



# SARS-CoV-2 contact tracing efforts in the European Union (as of mid-June 2020)

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# Prologue: some privacy scholars preparing for a fight



**Michael Veale**  
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Those fighting for privacy and dignity with a horizon beyond this pandemic will likely be gaslighted as to the normal temporary nature of emergency infrastructure, subject to abuse, told they are immoral and maybe even told they are cold-blooded killers.

Stay strong.

5:53 PM · Mar 19, 2020 · [Twitter for iPhone](#)

<https://twitter.com/mikarv/status/1240667809811701765>

# March 2020: start of crisis, solutions considered

- European Union countries invoke emergency powers, start isolating.
- Epidemiologists and data scientists pressure governments for access to health data and location tracking data.
- Singapore's TraceTogether is considered as an innovation with potential.
- South Korea's data integration platform considered intrusive, yet effective.
- Israel announces app using GPS data for contact tracing.
- United Kingdom NHS considers an app, researchers write open letter asking for ethical practices be followed if that happens.

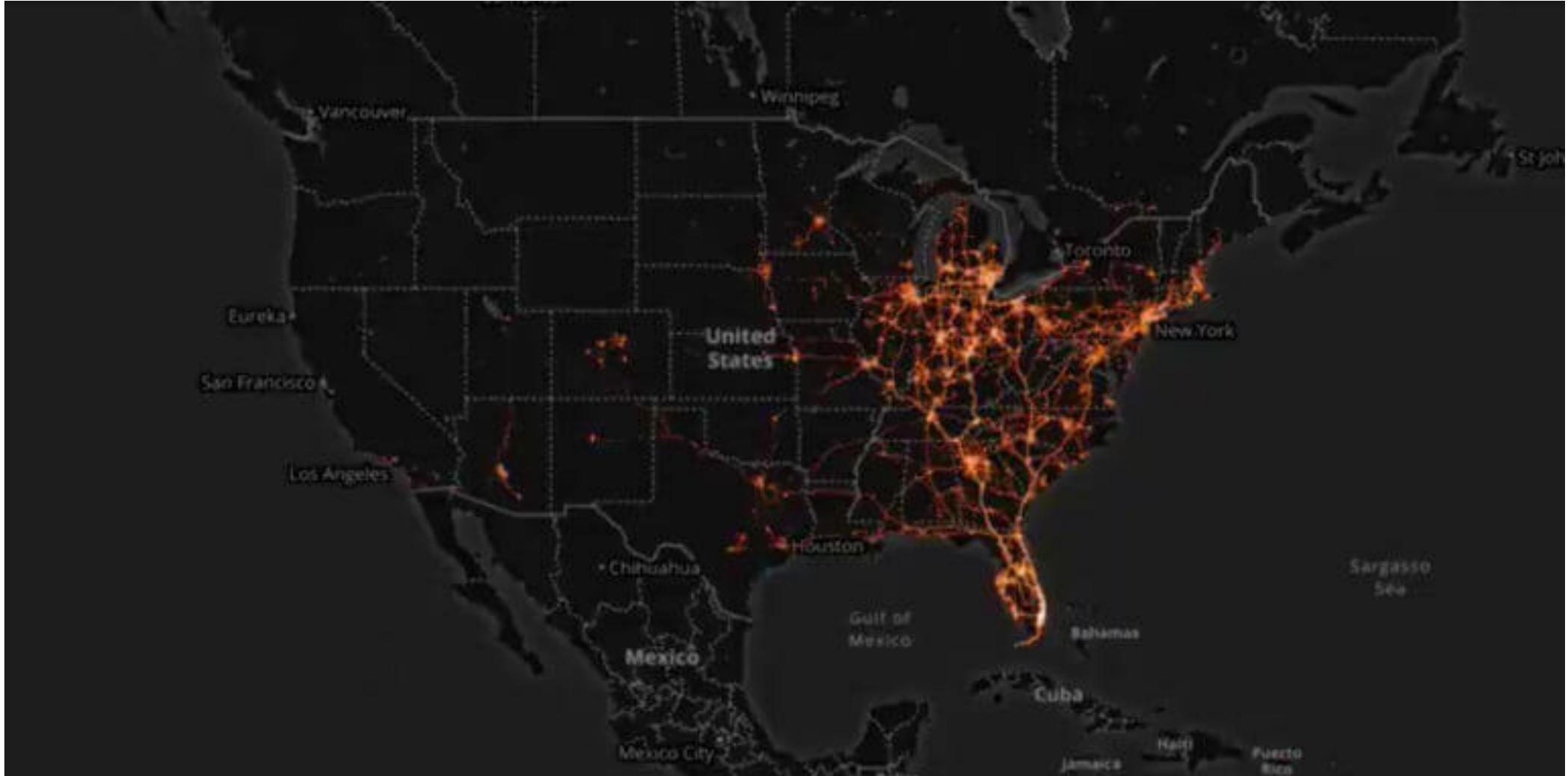
TraceTogether: <https://www.tracetgether.gov.sg>

