



WP4 (Taiwan) Civil Society Engagement Report

Expert Panel Survey on Civic Tech

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Civil Society Engagement Report: Expert Panel Survey on Civic Tech*

As part of WP4 Taiwan's civil society engagement, we conducted three sets of expert surveys to understand how people in legal professions, medical service providers and the local civic tech communities evaluate Taiwan's COVID-19 responses. All three surveys consist of three parts: 1) demographic information, 2) general attitude toward COVID-19 responses and 3) field-specific questions.

For context, Taiwan was one of the last strong holds of zero-COVID policy and did not officially shift to "live with COVID" until May 2022. The Taiwanese border was fully closed to non-nationals as early as mid-March 2020 and only gradually reopened starting from March 2022. For most part of the first two years of the global pandemic, Taiwan only had a small-scale community outbreak in Spring 2021, with the daily count peaked at around 700 new cases in one day. Vaccination began to roll out in spring 2021 and by January 2022, more than 70% of the population had received the first dose. The community outbreak in the Spring of 2022 was briefly suppressed in March but bounced back again, with the daily count of new COVID cases surpassing 1K per day for the first time in mid-April.

Taiwan was known for its heavy deployment of digital tools for pandemic control. From the beginning of the pandemic, cell-tower based location data (private data) were linked with public databases including immigration and national health insurance (NHI) to enforce quarantine and for contact tracing. Other digital tools for contact tracing were introduced during the course of the pandemic. Under President Tsai Ying-Wen (Democratic Progressive Party, DPP), the Taiwan Government has also promoted itself as a digital democracy: in contrast with China's draconian and authoritarian deployment of digital measures in its COVID-19 responses, Taiwan's pandemic preventive technologies were not only products of government-Civil Society collaboration but also symbols of a technologically advanced state, thereby securing domestic trust and public support.

* Statistical analysis was conducted by WP4 Taiwan Junior Researcher Guan-Hung Liu (National Cheng Kung University). We would like to thank everyone who participated in the survey.

Our field-specific questions in the civic-tech survey focus on the experiences and evaluation of digital pandemic tools, including whether the public was properly informed about the operation of the tools and the privacy impact, whether there was enough government open data for the community to engage with policy debates, whether the community considered the tools as reasonable (not collecting or requesting data excessively), their overall evaluation of the privacy protection in these digital tools and the government's claim of digital democracy.

The g0v (reads: gov-zero) community is the most local active civic tech community that also functions as a connecting node for various domestic and international civic tech projects. Two well-known COVID-19 related projects – mask maps (for finding pharmacies with mask supplies) and SMS check-in (for contact tracing) – were first born in the g0v community discussions and later deployed by the DPP government.

We distributed the surveys via multiple channels, including the g0v general channel and COVID-19 channel on Slack and two physical g0v events – bi-monthly hackathons in November 2024 (Taipei) and March 2025 (Tainan). We also asked g0v contributors to share the survey with other communities via relevant mailing lists. As the contour of civic tech communities is known for being porous, we did not exclude anyone from participating if they came across the survey via the above channels.

Among the 58 responses, 30 respondents reported as having experiences in civic tech and 28 are newcomers. Demographically, 55% were male and 53% were aged between 30-39. 54% are either DPP supporters or pan-green (DPP's color code), whereas only 1 respondent self-reported as pan-blue (color code of the Chinese Nationalist Party, aka Kuomintang). Among the experienced participants, DPP supporters and pan-green amount to 75%. There was high trust in the central government – as high as 88% of respondents were satisfied with the central government's COVID-19 response, the same figure of respondents found the COVID-related information provided by the central government reliable. 77% respondents received at least three vaccines. There was high support for measures which relied on digital tools: mandatory quarantine (81%), monitoring of citizens activities (71%), linking health insurance database with other databases (71%). Nevertheless, 71% of the respondents were also concerned about privacy and the freedom of movement.

All respondents were familiar with at least one of the 9 digital tools included in the survey, the highest familiarity falls with mask maps (74%), SMS check-in (86%), the official NHI app (for ordering masks and appointment for vaccine, 74%) and the Social Distancing APP (local version of the Google-Apple blue tooth-based contact tracing app, 84%). The figures are generally even higher among experienced participants, suggesting that this group tend to embrace digital tools to a greater extent. When asked whether they found the government provided enough information about the digital tools, the experienced professionals ranked the same four measures higher, but the figure is generally 25-30% lower than their familiarity with the tools.

As high as 35% of the respondents considered that the government failed to properly inform people about the privacy impact of any of the 9 tools surveyed. Experienced participants were more critical, with 43% responding that the government failed to properly inform people about the impacts of any of the tools. Respondents considered that the government had better informed users about privacy concerns for two of the tools: Social Distancing APP (43%) and SMS Check-in (40%). Although both are used for contact tracing purposes, the latter is much more intrusive. The Social Distancing APP is based on users' voluntary matching of randomized tokens, anonymous self-reporting and with a decentralized architecture, whereas the SMS check-in was centralized, real-name based (through cell phone number registration), can be requested by public health officers and often mandatory in practice.

Access to government open data is an important foundation for enabling the civic tech community to engage with policy and evaluate government measures. In general, experienced participants measured the level of access to a higher standard and were less likely to find the data being open enough than newcomers. The Social Distancing App is the only measure that attracted a near-positive response, with 50% respondents considering it to be open enough. For digital tools that involve using cell tower data to locate individuals for contact tracing or quarantine enforcement, 50-55% regarded this as not open enough. 33-43% responded that they were unsure of how open government data was in this area. These are also the same measures about which respondents considered the public had the least information from the government regarding their operation methods and privacy impacts.

Regarding the reasonableness of the tools, the official NHI app is the most well received, with 78% considering it reasonable, seconded by the Social Distancing App, with 72% reasonable. On the other hand, 59% of the respondents also found the more privacy-intrusive contact tracing system – SMS check-in – to be reasonable. Only 22% found it reasonable for the government to use cell tower data to enforce quarantine. However, respondents were not so critical of the government’s linking NHI data with immigration records – 55% respondents found this to be reasonable, and the figure is even higher for experienced participants, at 67%.

We asked respondents to rate whether Taiwan’s digital pandemic measures conform with principles of privacy protection on scale of 1 to 10, with 10 being high. The median number is 6 and the average is 5.8. We also ask respondents to rate (on a similar scale of 1-10, with 10 being highest) whether digital pandemic measures can be seen as an example of Taiwan’s claimed digital democracy, the media is also 6, and the average is 6.4.

It is worth noting that among the 58 respondents, only 5 took part in either the discussion of mask maps or the SMS check-in, the two tools that were first discussed among the g0v community and later deployed by the DPP government. These 5 respondents are divided on the question about digital democracy, rating 1, 2, 7, 9, and 10 (where 1 is low and 10 is high). Although the sample is small, this suggests that the digital democracy claim is contested among the most experienced or engaged participants in the civic tech community.