

THE “NOBODY” MOVEMENT: DIGITAL ACTIVISM AND THE UPRISING OF CIVIC HACKERS IN TAIWAN

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Contents

Acknowledgements.....	i
Abstract.....	v
0. The g0v Manifesto	1
1. Introduction: The Anthropologist as <i>Meiyouren</i>	3
2. <i>Meiyouren</i> Can Do Anything.....	29
3. Organizing a Non-organization.....	57
4. Free the Data from the Birdcage	85
5. Fork and Merge an Open Government	107
6. Checking Facts by a Bot	133
7. Zero	167
Bibliography	173
Glossary	181

Acknowledgements

I am now sitting in my apartment in Boston. I have been in the same position, looking for the same view from the same window for months. Since the lockdown began in March, winter winds have turned into summer heat. The acute, lethal crisis did not go away as many hoped but continues to encroach our sanity chronically. Once again, the Internet gives me an exit. Through the Internet, I stay in touch with families far at the other end of the world. Through the Internet, I maintain academic activities and keep performing my daily writing routine. Through the Internet, I join conversations with friends from the field and participate in activities and events. As my physical body is locked in, my online, social being strives to navigate ways out of the crisis. This dissertation also started from a locked-in moment. I was taking my PhD courses in a small university town in Northern California when the Sunflower Movement broke out at my home country Taiwan. Days and nights, I locked myself in my room, watching non-stop the live-streaming of the movement and trying to engage virtually and remotely. It was at that moment of both despair and hope, of anger, tears, but also, excitement and passion that I decided to take digital activism as my doctoral research topic.

This dissertation is devoted to the activists and hackers in Taiwan who, despite all challenges and obstacles, never stop fighting for a better future. Their action changed me and inspired me to write this dissertation. I am deeply grateful for g0v hackers, Jothon members, OCF colleagues, and all those who shared a moment with me in the field. Doing ethnography could be distressing, but their generosity, hospitality, and kindness made me feel at home. I cherish the time when we collaborated on projects, brainstormed strategies and solutions, exchanged thoughts on politics and social issues, shared stories and gossip, and enjoyed great food. I am proud to say that the field has become part of my life and we build friendship beyond research.

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PhD is a long, rugged journey. And it often promises nothing. There were countless moments that I thought I would quit it. At some moments, I had no confidence to complete it. At other moments, I felt it was not worth spending the most gorgeous years of my life in it. Each time, the decision to stay was accompanied by a deep anxiety of future uncertainties. The decision was irrational. It can be only explained by my love for anthropology. Nothing else. Thank you,

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My final gratitude to my family — Tsung-chi and Yaya. Tsung-chi, I can't say how lucky I am to have you in my life when I am away from home pursuing a dream. Thank you for giving me a home here in the United States. Thank you for tolerating my temper when I struggled with writing, for passing me tissues when I did not get a grant, and for celebrating every little joy together. Yaya, a big part of this dissertation was written when I breastfed you and you fell asleep on my lap. You grew up with this dissertation. You are its most beautiful guardian angel. This dissertation is about possibilities for the future and the future is yours. I love you two.

Mei-chun Lee

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Abstract

This dissertation explores civic hacking as a new approach of activism. I examine how a Taiwan-based hacker collective, g0v, intervenes and subverts bureaucratic government through the technological translations of openness (*kaifun*). Replacing the letter “o” in “government” with the number “0” to indicate the computer binary zero and one, the name “g0v” signifies both their netizen identity and the grassroots, bottom-up approach of activism. They dispute the long-standing practice of *guanxi* — interpersonal relations established upon informal and often backdoor gift exchange — in Taiwan’s post-authoritarian politics, and endeavor to translate the idea of openness from technologies into a set of ethical codes and political practices. There are two targets of g0v’s hacks: One is that they hack the government by repurposing government data to promote transparency and participation. The other is that they hack governance by forming themselves as a distributed network that resists representation and hierarchy. These two ways of hacks are two sides of the same coin, reinforcing each other as g0v evolves. However, as the idea of openness is becoming mainstream, tension and conflicts emerge over the institutionalization of openness. In this dissertation, I show how g0v hackers play with the equivocation of openness to perform the best hacks. Civic hacking is never a set method or ideology. It is a parasitic activity that constantly negotiates with the changing political realities it aims to subvert.

0. The g0v Manifesto

(10.20.2019 Amendment¹)

We come from everywhere

g0v is an open collaboration community. We the g0v contributors are from everywhere. We are software developers, designers, activists, educators, writers, citizens and netizens of every profession. We gather in the hope to improve Taiwan's civil society through technology and collaboration. If you're willing to contribute your skills and expertise, you can take part in g0v.

We are a polycentric community of self-organized contributors

g0v projects are self-initiated and self-organized. With this Manifesto as the base of consensus, every g0v project makes its own decisions on its operation and governance. The g0v community is made out of these self-governing projects. There is no single center or representative of g0v.

We are citizens collaborating to bring about change

Starting from the open-source movement, g0v is an active citizen of Taiwan. We the g0v contributors support freedom of speech and information transparency. By providing digestible information and hands-on digital tools, we the g0v contributors bring more citizens to participate in public issues and influence government actions.

¹ g0v.tw, "g0v Manifesto (2019/10/20 Amendment) - English," HackMD, accessed August 21, 2020, <https://g0v.hackmd.io/r4IvECqxRyK2D6PzuPug-A>.

We live open-source

We the g0v contributors communicate and collaborate online, convene and connect in hackathons offline. Project outcomes (including but not limited to text, images, code, data, analysis, and processes) are open-source, allowing more people to use, improve, comment, and maximize their usage.

We have fun and want to change the status quo

We the g0v contributors love to dig into problems, and we take pleasure in finding solutions and taking action to make a change. We connect different expertise to amplify our collective force. Guided by imagination, we collaborate and explore new frontiers. We act to change the status quo. We refuse to be silent accomplices.

We are you

g0v is a non-partisan, not-for-profit, grassroots movement. You can contribute to projects with your brain or your muscle. You can also be a sponsor for g0v hackathons or specific projects. If you like what you've read, get involved with g0v. Share your project ideas and your aspiration about a world renewed. Join us to change our society for the better.

