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Coping with Covid-19:
Digital Policy Responses

VIEWS 30/20 | 15 April 2020 | Rachel Gong

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This view was prepared by Rachel Gong, a researcher from the Khazanah Research Institute (KRI). The author is grateful for valuable comments from Ahmad Ashraf Ahmad Shaharudin, Claire Lim Yu Li, Muhammad Nazhan Kamaruzuki, and Nazihah Muhamad Noor .

Author's email address:
rachel.gong@krinstitute.org

The Movement Control Order (MCO) has shown that stable high-speed internet access is an essential service, not a luxury. Policymakers should prioritize it accordingly, and value it as a public utility.

Digital platforms such as Grab will likely play a big part in standardizing processes and getting multiple socio-economic sectors digitalised. Public-private partnerships with existing platforms can speed up implementation rather than the government having to develop platforms from scratch.

Policymakers should be wary of overreliance on private platforms and corporations who may gain a monopolistic foothold and thus power over the structure of the economy and society that will be difficult to rein in later. Neither should all the responsibility and decision-making rest with the government. Large government bureaucracies typically have difficulty spotting potential innovations and new applications and are slow to adapt to changes.

Digitalisation and big data analytics are the next steps for Malaysia's digital transformation. There need to be regulations that limit the collection, storage, and usage of data. Independent oversight is required.

Public interest technologists are subject matter experts from a variety of backgrounds, e.g. technology, law, policy, media, and civil society, who are interested in the ways digital technologies are used for the public good. They can play an important role by providing diverse perspectives on how the use of digital technologies can impact different sectors of society. A digital action council with representatives from multiple sectors might be warranted to provide input on digital policy.

This article highlights five areas where digital policies can be further developed and refined to help Malaysia adjust to its new normal. These five areas are:

1. Internet infrastructure and the digital divide
2. The digital economy and digital platforms
3. Digital surveillance and contact tracing
4. Transparency, misinformation, and open data
5. Cybersecurity and digital safety

Internet infrastructure and the digital divide

The RM400 million committed by telcos as part of the People-Centric Economic Stimulus Package (PRIHATIN) announced on 27 March 2020 to support and improve network coverage and capacity indicates a commitment to strong internet infrastructure. Given its original Budget 2020 allocation of RM21.6 billion, the government's allocation of RM3 billion from the Universal Service Provision (USP) fund to the National Fiberisation and Connectivity Plan (NFCP) will likely need to be increased to ensure that all populated areas have access to stable, high-speed internet, with considerations of affordability to follow.

Efficient monitoring, maintenance and upgrades of internet infrastructure must continue to be a priority, as demonstrated by TM's prompt fixing of the damage to its Asia Pacific Cable Network 2 (APCN2) submarine cable.

According to the MCMC's latest available statistics, broadband penetration in Malaysia is 129%. This means that, on average, for every 100 people, there exist approximately 129 registered broadband subscriptions, most of them in the form of SIM cards, i.e. mobile broadband subscriptions. However, while the mobile penetration rate is at 121%, the fixed broadband penetration rate is only 8%. This matters because in terms of quality of service, Malaysia's average fixed broadband download speed is 78.82Mbps (ranked 37th globally) whereas its average mobile broadband download speed is 22.52Mbps (ranked 84th globally).

Many end-user digital activities would be better undertaken on fixed broadband and non-mobile machines (desktop or laptop) in the home, which not only provide better quality of service but also remove data restrictions for individual household members. Caveat: it is possible that increased numbers of fixed broadband subscriptions could lead to congestion and thus lower quality of service.

Online education, for example, yields better outcomes over fixed access and non-mobile devices. If necessary, these devices need to be procured for students, especially B20 and/or rural residents, so as not to exacerbate education inequality that could then affect the job market and thus income inequality. Research shows that US students without fixed broadband at home or a non-mobile device perform more poorly than students with broadband access. A 2018 JPN report on Program Perumahan Rakyat (PPR) well-being indicates that 82.5% of PPRs nationwide lack internet facilities at home.