Israel: <https://www.forbes.com/sites/zakdoffman/2020/03/14/coronavirus-spy-apps-israel-joins-iran-and-china-tracking-citizens-smartphones-to-fight-covid-19>

BBC news item: <https://www.bbc.com/news/technology-52003984>

UK Open Letter: <https://medium.com/@rachelcoldicutt/open-letter-contract-tracking-and-nhsx-e503325b2703>

# How much are people travelling during the pandemic?



# April 2020: privacy technologists strike back

- Late March: PEPP-PT project starts, promising a private cross-border app.
- April 4th: DP-3T Project makes its first Github commits (*note work from BU*)
- April 8th: DP-3T and PEPP-PT part ways over disagreement on privacy goals, stoking the „decentralized vs centralized“ fires.
- April 10th: Apple and Google announce their contact tracing API, actively hindering Bluetooth tracing with server-controlled identifiers.
- April 19th: 300 security researchers sign an open letter noting the privacy differences between various Bluetooth-based contact tracing apps.
- However: Norway launches an app using full GPS tracking.

PEPP-PT: <https://www.pepp-pt.org>

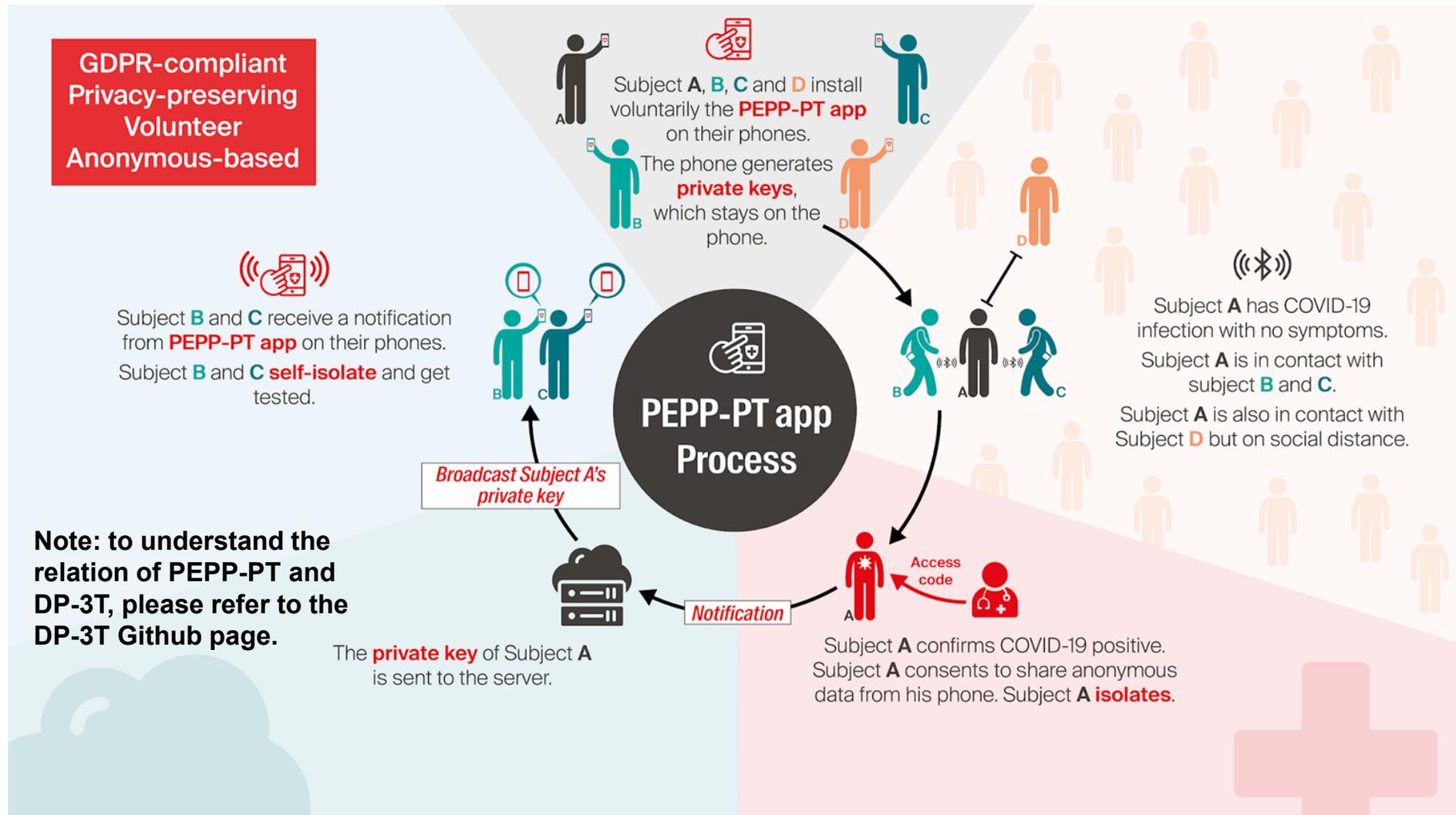
DP-3T: <http://dp-3t.github.io/>

Apple & Google announcement: <https://www.apple.com/newsroom/2020/04/apple-and-google-partner-on-covid-19-contact-tracing-technology/>

Contact Tracing Open Letter: <https://www.esat.kuleuven.be/cosic/sites/contact-tracing-joint-statement/>

5 Norway news item: <https://www.digi.no/artikler/smitteappen-ikke-trygg-nok-for-deler-av-forsvaret/490239>

# To understand, first let's look at BT-based tracing



# May 2020: are Apple and Google the good guys now?

- Apple/Google ship the Exposure Notification (GAEN) API as OS update
- UK, France, Norway, India justify centralized ID generation for epidemiology.
- Many in Europe go for on-device ID generation, with Apple/Google (+DP-3T)