1. Introduction: The Anthropologist as *Meiyouren*

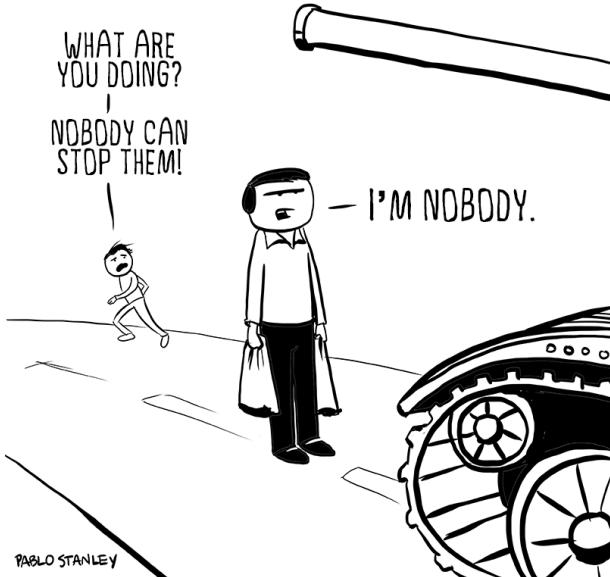


Figure 1.1: "Nobody" by Pablo Stanley.

(From Stanley Colors, <http://www.stanleycolors.com/2013/12/nobody/>. Accessed on August 21, 2020.)

On a humid summer afternoon of 2015, Nchild and I were sitting in a café in an old district of Taipei. Nchild, an online handle for this young man of mid-30s, was an active participant of g0v (pronounced gov zero). Based in Taiwan, g0v is a civic hacker community that “pushes information transparency, focusing on developing information platforms and tools for the citizens to participate in society,” quoted from its website.² Replacing the letter “o” in “government” with the number “0” to indicate the computer binary zero and one, the name “g0v” signifies both their netizen identity and the grassroots, bottom-up approach of activism. Founded in 2012, g0v came to public attention during the 2014 Sunflower Movement, an occupation of Taiwan’s Legislative Yuan for twenty-three days to protest a free trade deal with

² “About g0v,” g0v, accessed August 21, 2020, <https://g0v.tw/en-US/about.html>.

China. In the movement, g0v hackers provided technology support for activists to “hack” into the “black box” government. Its decentralized approach of mobilizing unrelated yet like-minded netizens brought back the hope of digital democracy that was once popular when the Internet was invented in the 1990s.

Although being called hackers (*heike*), g0vers (a shorthand for “g0v participants”) are not like black hat hackers (see Jordan and Taylor 2004 for more types of hackers) depicted by mass media, who illicitly break into computers, sabotage systems, and steal secret information. g0v’s lineage can be traced back to free software hackers, but it has a special focus on civic-related, especially political, projects. g0v is famous for its cyber activities that push for government transparency. Its participants often scrape and repurpose public information from the government websites to supervise the government and to foster civic engagement. They dispute the long-standing practice of *guanxi* (M. M. Yang 2002; Osburg 2013) — interpersonal relations established upon informal and often backdoor gift exchange — in Taiwan’s post-authoritarian politics, and endeavor to translate the idea of openness (*kaifun*) from technologies into a set of ethical codes and political practices. Redefining hackers as those who build tools to solve problems, g0v’s activism has attracted thousands of participants to “dissemble the government and rebuild it from bottom up.”³

It was a summer visit when I saw Nchild’s call for translators for an open book project in g0v’s chatroom. Observing g0v’s chat for a while, I knew that to get involved in this hacker community required active participation and constant contribution. Nchild’s call for translators provided me with an opportunity. I volunteered, and started my “fieldwork” from my laptop in

³ g0v.tw, “Dissemble the government and rebuild it from bottom up,” Facebook, November 27, 2014, <https://www.facebook.com/g0v.tw/posts/633673200007303>.

my apartment in Taipei. At that moment, I had not yet met many g0v participants in person, but to g0v, I was already a contributor. Nchild and I had some virtual exchanges on the project. A few days after I started translation, he agreed to my interview invitation.

Like many other g0vers, Nchild was urban, educated (with a master's from a renowned university in the United States), and had a stable office job. He did not code but worked in a technology company. He described himself as a combative, disobedient citizen. He fought for consumers' rights and was devoted to producing *lanren bao* (information pack for dummies) that translates complicated issues into easily digestible infographics. Nchild was also an advocate for net neutrality and an open Internet. All these characteristics led him to g0v.

Just before our conversation began, dark clouds covered the sky and rain poured down the streets that almost washed the city off the map. A few minutes later, the sky opened up and the sun poked through its face. It was at this breaking moment that Nchild showed me this comic (figure 1.1) and said, “Don’t ask why *meiyouren* (nobody) is doing this, you are the *meiyouren*.” “This is g0v’s motto,” he explained. The comic illustrated the famous “Tank Man⁴,” an iconic figure of resistance in the 1989 Tiananmen Square Incident in China. Holding two bags on his hand as if he just passed by the scene, Tank Man stood in front of a tank to stop it from approaching the protesters in Tiananmen Square. On the upper left corner of the comic, there was a person fleeing away from the scene and yelling at Tank Man “What are you doing?

⁴ The comic depicts the 1989 Tiananmen Square Incident, a series of pro-democracy demonstrations taking place in Beijing, China, from April to June 2019. On June 4th, the Chinese authorities sent troops and tanks to suppress the protest. Jeff Widener from the Associated Press was on the scene and took a photo of a man who stopped the advance of tanks, which was later known as “Tank Man.” By referring to “Tank Man,” Nchild not only highlights g0v’s activism, but also indicates the pursuit of democracy which distinguishes Taiwan from China.

Nobody can stop them.” Tank Man stood fast and replied “I’m NOBODY.” Nchild pointed at Tank Man and said, “We are just like him. We are *meiyouren* (nobody).”

Nchild’s confident tone lingered in my mind. Listening to Nchild’s introduction of g0v, I kept wondering how this *meiyouren* spirit was embodied by these hackers and how it might open up new ways of political intervention. The more I interacted with g0vers, the more vivid this *meiyouren* figure came into being. *Meiyouren* not only illustrates the anti-authoritarian determinism Tank Man demonstrate but also encapsulates the values of decentralization, openness, participation, and collaboration that g0v upholds. Most importantly, it speaks to hackers’ hands-on imperatives, which prioritize action to words.

This dissertation explores civic hacking as a new approach of activism. I examine how a Taiwan-based hacker collective, g0v, intervenes and subverts bureaucratic government through the technological translations of openness. Rejecting either digital utopia or dystopia, g0v hackers, who are keen to exploit loopholes of any establishments, arise to challenge the normalization of digital technologies and disrupt politics as usual at the frontline of digital activism. There are two targets of g0v’s hacks: One is that they hack the government by repurposing government data to promote transparency and participation. The other is that they hack governance by forming themselves as a distributed network that resists representation and hierarchy. These two ways of hacks are two sides of the same coin, reinforcing each other as g0v evolves.

