apartment building was infected. (Greenberg, 2020). For critics, not only is digital contact tracing an invasion of privacy, but it is ultimately unreliable and could cause hysteria or inaccurate judgments that someone risked infecting someone else.

Despite these flaws, Google and Apple note that “Bluetooth signal strength nonetheless serves as a proxy for sharing airspace with someone,” and “any contact tracing system will have a false-positive rate, just as COVID-19 tests themselves do” (Greenberg, 2020). In the end, whether or not the companies’ efforts will meet both the public and health officials’ approval remains unknown. As the tech giants continue to refine their efforts, they must take into consideration how they can best respect their consumers’ privacy in the demand for a more efficient contact tracing method. Will their efforts be able to balance both privacy and practicality concerns, as well as transform the ways in which technology companies bridge a relationship with the health industry?

Discussion Questions:

1. What values are in conflict in the controversies over digital contact tracing?
2. Are there ways that a balance can be struck between these contrasting values or concerns? Or do you believe that the current proposals for digital contact tracing navigate the ethical tensions in the best fashion possible?
3. How might digital contact tracing lead to social ostracism or negative judgments? Are the positives during the pandemic worth these risks?



4. Do you believe that this use of technology for a serious problem sets a worrisome precedent for future problems defined as serious by political agents? What ethical guidelines would you propose to avoid the harms to tracing individuals and contact through their phones and digital devices?

Further Information:

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