

Big Data zur
COVID-19 Prävention –
sinnvoll oder problematisch?

Oskar J. Gstrein

o.j.gstrein@rug.nl | @oskargstrein



ccci

CUTTING CRIME
IMPACT

<https://www.cuttingcrimeimpact.eu>

Ways forward

Data tools for the covid-19 pandemic

Application	Purpose	Data source	Civil liberties risk	Where it's happening
Quarantine enforcement	Knowing people are where they should be	GPS data sent from bracelet or phone	Medium	Hong Kong, Taiwan, Singapore, China
Contact tracing	Knowing whose paths have crossed	Top down: Government takes data from platforms	High	Singapore, S. Korea
		Bottom up: Phones provide data to each other	Low	Worldwide
Flow modelling	Knowing how many people pass through places, and how quickly	Mobile-phone-tower data	Low	Google, US, probably more
Social-graph making	Knowing which people tend to meet repeatedly	Mobile-phone-tower data with machine learning	High	Nowhere known

Source: *The Economist*



Briefing

Mar 26th 2020 edition >

Creating the coronopticon

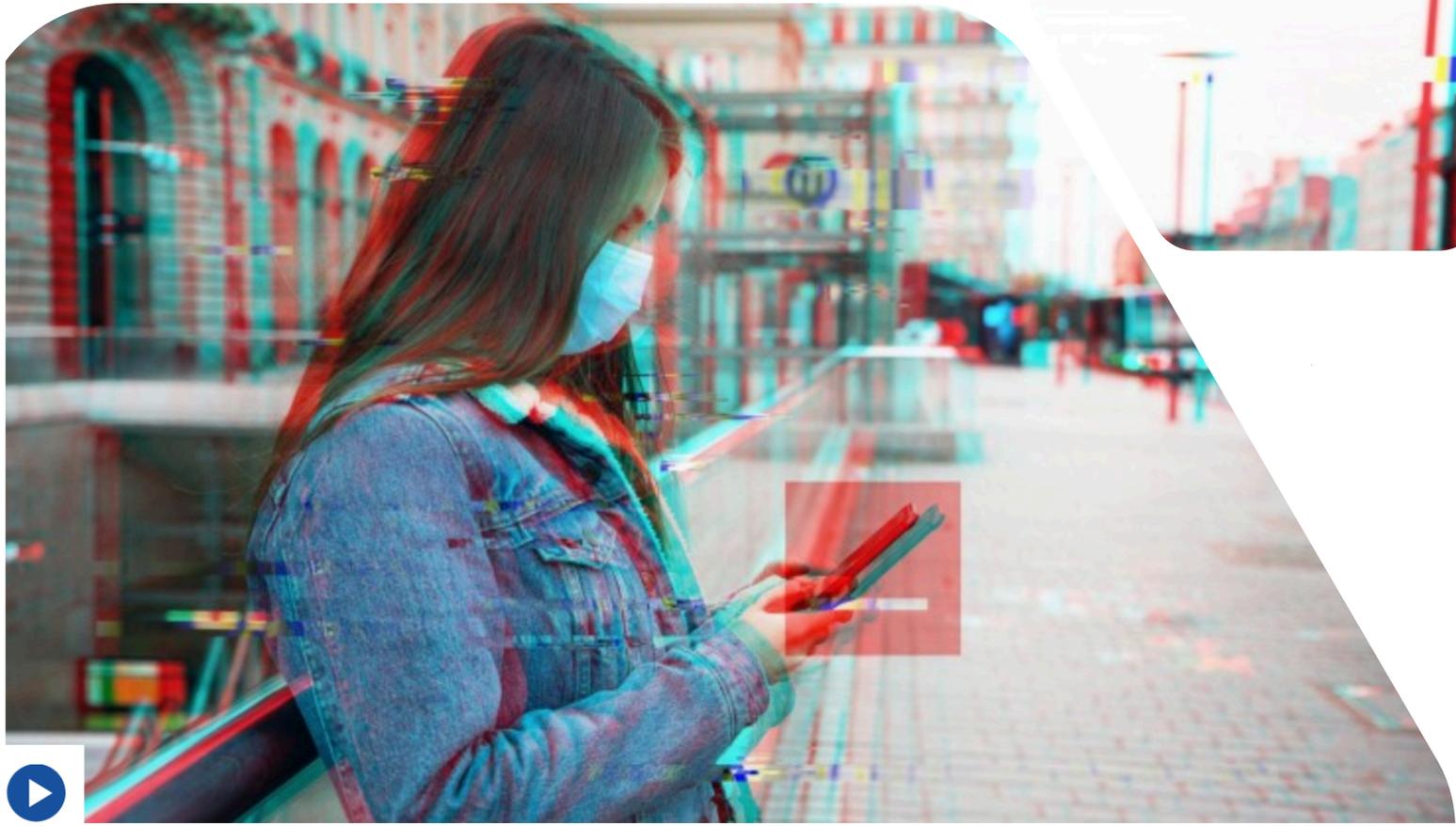
Countries are using apps and data networks to keep tabs on the

