

ANNEXURE 2

INCUBIG INNOVATIONS

COVID-19 TRACKING

URGENT BRIEF FROM THE HEALTHTECH
TASK FORCE OF PANIIT INSTITUTE

A BRIEF REPORT ON SOFTWARES/APPLICATIONS
DEVELOPED FOR CORONAVIRUS TRACKING.

DATE

MARCH 21, 2020

POWERED BY

INCUBIG KOREA



ABOUT THE REPORT

On December 31 last year, China alerted WHO to several cases of people being affected by an unknown “Virus”. The new virus was identified as COVID-19, a member of the Coronavirus family, which includes SARS, MERS and the common cold.

There is no known cure for this new strain of Coronavirus but big pharmaceuticals are collaborating with the Governments around the globe for providing treatment for this pathogenic virus.

The global outbreak of the COVID-19, which has affected around 120 countries, has catalysed the development of novel coronavirus vaccines across the biotech industry, both by pharmaceutical companies and research organisations. Most of these vaccines are being developed by modifying vaccines for previously identified strains of Coronavirus such as MERS.

This report by Incubig provides a brief overview about the development of applications and softwares for tracking and identifying likely Covid-19 candidates.

The report will help Government institutes, Universities, Startups, Entrepreneurs and R&D organizations to understand the efforts of global software development community in developing a technological solution for controlling the Covid-19 spread.

Let's save lives.

The research report has been conducted on an urgent request from Pan IIT Institute and is free for re-distribution.

TraceTogether

TRY RECALLING WHO YOU MET TWO WEEKENDS AGO. CAN YOU NAME EVERYONE YOU MET AND TALKED TO THAT DAY?

Chances are, probably not. And even if you did, there's a good chance you might not have all their contacts.

These are some of the problems that come up during contact tracing after a COVID-19 case is confirmed. It is a complex and arduous process of interviewing the patient, listing down everything they did in the past 14 days, and identifying every person they had come into close contact with. Yet, it is a crucial step to detect further cases and preventing further possible spread of the virus.

To mitigate these problems, SGUnited, GovTech and the Ministry of Health have come up with a way for Singaporeans to track close contacts should the need arise – through a simple app

Using Bluetooth, TraceTogether identifies other nearby phones with the app installed.



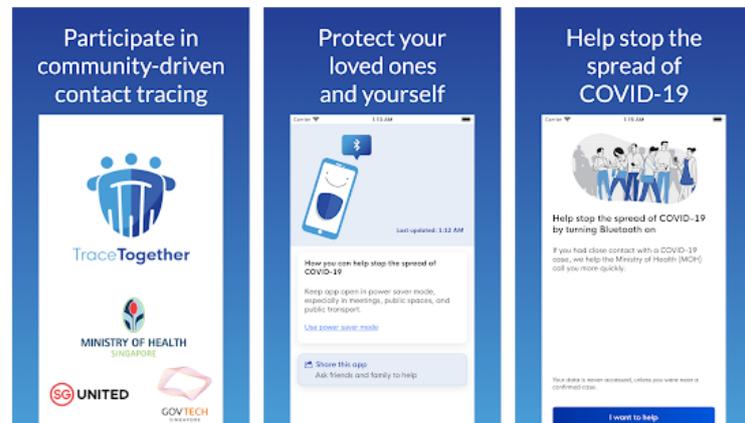
TraceTogether

Government Technology Agency Medical

3+

✘ This app is incompatible with all of your devices.

➤ Add to Wishlist



FASTER CONTACT TRACING WHEN INFECTION IS CONFIRMED

SOURCE

Private Kit (Prototype)

**THIS MIT APP TRACKS THE SPREAD OF
CORONAVIRUS WHILE PROTECTING YOUR PRIVACY**



Private Kit (Prototype) 4+

Private Location Logging

Massachusetts Institute of Technology

#189 in Utilities

★★★★★ 4.7, 48 Ratings

Free

Designed with data security and privacy protection at its heart, MIT Private Kit is the next generation of secure location logging. Location logs provide time-stamped records of where you've been.

By logging your location, researchers can explore exciting new opportunities in health, finance, environmental science, and other areas.

