100 Belgian academics warn government: urgent debate needed on the corona app

China, Israel, Russia, South Korea, Singapore and Taiwan already started using a specific type of technology in the fight against the coronavirus: the so-called "corona app". In the meantime, this idea has also reached our region. Many of our neighboring countries are already making plans to create such an app and the European Commission has written a recommendation about it. In our country, numerous companies have submitted proposals for an app to Minister Philippe De Backer. Similarly, virologist Marc Van Ranst (member of the governmental expert group on the virus) recently mentioned that Belgium is not far removed from implementing such a technology.

How does the app work?

The idea is relatively simple. You download the app on your smartphone and subsequently a network is formed: your device is connected with other devices in your neighborhood who also installed the app. When you have a COVID-19 infection, your device can send a notification to the other devices; if someone from your network gets infected, you can receive a notification in turn. Note that different variants of the apps exist: some work with artificial intelligence, others don't; some function through Bluetooth signals, others through GPS data.

At first sight, such a new app seems an appealing tool to drive back the virus and smoothen the transition to a post-lockdown era. It could provide a clear overview of the number of infected persons, resulting in a better capacity to trace infections and quarantine those infected. Nonetheless, the app is facing quite some resistance, especially in Europe. In the Netherlands, for instance, a number of colleagues have written an [open letter](#) to the Dutch government expressing their concerns. In the wake of this initiative, we hereby appeal to the competent Belgian authorities: be careful with the corona app! Such an app faces not only legal, but also ethical, social, political and technical problems (both in the case of voluntary and mandatory implementation).

Can the app be rendered mandatory?

First of all, there is no proof that such an app is effective. The danger of false positives is real. The app can, for instance, detect your proximity to an infected person, although in reality there was a wall between you. The opposite is also possible: you can be infected while the app fails to detect this, leading to the erroneous belief that you will not infect others.

For the app to work effectively, not only must *all* population groups be well represented, but first and foremost there must be a sufficiently high amount of users. However, not everyone has a smartphone. And if the effectiveness of the app is based on a voluntary choice, it is unlikely that enough people will use the technology. An alternative is to make the app mandatory. But can such a proposal ever be taken seriously in a free and open modern society? Being *forced* to use an app is ethically and legally highly problematic.

What about our basic rights?

Previously, a [survey](#) polled the population about the app: many citizens are concerned about their privacy. We share that concern, if only because the past few weeks have shown that several proposals do not seem to be legally compliant. Moreover, controversy exists. While developers and companies believe that our rights are not endangered, experts wonder whether such apps can ever comply with privacy rules.

The legal issues are not limited to privacy. It is one thing that, in times of crisis, a democratic government restricts certain fundamental rights, such as the right to self-determination or the freedom of association. It is however something else entirely when these restrictions stem from an

app, especially if there is a risk that the app will not function properly. For instance, is it legitimate that you would not be allowed to walk or cycle with your family members based on the app? And suppose the app restricts your fundamental rights, while afterwards it turns out that you were not infected. Who is responsible for this? Who can you sue in case of such a violation? What would the procedure be?

Transparency – both of the app itself and of the government's actions – is also a problem. It is currently insufficiently clear, for example, what Minister De Backer's "Data Against Corona" Task Force is working on, which renders public control – as well as political accountability – more difficult.

Technology is socio-political

The app can also have social effects. Its use can, for instance, perpetuate existing forms of discrimination. Thus there may be a risk that employers will be guided by the app in their decision on whether or not to give you a job, even if this would have nothing to do with the relevant capabilities. More generally, the app also risks undermining confidence in our fellow human beings, by for instance propelling us to avoid people as long as we are not sure which signal their smartphone is sending out.

Finally, political questions are also at stake. Will the data from our phones be collected by the government or not? If so, how long will the data be retained? Two weeks, three months, a year? If we choose to build an infrastructure that focuses on the use of such apps, we must also raise the question about that infrastructure's future. Are we not at risk that the same app will suddenly be used for other and future social problems? Suppose a crime occurs that is unrelated to the corona epidemic. Will people not be inclined to track down the phones of those who were in the vicinity of the crime through the corona app?

Moreover, there is also a risk that the government will pursue its policies on the basis of (possibly incomplete and unrepresentative) data from the app, thereby perpetuating an existing problematic tendency: the belief that data can unambiguously steer political choices.

Don't just blindly focus on technology

These problems do not only emphasize the need for a multidisciplinary team when developing and implementing such an app, but also prompt the following plea to our politicians: let us have a thorough parliamentary debate on the corona app, informed by a diverse set of voices. Before any such app can be introduced, the fundamental question arises as to whether it is at all necessary. Are there really no less drastic alternatives available?

If not, one should keep in mind that the effectiveness of the corona app does not depend solely on the proper functioning of the technology. Such an app must always be part of a larger set of measures that are in any case necessary to combat the pandemic. First of all, the test capacity must be significantly increased. If not enough people know whether or not they are infected with COVID-19, the app is useless. Secondly, there is the problem of individual responsibility. An app will only be as effective as its users. Those who barbecued with friends over the Easter weekend will be the same as those who will happily bypass the app.

Whether the app works or not (Singapore is already starting to abandon the idea after disappointing results), it is more important to realize that many will not want to use it, for completely legitimate reasons. And that those who stand to benefit from an effective app the most – ranging from people with disabilities to the elderly and the underprivileged – are often exactly the ones who will not have access to it.

Finally, of course, political responsibility counts as well. Certainly, it is good that politicians think about the sense and nonsense of new technologies to tackle the pandemic. But this does not alter the fact that one must continue to consider issues and solutions that go beyond the app and that are also much more fundamental: How can we organize solidarity within the European Union? How can we transcend ideological and party lines to develop effective policies? How can we ensure that affected groups receive appropriate compensation and recognition?

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