This dissertation provides an ethnographic account of the development and transformation of g0v. g0v was born out of waves of social movements in the early 2010s in Taiwan. Since g0v’s founding in 2012, it has developed its community and cultivated a unique philosophy and

hacking ethics. Its activism did not end with the Sunflower Movement’s passion fading away. Instead, g0v grew rapidly with new participants contributing various expertise and domain knowledge to this community. It also started to accumulate political influence. In October 2016, one renowned g0ver, Audrey Tang, was appointed as the first digital minister in Taiwan. Since then, however, tension and conflicts over the institutionalization of openness increased and induced “forks” that turned this decentralized collective of hackers into a poly-centric network. Crises often broke out when the community encountered a surge of new participants and began new collaborations with the government and other organizations. Crises brought in new voices, new ideas, and new ways of hacking that challenged this “open” community, but crises also pushed the community to grow. Hacking with the rapid development of technologies and ever-changing politics, g0v hackers never adhere to a set method. They play with the translations of openness to perform the best hacks and are in constant negotiation with the changing political realities they aim to subvert.

Staging the Field

The confluence of the political and technological discourses of freedom (*zizhiquan*) in post-authoritarian Taiwan has nurtured the soil for g0v to grow. After the end of World War II, the Kuomintang (KMT, or Chinese Nationalist Party) was defeated by the Chinese Communist Party (CCP) at the conclusion of the Civil War and fled from China to Taiwan in 1949. After this, political expression on the island was repressed by the martial law under the KMT regime. It was not until 1987 that a series of democratization movements led to the end of the martial law, thereby restoring people’s rights of free speech, assembly, and organization. From the late 1980s until the early 1990s, Taiwan gradually transformed from a one-party military dictatorship to a multi-party democratic polity, and held its first direct presidential election in

1996 (Wachman 1994; Zheng 2011). Alongside this democratizing process, the Internet took flight in Taiwan. Inter-campus networks were established in the late 1980s and started to connect with the international network in December 1991. Commercial use of the Internet was piloted in 1994 and soon spread across the island (Chen and Yang 2005). Later in 1995, bulletin board system PTT was built and became the most popular online forum, where debate took place, gossip exchanged, memes went viral, and Internet subculture developed. Around the same time, the FOSS movement was introduced to Taiwan and led to the creation of many open source communities.

The concurrent development of democracy and the Internet created an environment in which g0vers grew up embracing the idea that Taiwan is a free country, both politically and technologically. Audrey Tang, an active g0ver who later became Taiwan's first digital minister, articulated this point in her talk "Reinventing Democracy":⁵

Why are there so many civic hackers in Taiwan volunteering to work on democracy? I think it's because our generation is the first to speak out freely—free speech was banned for 40 years during martial law under the Chiang Kai-shek dictatorship. The year 1988 brought freedom of the press and personal computers. The year 1996 brought the first presidential election and the world-wide web. The Internet and democracy evolved together, spread together, and integrated with each other.

⁵ Audrey Tang, "Reinventing Democracy," Talk transcript, given at the 15th Annual International Meeting of Public Management on May 25, 2016, Paris, and the Democratic Cities International Conference, May 28, 2016, Madrid, accessed August 21, 2020, <https://paper.dropbox.com/doc/Reinventing-Democracy--A6OHhcDQ4I0e1bo53hBwAaQFAG-EbWGSC1m7MTUqaxNNAmc>

By juxtaposing democracy with the Internet, free speech with free information, Tang highlighted the critical role of technologies in a time of democratization. In this discourse, technologies were never neutral and apolitical, but embedded in a set of political values and ideologies that could be wrapped up in the idea of freedom. On the one hand, the development of the Internet gave birth to the idea that “information wants to be free” and reinforced the quest for free speech and democracy in post-authoritarian Taiwan. On the other hand, the discourse of a free Taiwan was coupled with the idea of Internet freedom and served as an ideological weapon to resist the constant political threat from China.

While the convergence of democratization movements and the introduction of the Internet created an environment for the uprising of g0vers, their political actions were directly motivated by the desperation of precarious life experiences in a time of economic stagnation and the anger at the government’s inability to provide solutions. In the second half of the 20th century, Taiwan was hailed as one of the “Four Asian Tigers” with its rapid economic growth as a result of export-oriented industrialization and the development of small and medium-sized enterprises (Greenhalgh 1988). However, since the late 1990s, economic stagnation struck Taiwan as factories and investments moved to China for cheaper labor after the latter opened up to the global market. This resulted in the rise of unemployment rates and a widening gap of income inequality (T. Lin 2013).

The mixture of political liberation and economic stagnation produced “a lost generation,” or *yanshidai*, composed of Taiwanese who were born in the 80s and 90s, grew up seeing parents start from scratch and progress to a well-off life during the economic boom, enjoyed political freedom brought by democratization movements, and finally graduated at a time when jobs were scarce, houses were unaffordable, and low salaries forced them to work extra hours to

sustain a basic standard of living. Precarious life conditions left this generation feeling hopeless. This sentiment was reflected in the rapid decline in birth rate: in the last decade, the birth rate dropped to around one baby per woman, among the lowest countries of the world and even lower than China, where the one-child policy was implemented. It was exactly at this time of loss and crisis that various social and political issues surged to the center of debate and led to mass protests one after another. Since 2008, there has been increasing social movements and mass protests targeting various topics, ranging from labor law reform to LGBT rights, pollution and environmental issues, media monopoly, military reform, free trade agreements, aboriginal rights, and many others (Cole 2015; M. Ho 2010). “Taiwan is never short of political controversies and this gives g0v an environment to grow” said g0v cofounder Clkao in an interview.

In short, g0v took root in the discourse of freedom, motivated by anger, and emerged from this wave of social movements. Ipa, another cofounder, told me in an interview that they never expected that g0v would go so far. “I tell myself that we should stop doing this if no one comes to g0v hackathons. But every time, more and more people come.” Words of g0v spread rapidly beyond the coder circle. Activists, journalists, NGO workers, students, government officials and, indeed, all walks of life come to join g0v especially after big political events such as elections or protests. “People are tired of feeling powerless and want to do something that can make a difference,” said Ipa. The hackathon becomes a shelter where resistance temporarily moves from the physical space to the digital space and accumulates power to take to the streets again. As Hans Asenbaum (2017, 3) points out, “the technological mediation of the social allows for bringing new emotive qualities into the realm of rational politics.” In this sense, hacking is both an emotive response to and a political action against the corrupt government. By promoting collaboration through digital technologies, g0v provides the lost generation a

unique way of engaging politics that is different from that of traditional social movements. It decomposes organization, disrupting time and place, but still makes the movement go viral through the network power of digital technologies. By participating in various hacking projects, g0vers create a network of empowerment for those “who may choose not to take action if alone,” said g0v’s co-founder Tkirby.