Private Kit's trail generator logs your device's location once every five minutes and stores 28 days of data in under 100KB of space – less space than a single picture.

But what is truly exciting about Private Kit is its privacy protection.

**DATA NEVER LEAVES YOUR DEVICE
WITHOUT YOUR CONSENT**

[SOURCE](#)

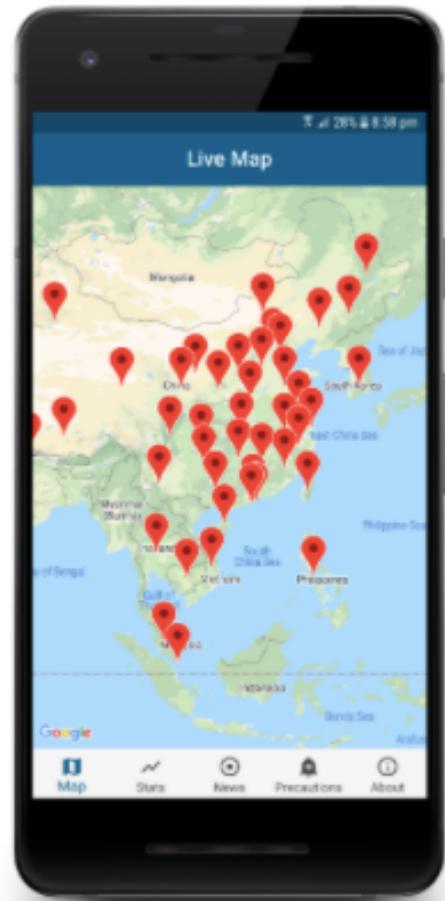
Coronavirus App

A FREE APP TO KEEP YOU SAFE FROM CORONAVIRUS

The 2019-nCoV originated from the Wuhan city of China and is a member of the wide coronavirus family that can cause maladies ranging from mild disease to potentially lethal conditions like SARS or MERS.

The world is going through a dangerous outbreak and hence, we decided to help society stay disinfected from the coronavirus.

For this purpose, CitrusLeaf Software have developed the coronavirus tracker app with the cross-platform framework Flutter.



**REAL-TIME MAP, LATEST NEWS,
PRECAUTIONS & SYMPTOMS, LIVE STATS**

[SOURCE](#)

Close contact detector

CHINESE GOVERNMENT ROLLS OUT CORONAVIRUS 'CLOSE CONTACT DETECTOR' APP

The "close contact detector," as BBC puts it, notifies users if they have had exchanges with any individuals who have been confirmed or suspected of carrying the virus.

All users need to do is scan a QR code with an app like Alipay or WeChat. People at risk are then advised to stay at home or inform local health authorities.



Once their phone number is linked, users are asked to fill in their name and ID number. The app can then be used to check the status of up to three ID numbers.

The app, which was developed in cooperation by the government and the China Electronics Technology Group Corporation, relies on data from the health and transport authorities.

"FROM A CHINESE PERSPECTIVE THIS IS A REALLY USEFUL SERVICE FOR PEOPLE... IT'S A REALLY POWERFUL TOOL THAT REALLY SHOWS THE POWER OF DATA BEING USED FOR GOOD,"

SOURCE

Vumc2go app

VUMC2GO, CONNECTS MEMBERS OF THE VANDERBILT UNIVERSITY MEDICAL CENTER COMMUNITY TO CURRENT COVID-19 NEWS AND UPDATES WITH JUST A FEW TAPS OF THE FINGER.

Vumc2go, in its beta release, will complement the website, [VUMC.org/coronavirus](https://www.vumc.org/coronavirus), by distilling the resources the workforce needs about medical center preparation, operations, and employee impact.

It will be updated daily alongside the continuing daily emails and website updates.

Current app features, in addition to the newsfeed, include

- Notifications about new Newsfeed articles since you last visited.
- The ability to bookmark articles.
- A directory so you can locate and email colleagues.
- A resource library that will expand to answer more staff questions.
- A direct link to enterprise publications and social media



IT IS DOWNLOADABLE ON APPLE IOS AND ANDROID. INSTALL MDM TO ACCESS THE VUMC APP STORE WITH HUB TO GET VUMC2GO.