  - Some say „how the tables have turned“, looking at France/UK arguing with Apple/Google to make iOS/Android arguably „less private“.
- 10 countries join up to propose a cross-border interoperability scheme.
- European Commission starts coordinating interoperability, focusing initially on decentralized solutions.
- Switzerland starts tests of the SwissCovid app based on GAEN, first in world.

Apple/Google API a „watershed moment“: <https://www.bbc.com/news/technology-52740131>

European interoperability proposal: <https://drive.google.com/file/d/1mGfE7rMKNmc51TG4ceE9PHEggN8rHOXk/edit>

Switzerland launch: <https://bgr.com/2020/05/27/coronavirus-contact-tracing-spread-exposure-apple-google-app-switzerland/>

# What next?

- Latvia launched Apturi Covid app in early June, based on GAEN.
- Italy launched Immuni app in June, based on GAEN.
- France launched StopCovid, not based on GAEN.
- UK NHS tested app on Isle of Wight, not based on GAEN.
- Norway's DPA ruled that the health authority has to stop app and delete data.
- Germany launched app based on GAEN on June 16th (yesterday 😊)
- Estonia plans launch of Hoia app in June-July 2020, based on DP-3T/GAEN.
- Belgium, Finland are reported to be building on GAEN/DP-3T.
- UK announced switch to GAEN a day after this talk 😊

Latvia: <https://www.usnews.com/news/technology/articles/2020-05-25/latvia-to-launch-google-apple-friendly-coronavirus-contact-tracing-app>

Italy: <https://www.zdnet.com/article/contact-tracing-italys-open-source-app-finally-lands-taking-the-google-apple-model/>

UK: <https://www.ft.com/content/5ba7dc0a-6fee-4f17-9894-e12dcf9ed286>

Norway: <https://www.bbc.co.uk/news/technology-53051783>

UK switch: <https://www.bbc.com/news/technology-53095336>

**And then we'll make it work across borders,  
around the world**