Taiwan provides an intriguing case study of digital democracy. Politically, Taiwan is a strong democracy next to the world’s largest authoritarian regime — China — which sees Taiwan as its territory and never stops the ambition to invade Taiwan. Its geopolitical location at the intersection of Northeast and Southeast Asia and the frontline of US-China competition complicate the domestic politics and produce opportunities as well as crises for the 23 million people on this small island. Technologically, Taiwan is known for its high-tech industry with international brands like Asus, Acer, and HTC, as well as the world leading semiconductor manufacturer TSMC and electronics manufacturer Foxconn that together occupy a strategic position in the global supply chain. At the same time, it is believed to have the biggest and most vibrant civic tech community, g0v, around the world. Taiwan’s endeavors of digital democracy both by the government and the civil society has been covered by western news outlets, such as BBC, MIT Technology Review, Wired, The Economist, The Diplomat, Swissinfo, etc. Western media’s obsession with this “Far Eastern” island and its digital democracy is arguable, but their attention might be a reminder that we, academics in the United States, should look at the world, not just Silicon Valley, for possibilities, inspirations as well as challenges and risks of digital technologies.

Digital Politics: Revolution or Control?

From one-to-many broadcasting media to many-to-many digital media, the advancement of technologies has led techno-optimists to envision a participatory, inclusive democracy. Cyberculture writer Howard Rheingold (1993) preached the idea of digital democracy. He argues that “[t]he political significance of CMC [Computer-Mediated Communication] lies in its capacity to challenge the existing political hierarchy's monopoly on powerful communications media, and perhaps thus revitalize citizen-based democracy” (13). The idea is that the Internet is decentralized and Web 2.0 is participatory; together, they can revolutionize malfunctioned representative democracy. For years, scholars have been looking for political potential on the Internet. Studies of Free and Open Source Software (FOSS) projects reveal that the co-creation of technologies through a leaderless, decentralized network can be a political action (Karanović 2012). FOSS challenges the legal, economic and technical frameworks and produces what anthropologist Christopher Kelty (2008) coins “recursive publics.” Terms like “peer production” (Benkler 2006), “produsage” (Bruns 2008), “the wisdom of crowds” (Surowiecki 2005), and “distributed collaboration” (Shirky 2008) all try to capture the participatory culture enabled by the Internet.

Digital technologies have also inspired political experiments. This includes the “informational guerrilla movement” of the Zapatista in Mexico (Castells 2004), the experiment of “liquid democracy” by the Pirate Parties in Europe (Litvinenko 2012), the boom of tech startups to pursue “government as a platform” in the Silicon Valley (O’Reilly 2011), and the newly emergent trend of civic technologies across the world (Ermoshina 2018). In the past decade, we witnessed waves of movements enacted by social media. Arab Spring (2010~12), Occupy Wall Street (2011), Spain’s 15-M Movement (2011), Hong Kong’s Water Revolution (2019~20), and many other social uprisings demonstrated the power of the Internet in

connecting individuals through the virality of hashtags and memes, mobilizing a huge crowd to take to the streets for a shared cause at a rapid speed different from traditional social movement organization. In *Networks of Outrage and Hope*, sociologist Manuel Castells (2012) argue that digital-mediated activism “reprogram[s] the control of individuals networks around alternative interests and values, and/or disrupting the dominant switches while switching networks of resistance and social change”(9). Castells’s outlook of digital activism is joined by Ethan Zuckerman (2008) with his “cute cat theory” of digital activism, Clay Shirky’s (2008) “the power of organizing without organizations,” and Lance Bennett and Alexandra Segerberg’s (2012) concept of “connective action,” among many others.

The idea of digital participation is attractive when we see hashtag movements like #BlackLivesMatter (2013~) and #MeToo (2017~) continue to ignite waves of uprisings. But digital participation can be dangerous if we take it as self-evident fact. Technology critic Evgeny Morozov (2009) warns us that digital participation can easily turn into slacktivism, which gives online users “an illusion of having a meaningful impact on the world without demanding anything more than joining a Facebook group.” Once “feeling good” after clicking “like” or “share,” they stop taking more engaged, serious actions. Media scholar Jodi Dean (2005) contends that digital participation is a technology fetishism. It justifies technological fixes to all kinds of social issues and runs the risk of depoliticizing political problems. Both the critiques of Morozov and Dean point to the danger of seeing digital participation as the ultimate aim of participation. Participation takes various forms and differs in intensities. Collaborating in a FOSS project is distinct from sharing hashtags for social justice. Technologies can be a useful means to improve participation, but they do not promise it. Digital participation needs careful design and curation to make it work.

Despite the hype that the Internet has democratizing effects, more and more studies show that digital technologies are used to reinforce dominant systems and safeguard people in power. Matthew Hindman (2009) points out that the Internet, with its uneven development of infrastructure and the monopolies of few corporations as gatekeepers, is never an “open” domain. “Big Tech”—giant tech companies like Facebook, Apple, Google, Amazon—now control most of our access to the World Wide Web. Much like the broadcasting media yet with a more sophisticated method that targets users with Big Data and algorithms, platform companies profit from our data and feed us advertisements through black-box algorithms (Pasquale 2015). As Shoshana Zuboff (2019) points out, this is an age of surveillance capitalism, in which “digital connection is now a means to others’ commercial ends”(15). Human experiences are captured by surveillance technologies as our data doubles (Raley 2013), traded in the new marketplace of data, and, in turn, used to predict our behaviors and lead our future actions, producing a mode of “soft control” (Terranova 2004). The interactive interface of social media conceals the fact that we do not have the full control of what to see or not. Digital technologies are also used to serve for state control and modulated neoliberal subjects (Rose 1999). China is the most prominent example of a surveillance state, where Big Data, artificial intelligence, and the Internet of Things are put together to exert total control of its citizens. (Qiang 2019). In the edited volume *Can Science and Technology Save China?*, Susan Greenhalgh and Li Zhang (2020) explore how science and technology as instruments of governance “depoliticize objects of inquiry that might be profoundly political and thereby removes them from the field of contestation” (9). Digital technologies show us two opposite faces: one is revolution and the other is control.

Scott Wright (2012) is right that framing digital politics either as revolution or as normalization is problematic. The dichotomy leads us to a limited and biased scope and stops us from seeing

the complexity of how technologies dance with politics in every situated context. This dissertation is produced against this background. It uses a case study in the East Asian context to explore critical issues of the contemporary: digital democracy (Chapter Two), decentralized governance (Chapter Three), data activism (Chapter Four), open government (Chapter Five), and online rumors (Chapter Six). We are living in a digital world where politics is inevitably mediated and technologies are inherently political. No more urgent than this moment that we should critically examine digital politics — its promises, practices, and impacts.