Digital economy and digital platforms

Where appropriate, small and medium-sized enterprises (SMEs), especially micro-SMEs at the local community level, should be onboarded to e-commerce platforms. This is important so that the core of the Malaysian economy can find alternative means of operation. According to DOSM's 2018 report on use of ICT and e-commerce by establishment, in 2017, only 37.8% of enterprises nationwide had a web presence, which includes their own website, a website hosted by someone else, or a social media page. A digital divide exists at the state level, with a high in Kuala Lumpur where 56% of establishments have a web presence compared to a low in Kedah where 20% of establishments have a web presence.

Digital platforms could consider not collecting fees for a fixed period of time, especially from micro-SMEs and sellers in the informal sector, and provide training and support, or an enhanced version of Lazada's Pakej Kedai Pintar programme.

Digital surveillance and contact tracing

Digital contact tracing will be incorporated into most smartphones as Apple and Google collaborate on a Bluetooth API that can be easily used by contact tracing apps. This API will complement contact tracing procedures; it does not replace them.

Before mass adoption, all technological tools should be tested on a variety of devices and by assuming end users with different levels of digital literacy in order to strengthen effectiveness and security. Developer testing alone is insufficient. Any upgrades or patches will have to be proactively pushed to end users.

The benefits of digital surveillance for patient monitoring and contact tracing must be weighed against the mission creep of long-term political surveillance. What starts out as contact tracing for public health reasons could, if left unchecked, later become tracking and monitoring of at-risk groups, such as migrant workers. But given the immediate public health concern, many countries are exploring digital surveillance.

Quarantine enforcement can be done via electronic monitoring with a QR bracelet (e.g. in Sarawak), which is basically the public health equivalent of an ankle monitor. Limits and regulations are key so that this does not turn into oppressive surveillance, especially for vulnerable populations.

In the interests of privacy, personally identifying information should stay on the individual device as much as possible. The DP-3T protocol that will be used by Apple and Google and the BlueTrace Protocol used for Singapore's TraceTogether app are examples of how this can be

done. The Safe Paths project from the Massachusetts Institute of Technology (MIT) is another example.

Contact tracing can be conducted to a degree as an ongoing measure against Covid19. From a technical perspective, the mySejahtera app can be tweaked to incorporate Bluetooth-enabled contact tracing if it does not already have this function. From a user perspective, more digital literacy is needed for people to understand the pros and cons of such an app and to trust the people behind the app not to use it for nefarious purposes. No matter how good the app is, it is not effective if installed by less than 60% of the population.

It bears repeating that independent oversight and enforceable regulations are a must for developing trust among the public. A high level of trust is needed for these measures to be adopted widely enough to contain the virus effectively.

Transparency, misinformation, and open data

The government must continue to be proactive and transparent about communicating information to the public. Social media channels are helpful for the digitally savvy, but text messages may be more effective for people with less digital access and skill and are likely to reach a larger audience as they can be pushed out to all mobile numbers.

Transparency and an independent media will also build trust in the government, which can help fight misinformation, such as stories of fake cures and alarmist conspiracy theories about the virus's spread.

Government websites should be properly updated and maintained to provide accurate information and to ensure ease of navigation. Server capacity should be increased to withstand higher traffic.

Open data are important to enable researchers, both public and private, to develop ways to contain the spread of the virus and find a vaccine/cure. Access to data is also useful for long term research and development in other socio-economic sectors. The Malaysian Administrative Modernisation and Management Planning Unit (MAMPU), which is already overseeing open data initiatives, should be given more support from both public and private sectors, in order to upgrade and manage its open data repository.

Cybersecurity and digital safety

During the MCO, although reported crime rates have dropped, cybercrime appears to be increasing. Digital literacy programmes should be introduced to safeguard the public from scams. It should be noted that the increase in cybercrime may be overstated because statistics show an 82.5% increase year-on-year for March 2019 – 2020 but only a 10% month-on-month increase from February to March 2020. However, the majority of fraud cases do go unreported so a large increase of cybercrime during the MCO is plausible.

Conclusion

As new innovations and applications of digital technologies evolve to help society adapt to its new normal, there is a greater need for public interest technologists to speak out on the ramifications of widespread adoption of digital tools such as apps, AI, and automation. There is great potential for digital transformation to ease the burden on the public healthcare system and the economy, but the unintended consequences of new technologies are all the reason needed to stop and consider if we should do something just because we can.

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