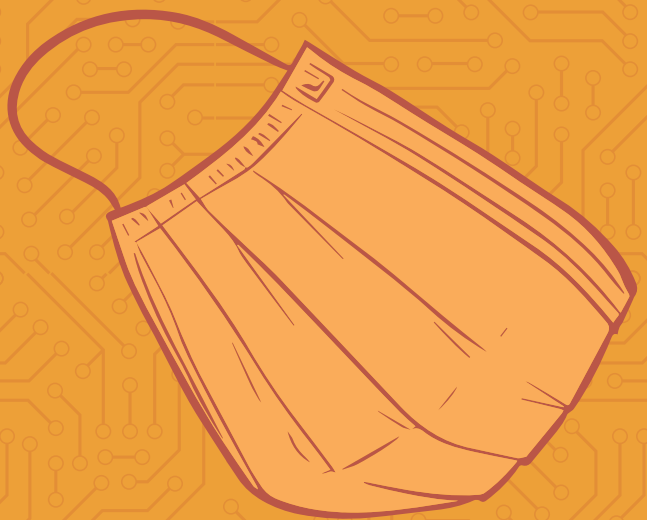Southeast Asian civil society and
COVID-19 surveillance technologies:

BREAKING BARRIERS TO MULTISTAKEHOLDER COLLABORATION

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2023

CONTENTS

EXECUTIVE SUMMARY

The space for civil society to promote change has narrowed in Southeast Asia. The tendency of state actors to mask surveillance with the intent to maintain safety during the pandemic and their negative preconceptions to civil society intensified when the need to make critical decisions in a limited amount of time emerged. Civil society was perceived as the "enemy", which necessitated surveillance and monitoring.

Six Southeast Asian countries researched (i.e., Indonesia, the Philippines, Singapore, Vietnam, Timor-Leste, and Myanmar) adopted e-health surveillance technologies, particularly contact tracing apps (CTAs), as an integral part of the COVID-19 pandemic responses. However, the deployment of such technologies was under question as there were challenges in governing and regulating rights-compliance technologies during the COVID-19 public health emergency. The pandemic pushed authorities and non-state groups to reflect on how the potential of health surveillance technologies could be harnessed for tackling pressing public health problems without jeopardizing user privacy and personal data.

This report shows that civil society plays a crucial role as a "sparring partner" in shaping the governance and regulation of digital health technologies. While bringing new challenges, the pandemic opened new opportunities for civil society to engage with policymakers and tech companies as they collaborated to identify common interests. This was however more observable in countries where space and opportunity for civil society to shape digital policies were more available.

Thus, seeding, maintaining, and strengthening local and regional civil society networks are recommended. In particular, more orchestrated work is needed for sustaining and synchronizing the work of regional civil society focusing on digital rights. In tandem, building bridges that connect authorities, civil society, and the private sector is necessary to mitigate the risks of civil society being co-opted by the powerful. This report also highlights the need for the authorities, together with non-state groups, to articulate how existing standards, such as the Siracusa Principles, can be applied to the use of digital technologies during public health emergencies.

1. INTRODUCTION

Civil society is a vital force in the promotion of democracy, human rights, social justice, and sustainable development. Civil society, in the form of organizations, groups, and associations outside of governments and commercial institutions, manifests the engagement of the non-commercial to discuss and pursue public interests for shaping authority.[1] Civil society bridges the interests of the public and authorities by providing direct aid, building communities, developing innovation to address social challenges, and acting as instruments to hold governments and corporations accountable for their actions.[2]

However, the relationships between civil society and state authorities have reportedly become strained. There is concern about the transparency and accountability of civil society organizations (CSOs) and their potential threats to public security and order. In response, authorities have shrunk the civil society space by defunding and imposing stricter regulations.[3] In parallel, online and offline crackdowns on civil society members have appeared increasingly through online harassment, intimidation, and imprisonment.[4]

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1   Michael Edwards, *Civil Society* (Cambridge, UK: Polity, 2004).

2   Helmut K. Anheier, "Civil Society Challenged: Towards an Enabling Policy Environment," *Economics: The Open-Access, Open-Assessment e-Journal* 11, no. 1 (October 16, 2017), https://doi.org/10.5018/economics-ejournal.ja.2017-29.

3   Douglas Rutzen, "Civil Society under Assault," *Journal of Democracy* 26, no. 4 (January 1, 2015): 28–39, https://doi.org/10.1353/jod.2015.0071.

4   Suparna Chaudhry, "The Assault on Civil Society: Explaining State Crackdown on NGOs," *International Organization* 76, no. 3 (January 1, 2022): 549–90, https://doi.org/10.1017/s0020818321000473.

The COVID-19 pandemic has magnified the damaged relationship between authorities and civil society. Authorities, including those in the Southeast Asia region, have used socio-technical approaches to defeating the pandemic, such as contact-tracing apps,[5] drones, social media monitoring, facial recognition, and location tracking.[6] The authorities are inclined to continue using them for tackling post-pandemic problems.

Barriers to freedom in the region become more pronounced. Authorities have stronger justifications for implementing a range of authoritarian measures to tackle public health issues, which are often masked with the national intent to protect public interests.[7] With a relatively weak culture toward data protection, concerns over how the authorities process and use citizens' personal data loom.[8] A fear that such data will be used to further suppress political dissent grows as Southeast Asian governments deploy more elaborate tactics such as state-sponsored hacking and cyber trolling to silence critics.[9]

Civil societies in the region have been continuously advocating for equity and justice, primarily when their space to opine is shrinking due to online and offline

5   Estelle Massé, Orsolya Reich, and Eva Simon, *One Year under COVID-19 Contact Tracing Apps: What Has Europe Learned?* (Civil Liberties Union for Europe e.V, 2021), https://www.liberties.eu/f/xs_La1.

6   Richard Maude, "COVID-19, Government and Security in *Southeast Asia," Southeast Asia and COVID-19 - Asia Society Policy Institute*, October 15, 2020, https://southeastasiacovid.asiasociety.org/covid-19-government-and-security-in-southeast-asia/.

7   Abdul Rohman, "A Fused Resistance against State-Sponsored Hacking in Indonesia during COVID-19 Pandemic," *Social Science Research Network,* January 1, 2023, https://doi.org/10.2139/ssrn.4331462.

8   Gianna Gayle Herrera Amul et al., "Responses to COVID -19 in Southeast Asia: Diverse Paths and Ongoing Challenges," *Asian Economic Policy Review* 17, no. 1 (August 11, 2021): 90–110, https://doi.org/10.1111/aepr.12362.

9   Freedom House, "The Global Drive to Control Big Tech," *Freedom House*, n.d., https://freedomhouse.org/report/freedom-net/2021/global-drive-control-big-tech.

barriers deployed during the pandemic.[10] They seek political opportunities, mobilize resources, and build networks to respond to growing authoritarian practices while navigating personal and professional challenges that the pandemic has brought to fruition. The struggle and success of civil society in doing so during the pandemic are worth investigating to document their resilience during difficult times and to discover lessons learned for future efforts.

2. METHOD

This report is based on data collected from Indonesia, the Philippines, Singapore, Vietnam, Timor-Leste, and Myanmar, in which these countries shared a sense of "democratic discontent."[11] In the countries that used to be seen as icons of democracy in Southeast Asia, such as Indonesia and the Philippines, freedom to opine is reportedly decreasing. Meanwhile, in Vietnam, the largest socialist-communist country in the region, freedom becomes even subtler. At the same time, the most developed Southeast Asian country, Singapore, has reportedly increased its online surveillance. In countries facing political and economic transitions, such as Myanmar and Timor-Leste, the challenge of promoting freedom ranges from pandemic measures to government crackdowns. The research team collaborated with local researchers in five countries. The insights from Singapore were

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10   James Gomez and Robin Ramcharan, "COVID-19 Shrinks Civic Space in Southeast Asia," The Jakarta Post, April 25, 2020, https://www.thejakartapost.com/academia/2020/04/25/pandemic-shrinks-civic-space.html.

11   Prashanth Parameswaran, "Democracy in Southeast Asia: Between Discontent and Hope," Wilson Center, July 2020, https://www.wilsoncenter.org/publication/democracy-southeast-asia-between-discontent-and-hope.

drawn from a review of literature and reports. The local researchers provided insights and conducted interviews with relevant stakeholders (See Appendix 1 for List of Interview Questions). The research team digitally met with the local researchers from April to July 2023 to deduce findings and brainstorm ways of recruiting interviewees.

With the provided context in mind, the following research questions informed this report:

a. What is the overall state of digital technology deployment during the pandemic in the above-mentioned Southeast Asian countries?

b. How do civil society balance the tension between equity and security in the deployment of socio-technical approaches for defeating the pandemic in those countries?

c. What are the lessons learned, specifically for civil society, but also applicable to the interests of private sectors and the authorities in advancing the use of safe and secure digital technologies to tackle future crises?