Hacking (in) the Neoliberal Order

“Hacking” is a polysemous word that has transformed its meaning over time. In the 1950s, the term “hacking” was used by a group of computer enthusiasts at MIT to describe their creative exploration and exploitation of systems and rules. Nowadays, the term “hacker” has been used to refer to an array of activities and communities. Scholars (Coleman and Golub 2008; Jordan and Taylor 2004) have tried to identify different types of hacker, such as free software hackers, hardware hackers, the hacker underground, hacktivists, etc. What defines hackers are not certain expertise, method, or doctrine, but what Steven Levy (1984) calls the "Hands-On Imperative" — “[h]ackers believe that essential lessons can be learned about the systems about the world from taking things apart, seeing how they work, and using this knowledge to create new and even more interesting things” (32-22). Hackers play in the grey area of rules and have fun with risks and insecurity. Hacking for them is “not solely to fulfill some constructive goal, but with some wild pleasure taken in mere involvement” (18-19). Similarly, anthropologist Gabriella Coleman (2013; 2017) points out that what distinguishes hackers from general technologists are their “fastidious and explicit impulse for craftiness:” “What is unique to hackers is how an outward display of craftiness has surpassed mere instrumentality to take on

its own, robust life; craftiness and its associated attributes, such as wit and guile, are revered as much for their form as for their function” (2017, S92). Hackers pursue the freedom of information, yield to hands-on imperative, take wild pleasure in hacking, and seek collaboration without hierarchy instead of cooperation through organization. This anti-hierarchical, anti-establishment attitude is exemplified in the famous quote made by the Internet Engineering Task Force: “We reject kings, presidents, and voting. We believe in rough consensus and running code.”⁶

Mass media tends to depict hackers as those who undertake illicit action with their computer expertise. Because of this popular imagination, the term “hacker” is often translated into “*haike*” in Taiwan, using the Chinese character “*hai* (scary)” to emphasize a vicious and dreadful image. However, the unlawful, asocial image is only one, stereotypical face of hackers. Hackers can be highly socialized and they can even be a political power for social change. With the rise of Silicon Valley, hacking has achieved a more moderate and positive meaning to indicate the passion for and the creativity of making tools to solve problems. Correspondingly, hacker is also translated into “*heike*,” using the character “*hei*” — the color black — to give it a more neutral, less vicious implication. In Taiwan, these two distinct translations produce two kinds of hackers: “*haike*” who conduct unlawful activities; and “*heike*” who make disruptive innovation. From its inception, g0v has carefully used *heike* as a self-referencing term.

g0v’s political engagement is rooted in its hacker predecessors. FOSS hackers have long challenged the legal framework of technologies and engaged in what anthropologist Christopher Kelty (2008, 7) calls “recursive publics” that constantly check on “other

⁶ Internet Engineering Task Force, “On Consensus and Humming in the IETF,” IETF, accessed August 21, 2020, <https://tools.ietf.org/html/fc7282>.

constituted forms of power — like states, the church, and corporations — but which remains independent of these domains of power.” More directly, hacker collectives such as Anonymous and WikiLeaks hack across the boundary of states and law with an attempt to disrupt politics as usual (P. A. Brown and Wong 2013; Coleman 2014; Ravetto-Biagioli 2013). Besides FOSS and underground hackers, there emerge “hacktivists,” a combination of hackers and activists, who introduce hacker tactics into political protests. “Hacktivists operate within the fabric of cyberspace, struggling over what is technologically possible in virtual lives, and reaches out of cyberspace utilising virtual powers to mould offline life” (Jordan and Taylor 2004, 1). For example, they use Tor networks to circumvent internet censorship or launch distributed denial of service (DDoS) attacks to express their dissents. These activities and experiments show a radical face as they reject conventional political rationality, discourse, and strategies while aspiring rhizomatic, nonhierarchical governing structures. Hacker tactics have been used in many grassroots as well as global movements such as the Anti-Corporate Globalization protests (Juris 2008), the Indymedia network (Wolfson 2014), Arab Spring (Castells 2012), the Occupy Movements (Juris 2012), Spain’s 15-M Movement (Postill 2011), and Hong Kong’s Water Revolution (Ting 2020), etc. Not only are hacker tactics used in protests, but the image of hacker, the Guy Fawkes mask, has become a popular symbol of resistance all over the world. More recently, a new term “civic hacking” has emerged to refer to a new mode of civic participation that “often explicitly engages with political causes through designing, critiquing, and manipulating software and data to improve community life and infrastructures of governance” (Schrock 2016, 583). Civic hacking is seen as less radical and subversive and more reformative and technical compared to hacker underground. This categorization of hackers only serves to show us the diversity of hackers. In reality, a hacker might take up multiple identities. Take g0v hackers for example, they are often at the same time FOSS hackers, hacktivists, and civic hackers.

Although hackers are anti-hierarchical, we should also note that most hackers are from privileged social classes and their politicization relies on a certain degree of economic freedom. Coleman (2017) coins the term, “weapons of the geek,” drawing reference to James Scott’s “weapons of the weak” in his study of peasant’s everyday resistance, to describe hacker politics. Coleman argues that both peasants and hackers build autonomous communities and show craftiness in their resistant acts that “do not appear on their surface to be political” but turn out to be as powerful as political activities carried out by organizations. Yet peasants and hackers belong to two different social classes — the former are economically marginalized and the latter are “at the center of economic life.” As our technological culture has been pervaded by Silicon Valley–style entrepreneurship, Coleman warns that early hackers’ anti-authoritarian spirit and ethical commitments may be compromised for economic interests.

In fact, as hackathons are springing up in corporate and institutional settings, hacking is turning from exploiting systems and advancing craftiness into a showcase of talents for job or investment opportunities. Even worse, hackathons reshape unpaid and precarious work for sponsors to exploit. Sharon Zukin and Max Papadantonakis (2017) point out that hackathons “reorganize work space and work time, using rituals of play and pleasure to co-opt a wide range of talent into the service of corporations and the state without offering participants full-time jobs.” Hackers’ “wild pleasure” in hacking has been taken over by a new economic incentive, one that endorses outsourcing labor and creativity in the digital economy. These young talented coders, self-exploit their digital skills into immaterial labor, and are thereby disciplined by the institution of hackathons to act as entrepreneurs that are subjected to the neoliberal ideology.

Hackathons also cultivate “an entrepreneurial citizenship celebrated in transnational cultures that orient toward Silicon Valley for models of social change” (Irani 2015, 800). In Lily Irani’s (2015) account of a design hackathon themed around open governance in India, she describes how the time-space of hackathon produces the fictional expectation that participants have full agency of technologies that could use to change the world despite the fact that “nothing useful is ever created at a hackathon” (Broussard 2015). Richard Barbrook and Andy Cameron (1996) coin such techno-optimism as “the Californian Ideology,” a fusion of “the free-wheeling spirit of the hippies and the entrepreneurial zeal of the yuppies,” and they criticize that it not only neglects how technologies are supported by other forms of labor that are mostly invisible in the coding process but also fails to take into account “the other — much less positive — features of life on the West Coast: racism, poverty and environmental degradation” (2).

