



BRIEFING NOTES

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PRIVACY ISSUES IN AI-BASED COVID-19 TRACING APPS

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SUMMARY

- ✚ One of the current COVID-19 challenges is its wide spread worldwide. To control the spread of this lethal disease a number of countries such as South Korea, Singapore, and Canada have launched monitoring mobile software apps.
- ✚ COVID-19 tracing apps utilize the Bluetooth and GPS signals to determine and log the proximity of users from one another. The log history can be used to find individuals that have been in close contact with confirmed COVID-19 patients.
- ✚ Despite their benefits, COVID-19 tracing apps can violate the privacy of users. Certain guidelines, such as obtaining the consent of users for collecting, using, and disclosing their information should be provided to protect users' privacy and data.

CONTEXT

- ✚ In response to the COVID-19 pandemic, some mobile software applications which use Bluetooth and GPS signals have been developed and utilized. In South Korea, by using certain data banks and artificial intelligence (AI), the government has the capability of tracking and discovering a COVID-19 patient's routes in a day in less than 10 minutes. Also, the government of South Korea monitors self-isolating individuals by using a mobile app that checks their GPS location and health condition. An alarm is designed in the app to warn self-isolating individuals when they leave their designated locations.
- ✚ Singapore's Government Technology Agency (GovTech) has released the TraceTogether app that utilizes Bluetooth signals to determine the proximity of a user with other nearby users and stores the information for 21 days. Once a user contracts the virus or becomes part of a "contact tracing investigation" the Ministry of Health is granted the right to identify the suspected individual.
- ✚ The Alberta Health Services (AHS) in Canada has launched a contact-tracing mobile app named ABTraceTogether that utilizes Bluetooth signal. When someone tests positive for the virus, AHS contacts them to ask if they consent to grant the right of sharing their app's history.
- ✚ In Canada, a federal law for the private sector known as Personal Information Protection and Electronic Documents Act (PIPEDA) has been legislated that considers the consent of users as a fundamental element in collecting, using, and disclosing individuals' information.
- ✚ To protect the privacy of users, a guidance document on meaningful consent has been released by the Privacy Commissioner of Canada that sets certain guiding principles such as emphasizing and explaining certain key elements of the system and providing explanations in a user-friendly manner, giving a clear option to users to decide yes or no, and being accountable and able to demonstrate the organization's compliance with the applicable laws.
- ✚ The Privacy Commissioner of Canada has identified certain "no-go zones" in a guidance document on inappropriate data practices that are considered offside of PIPEDA.
- ✚ Some of the "no-go zones" are mentioned as any unlawful collection, use, and disclosure of individuals' personal information, unfair and unethical categorization of individuals that is against human rights law, collecting, using, and disclosing individuals' information that are utilized for purposes which are known and might cause harm to users, screening employees by asking and using their social media accounts' passwords, and using video and audio functionality of the users' devices with the purpose of surveillance and reconnaissance.

CONSIDERATIONS

- ✚ The main concern in using the tracing apps is related to privacy of users. By considering the situation during a pandemic, such as in the current COVID-19 pandemic, protecting individuals' privacy is of paramount importance. Hence, there should be guidelines that provide entities with the right directions and suggestions during emergency cases such as pandemics, earthquakes, floods, and wars. The following is a list of the proposed guidelines.
 - The instructions on methods and certain information that the system is developed based on should be given and clearly explained to the users.
 - The service providers should ask and obtain the consent of users to collect, use, and disclose their information.
 - The collected data should not be stored in a central database unless under exceptional circumstances.
 - The collected data should be deleted after a certain period of time.
 - The tracking data, such as GPS location, must not be used.
 - The disclosed information by service providers should not be to the extent that leads to disclosure of an individual's identity.
 - The existence of security breaches in the system should be investigated and discovered.
- ✚ In Canada, the AI-based systems should comply with PIPEDA. Moreover, the system should be developed following the guidance documents on obtaining meaningful consent and inappropriate data practices.

NEXT STEPS

- ✚ The key factor in success of COVID-19 tracing apps is the number of their users. As the number of users increases, the more practical the tracing apps become. Hence, it is crucial to protect and ensure individuals' privacy so that more people are willing to use the tracing apps.
- ✚ If the service providers do not take the privacy of users into account, people would not trust and will not use the app which can result in a higher number of COVID-19 patients and longer duration for the pandemic. Moreover, to gain the trust of users, companies should inform their users about the steps that they have taken and their measures in protecting the users' privacy.