This report is intended to promote constructive dialogues among multi-stakeholders in the region (civil society groups, the authorities, and private sector) for more just and equitable responses to future pandemics. Thus, it may inform initiatives for strengthening civil society operating in various political systems when the pandemic or other global crises occur in the future.

3. FINDINGS

3.1. The deployment of CTAs in Southeast Asia

Like many parts of the globe, Southeast Asia (SEA) was severely affected by the pandemic. As of early October 2021, the WHO estimated that COVID-19 worldwide cases had exceeded 235 million and there were more than 4.8 million deaths. There were 43 million cases and nearly 680,000 deaths in SEA.12

The pandemic had put the SEA governments in a dilemma between saving the economy and life. Keeping the public safe was critical but many governments could not afford to lose the economy. To curb the spread of the virus, authorities in the region used various measures and strategies from closing borders, restricting movement through quarantine and/or lockdown, travel restrictions, mandatory health protocols, contact tracing, and self-isolation. For example, when the pandemic peaked in June - August 2021, economic considerations led the Indonesian government to impose large-scale social restrictions instead of a lockdown, which the citizens viewed as a way to curb the infection rate. In the Philippines, the government implemented a total lockdown, leading to the largest shrinkage of about 9.6

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12   Mike Pfister and James Drummond, "Regulatory Responses to the COVID-19 Pandemic in Southeast Asia," *OECD*, October 11, 2021, https://www.oecd.org/coronavirus/policy-responses/regulatory-responses-to-the-covid-19-pandemic-in-southeast-asia-b9587458/.

percent of the country's GDP.[13] This economy-public health dilemma, together with a limited experience in tackling pandemics, resulted in inconsistent policies, indecisiveness, and poor communication with their citizens.[14]

In this context, the authorities resorted to digital technologies to defeat the pandemic. Contact tracing apps (CTAs) have become a common feature of health surveillance technologies used in most countries. Governments collaborated with private sectors and international organizations to develop and deploy CTAs (see Table 1) as a significant part of the national pandemic responses. In public health crises, contact tracing has been a way to help contain the spread of diseases. The rapid development of mobile and digital technologies enabled doing so more efficiently.

Such a technologically deterministic pivot, however, was to some extent made from panic, leading to public confusion and poor pandemic management. This was not ahistorical. Pre-pandemic, how and to what extent to regulate emerging digital technologies and industries had been challenging. The inadequacy and absence of guidelines and laws have exacerbated the challenges the authorities have faced in regulating emerging digital technologies and personal data use.

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13   Rajiv Biswas, "Philippines Remains Mired in Recession Due to Latest Covid-19 Wave," *S&P Global* (blog), May 28, 2021, https://www.spglobal.com/marketintelligence/en/mi/research-analysis/philippines-remains-mired-in-recession-due-to-latest-covid19-wave-may21.html.

14   CSIS Indonesia and Shafiah F. Muhibat, "COVID-19 in Southeast Asia: 10 Countries, 10 Responses," *Medium*, November 16, 2022, https://blog.csis.or.id/covid-19-in-southeast-asia-10-countries-10-responses-6603e9e0a772.

TABLE 1 **LIST OF CTAS**

Countries	Contact tracing apps (CTAs)
Indonesia	PeduliLindungi, eHac
The Philippines	StaySafe.PH, COVID Kaya, SafePass, KyusiPass, Traze, S-Pass
Singapore	TraceTogether, SafeEntry, BluePass
Vietnam	NCOVI, Bluezone, SSKDT, PC-COVID
Timor-Leste	COVID-19 Immunization Tracker (CIT)
Myanmar	Saw Saw Shar

The pandemic magnified the challenges in governing and regulating digital technologies, forcing the authorities and civil society to reassess their existing approaches to digital governance and regulation. The state and civil society representatives pondered how the potential of health surveillance technologies, such as CTAs, could be harnessed for tackling pressing public health problems without jeopardizing user privacy and personal data.

Case 1: Indonesia

The "PeduliLindungi" (Care and Protection) CTA was nationally deployed for tracing and alerting Indonesians

during the pandemic. The Minister of Communication and Informatics Decree No. 171 of 2020 established the PeduliLindungi application as a mandatory application in the health surveillance to handle COVID-19. This decision joined the Decree of the Minister of Communication and Informatics Number 159 of 2020 on Efforts to Handle Corona Virus Disease 2019 through Post and Informatics sector support. It stipulated the technical implementation of COVID-19 health surveillance.

The above two decisions broadly granted the government to take the necessary actions for creating and using the existing communication infrastructure and system to defeat the virus. PeduliLindungi was developed in the midst of debates and discussions leading up to the enactment of the Personal Data Protection Law on September 20, 2022.[15]

There were several governmental bodies that claimed to be involved in the development and operation of PeduliLindungi, blurring its institutional ownership. It was originally developed by the Telkom company. The 2020 Decree of the Minister of Communication and Informatics mandated Telkom to hand over the copyright to the Minister. At its early development, together with other telecommunication providers,

15   Public Relations Bureau of the Ministry of Communication and Information, "Jadi Tonggak Sejarah, Menteri Johnny Dorong Partisipasi Publik Terapkan UU PDP," Press release, September 21, 2022, https://www.kominfo.go.id/content/detail/44447/siaran-pers-no-425hmkominfo092022-tentang-jadi-tonggak-sejarah-menteri-johnny-dorong-partisipasi-publik-terapkan-uu-pdp/0/siaran_pers.

other government agencies were reportedly involved such as the Ministry of Health, the Ministry of State-owned Companies (BUMN), the National Disaster Management Agency (BPNB).[16] Prior to PeduliLindungi, the Health Ministry used the Health Alert Card (eHac) to track and record the history of COVID-19 through air travel and human mobility. eHac was then integrated into PeduliLindungi.

Post-pandemic, PeduliLindungi has been transformed into "Satu Sehat" (One Healthy) by the Digital Transformation Office (DTO) of the Ministry of Health. The management and governance of PeduliLindungi remains unclear.

Given the blurry institutional ownership, when data breach incidents occurred, it was hard to identify the government bodies in charge of PeduliLindungi. The Ministry of Health claimed a leak of vaccination status data happened on eHac, instead of PeduliLindungi, in 2021.[17] Approximately, 1.3 million personal data of eHAC users were reportedly leaked.[18] In the same year, a rumor about data

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16 https://mediaindonesia.com/teknologi/304217/tiga-kementerian-bnpb-dan-operator-buat-aplikasi-pedulilindungi Media Indonesia. "Tiga Kementerian, BNPB, dan Operator Buat Aplikasi PeduliLindungi," April 15, 2020. https://mediaindonesia.com/teknologi/304217/tiga-kementerian-bnpb-dan-operator-buat-aplikasi-pedulilindungi.

17 Anisa Indraini, "Penjelasan Kemenkes soal Heboh Kebocoran Data di Aplikasi PeduliLindungi," *Detikfinance*, September 5, 2021, https://finance.detik.com/berita-ekonomi-bisnis/d-5710432/penjelasan-kemenkes-soal-heboh-kebocoran-data-di-aplikasi-pedulilindungi.

18 Rezza Aji Pratama, "Polisi resmi hentikan penyelidikan kasus dugaan kebocoran data EHAC," *Katadata*, September 7, 2021, https://katadata.co.id/rezzaaji/

breaches of PeduliLindungi users' vaccination status was circulating. [19] A year later, when the government was promoting the use of contact tracing and digital transformation applications, the Indonesian public were shocked by the discovery of user personal data traded on the dark web by a hacker known as Bjorka.

The lack of clarity regarding the "person in charge" of PeduliLindungi also resulted in various explanations by people from different government bodies. The complex interoperability of the system made a one-door-problem solution difficult. While sources of personal data from the Department of Population and Civil Registration (Disdukcapil) and the Ministry of Health accelerated the development of PeduliLindungi, it had also added another layer to challenges in securing the data.

Case 2: The Philippines

Similar to Indonesia, the management and governance of CTAs in the Philippines were also murky. In April 2020, the Department of Health issued guidelines for contact tracing[20] when local government units

berita/6136efa1a6305/polisi-resmi-hentikan-penyelidikan-kasus-dugaan-kebocoran-data-ehac.

19   Minggu Baca, "Pakar kritisi kebocoran data sertifikat vaksin PeduliLindungi," *CNN Indonesia*, September 5, 2021, https://www.cnnindonesia.com/teknologi/20210905085011-185-689866/pakar-kritisi-kebocoran-data-sertifikat-vaksin-pedulilindungi.

20   Francisco T. Duque III, "Updated Guidelines on Contact Tracing of Close Contacts of Confimed Coronavius Disease (COVID-19) Cases," Republic of the Philippines Department of Health, April 17, 2020, https://doh.gov.ph/sites/default/files/health-

(LGUs) and private entities had started developing different CTAs.