Die Vorläufer der Corona-Apps

Die Idee einer Tracing-App, die helfen soll Infektionsketten aufzuspüren, gibt es nicht erst seit der Covid-19-Pandemie. Seit fast 20 Jahren wird versucht, mit digitalen Tools Ausbreitungen von Krankheiten zu überwachen – bisher allerdings mit wenig Erfolg.

von Piotr Heller

Hören Sie unsere Beiträge
in der Dlf Audiothek 



[Link](#)

Bereits 2009 wollten Wissenschaftler aus Cambridge via App die Ausbreitung der Grippe untersuchen
(imago images / Valentin Belleville)

EDITORIAL

Open Access

Big data, privacy and COVID-19 – learning from humanitarian expertise in data protection



Andrej Zwitter* and Oskar J. Gstrein

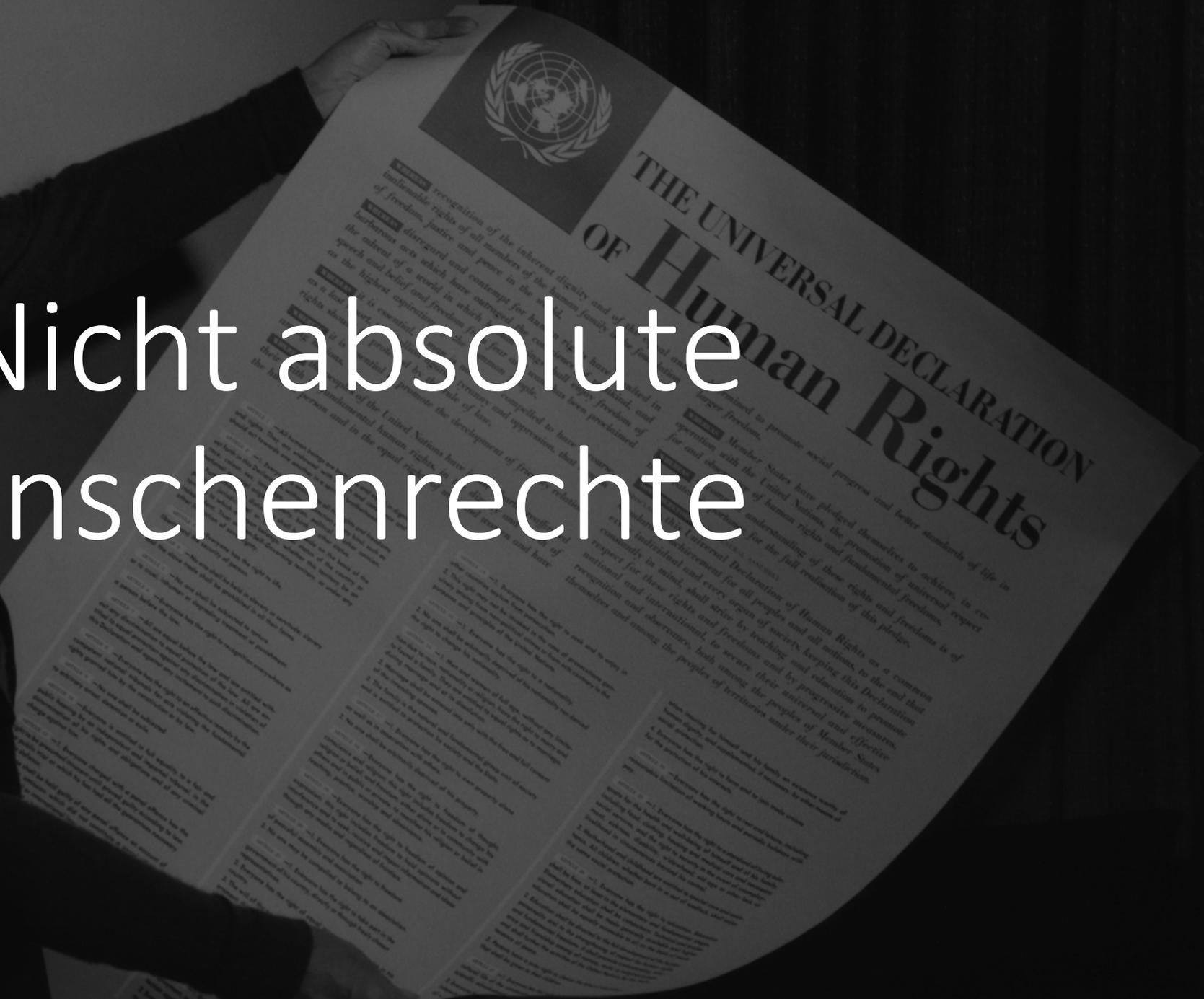
Abstract

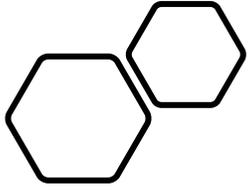
The COVID-19 pandemic leads governments around the world to resort to tracking technology and other data-driven tools in order to monitor and curb the spread of SARS-CoV-2. Such large-scale incursion into privacy and data protection is unthinkable during times of normalcy. However, in times of a pandemic the use of location data provided by telecom operators and/or technology companies becomes a viable option. Importantly, legal regulations hardly protect people's privacy against governmental and corporate misuse. Established privacy regimes are focused on individual consent, and most human rights treaties know derogations from privacy and data protection norms for states of emergency. This leaves little safeguards nor remedies to guarantee individual and collective autonomy. However, the challenge of responsible data use during a crisis is not novel. The humanitarian sector has more than a decade of experience to offer. International organisations and