[SOURCE](#)

Corona 100m (Co100)

THE CENTRAL AND LOCAL GOVERNMENTS ARE SENDING DAILY REAL-TIME ALERTS ON THE NUMBER OF CONFIRMED CASES OF COVID-19 AND THE TRAVEL HISTORIES

The Central Disaster and Safety Countermeasure Headquarters under the Korean Centers for Disease Control and Prevention also holds two briefings per day on the situation.

The transparent and swift provision of this information has allowed the development of mobile apps and websites easing public access to such data, something that has consequently helped stem the spread of COVID-19.

Launched on Feb. 11, Corona 100m (Co100) is Korea's most popular mobile app related to the outbreak. It alerts users when they come within 100 meters of a spot visited by an infected person.



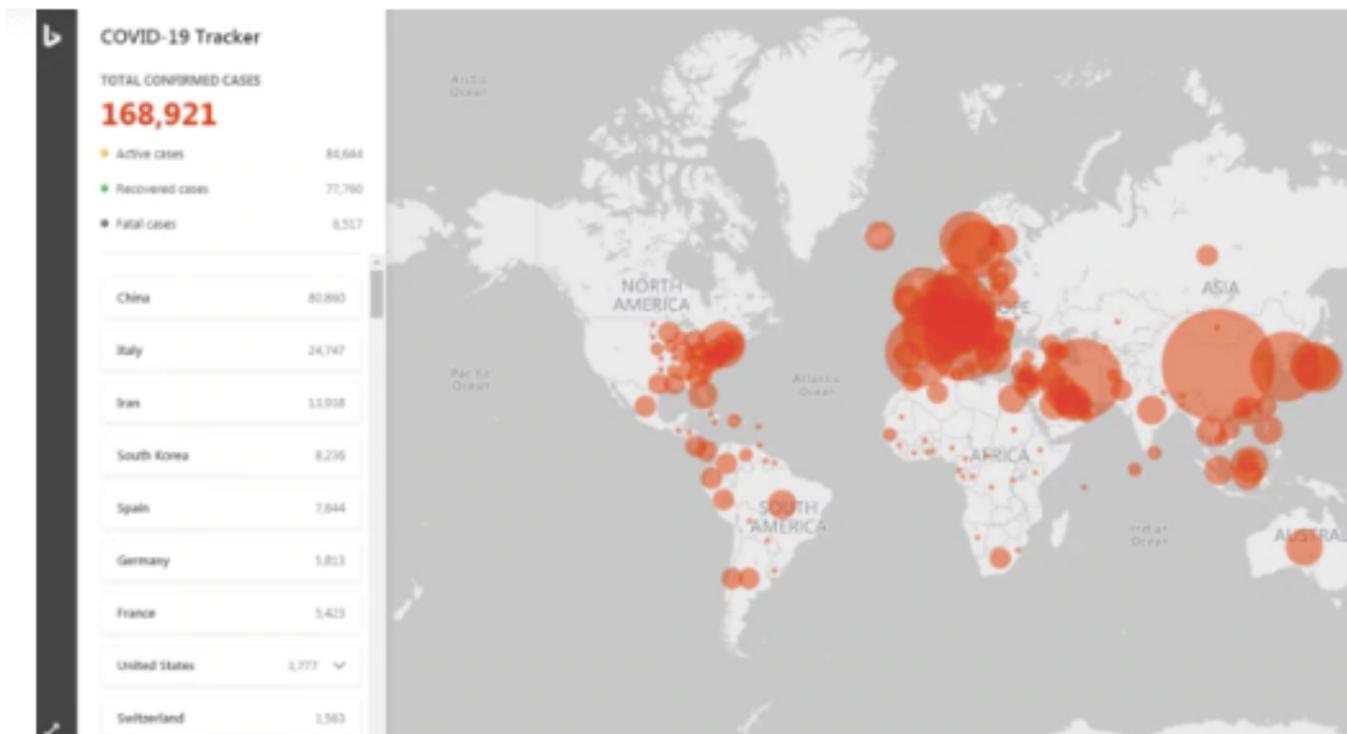
BOASTING A MILLION DOWNLOADS IN ITS FIRST TEN DAYS AFTER LAUNCH,

THE APP ALLOWS USERS TO CONVENIENTLY AVOID POTENTIALLY DANGEROUS LOCATIONS WITHOUT CHECKING THE TRAVEL HISTORIES OF THOSE INFECTED.