The National Task Force on COVID-19 signed a Memorandum of Agreement with Multisys Technologies Corporation, leading to the official adoption of StaySafe.Ph as the country's official CTA.[21] Multisys Technologies Corporation partnered with the PLDT-Smart Group, PLDT Enterprise, the Inter-Agency Task Force for the management of emerging infectious diseases (IATF), and the National Task Force on COVID-19.[22] Multisys handed over StaySafe.Ph to the government in March 2021.

 COVID Kaya was another CTA recommended by the government. It allowed healthcare workers to encode data and automate the reporting of COVID-19 cases to the Philippines Department of Health (DOH).[23] It was jointly developed by the DOH Epidemiology Bureau, the World Health Organization (WHO), and Dure Technologies, a technology company with offices in Switzerland and India, in coordination

update/dm2020-0189.pdf.

21   Department of the Interior and Local Government, "DILG to LGUs, Public: Use StaySafe.Ph App to Boost Contact Tracing," *Department of the Interior and Local Government*, March 30, 2021, https://dilg.gov.ph/news/DILG-to-LGUs-public-Use-StaySafePH-app-to-boost-contact-tracing/NC-2021-1062.

22   Multisys Technologies Corporation, "Multisys Launches Emergency Response Website for COVID-19 Crisis," April 3, 2020, https://www.multisyscorp.com/news/multisys-launches-emergency-response-website-for-covid-19-crisis.

23   World Health Organization, "COVID Kaya: A Digital Platform for COVID-19 Information Management in the Philippines," December 18, 2020, https://www.who.int/philippines/news/feature-stories/detail/covid-kaya-a-digital-platform-for-covid-19-information-management-in-the-philippines.

with the Philippines Department of Information and Communications Technology.

Later, IATF introduced Resolution 45[24] to clarify the function of StaySafe.Ph as a data collection tool whereas the designation of COVID Kaya as the central repository of all pandemic-related data. Consequently, all data stored in StaySafe.Ph was migrated to COVID Kaya.

Prior to the official adoption of StaySafe.Ph as a nationwide CTA, many LGUs already used their own CTAs due to the tardiness of the national government in creating a nationally recognized CTA. The LGU-created CTAs were, however, not recognized by others. Given that and the need to better manage the country's contact tracing system, the national government, through the Department of Interior and Local Government (DILG), ordered that all locally made CTAs should be integrated with StaySafe.Ph. Whether the LGUs heeded such an order was unclear.

Numerous CTAs developed during the pandemic came with personal data protection and cybersecurity issues. The national government failed to regulate the minimum personal data required for contact tracing. Thus, locally created CTAs prescribed their own contact tracing guidelines and requested information that users considered unnecessary. Further, CTAs developed by the government and private companies offered unclear

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24 Francisco T. Duque III and Karlo Alexei B Nograles, "Inter-Agency Task Force for the Management of Emerging Infectious Diseases," Official Gazette of the Republic of the Philippines., June 10, 2020.

explanations as to the scope of access to users' personal data, sharing, and retention.

The government assured the public that the StaySafe. Ph app would not be used for surveillance purposes because "it does not use GPS rather it uses Bluetooth technology through the Google Apple Exposure Notification System."[25] Undersecretary Jonathan Malaya of the Department of Interior and Local Government (DILG) said that the National Privacy Commission had supported the statement.

There was, however, a limited assessment of the system and how effective it was. Citizen Lab of the University of Toronto discovered "a vulnerability in the backend database used by StaySafe.Ph that allowed users to access all of the information contained in that database."[26] Since the database contained a list of user identifiers and their exact geolocation coordinates, Citizen Lab said that attackers could track the users' physical locations. Citizen Lab also identified the vulnerability of COVID Kaya. Its authentication logic allowed otherwise restricted access to API endpoints, exposing the names and locations of health centers as well as the names of over 30,000 healthcare providers who signed up to use

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25 Department of the Interior and Local Government, "DILG to LGUs, Public: Use StaySafe.Ph App to Boost Contact Tracing."

26 Pellaeon Lin et al., "Unmasked II: An Analysis of Indonesia and the Philippines' Government-Launched COVID-19 Apps," *The Citizen Lab* (blog), June 29, 2021, https://citizenlab.ca/2020/12/unmasked-ii-an-analysis-of-indonesia-and-the-philippines-government-launched-covid-19-apps/.

the app.[27] Such vulnerabilities could be used by attackers to reveal sensitive patient data. Citizen Lab first disclosed the web app vulnerability to the app's developers on August 18, 2020, and the Android app's vulnerability on September 14, 2020. As of October 29, 2020, the issues identified had been resolved and the leaked credentials had been invalidated.[28]

Case 3: Singapore

The pandemic has become an opportunity for Singapore to present its technological credentials to the world. It was among the first countries that immediately deployed a CTA, namely TraceTogether, into the country's pandemic response.[29]

TraceTogether, which included TraceTogether App and TraceTogether Token, facilitated Singaporean efforts to stay alert to the virus spread. It was developed by the Government Technology Agency of Singapore (GovTech), the government agency responsible for

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27   Pellaeon Lin et al., "Unmasked: COVID-KAYA and the Exposure of Healthcare Worker Data in the Philippines - The Citizen Lab," *The Citizen Lab*, June 29, 2021, https://citizenlab.ca/2020/11/unmasked-covid-kaya-and-the-exposure-of-healthcare-worker-data-in-the-philippines/.

28   Lin et al., "Unmasked: COVID-KAYA and the Exposure of Healthcare Worker Data in the Philippines - The Citizen Lab.".

29   Terence Lee and Howard Lee, "Tracing Surveillance and Auto-Regulation in Singapore: 'Smart' Responses to COVID-19," *Media International Australia* 177, no. 1 (August 12, 2020): 47–60, https://doi.org/10.1177/1329878x20949545.

implementing the initiatives from the Smart Nation and Digital Government Office.[30]

Besides TraceTogether, SafeEntry and BluePass were other CTAs observable during the pandemic. SafeEntry was used to check the vaccination status of individuals before entering public premises. It was a digital equivalent of visitor record logs. BluePass was designated as a CTA that could interoperate with TraceTogether.

Health surveillance was overseen by the Ministry of Health (MOH) and engaged a range of entities such as local hospitals, paramedics from the Singapore Civil Defence Force (SCDF), police officers from the Singapore Police Force (SPF), Certis security officers, GovTech and volunteers from the various statutory boards.[31]

Although the national contact tracing system was ensured to protect privacy, issues pertaining to personal privacy and state surveillance surfaced. In January 2021, the TraceTogether programme, which identified people in close contact with a COVID-19 patient via a Bluetooth-enabled app or token, was under scrutiny

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30 "Our Role," Government Technology Agency, 2023, accessed June 12, 2023, https://www.tech.gov.sg/who-we-are/our-role/.

31 Sean Aiping Lai et al., "The Experience of Contact Tracing in Singapore in the Control of COVID-19: Highlighting the Use of Digital Technology," *International Orthopaedics* 45, no. 1 (November 14, 2020): 65–69, https://doi.org/10.1007/s00264-020-04646-2.

after a finding that its data were actually used for a criminal investigation.[32]

Later, the government introduced the COVID-19 (Temporary Measures) (Amendment) Bill on 2 February 2021. It reassured restriction of police access to data for investigating serious crimes such as murder, terrorism, rape and armed robbery.[33] The privacy statement on the TraceTogether site was updated[34] on the same day to detail "the Criminal Procedure Code applies to all data under Singapore's jurisdiction". The announcement sparked some controversy on social media, with people calling out the government and some users posting that they had deleted the app.[35]

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32   Daryl Choo, "TraceTogether Data Use: Vivian Balakrishnan Takes 'Full Responsibility' for Error, Says It Would Be 'Unconscionable' to Inhibit Police Work," *TODAY*, February 2, 2021, https://www.todayonline.com/singapore/tracetogether-data-use-vivian-balakrishnan-takes-full-responsibility-error-says-it-would.

33   Hariz Baharudin, "Nearly All in Singapore Are on Covid-19 Contact Tracing Programme TraceTogether," *The Straits Times*, January 20, 2022, https://www.straitstimes.com/singapore/politics/nearly-all-in-singapore-are-on-covid-19-contact-tracing-programme-tracetogether.

34   "TraceTogether Privacy Safeguards," TraceTogether, 2020, https://www.tracetogether.gov.sg/common/privacystatement/.

35   Andreas Illmer, "Singapore Reveals Covid Privacy Data Available to Police," BBC News, January 5, 2021, https://www.bbc.com/news/world-asia-55541001.; Ee-Ing Ong and Wee Ling Loo, "Gauging the Acceptance of Contact Tracing Technology: An Empirical Study of Singapore Residents' Concerns with Sharing Their Information and Willingness to Trust," *Regulatory Insights on Artificial Intelligence: Research for Policy*, June 2022, 1–28, https://ink.library.smu.edu.sg/sol_research/3282.; Jamie Tarabay, "Governments Tap Covid Data for Other Uses, Risking Backlash," Yahoo Finance, February 1, 2021, https://finance.yahoo.com/news/governments-exploit-covid-data-other-223517465.html.

