Let's talk contact tracing

How government can support social licence for contact tracing

Why do we need to talk about contact tracing?

Contact tracing is a vital part of New Zealand's [strategy for COVID-19](),[1] and will become even more important after the initial phase of lockdown level 4.[2] As people recognise how important it is likely to be, we have seen a developing online conversation about whether Internet technologies can help to trace cases of COVID-19, with tech enthusiasts proposing clever uses of apps or location data, privacy advocates raising concerns about mass surveillance, and public health workers busy with the work of finding and helping people who are unwell.

Like other policy issues touching on the Internet, this one combines technical details, social concerns, and pressing practical issues. Based on our experience, the best path forward is a conversation which reflects all of the key perspectives: public health experts, technologists, and civil society voices who can speak for affected communities, which in New Zealand includes Māori. Being inclusive also helps to ensure measures are effective, giving people a clear story about how they help, and how they fit into our shared efforts.

Government needs to move fast, so we need to have this conversation about technology and contact tracing quickly. InternetNZ is offering to help make this happen in the next week, through an online conversation that people can join during lockdown level 4. To hear how we'll do that, follow us on social media.

What problems can tracing technology help with?

Controlling COVID-19 requires general actions across the whole of society, like staying home and washing hands often, and targeted actions which help people and communities who are directly affected. In both cases, good decisions require good information about the where, when, and who of COVID-19 infections. The developing online conversation has focused on how Internet technologies like location data and smartphone apps can support these actions by informing decisions at the national, regional, local, or individual level.

Contact tracing means working backwards from a known or suspected case of COVID-19, to find contacts with people and learn who else may be infected.[3] This helps target steps like testing and self-isolation to control outbreaks.

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[1] John Ombler, ["Written Briefing to the Epidemic Response Committee"]() (30 March 2020).
[2] RNZ, ["Dr Ayesha Verrall calls for urgent increase in contact tracing"]() (24 March 2020).
[3] Ministry of Health ["Contact tracing for COVID-19"]() (7 April 2020).

What options are people talking about?

Manual contact tracing involves health workers talking to people to map their movements and identify people they have been in close contact with. This is best-practice, and will remain a part of any contact tracing programme.

Proposals for technology to help with contact tracing fall into two main types based on different types of data as set out below.

Location data is collected through smartphones and other devices, based on signals from cellphone towers, GPS satellites, and wifi networks. This allows centralised tracking of people's location and movements over time, which may be easy to implement but raises substantial privacy concerns.

Nearby device data can be collected by smartphone apps, using Bluetooth radio signals within a few metres to record details of nearby devices. Recording nearby devices may help to identify contacts if an app-user is found to have COVID-19. This requires people to use an app, but can avoid centralised location tracking.

Why social licence helps effective contact tracing

New Zealand's response to COVID-19 has focused on taking effective steps, while helping each other and working together. This approach recognises that to be effective, any measures adopted need social licence, meaning that people are confident to offer their trust, acceptance, and cooperation.[4] The need for social licence is particularly high for technology interventions, which operate in a way that is by default opaque to most people, and which can pose particular risks to the privacy and security of individuals or communities. Even if quick action is required, the only path to social licence is engaging with affected communities.

To choose any particular technology solution, we need to know it will be effective in the New Zealand context, supporting faster or more accurate contact tracing, based on credible information about its likely real-world performance at scale. But even the best, most effective solution will not work well if it lacks social licence.

What should happen next?

We are offering to provide a forum for the social licence conversation. We can help by gathering a group of people from public health, technology, and civil society to discuss requirements for effective contact tracing, and raise risks and opportunities. This discussion might cover impacts on privacy and human rights, concerns for vulnerable people, and considerations to respect Māori as Treaty partners. The key thing is that this conversation happens soon, and draws on a range of perspectives which reflect the concerns of different communities.

InternetNZ is only one voice, but we want to help make this conversation possible, and to do it quickly. We are offering to host the conversation next week. You can reach us on policy@internetnz.net.nz to help with that.

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[4] Data Futures Partnership "A Path To Social Licence" (2017), via the Internet Archive

Things to think about in assessing technical options for contact tracing

The conversation on contact tracing has already identified some of the key issues. Blog posts by researchers [Andrew Chen](#) and [Tom Barraclough](#) put forward some problems and questions in their respective blog posts.[5,6] Here are our thoughts on the issues that need to be worked through when assessing potential technical solutions:

1. Is there enough information about a particular technical solution to assess its likely effectiveness in New Zealand?

2. Will it be practical in the New Zealand context?

   a. Can it be adopted soon enough, and at broad enough scale?

   b. Will it be reliable enough for health workers and for everyone else?

   c. Will it complement manual contact tracing?

3. How well does a proposed approach address technical risks and concerns?

   a. Does it minimise the collection and use of personal information?

   b. Are there independent assessments of its reliability and security?

   c. Is it open to independent assessments by technical communities in New Zealand, including security researchers?

4. How well does a proposed approach uphold social licence?

   a. Can we quickly develop human rights and privacy impact statements to address benefits and concerns with a particular approach?

   b. Can we develop credible mechanisms to address concerns and support transparency, such as independent oversight and public reporting requirements?

   c. Can we develop mechanisms to safely end the use of personal information and dispose of collected data when no longer needed?

   d. Can we find a way to consider the interests of Māori as Treaty partners, including consideration of Māori data sovereignty?

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[5] Dr Andrew Chen, ["Hard decisions in digital contact tracing"](#) (6 April 2020).
[6] Tom Barraclough, ["How to develop digital contact tracing for New Zealand"](#) (6 April 2020).