humanitarian actors have developed detailed guidelines on how to use data responsibly under extreme circumstances. This article briefly addresses the legal gap of data protection and privacy during this global crisis. Then it outlines the state of the art in humanitarian practice and academia on data protection and data responsibility during crisis.

[Link](#)



1 | Nicht absolute Menschenrechte

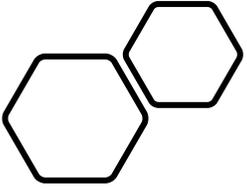




1 | Nicht absolute Menschenrechte

- Wie viele absolute Menschenrechte gibt es?
 - Absolut = Unter keinen Umständen einschränkbar (Krieg, öffentl. Notstand)
- Europarat (CoE - 47 MS)
 - [Leitfaden Artikel 15 EMRK](#)
 - Verbot der Folter
 - Keine Sklaverei
 - Recht auf Leben (Verbot der Todesstrafe Prot. Nr. 13)
 - Keine Strafe ohne Gesetz
 - 'Ne bis in idem'
 - **Rest sind nicht absolute Rechte**
- International
 - Sklaverei, Folter & 'ius cogens' (e.g. Völkermord, Piraterie, non-refoulement)
 - Vollzug?

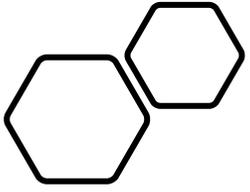




2 | Zweck- und Verhältnismäßigkeit

- Gesetzlicher Rahmen nur bedingt geeignet
 - Menschen- und Grundrechte abstrakt
 - Datenschutz gerichtet auf
 - Individuum
 - Verhältnis zwischen Staat und Bürger
- Was wollen wir erreichen?
- Wie?
 - Ethische Grundsätze
 - Historische Erfahrungen





3 | Risiken



Qatar: Contact tracing app security flaw exposed sensitive personal details of more than one million

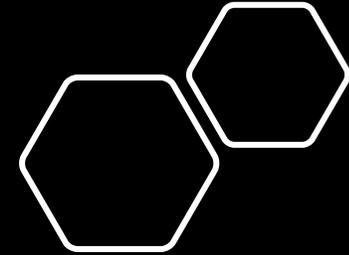
26 May 2020, 18:42 UTC

Serious security vulnerabilities in Qatar's mandatory contact tracing app, uncovered by Amnesty International, must act as a wake-up call for governments rolling-out COVID-19 apps to ensure privacy safeguards are central to the technology.