Case 4: Vietnam

The 2006 Law on Information Technology allowed state agencies to mobilize part or whole of the information infrastructure to prioritize the application of IT in emergency circumstances in Vietnam, including prevention and control of epidemics.[36] In the first wave of the pandemic from 2020 to February 2021, a total of 10 digital health applications were launched in Vietnam.[37] Applications, such as NCOVI, Bluezone, Hanoi SmartCity were designed for health surveillance, contact tracing, and disseminating pandemic-related information.[38] After the vaccination program rolled out, the government-owned mobile app *sổ sức khỏe điện tử* (digital health book) was mandated for use to track and declare health and vaccination status.

In the last quarter of 2021, many Vietnamese were overwhelmed by the number of health apps and complained about the lack of an integrated and functional app that allowed them to enter public premises and avoid risky areas.[39] Vietnamese researchers

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36   Trong Phu Nguyen, "67/2006/QH11 in Vietnam, Law No. 67/2006/QH11 of June 29, 2006 on Information Technology in Vietnam," Thư Viện Pháp Luật, June 29, 2006, https://thuvienphapluat.vn/van-ban/EN/Cong-nghe-thong-tin/Law-No-67-2006-QH11-of-June-29-2006-on-information-technology/80641/tieng-anh.aspx.

37   Long Viet Bui et al., "The Contribution of Digital Health in the Response to COVID-19 in Vietnam," *Frontiers in Public Health* 9 (August 24, 2021), https://doi.org/10.3389/fpubh.2021.672732.

38   "NCOVI and BlueZone in Vietnam," Exemplars in Global Health, June 2021, https://www.exemplars.health/emerging-topics/epidemic-preparedness-and-response/digital-health-tools/ncovi-and-bluezone-in-vietnam.

39   "Người dân loạn vì ứng dụng chống dịch COVID-19: Chỉ cần có 1 'Super app,'"

said the development and deployment of health apps were marred by weak governance and insufficient infrastructure and staff capacity.[40] In the following month, authorities then responded by acknowledging that the application situation was ''chaotic'' and creating an entirely new app called PC-COVID.[41] However, the app was reported to have many bugs, such as users' wrong or incomplete vaccination information, and that it was difficult to use.[42]

Information technology companies[43] were part of the National Steering Committee (NSC) to implement the first National Response Plan to COVID-19 in January 2020. This laid the foundation for tech companies to be deeply involved in COVID-19 fight in Vietnam. Zalo Connection exemplified the state and private collaboration in using technologies for responding to the pandemic. It was developed by the Vietnamese private

Báo Lao Động, September 14, 2021, https://laodong.vn/video/nguoi-dan-loan-vi-ung-dung-chong-dich-covid-19-chi-can-co-1-super-app-953140.ldo.

40   Bui et al., "The Contribution of Digital Health in the Response to COVID-19 in Vietnam."

41   Quân, "Chấm dứt tình trạng 'loạn' ứng dụng phòng chống dịch COVID-19," *Báo Công an Nhân Dân Điện Tử*, October 3, 2021, https://cand.com.vn/doi-song/cham-dut-tinh-trang-loan-ung-dung-phong-chong-dich-covid-19-i630181/.

42   App PC-COVID, "Thông tin đường dây nóng tháng 12.2021 - Xử lý thông tin nóng, bất cập," Vietnam Ministry of Health Portal, December 30, 2021, https://moh.gov.vn/xu-ly-thong-tin-nong-bat-cap/-/asset_publisher/XnHTz20BDzrX/content/thong-tin-uong-day-nong-thang-12-2021;%20https://www.binhduong.gov.vn/thong-tin-tuyen-truyen/2021/10/863-khac-phuc-loi-thuong-gap-tren-ung-dung-pc-covi.

43   World Health Organization, "Viet Nam COVID-19 Situation Report #16" (World Health Organization, November 5, 2020), https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/vnm-moh-who-covid-19-sitrep16.pdf?sfvrsn=1ffa81f_2&download=true.

tech company VNG Corporation in partnership with the National Centre for Technology. It was attached to Zalo, the most popular messaging app in Vietnam[44], and allowed users to organically help each other through sharing basic needs, medical equipment, and mobilizing other necessities to those in need.[45]

Medpro was another app created by private companies Pkh Application Joint Stock Company and Sao Bac Dau Technologies Corporation (SBD).[46] It allowed patients to book appointments in 30 state-owned hospitals, pay bills and manage profiles after disclosing personal information.

Following complaints about the chaotic situation created by far too many COVID-19 apps, the government announced the launch of PC-COVID app, a combination of existing COVID-19-related apps in Vietnam. It included the functionalities of the Vietnam Health Declaration app; Bluezone, a Bluetooth-powered COVID-19 contact tracing and alert app and NCOVI, a mobile app where users could update their health status. The PC-COVID app was developed based on Bluezone, which was developed by BKAV[47], a Vietnamese

44   Phạm Trung, "Zalo tiếp tục là ứng dụng nhắn tin phổ biến nhất Việt Nam," *Báo Nhân Dân Điện Tử,* March 3, 2023, https://nhandan.vn/zalo-tiep-tuc-la-ung-dung-nhan-tin-pho-bien-nhat-viet-nam-post741283.html.

45   "Zalo Connect," VNG, n.d., https://vng.com.vn/impact/social-innovation/zalo-connect.html.

46   "Medpro - Đặt lịch khám bệnh," Medpro, n.d., https://medpro.vn/.

47   Thảo, "Ứng dụng Bluezone: Đột phá trong sử dụng công nghệ chống dịch Covid-19," *Báo Nhân Dân Điện Tử*, April 18, 2020, https://nhandan.vn/ung-dung-bluezone-

technology corporation which claimed its products to be ''the icon of Vietnamese technology'' and ''the pride of Vietnam'' on its website.[48] However, according to a review of Southeast Asian CTAs, Bluezone "doesn't have a specific privacy notice or statement."[49] Later, the authorities acknowledged that the mobile application use was 'chaotic' and introduced PC-COVID as a more integrated CTA.50 PC-COVID was, however, reported as not user-friendly, provided incomplete information, and suffered from many technical errors.[51]

While the digital health applications contributed to COVID-19 prevention protocols, there were also concerns about data privacy considering citizens' data was collected en masse through these apps, many of which were compulsory to download and utilize. But, as of late last year, it was still unclear how this data would be handled and whether it would be deleted or anonymized after the pandemic.[52] More specifically,

dot-pha-trong-su-dung-cong-nghe-chong-dich-covid-19-post455748.html.

48   "Bkav Corporation - Antivirus Software, Mobile Security, e-Gov, Digital Signature, Online Tax Declaration, Smart Home, Cyber Security, Electronic Office, Electronic Social Insurance, Electronic Invoice - Bkav Corporation," n.d., https://www.bkav.com/.

49   Tech in Asia, "Tech in Asia - Connecting Asia's Startup Ecosystem," n.d., https://www.techinasia.com/intrusive-asean-contacttracing-apps.

50   Quân, "Chấm dứt tình trạng 'loạn' ứng dụng phòng chống dịch COVID-19."

51   App PC-COVID, "Thông tin đường dây nóng tháng 12.2021 - Xử lý thông tin nóng, bất cập.";
Phương Chi, "Khắc Phục Lỗi Thường Gặp Trên Ứng Dụng PC-Covid," Ủy Ban Nhân Dân Tỉnh Bình Dương, October 14, 2021, https://www.binhduong.gov.vn/thong-tin-tuyen-truyen/2021/10/863-khac-phuc-loi-thuong-gap-tren-ung-dung-pc-covi.

52   Gerard McDermott and Alice Larsson, "The Quiet Evolution of Vietnam's Digital Authoritarianism," The Diplomat, November 19, 2022, https://thediplomat.

the potential negative consequences of platforms like Zalo Connect were concerning.[53] One of them was the perpetuation of exploitative logic of data extraction and self-surveillance, as well as the production of new vulnerabilities and harms for vulnerable communities, considering the idea that those in need have to present their private information or a personal story worthy of rescue, or both, to receive emergency aid. The ethical implications of using technology for humanitarian purposes called for a critical reflection on the power dynamics involved in these platforms and the need to prioritize the agency and autonomy of those seeking aid.

Case 5: Timor-Leste

The 2002 Constitution of the Democratic Republic of Timor-Leste ('the Constitution') has established constitutional safeguards regarding the protection of personal data and privacy as a general right applicable to citizens. Article 38 specifically addresses personal data protection: (1) Every citizen has the right to access personal data stored in a computer system or entered into mechanical or manual records regarding him or her, and he or she shall have the right to demand the purpose of such data, (2) The law shall determine the concept of personal data, as well as the conditions applicable to the

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com/2022/11/the-quiet-evolution-of-vietnams-digital-authoritarianism/.