These critiques are important reminders for this research. Throughout this dissertation, I ask: Does g0v build upon the Californian Ideology? Does its political intervention reproduce neoliberal entrepreneurship? Are hacking and hackathons being institutionalized and normalized? Does g0v’s hacktivism open up new possibilities and channels of political intervention and resistance? In the following chapters, I am going to grapple with these questions from different angles.

Chapter Outline

This dissertation consists of six chapters, each telling different g0v stories. Chapter Two, Three, and Five focus on the community — its formation, governance, transformation, and crises. Chapter Four and Six examine two particular projects and demonstrate how g0v incites political participation with digital technologies.

Chapter Two gives a picture of g0v through a journey into the g0v hackathon. I examine g0v's *meiyouren* spirit in relation to hacker ethics and show how g0vers resist the Californian Ideology and neoliberal entrepreneurship through a careful design of hackathons as a ritualistic event where the *meiyouren* spirit and its related ideas of decentralization, openness, collaboration, and inclusion are confirmed, celebrated, and reenchanted.

Chapter Three takes a closer look at how the community organizes and governs itself. In this chapter, I reveal that g0v's rapid growth along with increasing political impact have accelerated the process of centralization and led to tension and conflicts over the institutionalization of openness. I then show how g0vers negotiate and handle the tension between radical decentralization and anti-establishment on the one hand, and efficient operation and sustainable impacts through on the other hand.

Chapter Four shifts the focus from the community to one of g0v's political projects, Campaign Finance Digitization (CFD). Using CFD as an example of data activism, I discuss the way data harnessed an assemblage of humans, machines, codes, and signals, and turned this gathering of human and non-human actors into a political movement. Through crowdsourcing technology, CFD forged a collaboration between computer experts and citizen volunteers to give birth to participatory civics.

Chapter Five follows the story of a hacker becoming a minister to examine the politics of openness. I reveal how the equivocation and multiplicity of openness create a space of translation in which g0vers tactically maneuver through the community crises. I argue that hacking is "a parasitic activity" that does not aim at overthrowing the system but unsettling it

from within. Hacking is always struggling in power-to-be and the very activity of hacking is its ultimate goal.

Chapter Six introduces another famous project Cofacts and its fight against online rumors. Like many g0v projects, Cofacts builds on a crowdsourcing method and encourages anyone who knows how to “google” to take part in fact-checking through its chatbot and database. While crowdsourcing realizes the *meiyouren* spirit, Cofacts’ rhetoric on “googling” reveals the intergenerational conflict between digital natives and digital immigrants, which originates not only from the advent of the Internet, but also from Taiwan’s socio-political transformation of the past century.

The Anthropologist as *Meiyouren*

I was known as *the* anthropologist in g0v. Before I started my fieldwork, I had worried that I was not “geek” enough. I was not an enthusiast of computers and had little knowledge about coding. Even though I had read a lot of academic and non-academic writings on hackers, I couldn’t help but imagine g0vers as those mysterious, and somehow antisocial geniuses. I worried that I was not smart enough to understand things happening there. I worried that they would easily see through me and be wary about my attempt to “study” them. Like all anthropologists starting a new fieldwork, I worried that I might not be able to fit in this community and failed to know the people, learn the stories, and get first-hand experiences. Yet, to my surprise, g0v was very welcoming. Whenever I expressed my interest in something, g0vers would invite me to join: “Why don’t you just come and see yourself, and maybe contribute something?” The open attitude and the passion to “push” anyone to become a *meiyouren* allowed me to get involved more quickly than I imagined.

I still remembered the first g0v hackathon I attended. I joined Nchild' project on translation, which we started remotely earlier. Nchild had to leave earlier and he left an important mission for me: "How about you present what we've done today later?" The g0v hackathon always ended with a final presentation for participants to showcase what had been done in the day. I was shocked. "You can't be serious! This is my first hackathon. And I just joined this project not long ago!" He ignored my protest and continued: "Don't take it too serious. Just a brief introduction of this project and some summary about your work today. Remember to add a call for collaborators at the end!" Shortly after, I was in front of a room of hackers, presenting the project and acting like a g0ver! "This is the trick you know," later a g0ver told me, "encouraging newbies to be on the stage so that they feel more engaged and will come next time!"

I did not expect that the difficulty of doing this research was never how to take part in, but rather how to leave — not to leave for good but to leave temporarily so as to have a critical space of thinking and writing. g0v's impact is huge on me, both on how to do research and on how to act as a social being. Oftentimes, I realized something unique about g0v when I left the field and returned to "my normal life." I remembered one particular episode clearly. It was in the middle of my fieldwork. I was invited to give a talk on my research about g0v in a university in Taipei. The host was kind to share the talk on her personal Facebook page (set as a public post) and encouraged students to attend. The post got more popular than we thought it would be. One student, who was also a g0ver, also shared it to g0v's Facebook page. Below the post, some people requested live broadcasting. Yet the host hesitated — it was not the norm for an academic talk to be "live," and she worried that being live would discourage students from speaking up. We did not do live broadcasting at the end, but instead, a few g0vers who were

available that day volunteered to attend the talk and took notes for others who could not be there.

They came, sitting among students with their hands typing notes on their laptops during my talk. After the talk was a Q&A session. At first, I was a bit anxious about sharing my immature observations before a bunch of my “informants.” Yet interestingly, instead of feeling “being challenged,” those who came became powerful allies who were so eager to answer students’ questions and provide more information. The Q&A was hijacked and became their show. I sat there, leaning myself on the seatback, taking a reflexive lens on the power dynamics between the anthropologist and her informants, between the speaker and the audience, between the teacher and the students. When I got home after the talk, the collaborative note had been shared on Facebook. g0vers interpreted my talk, agreed or disagreed with some points, and made comments on what they thought what g0v really is. The talk was no longer *my* talk. “g0v is always able to turn others’ events into their game,” said Ael, one of the note-takers commented when she shared the note.

This ethnographic moment was precious. It not only demonstrated g0v’s open principle that was different from the way institutions work, but also challenged anthropological representation. The attendance of g0v hackers in the talk sent important messages: “We reject to be nameless others;” “we reject to become a few slides;” “we reject to be represented.” How often can we see “informants” speak up for themselves in an academic setting? Although anthropologists have the tradition of self-criticizing our ethnographic representations of “the others” (Clifford and Marcus 1986; Rabinow 2007), the privileged position of writing still holds till today. Ethnography is inevitably a form of representation. Studying g0v highlights the problem of anthropological representation once again. These hackers’ technological

capacities and the ability to engage in academic conversations unsettle this ethnography even more.