SOURCE

COVID 19

Other websites and trackers



Global and local trackers

COVID-19 Tracker

TOTAL CONFIRMED CASES

277,049

● Active cases	174,744
● Recovered cases	90,883
● Fatal cases	11,422

Global 277,049

China 81,008

Italy 47,021

Spain 21,571

United States 20,227

Germany 19,865

Iran 19,644

France 12,612

01 <https://www.bing.com/covid>

02 <https://coronavirus.app/map>

03 <https://gisanddata.maps.arcgis.com>

04 <https://app.developer.here.com/coronavirus/>

05 https://windy.app/coronavirus_map

06 <https://www.worldometers.info/coronavirus/>

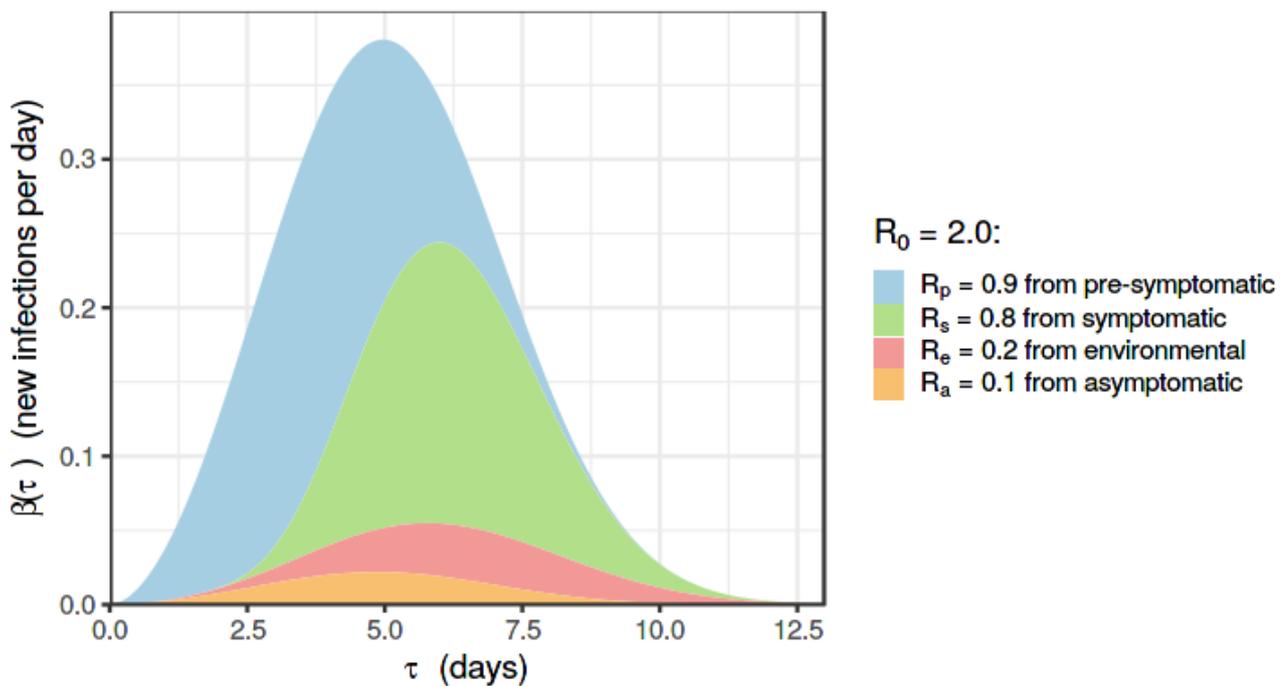
07 <https://coronamap.site/>

08 <https://coronaita.com/#/>

COVID 19

Important News and reserach work

Average rate of infecting others as a function of the time since infection



IT IS POSSIBLE TO STOP THE EPIDEMIC

We are a group of scientists based at the Big Data Institute at Oxford University with, among us, expertise in epidemiology, medicine, virology, immunology, mathematical modelling, phylogenetics, behavioural economics, and ethics. We have redirected our usual research on stopping virus spread to address the new pathogen SARS-CoV-2 and contribute to stopping this deadly pandemic.