53   Trang Le, "Vietnam's Zalo Connect: Digital Authoritarianism in Peer-to-Peer Aid Platforms," *EngageMedia*, June 1, 2022, https://engagemedia.org/2022/pandemic-control-vietnam-zalo/.

processing thereof; (3) The processing of personal data on private life, political and philosophical convictions, religious faith, party or trade union membership and ethnic origin, without the consent of the interested person, is prohibited.[54]

However, there was no standalone national law on data protection, privacy, cybercrime, cyber security, and other privacy-adjacent legislation.[55] Personal data and the protection of privacy were scattered in various legislative instruments and regulations.[56] A specific law on cybersecurity, personal data protection, and privacy was in a discussion and drafting stage as of August 2023. The TIC Timor IP (Agency of Technology Information and Communication) has been the government agency tasked with dealing with digital issues.

During the pandemic, the government formed the Integrated Crisis Management Centre (CIGC) as the Situation Room to manage and respond to the pandemic. It was based on Ministerial Diploma No. 14/2020 under article 29 of Law no. 2/2020.[57] To

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54 "Constitution of the Democratic Republic of Timor-Leste," Web Portal of the Government of Timor-Leste, May 20, 2002, http://timor-leste.gov.tl/wp-content/uploads/2010/03/Constitution_RDTL_ENG.pdf.

55 Magda Cocco et al., "Timor Leste - Data Protection Overview," OneTrust Data Guidance, August 2023, https://www.dataguidance.com/notes/timor-leste-data-protection-overview.

56 "Timor-Leste," OneTrust Data Guidance, n.d., https://www.dataguidance.com/jurisdiction/timor-leste.

57 "Prime Minister Participated in the Situation Room Closing Ceremony," Government of Timor-Leste, July 1, 2020, http://timor-leste.gov.tl/?p=24939&n=1&lang=en. http://timor-leste.gov.tl/?p=24939&n=1&lang=en

document vaccination status during the pandemic, the Ministry of Health and World Health Organization launched COVID-19 Immunization Tracker (CIT) that was built into the existing Timor-Leste Health Information System (TLHIS), in which all health data from all health facilities across the country are stored.[58] Meanwhile, some local government units came up with digital registrations for their residents prior to going to the vaccination sites. Timor-Leste Electronic Health Registry (RSETL) is an e-health platform endorsed by the Ministry of Health.

Technological affordances were the lingering challenge to digital transformations in Timor-Leste. While 96% of its population had access to mobile cellular networks, presenting an opportunity to implement health technologies, only 29% of the population used the internet. Internet connection was slow due to poor infrastructure and high-cost broadband services.[59]

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58 World Health Organization Timor-Leste, "For Successful Deployment and Monitoring of #COVID19 Vaccines, a Composite Digital Data Platform to Efficiently and Effectively Record the Vaccine Deployment Data Is Going to the Key. To This End, with Technical and Financial Assistance from WHO, the Ministry of Health Palácio Das Cinzas Launched the COVID-19 Immunization Tracker (CIT) — a Digital System Which Can Help in Monitoring Covid-19 Vaccine Data to Ensure Smooth Vaccine Rollout. The CIT Is Built into the Existing TLHIS System Which Aggregates Health Data from All Health Facilities across the Country.," *Facebook*, February 18, 2021, https://web.facebook.com/WHOTL/posts/for-successful-deployment-and-monitoring-of-covid19-vaccines-a-composite-digital/1291028407935344/?_rdc=1&_rdr.

59 "Maintaining the Provision and Use of Services for Maternal, Newborn, Child and Adolescent Health and Older People during the COVID-19 Pandemic. Timor-Leste: The Use of Digital Health for Maternal Care," World Health Organization, 2022, https://apps.who.int/iris/bitstream/handle/10665/365567/9789240065239-eng.pdf.

Case 6: Myanmar

Myanmar Computer Federation (MCF) for the Coronavirus Disease 2019 (COVID-19) Control and Emergency Response ICT Team under the Ministry of Transport and Communication (MOTC) and the Ministry of Health and Sports (MOHS) created Saw Saw Shar (Stay Safe) CTA in September 2020.[60] It had access to users' location, photos, videos, files, and cameras. It was criticized for not providing users with data about the spread of the pandemic within the country, while simultaneously acquiring large amounts of data from users. Regulations concerning the storage of data were also not provided to the public.[61] Overall, the delayed introduction of the app (September 2020), personal data protection issues, and to some extent the low levels of Internet accessibility in Myanmar led to much skepticism from both civil society and the general public toward Saw Saw Shar.

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60 Ministry of Transport and Communications, "Saw Saw Shar," Myanmar National Portal, July 28, 2021, https://myanmar.gov.mm/mobile-app-gallery/-/asset_publisher/3fLoPJ93cMAT/content/saw-saw-shar?_com_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE_3fLoPJ93cMAT_redirect=https%3A%2F%2Fmyanmar.gov.mm%2Fmobile-app-gallery%3Fp_p_id%3Dcom_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE_3fLoPJ93cMAT%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26_com_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE_3fLoPJ93cMAT_cur%3D2%26_com_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE_3fLoPJ93cMAT_delta%3D10%26p_r_p_resetCur%3Dfalse%26_com_liferay_asset_publisher_web_portlet_AssetPublisherPortlet_INSTANCE_3fLoPJ93cMAT_assetEntryId%3D98562186#:~:text=This%20Saw%20Saw%20Shar%20application,),%20the%20Government%20of%20Myanmar.

61 James Gomez, "[ANALYSIS] Surveillance to Deepen in Southeast Asia Post-COVID-19," *Rappler*, December 15, 2020, https://www.rappler.com/voices/imho/analysis-surveillance-deepen-southeast-asia-post-covid-19/.

The pandemic response was inseparable from the larger recent socio-political dynamics in Myanmar. After nearly five decades of military rule, it began a transition in 2011 from military dictatorship to semi-democratic system led by Aung San Suu Kyi's National League for Democracy (NLD). The decade of democratic rule, which ended with the February 1, 2021, military coup, saw the beginning of widespread ownership of mobile phones and the establishment of social media accounts. Since the coup, the military has carried out a brutal campaign of repression that has led to more than one million people being displaced and a complete crackdown on dissent in the digital realm using the standard toolkit of digital authoritarianism: censorship, misinformation, the banning of apps, widespread intrusive surveillance, organized trolling, doxing of opponents, internet shutdowns, and bandwidth throttling.

The deposed NLD government established the National Unity Government (NUG), while the protest movement that emerged in February 2021 evolved into the military wing of the NUG, the People's Defense Force (PDF). This year, the military government intensified its campaign of repression and has carried out a number of atrocities against civilians in the country. Overall, the conflict has created a humanitarian crisis, led to food shortages, and economic collapse. Criticism and condemnation from both western democracies and other ASEAN member-states has been delayed and ineffective.

Like other states in the neo-authoritarian bloc, Myanmar's military rulers attempted to develop their own "national internet" as a means to dominate the digital realm.[62] Their ambitious plan for complete digital dominance was put forward in their 2022 cyber bill, widely seen as the most oppressive piece of legislation affecting digital rights yet introduced in the Southeast Asian region.[63] The bill allows the military to access user data, block websites, order internet shutdowns and prosecute critics who would be without any protection under the new law.[64] The law accompanies the junta's complete dominance of traditional communications and their attempt at building a "golden firewall", a system for filtering and information controls modelled on China's "Great Firewall".[65] Notably, the bill includes a complete ban on the use of VPNs with a penalty of up to three years imprisonment and a fine for not only the act of using a VPN, but the act of encouraging anyone to use a VPN,

62   Gerard McDermott, "Iran's Digital Authoritarianism Is Being Tested by the Country's Youth," Prachatai English, November 10, 2022, https://prachataienglish.com/node/10087.

63   Gerard McDermott, "From the Editor: The Spectre of Digital Authoritarianism for Southeast Asia - Kyoto Review of Southeast Asia," Kyoto Review of Southeast Asia, September 5, 2022, https://kyotoreview.org/issue-33/from-the-editor-the-spectre-of-digital-authoritarianism-for-southeast-asia/.

64   Adam Simpson, "A Digital Coup under Military Rule in Myanmar: New Online Avenues for Repression - Kyoto Review of Southeast Asia," Kyoto Review of Southeast Asia, September 2, 2022, https://kyotoreview.org/issue-33/a-digital-coup-under-military-rule-in-myanmar/.

65   Gerard McDermott, "Myanmar Is the Leading Edge of Digital Authoritarianism in Southeast Asia," The Diplomat, October 21, 2022, https://thediplomat.com/2022/10/myanmar-is-the-leading-edge-of-digital-authoritarianism-in-southeast-asia/.

or any activity related to teaching an individual how to use a VPN.