I do not have a solution to the unsettling, and I believe that to live with it is the only possible way of doing ethnography ethically. However, I did take some measures during the fieldwork and in the process of writing: In the field, I ensured in every encounter that people knew I was an anthropologist and I was doing research about g0v. A few times, some interviewees hoped I shared interview transcripts publicly because of the open principle they practiced. I would do so as suggested and oftentimes found that the feedback on these interviews provided rich materials. In the writing stage, I opened up my drafts in a public hackholdr for comments before they were finalized. Not many g0vers read these long writings, but those who read have provided helpful suggestions and feedback. In this dissertation, I use real names for public figures and organizations, and use online usernames for my interlocutors. I am aware that using these names cannot entirely keep them anonymous, but because of the open culture they advocate, g0vers prefer to be credited for what they say. When giving talks, I made sure that the audience knew that I spoke as a researcher not as a “representative” and these two roles were different; I also published all my talk slides online and shared video recordings if there was one. I am aware that I represent g0v when I write and there is no way to stop representation, but I try to hold myself accountable as much as I can. Taking all these measures does not make this dissertation a collaborative work. It is still *my* work; and I take full responsibility for what is written here.

Like its project, g0v is an open story that keeps growing and transforming. This ethnography is a form of situated knowledge (Haraway 1988) that offers only a snapshot to what I participated and observed during the past seven years. It is partial and subjective — to which I

have no regrets — because partiality (Strathern 2005) connects me with these amazing people and stories.

Doing Ethnography with the Digital

This dissertation is *not* an ethnography of cyberspace or virtual worlds; *nor* is it an ethnography of online communities or cyberculture. It is *an* ethnography that attends to a special collective of humans who are obsessed with technological innovations and potentialities. I see this research more of the genre “digital ethnography,” as described by Pink et al. (2015, 7):

Digital Ethnography sets out a particular type of digital ethnography practice that takes as its starting point the idea that digital media and technologies are part of the everyday and more spectacular worlds that people inhabit. It follows what media scholars have called a non-media-centric approach to media studies by taking a non-digital-centric approach to the digital. It also acknowledges the intangible as a part of digital ethnography research, precisely because it invites us to consider the question of the “digital intangible” and the relationship between digital, sensory, atmospheric and material elements of our worlds.

Taking a non-digital-centric approach to the digital allows me to pay attention to how the ideas, practices, and impacts of digital technologies are continuously embedded in the changing social worlds.

This research has a field site, contemporary urban Taipei, where the digital is integral to everyday experiences. Commuters watch streaming TV shows on their cellphones while

checking when their bus will arrive on the live, electronic board; students meet with teachers and friends at schools yet submit their assignments online. The Internet is never “a self-enclosed cyberian apartness” (Miller and Slater 2000, 5), and the digital is always fractured, networked, and entangled in other social spaces. Websites, social media, chatrooms, and web applications are important social spaces for this research, but they exist alongside co-working spaces, hackathons, government buildings, or cafés.

To do ethnography with the digital, I took a hybrid method that combined digital tools and non-digital techniques in this research. I reached g0vers both online and offline, interacting with their avatars and IDs as well as their physical beings (for most of the time, I could connect an ID with a real human being that I encountered sometime somewhere). I attended meetups, hackathons, and conferences, but also engaged in online conversations and debates. Oftentimes, online and offline encounters happened together. For example, in hackathons, I used my laptop to access shared documents while discussing with g0vers face-to-face. My laptop and cell phone were my main tools. Due to the hybrid nature of my “data,” I used OneNote to record, store, and organize my data. Only when I did interviews and attended events that couldn’t use a laptop, for example, a rally, I would take notes by hand.

My research on g0v began from watching live-streaming of the occupying sites in the 2014 Sunflower Movement. Since then, I have observed and participated in g0vers’ conservations in g0v’s chatroom and on social media sites (mainly Facebook, but also Twitter, and Instagram). My longtime, on-site fieldwork took place from July 2016 to November 2017. I was based in Taipei but I was also travelling with some g0vers when they attended international conferences such as the Code for America Summit at Oakland, the Open Government Summit at Paris, and the Impacts of Civic Technology Conference at Florence. In the field, I had a job at the Open

Culture Foundation (OCF), a non-profit devoted to supporting open source communities including g0v. OCF was also where Jothon (g0v organizers) had their weekly meetings. With the job, I got more chances to build deeper relationships with g0v co-founders and active participants and to engage in collaboration between the community and the non-profit. After I returned to the United States, I kept cultivating my connection with g0v remotely. I was also invited to serve in the programming committee of the 2018 g0v Summit. All these opportunities provided me with an advantageous position to see the complexity behind the idealistic image g0v often presents for first-time visitors. Over the years of active participation, I had been deeply involved and sometimes even situated at the center of debate. I am no longer simply a researcher, but a collaborator, and, most importantly, I am *meiyouren*.

2. *Meiyouren Can Do Anything*



Figure 2.1: A drawing made by Tuiry Hsiao to celebrate g0v's Fifth Anniversary Hackathon. Each billboard represents a g0v project. In the center below are two banners saying “Not Only Code for Society” and “*Meiyouren Can Do Anything!*” (CC BY-NC 2.0 Tuiry Hsiao)

Don't ask why meiyouren (nobody) is doing this, you are the meiyouren.

—g0v

On September 16, 2017, around 200 g0vers convened in downtown Taipei to celebrate g0v's fifth anniversary. Equipped with laptops, these young hackers donned confident faces and were ready to start day-long hacking. Since December 2012, hackathon has become a bimonthly ritual for g0vers. Hackathon, a portmanteau of “hack” and “marathon,” is a coding event in which computer experts gather in a confined space and spend a day or two restlessly working on various coding projects. By institutionalizing hacking within designated time and space, hackathons popularize early hackers’ relentless challenge of established rules and encourage disruptive innovation as well as problem-solving skills. Nowadays, hackathons take place

everywhere. Companies, governments, NGOs, and schools are holding hackathons to stimulate innovation and recruit talents. Most of these hackathons consist of coding contests that have assigned topics and require participants to form teams to compete for prizes or chances of investment.

Unlike hackathon contests, the g0v hackathon is not a competition, nor does it aim for producing profitable works. The hackathon is a place of action where political activities and community rituals are taking place at the same time. In the hackathon, g0vers pitch projects, seek collaboration, code programs, exchange political thoughts and spread community gossip. The unique setting of space, time, and technologies shape this ritualist event in which g0vers experience the community ethos and learn how to be and become “*meiyouren*” (nobody). Through the hackathon, the amorphous collective of g0vers takes a form and makes a present.