We ask whether, from a mathematical point of view, it is possible to stop the epidemic.

We come to the conclusion that the epidemic can be stopped if contact tracing is sufficiently fast, sufficiently efficient and happens at scale.

We suggest that the best way to achieve this is by using a mobile app. Read our paper which has just been accepted in Science or the accompanying policy piece or jump straight into exploring the results on our interactive dashboard below.

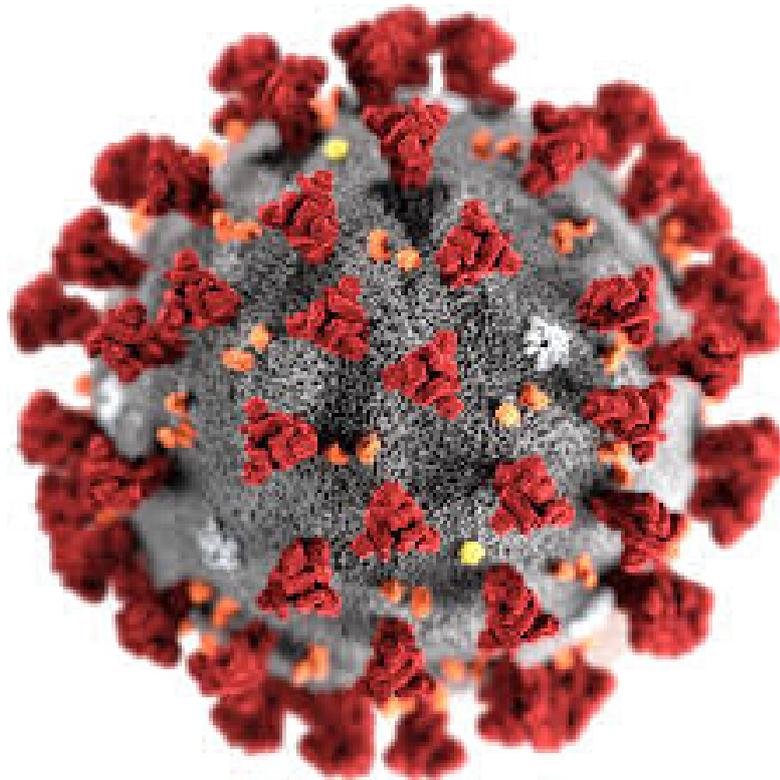
QUANTIFYING DYNAMICS OF SARS-COV-2 TRANSMISSION SUGGESTS THAT EPIDEMIC CONTROL AND AVOIDANCE IS FEASIBLE THROUGH INSTANTANEOUS DIGITAL CONTACT TRACING

[Read the paper here](#)

Coronavirus outbreak triggers wave of apps, online tools for diagnosis, testing

Startups and legacy tech vendors alike are developing array applications and web services to help people track the virus, check for symptoms and offer advice on ways to help prevent exposure.

As the number of infections caused by the spread of the Coronavirus continues to rise worldwide, medtech startups, healthcare organizations, and others are bringing applications and online services to the market to help people track the virus, check for symptoms, and offer advice on ways to help prevent exposure or even offer testing methods that limit exposure risk.



[For more info, click here](#)

MORE INSIGHTS?

LET US KNOW.

We hope you find this report relevant and insightful.

If you need customised analysis or need any specific insight, please do not hesitate to contact us.

We are here to help you in making right R&D and business strategies.

Thank you.

Team Incubig
Accelerating Innovation.
E: contact@incubig.com

A background network diagram consisting of numerous grey nodes of varying sizes connected by thin grey lines, forming a complex web structure. The nodes are scattered across the white background, with a denser cluster in the lower-middle section.

KEEP INNOVATING

GET CONNECTED

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