In addition to the introduction of the Cyber Bill, the junta has revoked the Law Protecting the Privacy and Security of Citizens, a law which included the right to be free from "warrant-less surveillance and search and seizure."[66]

Since the coup, Internet service providers operating in the country have either left the market (Telenor) or have come under the control of the junta. Additionally, the junta introduced a higher tax on SIM cards to deter ordinary people from accessing the internet and have also introduced a deadline for mandatory SIM card registration. Numbers not registered by January 31, 2023, would no longer be able to be used.

In 2022, the military announced that they were developing their own version of Facebook after the platform had been used for organizing protests and spreading information about the military's crackdown in the weeks following the coup. The junta have also announced the establishment of MTube, their replacement for YouTube, indicating that the new regime was attempting to construct a parallel collection of apps and platforms that would be entirely under their control. According to Digital Reach,[67] the junta is using

66 "Myanmar: Scrap Sweeping Cybersecurity Bill," *Human Rights Watch,* February 12, 2021, https://www.hrw.org/news/2021/02/12/myanmar-scrap-sweeping-cybersecurity-bill.

67 "Digital Rights in Southeast Asia 2022/2023," *DigitalReach | Safeguarding*

technology from Chinese tech-giants Dahua, Huawei, and Hikvision for developing their new systems of surveillance and information control.

Thus, the pandemic response in Myanmar was in a context of political turmoil, social unrest, economic hardship, and weak healthcare system. That the government deployed Saw Saw Shar indicates the inevitable trend in the adoption of health surveillance technologies. But at the same time, the government ignored the limited infrastructure for such technologies to function optimally. The user personal data collected could provide the powerful with more capabilities to surveil citizens, primarily when the legal infrastructure for stronger protection to user privacy and personal data was absent or limited and the capacity of CSOs to advocate it was weak or restricted.

3.2. The absence of rules and the presence of civil society in the personal data and privacy protection advocacy

The deployment of CTAs in pandemic responses has instilled concerns pertaining to surveillance technologies and privacy rights. Without safeguards in place, it could stimulate the use of more invasive methods to personal privacy. With careful considerations, some forms of restriction and personal data disclosures might have

Digital Rights in Southeast Asia, April 24, 2023, https://digitalreach.asia/annual-report-digitalreach-2022-2023-ebook/.

the potential to localize the spread of the pandemic.[68] But, at the beginning of the pandemic in Southeast Asia a sufficient legal baseline stipulating the scope of personal data use, access, and who would have it and how, was absent. Furthermore, coordination among government agencies and clarity in the institutional task and responsibility was minimal. In effect, personal data protection and cybersecurity concerns emerged, in addition to hesitance to adopt CTAs among citizens. Given the political, socio-economic, and cultural differences, civil society demonstrated diverse ways of keeping the deployment of CTAs accountable and contributing to alleviating pandemic challenges.

In Indonesia, multistakeholder collaboration was apparent. The government, private sector, and civil society joined to form the Risk Communication and Community Engagement (RCCE). A total of 100 groups from the national government, provincial governments, and city district governments, as well as task-specific government agencies in health, education, and communication. However, the issue of safe digital health technologies was not the main focus of RCCE.

Formed in 2018, the Advocacy Coalition for Personal Data Protection (KA-PDP) used the CTA user personal data cases to build a momentum for pushing the enactment of Personal Data Protection (PDP) Law

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68   Abdul Rohman and Peng Hwa Ang, "Disconnection for Protection (D4P): An Addition to the Disconnection Repertoire," *Media, Culture & Society* 43, no. 6 (June 10, 2021): 1147–57, https://doi.org/10.1177/01634437211022689.

during the pandemic. On September 20, 2022, the Government and the Indonesian Parliament enacted the PDP Law.[69] However, at that time KA-PDP still requested the Parliament and the President to revise the PDP Law by incorporating inputs from civil society.[70] Efforts to socialize the implementation of PDP Law continued.

Like in Indonesia, civil society in **the Philippines** were active in articulating public interests.[71] Many have adequate skills and knowledge to work with the government in program implementations, service deliveries, and information disseminations. Most of them work directly with people and thus they often have good insights into people's lives and experiences that could help shape policy decisions and legislation.

Prior to the COVID-19 pandemic, there have been civil society entities helping shape the development of the country's digital ecosystem and governance. However, during the pandemic the government seemed

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69 Public Relations Bureau of the Ministry of Communication and Information, "Siaran Pers No. 425/HM/KOMINFO/09/2022 Tentang Jadi Tonggak Sejarah, Menteri Johnny Dorong Partisipasi Publik Terapkan UU PDP," Website Resmi Kementerian Komunikasi Dan Informatika RI, September 21, 2022, https://www.kominfo.go.id/content/detail/44447/siaran-pers-no-425hmkominfo092022-tentang-jadi-tonggak-sejarah-menteri-johnny-dorong-partisipasi-publik-terapkan-uu-pdp/0/siaran_pers.

70 "[Siaran Pers Koalisi Advokasi RUU Pelindungan Data Pribadi] DPR RI dan Presiden Koreksi Kembali RUU PDP dengan Melibatkan Masyarakat Sipil dan Mempertimbangkan Masukannya," Tifa Foundation, September 20, 2022, https://www.tifafoundation.id/artikel/siaran-pers-koalisi-advokasi-ruu-pelindungan-data-pribadi-ka-pdp/.

71 "Civil Society Briefs: Philippines," Asia Development Bank, February 2013, https://www.adb.org/sites/default/files/publication/30174/csb-phi.pdf.

to underplay civil society because of diminishing trust between them. For example, the UP Octa research group[72] initially consisting of eight individuals affiliated with the University of the Philippines (UP) with multidisciplinary backgrounds ranging from the medical, economic, mathematical, and environmental sciences, was established in 2019 as an independent private polling, research, and consulting firm. It gained traction after providing inputs related to the COVID-19 pandemic to the Department of Health (DOH).

When the public was in dire need of pandemic information, the media sought analyses from Octa. Not only was it able to explain, Octa was also able to forecast infection cases through quantitative reasoning.[73] While not acknowledged as a formal science advisor of the government, the Octa group became relevant because it provided daily projections the government needed. In particular, it helped the Department of Health decide on whether to relax or tighten quarantines.

Despite its credibility, some politicians called it "alarmists." In 2020, a presidential spokesperson said Octa should stop making public recommendations to the government for its coronavirus response and isolate its studies.[74] Octa said the recommendations were on

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72 "Home," OCTA Research, 2023, https://www.octaresearch.com/.

73 Ana Marie Pamintuan, "Alarmist," *Philstar*, August 6, 2021, https://www.philstar.com/opinion/2021/08/06/2118001/alarmist

74 Christian Deiparine, "Researcher: Group's recommendations are for free, part of public service," *Philstar*, October 13, 2020, https://www.philstar.com/headlines/2020/10/13/2049436/octa-member-groups-recommendations-are-free-part-

the government's disposal, thus, giving no ground for silencing its studies. In August 2021, lawmakers questioned the credentials of the Octa fellows and probed on their research methodologies.[75] Lawmakers expressed concern because the recommendations were used by both the national and local government units, but Octa was not headed by a health expert. Lawmakers also said Octa gave unsound projections that sowed public panic and seemed to be "overstepping its bounds by releasing alarmist statements in a time of suffering."[76] They suggested that, rather than being too reliant on the Octa's projections to provide timely information, the government, especially the Department of Health and Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF), should use its own version of science-based information.[77]

In July 2020, DigitalReach, Foundation for Media Alternatives (FMA), and other civil society organizations wrote an open letter addressed to the Inter-Agency Task Force for the Management of Emerging Infectious Diseases, Department of Health, the Department of Information and Communications Technology, MultiSys and the World Health Organization to request

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public-service.

75 Press and Public Affairs Bureau, "OCTA Grilled in House Probe," House of Representatives Republic of the Philippines, September 7, 2021, https://www.congress.gov.ph/press/details.php?pressid=12122.

76 Press and Public Affairs Bureau, "OCTA Grilled in House Probe."

77 Rambo Talabong, "What's the issue with Octa research?," *Rappler*, September 6, 2021, https://www.rappler.com/newsbreak/iq/things-to-know-issue-with-octa-research-group-covid-19/

for stronger user privacy protections in the Philippines COVID-19 contact tracing efforts.[78] The signatories to the statement urged authorities to provide more transparency in the contact tracing efforts. There was no response from the government on said open letter.

In **Singapore**, civil society played a role in bridging the views and challenges related to digital issues from the grassroots and those faced by the authorities. A group of developers and software engineers in Singapore volunteered their services to develop the TraceTogether app and expressed the need to address the app's trust and confidentiality issues. Moreover, in the early adoption of TraceTogether, with appropriate security measures in place, academia provided insights on the importance of TraceTogether wide adoption in supporting the pandemic handling in Singapore.[79] However, later one of the mentioned engineers openly expressed disappointment after the authorities stated that the data the app collected was used to investigate a murder case.[80] Moreover, social media users also called out the government and some said they deleted the app.[81]

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78   Foundation for Media Alternatives, "Open Letter to Request for Strong User Privacy Protections in the Philippines' COVID-19 Contact Tracing Efforts," *Foundation for Media Alternatives*, July 8, 2020, https://fma.ph/2020/07/08/open-letter-to-request-for-strong-user-privacy-protections-in-the-philippines-covid-19-contact-tracing-efforts/.

