Corona open brieven:

Nederland

http://allai.nl/wp-content/uploads/2020/04/Online-versie-Brief-Minister-President-Rutte-Ministers-De-Jonge-Van-Rijn-Grapperhaus-de-heer-Sijbesma-inzake-COVID-19-tracking-entracing-en-gezondheidsapps.pdf

Manifest nederland <u>https://drive.google.com/file/d/1CjDgo3mjcxvR_mFZyPY2Ga-P022lsqYk/view</u>

België

https://hiw.kuleuven.be/wgpt/coronanl

Brits onderzoek 60 %

https://045.medsci.ox.ac.uk/mobile-app

http://www.ox.ac.uk/news/2020-04-02-controlling-coronavirus-using-mobile-app-trace-closeproximity-contacts

https://science.sciencemag.org/content/early/2020/04/09/science.abb6936

Swedish simulation corona app

https://simassocc.org/

https://simassocc.org/assocc-agent-based-social-simulation-of-the-coronavirus-crisis/thesimulation/

Open Letters Belgium and the Netherlands

The open letters to the government of Belgium and the Netherlands, have a general consensus. They are very similar in the points they bring up.

The first focus point is Human Rights. The rights that they quote are privacy, **zelfbeschikking, en het recht tot vereniging**. Privacy is one of the main and most obvious issues. The letter from the Netherlands points out that it can lead to psychological effects, since people know that they are being tracked, and will change their behavior accordingly. Furthermore, both countries specify the need for data protection. Will the government collect all the data? How long will they keep it?

Another point would be the voluntary use of the app. For the app to work, it will need the participation of a lot of people. Can they obligate the app? If it is obligated, everyone has to leave the house with a (fully) charged phone to use the app. And what if people don't have a phone?

One of the concerns both countries mention, is the **techno-solutisme** focus of the governments. The writers of the letters urge to look for other solutions that aren't as drastic as an app. They believe there are other, non-techno dependent solutions that could help us in this crisis.

Other main values that mainly the Netherlands wrote is that for this app to be implemented there needs to be a specific goal for the app, the effectivity needs to be high and the reliability as well. If these values aren't met, a sense of false security will be raised and this can have more dangerous and drastic effects regarding the corona crisis.

The last values I will raise from these letters are transparency and temporality. It is important that both governments are aware that this is a temporary thing and it does not need to set a precedent for future crisis's. The transparency regarding these apps has been low in both countries.

http://allai.nl/wp-content/uploads/2020/04/Online-versie-Brief-Minister-President-Rutte-Ministers-De-Jonge-Van-Rijn-Grapperhaus-de-heer-Sijbesma-inzake-COVID-19-tracking-entracing-en-gezondheidsapps.pdf

https://hiw.kuleuven.be/wgpt/coronanl

Oxford part 1

i) isolation of symptomatic individuals, and (ii) tracing the contacts of symptomatic cases and quarantining them (see paper <u>https://www.pnas.org/content/pnas/101/16/6146.full.pdf</u>)

Professor Cristophe Fraser explains that we need a mobile contact tracing app to urgently support health services to control coronavirus transmission, target interventions and keep people safe.

The analysis from the paper suggests that about half of transmissions occur in the early phase of the infection, before you show any symptoms of infection. The mathematical models also highlight that traditional public health contact tracing approaches provide incomplete data and cannot keep up with the pace of this pandemic

Dr Bonsall explains: 'If the mobile app is widely adopted in any country, and combined with other critical interventions such as physical distancing and widespread testing, our models suggest the epidemic could be brought under control. This app is a tool for each and every person affected to contribute towards protecting their health services, supporting vulnerable people and simultaneously gradually releasing communities out of extended quarantine.'

http://www.ox.ac.uk/news/2020-04-02-controlling-coronavirus-using-mobile-app-trace-closeproximity-contacts https://045.medsci.ox.ac.uk/mobile-app

Oxford study part 2

Dr David Bonsall, researcher at Oxford's Nuffield Department of Medicine and clinician at Oxford's John Radcliffe Hospital, says, 'Our findings confirm that not everybody has to use the mobile app for it to work. If with the help of the app the majority of individuals self-isolate on showing symptoms, and the majority of their contacts can be traced, we stand a chance of stopping the epidemic. To work, this approach needs to be integrated into a national programme, not taken on by independent app developers. If we can securely deploy this technology, the more people that opt-in, the faster the epidemic will stop, and the more lives can be saved.'

https://science.sciencemag.org/content/early/2020/04/09/science.abb6936

<u>https://github.com/BDI-pathogens/OpenABM-Covid19</u> open source individual-based epidemic simulation to enable epidemiologists, app designers and policy makers to compare

a variety of algorithms for digital contact tracing, with different assumptions about the epidemic, technology, demographics, and user engagement.

THE PAPER THAT DESCRIBES IT ALL WITH METHODS

https://github.com/BDI-pathogens/covid-19 instant tracing/blob/master/Report%20-%20Effective%20Configurations%20of%20a%20Digital%20Contact%20Tracing%20App.pdf

With the assumptions that overall 70% of the population uses smartphones (people aged over 70 have low smartphone use (and are in shield lockdown) and the assumption that no app use is there for children aged under 10), they found that the epidemic can be suppressed with 80% of all smartphone users using the app, or 56% of the population overall

Delft and Umea University

This team created a simulation providing a tool to experiment and evaluate possible interventions and their combined effects, in a simulated controlled world. (https://simassocc.org/assocc-agent-based-social-simulation-of-the-coronavirus-crisis/the-simulation/)

They created a NetLogo simulation consisting of a number of agents that exist in a grid. Source code and disease and contagion model are available to the public