Modeling the Crisis. The Role of AI and Statistical Models in the COVID-19 Pandemic

Pre-emption as Extractivism: Contact Tracing in the Netherlands

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Background

Infectious diseases pose challenges to a population's health and to economic productivity. It is vital for state actors to engage in pre-emptive measures and disease management to sustain productivity. Digital epidemiology efforts, including contact tracing databases and apps, can be understood as one such measure.

Breakdowns

How are we to make sense of these flaws and breakdowns, beyond the immediate rights infringements? Infrastructure becomes visible on breakdown. In the event of a breakdown, one may thus analyze the dynamics that are laid bare.

Broadly speaking, capital requires that infrastructure is kept operational. How public and private actors pre-empt and manage breakdowns of infrastructure is indicative of their operations. By paying close attention to breakdowns of computational infrastructure used in epidemiology, we can analyze which actors operate on the technical materialities and political economic interests at play.

Operations

In the case of flawed contact tracing infrastructure in the Netherlands, we can distinguish three operations by disparate actors.

1. **Data leaks:** insufficiently protected personal contact tracing data were stolen from state-run databases and sold on the Darkweb by private individuals

2. **Provision of data protection:** a privacy-preserving contact tracing product was implemented, as a collaboration of Apple, Google and state actors

3. **Provision of health services:** contact tracing apps are part of a move of corporations such as Apple into digital epidemiology, and the health sector.

Conclusion

The case of the failing testing and tracing infrastructure in the Netherlands illustrates that corporations such as Apple and Google are moving towards operations that include the provision of privacy. While big tech corporations are moving into the health sector, they also tone down their data mining activities. Their move into health requires a different stance towards privacy: it becomes part of the product. The work of defining the boundaries of the private self is and will be increasingly dominated by corporations, because only well equipped actors have the capacity to respond to breakdowns of the public-private boundaries, materialized in the form of computational infrastructure.

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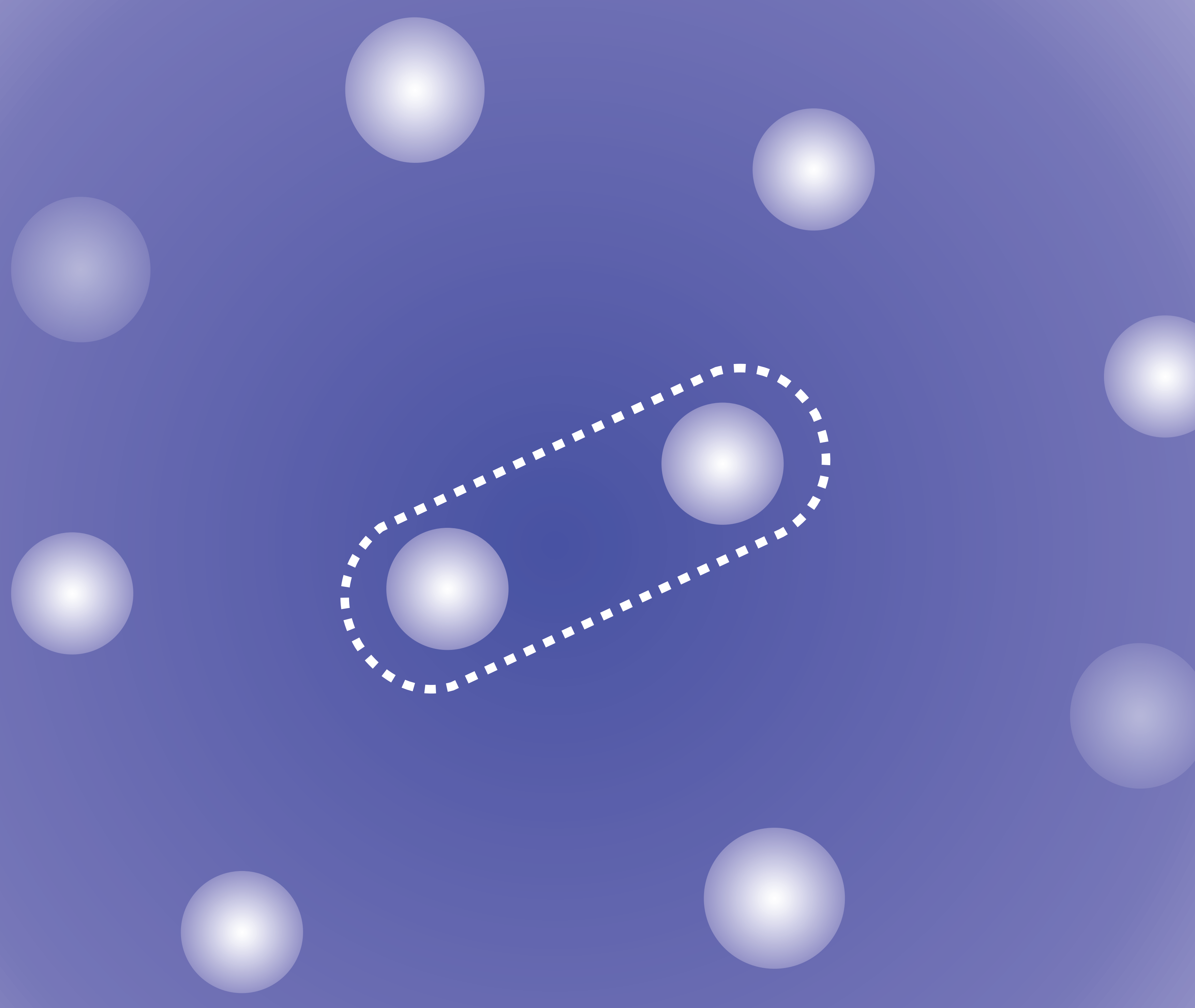
Case

In 2021, the Digital Covid-19 contact tracing and testing infrastructure in the Netherlands was flawed at all stages. Outdated contact tracing database systems were scaled up without apt security. Personal data was leaked and sold on the Darkweb. And negative test certificates could be generated by users in a web browser and loaded onto the official vaccine passport app. The Dutch government did implement a privacy-preserving contact tracing system using the Google-Apple Exposure Notification framework. The app is promoted with a 'privacy by design' approach and has been developed under guidance from a committee ranging from epidemiologists to legal practitioners and cybersecurity experts.

However, most contact tracing efforts never involve the app. Contact tracing is still being carried out overwhelmingly by humans who call potentially infected persons up by phone. For example, in week 34 of 2021, less than 2% of positive tests were reported following a notification by the contact tracing app during that week. The government has since concluded that the effect of the app was not significant.

What is more, the privacy promise of the app was also nullified by the flawed infrastructure it was embedded in. After an exposure notification by the app, citizens were encouraged to get a Covid-19 test. When doing so, their unique citizen service number, which is used across all domains of public services, was entered into the outdated contact tracing systems mentioned above. The 'privacy by design' approach ended there.



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