79   Hwa Peng Ang, "The More We TraceTogether, the Safer We Will Be," The Straits Times, June 17, 2020, https://www.straitstimes.com/opinion/the-more-we-tracetogether-the-safer-we-will-be?fbclid=IwAR3EG6SQadvHmot6JbdcUCXAgbt6VN5cl4LTBc6wQo-hp0CFM5Nhq6Jxi-Y.

80   Tarabay, "Governments Tap Covid Data for Other Uses, Risking Backlash."

81   Yuen C Tham, "Law to Limit Use of TraceTogether Information Will Allay Public Concerns on Data Use, Say Observers," *The Straits Times*, January 9, 2021, https://www.

In comparison, civil society in **Vietnam, Timor-Leste,** and **Myanmar** struggled to acquire tools and capacity to deal with issues related to digital rights.

In Vietnam, the lack of awareness of and knowledge about digital rights and safety issues among ordinary citizens and civil society organizations (CSOs) and the lack of CSOs that worked on technological issues for public interest were two persistent problems. CSOs in Vietnam were not adequately equipped with an understanding of technology. Their attitudes to online privacy and safety, such as in the discussion about contact tracing apps, were therefore "reactive". There was a need to increase the Vietnamese's awareness on the topic.

 While Vietnam Internet Association has been primarily business oriented, CSOs focusing on digital rights and safety issues for public interest purposes were obscure. A few initiatives that helped increase people's awareness of digital safety and privacy were present, such as Dear Our Community, an event about digital safety organized by a Ho Chi Minh City-based content company.[82] Those

straitstimes.com/singapore/law-to-limit-use-of-tracetogether-information-will-allay-public-concerns-on-data-use-say; Tang See Kit, "Bill Restricting Use of TraceTogether Data for Serious Crimes Passed by Parliament," CNA, February 2, 2021, https://www.channelnewsasia.com/singapore/bill-restrict-tracetogether-to-serious-crimes-passed-parliament-297611.

82 https://www.facebook.com/oxfaminvietnam/posts/pfbid0d6xFPBqEetNTYUHHi4cPFQnAT8cwUXYyTCcdpMpY3LFqABsiYnNXWiCvSbFcSuvrl Oxfam in Vietnam, "BẢO VỆ DỮ LIỆU KHÁCH HÀNG Ở VIỆT NAM CÓ TỐT?...," Facebook, May 30, 2023, https://www.facebook.com/oxfaminvietnam/posts/pfbid0d6xFPBqEetNTYUHHi4cPFQnAT8cwUXYyTCcdpMpY3LFqABsiYnNXWiCvSbFcSuvrl.

raising concerns about online privacy and safety issues were socially conscious technology experts, while it could also be competitors of app developers. Comparatively, a local expert said, "... a product or a technology is introduced by the state, the scrutiny may be less, people will have conflicts of interest or people will be afraid of affecting their [the state] interests, they will not speak up. That is why there is pushback when it comes to technological issues in Vietnam but from a public interest-driven standpoint."

In Timor-Leste, FONGTIL (Forum ONG Timor-Leste/ the NGO Forum), an umbrella of civil society network with 267 members consisting of 27 international organizations, 147 organizations at the national level, and 93 at the city level, were part of the task force to monitor pandemic by digital technology at municipality and national levels. Together with other civil society networks, Core Group Transparency (the social accountability network), Rede Feto (the women's network), Rede Edukasaun (the education network), Lao Hamutuk and Ra'es Hadomi Timor-Oan (National Disabled Persons Organisation, and FONGTIL established a Civil Society Team for the Prevention of COVID-19 to develop a united civil society front to bring diverse stakeholders to coordinate, respond and monitor COVID-19 handlings. Like in Vietnam, CSOs focusing on digital technologies and rights were scarce in Timor-Leste.

Since the military coup, CSOs in **Myanmar** have been facing a level of oppression unmatched in the Southeast

Asian region: death threats, data theft, intrusive surveillance, cyber-stalking, doxing, and identity theft. The military have also organized troll armies to attack opponents of the regime online and to spread misinformation about critics and regime-opponents. Additionally, supporters of the NUG have also been accused of engaging in intimidation and harassment of critics.[83] A large number of civil society personnel from Myanmar currently reside in Thailand. In April 2023, a number of these activists were handed over to the military in Myanmar by the Thai authorities .[84] With repression and turmoil now the norm in the country, digital rights in Myanmar have experienced a sharp decline over the past two and a half years.

3.3. Toward multistakeholder collaboration

This report has shown that during the pandemic some countries have more active civil society and engagement with authorities than the others. Civil society has contributed their expertise and political position to the deployment of safe and secure CTAs. In Indonesia, the Philippines, and Singapore, they had to some extent evidently contributed to shaping policies and regulations on technology-enabled health surveillance during the

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83 "Surviving Myanmar's Digital Coup," Free Expression Myanmar, April 12, 2023, https://freeexpressionmyanmar.org/surviving-myanmars-digital-coup/.

84 "Thailand: Myanmar Activists Forcibly Returned," *Human Rights Watch,* April 12, 2023, https://www.hrw.org/news/2023/04/12/thailand-myanmar-activists-forcibly-returned.

pandemic. However, limited knowledge and skills on digital rights were observable in Vietnam, Myanmar, and Timor-Leste due to their current socio-economic and political contexts.

This section elaborates on the enabling factors to civil society-authority engagement, that include empowering the credibility of civil society in policy making processes, developing trust through maintaining interpersonal and professional relationships with the authorities, searching for common ground, and strengthening the internal legitimacy of civil society networks.

In general, civil society viewed that they needed to work with the authorities for making policy changes. Civil society in Indonesia, the Philippines, and Singapore particularly believed **that they needed to strengthen their credibility** in order for the authorities to see them as equal partners. In addition to its subject knowledge, the credibility of civil society was laid within its capability to articulate grassroots aspirations to policy making. When the authorities were inclined to develop technologies for immediately ending the pandemic, civil society voiced out the public rights to be protected from the virus and keep their personal data safe and private.[85]

 An Indonesian CSO representative, who was involved in the multistakeholder working group on Risk Communication and Community Engagement (RCCE) during the pandemic, said that incorporating non-

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85 Ang, "The More We Trace Together, the Safer We Will Be."

government elements into government affairs could yield support and flexibility to bridge the authorities' and grassroots' interests. The authorities typically possessed limited room to improvise due to heavy bureaucracy; whereas civil society had the capacity to do so, thus, synchronizing these two distinct characteristics was pivotal for coordinating and implementing policies in a timely, trustworthy manner.

Not only raising the wider public views, civil society was also able to bridge dialogues between the authorities and private sectors. Through their research and engagement initiatives, civil society pointed out the challenges the tech companies faced and threats to public interests arising from unclear and absent policies and regulations. This partnership was observable, for example, in the collaboration between Tifa Foundation Indonesia and Meta/ Facebook in 2021.[86]

Collaboration between civil society and private sectors primarily occurred when there was a need to mitigate the ramifications of policies imposed by authorities. The private sector was unable to articulate its objections to the existing laws and practices, thus needing CSOs to help articulate their voices. CSOs benefited from access to key authorities that the private sector enjoyed. This mutual symbiosis became a springboard for dialogues

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86 Sherly Haristya, Indri D. Saptaningrum, and Shita Laksmi, "Indonesia Menuju Pelindungan Data Pribadi yang Sederhana dan Bermakna," TIFA Foundation, November 21, 2021, https://www.tifafoundation.id/buku/policy-brief/indonesia-menuju-pelindungan-data-pribadi-yang-sederhana-dan-bermakna/.

with the authorities, from which opportunities to coalesce would emerge among these three different entities.

To be considered as an equal partner to the authorities, civil society **developed trust through maintaining interpersonal and professional relationships with authorities.** Understanding local practices was key. Several Indonesian CSOs used the Javanese tradition of "kulonuwun" or asking for permission to carry out activities in accordance with regulations. A civil society representative elaborated on the practice:

> "The method must be "*kulonuwu*n," which means that the ego must be lowered as we introduce ourselves to them [authorities]. We must identify their areas of interest. Where can we find common ground?"

Once the "*kulonuwun*" was accepted, as another civil society representative pointed out, positive perceptions might follow, from which opportunities to synchronize intentions and efforts ensued.

Furthermore, to build solidarity and to convince policymakers about the impact of necessary policies, CSO representatives emphasized the importance of in-person meetings with key government representatives together with their technical staff. Besides pointing out the blind spots in the deployment of CTAs, civil society must offer actionable and measurable recommendations that could benefit the work of relevant state agencies. Building relationships with the staff who could make

policy suggestions on behalf of civil society was also needed to smoothen the advocacy work. The success in maintaining such relationships would usually lead to invitations to provide insights and advice from the authorities.