An investigation by Amnesty's [Security Lab](#) discovered the critical weakness in the configuration of Qatar's EHTERAZ contact tracing app. Now fixed, the vulnerability would have allowed cyber attackers to access highly sensitive personal information, including the name, national ID, health status and location data of more than one million users.

“ While the Qatari authorities were quick to fix this issue, it was a huge security weakness and a fundamental flaw in Qatar’s contact tracing app that malicious attackers could have easily exploited. ”

Claudio Guarnieri, Head of Amnesty International's Security Lab.



[Link](#)

ANDY GREENBERG

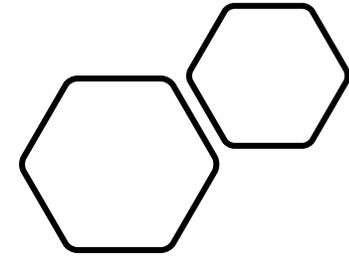
SECURITY 05.06.2020 11:00 AM

India's Covid-19 Contact Tracing App Could Leak Patient Locations

The system's use of GPS data could let hackers pinpoint who reports a positive diagnosis.



PHOTOGRAPH: NITIN KANOTRA/HINDUSTAN TIMES/GETTY IMAGES



[Link](#)

Kamer wil hoorzitting over corona-app: 'Dit is niet zomaar een hamerstuk'



Lek in RIVM-coronasite: gegevens van gebruikers makkelijk in te zien



Joost Schellevis

redacteur Tech ·  

De site Infectieradar, waar Nederlanders kunnen doorgeven of ze de afgelopen week coronaklachten hebben gehad, bevatte een ernstig datalek. Iedereen met enige technische vaardigheid kon tot vanmorgen zien wat andere deelnemers antwoordden op persoonlijke en medische vragen.

Dat blijkt uit onderzoek van de NOS in samenwerking met beveiligingsonderzoeker Tom Wolters. "Het was heel eenvoudig om data van andere mensen uit te lezen", aldus Wolters.

[Link](#)

4 | Herausforderungen

17:00



Deutschfunk Nova

17:00

27. April 2020

Die Daten der Tracing-App, mit der Kontakte von Covid19-Infizierten nachverfolgt werden können, sollen in Deutschland laut Bundesregierung ausschließlich dezentral gespeichert werden. Das ist ein radikaler Kurswechsel. Wann die App zum Download bereitsteht, ist aber immer noch unklar.

In Australien gibt es sie schon, die Corona-Tracing-App. Der **Gesundheitsminister persönlich hat sie am Sonntag (26.04.2020) vorgestellt**. In Deutschland ist dagegen immer noch kein Termin für die Veröffentlichung der App bekannt gegeben worden. Immerhin steht aber jetzt scheinbar fest, wie die Daten gespeichert werden sollen. Darüber war in den vergangenen Tagen gestritten worden.



Singapore plans wearable virus-tracing device for all

John Geddie, Aradhana Aravindan

3 MIN READ



SINGAPORE (Reuters) - Singapore plans to give a wearable device that will identify people who had interacted with carriers of coronavirus to each of its 5.7 million residents, in what could become one of the most comprehensive contact-tracing efforts globally.





Nearly 40% of Icelanders are using a covid app—and it hasn't helped much

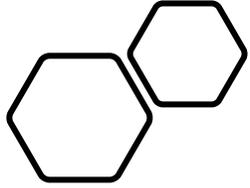
The country has the highest penetration of any automated contact tracing app in the world, but one senior figure says it “wasn't a game changer.”

by **Bobbie Johnson**

May 11, 2020

Two vertical yellow bars of varying heights are positioned to the left of the page number.

4 | Herausforderungen



Big Data zur COVID-19 Prävention – sinnvoll oder problematisch?

Oskar J. Gstrein

o.j.gstrein@rug.nl | @oskargstrein