
Contact Tracing and Information Alerts: Using Digital Surveillance for Good

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This view was prepared by Rachel Gong, a researcher from Khazanah Research Institute (KRI). The author is grateful for valuable comments from Christopher Choong and Nazihah Muhamad Noor.

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Introduction

As at 22 March, [Malaysia has identified 1,306 cases of Covid-19¹](#), 820 of which are related to the tabligh cluster. Six out of the ten deaths thus far reported stem from this cluster. It needs no introduction, but the tabligh cluster comprises over ten thousand attendees of the Tabligh Jama'at gathering in Sri Petaling from 27 February to 1

¹ (Kini News Lab 2020)

March. Because of [the informal nature of the gathering](#)², attendees were presumably not required to register for the event. The Ministry of Health has been appealing for attendees to voluntarily identify themselves so that they can be tested and their contacts can be traced. But what if there were another means of identifying them, one not reliant on individual accountability but on the structure of digital technologies already in place?

Digital Contact Tracing and Information Alerts

China, thus far the only country to have reduced [domestic cases of Covid-19 to zero](#)³ according to official figures, used location tracking and artificial intelligence to “[estimate the probability that a given neighborhood or even an individual has exposure to Covid-19](#)”⁴ by matching the location of smartphones to known locations of infected individuals or groups⁴. Trials are currently underway for [a national health monitoring or surveillance system](#)⁵ that requires citizens going about their daily lives to show a QR code indicating whether they are at risk of contracting Covid-19 and need to be quarantined. Users register with the system using their national identification number and phone number, then answer questions regarding their travel history and health status. Behind-the-scenes big data analysis and algorithms then assign them a QR code that determines whether they are free to move around or if they should quarantine themselves. In order to enter apartment complexes or use public transit and public facilities, they must then produce this QR code to be scanned. While some people prefer this system to a blanket lockdown, others find that they have been issued quarantine codes for no apparent reason and have no means of appeal.

As with all digital technologies, there is potential for misuse and abuse. In addition to black box algorithms, [human rights researchers are concerned](#)⁶ about mission creep, that what is being used appropriately for public health good now could be co-opted into more insidious and permanent surveillance in the future. Some would say [China is already using these surveillance methods](#)⁷ to control its minority communities.

The current priority should rightly be identifying potential Covid-19 patients and virus carriers. China is not the only country making use of digital tracking technologies. Singapore’s Government Technology Agency and Ministry of Health are developing [a smartphone app called TraceTogether](#). It will help with contact tracing by identifying people “who have been in close proximity - within 2m for at least 30 minutes - to coronavirus patients using wireless Bluetooth technology”⁸. The government correctly requires that users give explicit consent before their mobile number and data can be used for contact tracing. However, once contacts have been identified, they will be asked to share their data logs. Refusal to do so is a prosecutable offense under the Infectious Diseases Act.

² (Noor 2020)

³ (Tham and Sun 2020)

⁴ (Goldman 2020)

⁵ (Ye 2020)

⁶ (Kuo 2020)

⁷ (Buckley and Mozur 2019)

⁸ (Baharudin and Wong 2020)

South Korea's government takes transparency one step further by sending a text message alert to mobile phone numbers in the vicinity of identified cases. The alert includes patient information such as the patient's age, gender, and travel history. This not only allows those exposed to take necessary action such as self-isolation but also informs local authorities what areas may need sanitization. There are [many things Malaysia can learn from South Korea's management of the Covid-19 outbreak⁹](#), including its transparency in disseminating information to the public.

Of course, there are privacy concerns that must be addressed, both with the collection of such data and its distribution. South Korea does not only track phone location; it also uses [data from medical records, surveillance cameras, and credit card transactions¹⁰](#) to build a detailed data trail for each patient. Releasing these data trails could prevent community spread but such levels of detail could also lead to [patients being identified¹¹](#). This could counter-productively result in people with symptoms not identifying themselves, especially those who might be concerned about their legal standing e.g. illegal migrants or suspects wanted for crimes.

Conclusion

What does this mean for Malaysia? Latest reports estimate that [10,500 tabligh attendees have been tested for Covid-19¹²](#) but the total number of attendees at risk remains a matter of contention. It should not be assumed that every attendee had a mobile phone on them for the duration of the gathering. It is unlikely that the Sri Petaling mosque had surveillance cameras recording the event. Even if it did, it is unclear who would be responsible for analyzing all that video data. Tracing all the remaining tabligh attendees using digital technologies might be infeasible at this point, but if we have those digital technologies available, shouldn't we be considering such measures in the interest of public health?

At the very least, one of the lessons to be learned from our efforts to contain this pandemic should be this: Malaysia needs to think long and hard – and fast – about its digital technology policies. We need to identify and implement ways in which digital technologies can be used for the public good even if that means some loss of private freedoms. We need to weigh carefully the loss of those freedoms against the public – not market or political – gains of the adoption of digital technologies. So it is that we need to decide on regulations pertaining to digital technologies that prevent governments and corporations from taking advantage of individuals and vulnerable communities.

⁹ (Muhammad Noor and Wan Muda 2020)

¹⁰ (COVID-19 National Emergency Response Center, Epidemiology & Case Management Team, Korea Centers for Disease Control & Prevention 2020)

¹¹ (Zastrow 2020)

¹² (Malaysiakini 2020)

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