However, the pandemic had hindered such in-person interactions as digital interactions were preferred and considered safer. A civil society representative elaborated on that:

> "Now, things are more difficult because Zoom meetings and online communication make the relationship more delicate and difficult to maintain. During the pandemic, it was difficult because we did not meet in person to engage in advocacy work and discussions, thus making it harder to succeed."

Another barrier to gaining credibility stemmed from within civil society itself. Internal friction and fraction within existing civil society networks could become constraints to advocacy work. During the drafting of the PDP Law in Indonesia, civil society faced challenges in aligning their positions and strategies to push for the adoption of a strong PDP Law. One camp of CSOs argued that the draft needed further examinations, whereas another wanted the bill to be enacted as soon as possible due to the number of data breach cases in the country at the time. Infighting within civil society networks had prevented civil society from having a unified strategy in responding to the draft, indicating the need to

strengthen solidarity by sharpening their common ground.

Internal challenges threatened the capacity of CSOs to work with different stakeholders and advocate public interests. While civil society needed to work together in networks, in practice many CSOs worked sporadically, creating competition and fraction among themselves. Civil society networks tended to be fragile, primarily at times when the intent of the state and private actors to co-opt CSOs intensified. Lack of resources often became the root cause for friction among CSOs. Differences in perspectives, approaches, and strategies were ingredients for civil society fragmentations, which would hinder the work needed for shaping policies. CSOs who took oppositional roles and those who adopted non-confrontational strategies could sharpen their common ground by stressing their collective goal to make change.

4. RECOMMENDATIONS

This report has demonstrated the importance of rights respecting CTAs to attain public trust and adoption to support pandemic responses. In this respect, civil society has the knowledge and capacity to highlight the complexity and blind spots in the techno and results-centric deployment of CTAs. By promoting the development of a safe and secure CTA, civil society

showed their critical yet constructive participation and contribution in supporting their countries to come out from the pandemic.

The following recommendations are therefore offered to help the capacity of CSOs rebound post-pandemic and to strengthen their capacity to address threats arising from digital surveillance while enabling collaboration among CSOs, the authorities, and the private sector:

a. For civil society in Southeast Asia

i. Civil society, particularly CSOs, need to continue to work with each other and other stakeholders to a) strengthen their legitimacy, credibility, inclusiveness, transparency, and accountability), b) improve their understanding of the complexity of digital ecosystems and multistakeholderism, and c) bolster their engagement strategies with policymakers and tech companies.

ii. Building local civil society coalitions is particularly critical for CSOs to maintain grassroots connections and resonate public interests with the authorities. Moreover, building regional and global civil society networks is needed to equip CSOs with the necessary knowledge and credibility to contribute to the development of policies pertaining to transborder digital issues, particularly regarding and personal data protection. Eventually, these

     regional and global networks can be used for shaping local policies.

iii. CSOs located in Indonesia, the Philippines, and Singapore are suggested to further engage with CSOs located in Myanmar, Timor-Leste, and Vietnam for sharing knowledge and skills related to digital rights, resource and stakeholder mobilizations. Such skills and knowledge need to be localized to maintain the safety of CSOs situated in politically precarious settings.

b. For authorities and the private sector

i. Governments should be held accountable for keeping their promises about the scope of personal data being used for contact tracing purposes only. The need to conduct public health surveillance for COVID-19 or other emergencies in the future comes with great availability of data that can be tempting for governments to use for other purposes and to act in contrast to their explicit promises. The temptation is even stronger when there are no promises, and the government has a strong arm .

ii. The authorities and tech companies in the region need to better comprehend the complexity of digital regulation and governance in a diverse region such as Southeast Asia while assessing the efficacy of CSOs in understanding pressing

issues and addressing challenges on the ground. With that, mutual interests among these different stakeholders can be solidified and their competing interests can be managed.

iii. The authorities together with non-state groups need to articulate how existing standards, such as the Siracusa Principles, apply to the use of digital technologies in the public sector, particularly during public health emergencies. Concrete regulations follow to define the necessary socio-technical infrastructure to respond to future crises without compromising principles to protect personal data and privacy and to incorporate the larger human right principles.

c. For funding agencies, international, and multilateral organizations

i. Given limited knowledge and coalitions among CSOs in Southeast Asia, funding agencies will need to allocate more resources and efforts to strengthen the capacities of CSOs in shaping the future of digital policies and governance at the regional and global levels.

ii. Amid the increasing enactment of foreign interference countermeasures at the national level, international organizations, funders, and local CSOs must find ways to work together to showcase the benefits of international and local collaborative work in dissecting the complexity of borderless digital issues.

iii. International organizations need to inform and work with funders and local CSOs to holistically strengthen the capacity of CSOs in digital issues, collaborate with relevant stakeholders, and sustain the existing civil society networks.

iv. Multilateral organizations create a condition for authorities and CSOs to collaborate in creating an ecosystem for accountable, inclusive, and sustainable digital technologies to emerge.

APPENDIX

Interview Questions

This research aims to answer the following three key research questions:

a. What is the overall state of digital technology deployment during the pandemic in the above-mentioned Southeast Asian countries?

   The following are some potential guiding points and questions:

   i. Introduction to the overall context of the country, especially during the pandemic.

   ii. The Internet landscape and digital laws and regulations, especially those that stipulate the use of digital technologies to tackle the pandemic.

   iii. The landscape of digital technologies used in the country to manage the pandemic.

   iv. The positive and negative impacts of these technologies on the handling of pandemics and wider implications to humanity (e.g., surveillance, authoritarian governments, crackdowns, shrinking civic space).

   v. Forms of digital authoritarianism/ repressions the civil society groups experience during the pandemic.

b. How is the current landscape of civil society
    movements balancing the tension between equity
    and security in the deployment of socio-technical
    approaches for defeating the pandemic in those
    countries?

    The following are some potential guiding points and
    questions:

    i.   Who are the civil society groups involved in the
         civil society movements attempting to advance
         the use of effective yet safe and secure digital
         technologies in handling the pandemic?

    ii. What are the public discourses surrounding
         those civil society movements?

    iii. What are the strategies used by civil society
         groups in their movements to make their
         concerns heard by the authorities and the
         private sectors? How are their relations with the
         authorities?

    iv. What are some of the examples of their successes
         and failures? What factors determine their
         successes and failures?

c. What are the lessons learned, specifically for civil
    society groups, but also applicable to the private
    sectors and the authorities to advance the use of safe
    and secure digital technology to tackle future crises?

    The following are some potential guiding points and
    questions:

i.   What is absent in the current efforts to improve civil society movements' resilience against digital repressions?

ii. What could be improved for future civil society movements in the region to be an equal yet meaningful partner in the discussion of health equity and digital rights?

iii. What should the authorities and private sectors consider in the deployment of digital technologies in future pandemics?

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i)   There are also the technical operators of critical Internet resources of PeduliLindungi.id. The registrar is belidomain.co.id and the Top Level Domain is from Indonesian Internet Domain Name Registry (PANDI). See here https://www.whois.com/whois/pedulilindungi.id .

Further information about the PeduliLindungi's IP address can be checked from The Indonesia Network Information Center (IDNIC) of Indonesian Internet Service provider, Association (APJII) or from The Asia-Pacific Network Information Centre (APNIC) public information. See here: https://wq.apnic.net/static/search.html

ii)   KA-PDP consisted of several concerned civil society organizations and individuals on the topic of PDP, such as Institute for Community Studies and Advocacy (ELSAM), Alliance of Independent Journalists (AJI) Indonesia, ICT Watch, Center on Child Protection and Wellbeing at Universitas Indonesia (PUSKAPA UI), The Institute for Criminal Justice Reform (ICJR), The Legal Aid Institute Jakarta, The Legal Aid Center for the Press (LBH Pers), Alliance of Independent Journalists (AJI) Jakarta, Tifa Foundation, Imparsial, Human Rights Working Group (HRWG), the Indonesian Legal Aid Foundation (YLBHI), Forum Asia, Kemudi, Pamflet, Medialink, Indonesian Parliamentary Center (IPC), Indonesia Corruption Watch (ICW), The Association for Elections and Democracy (Perludem), Southeast Asia Freedom of Expression Network (SAFEnet), PurpleCode,

Kemitraan, Indonesia Aids Coalition (IAC), the Foundation for Strengthening Participation Initiatives and Partnerships with Indonesian Communities (YAPPIKA-ActionAid), Indonesia for Global Justice (IGJ), The Institution of the Human Resources Development and Studies (Lakpesdam), Indonesian Center for Environmental Law (ICEL), Center for Law and Policy Studies (PSHK), Center for Citizenship and Human Rights Studies (CCHRS) at Universitas Pembangunan Nasional Veteran Jakarta (UPNVJ).

SAFEnet