Meiyouren lies at the core of g0v’s political philosophy. *Meiyouren* is both the neoliberal mode of political subjectivity and a resistance of such a subject from within the system. *Meiyouren* is polysemous and equivocal — when *meiyouren* is addressed, the ideas of transparency, participation, collaboration, decentralization, diversity, and openness all come to mind. *Meiyouren* is both one and many, noun and verb, actor and action, being and becoming. *Meiyouren* is an open, rhizomatic network that keeps challenging boundaries and establishments. *Meiyouren* is NOT the ideal but the process of realizing the ideal. *Meiyouren* is an invitation of hacking: “Don’t ask why *meiyouren* is doing this. You ARE the *meiyouren*.”

Although hackathons are not a common anthropological field, they are eventful, ritualistic plays that anthropologists are more than familiar with. Anthropologist Gabriella Coleman (2010) describes hacker conferences and gatherings as “rituals of confirmation, liberation,

celebration, and especially reenchantment, where the quotidian affairs of life, work, labor, and social interactions are ritualized, and thus experienced on fundamentally different terms.” In the similar vein, the g0v hackathon is where the *meiyouren* spirit is confirmed, celebrated, and reenchanted. In fact, the g0v hackathon resembles g0vers’ “rites of passage” (Turner 1970; van Gennep 1960). Participants in the hackathon break the shackles of social status and connect with each other through their diverse skills and expertise. This ritualistic event creates new modes of political engagement and transforms participants into *meiyouren*, an emerging political subject that seeks to challenge, to subvert, and to decentralize bureaucratic governance. By aggregating in the community ritual, immersing in the open environment, and collaborating for a shared goal, participants internalize the *meiyouren* spirit while the community reconfirms its values.

In the fieldwork, I attended dozens of g0v’s bimonthly as well as random hackathons, each of them telling a unique story. In this chapter, I will relive one particular moment and dig into its ritualistic performance.

A g0v Hackathon

The fifth anniversary hackathon was a bit different from the usual one. It was incorporated into Civic Tech Fest held by the Open Culture Foundation as the concluding event. After a week full of conferences and workshops, everyone was so excited that we could finally put ideas into action. I arrived at the venue early. Moon_c, a graphic and UI designer, greeted me at the reception and helped me check in with the QR code attached to my registration. Designers are very precious in g0v as most g0v projects need their creative minds to turn lifeless codes into embodied experiences. They are the best human-machine interfaces. Moon_c’s greeting gave

this hackathon a warm start. In front of her were blank badges and markers for participants to write their own name tags. Next to blank badges, cutesy stickers, designed by Moon_c, welcomed everyone (figure 2.2). Stickers are popular in tech conferences and they are probably the best way to identify if one is nerdy enough. Just look at one's laptop cover and see the kind of stickers there are, you'll know that person's skills, interests, communities, and even political views. In the g0v hackathon, stickers play an important role in introducing oneself. Participants put the ones that stand for their skills and backgrounds on their badges. Some of these stickers represent different computer languages such as Python, PHP, and JavaScript, while others refer to various types of expertise or fields of knowledge, for example, law, design, music, agriculture, media, economy, government, etc. These stickers code identity markers, serving to invite conversations and forge collaborations with their prolific yet straightforward images.



Figure 2.2: Skill stickers designed by Moon_c. (CC0)

A huge space opened up in front of me as I entered the venue. At one end was a stage and two big screens on each side. The rest of the space was filled with desks and chairs, arranged in clusters to facilitate team forming (figure 2.3). In another room, plenty of food occupied all the

tables. I was amazed by how well-organized everything looked as I knew this had been a totally empty space. Normally, a g0v hackathon is held in well-equipped conference rooms at Academia Sinica,⁷ the national academy of Taiwan. This time, as they were expecting more participants and some international visitors from Civic Tech Fest, the venue was moved to a larger event space in downtown Taipei to accommodate more people. Preparation started earlier than usual. Some people designed the visual, some prepared the food, and some others set up power supply and the Internet connection.



Figure 2.3: The main room where hacking happened. Participants were doing keyword introduction.

(Photo by the author, September 16, 2017)

⁷ The Institute of Information Science at Academia Sinica has played an important role in the development of FOSS in Taiwan. In the early days when FOSS was just introduced to Taiwan, the Institute founded Open Source Software Foundry with the funds from the Ministry of Economic Affairs to support FOSS communities and promote the usage of FOSS in industries. With this background, FOSS in Taiwan started more as a movement of technological innovation rather than a group of counter-culture hackers fighting against corporations. Only with several waves of social movements after 2008 did FOSS start to have more political attention and then g0v emerged in 2012.

The hackathon itself was a huge collaborative project. g0vers not only attended it but also contributed their time, labor, and even money (in small donations⁸) to make the event happen. A short episode vividly illustrated their collaboration. Ipa, one of the hackathon organizers, asked in the chatroom if anyone could make a design for the donation box one day before the event took place. MrOrz, a programmer and longtime g0ver, immediately uploaded a rough design and commented “I’m here to provoke designers (running away).” Later, Ipa explained to me, “in order to relieve the stress of participating in g0v, we will sometimes release ugly mockups or propose immature ideas so that people feel no burden to join.” g0vers call this tactic ”release early, release often,” which means unfinished works are good works because they invite participation and improvement. There is no shame in presenting one’s immature work. “My contribution is to provoke true masters,” as they say. Following MrOrz, two programmers also uploaded their designs, and finally a designer added a fourth one. In the end, four designs were put on each side of the box, making it a mashup (see figure 2.4). When I saw the box at the reception this morning, I couldn’t help but think this is so g0v.

⁸ g0v’s hackathons are funded by small donations mostly from participants and some from other individuals. There are three ways to make a donation: online donations while registering the event, onsite anonymous donation to the donation box, and monthly donation via the Open Culture Foundation, the legal entity that supports g0v’s financial management.



Figure 2.4: A g0v ambassador in a yellow vest held a donation box with four different designs on each side of the cube. Onsite donations is one of g0v's financial sources.

(Photo by the author, September 16, 2017)

The hackathon was about to start. I took a seat, turned on my laptop, and connected to today's "hackfoldr," an online organizer of webpages that served as the event's portal. Hackfoldr is one among many applications developed by g0vers to facilitate collaboration. It is a tool to gather all useful links, shared notes, and online coworking spaces under one URL address without building a new website. On the left side of a hackfoldr is the catalogue of all links; on the right side is a window that displays the opened page (figure 2.5). The editor dashboard of a hackfoldr is built upon Google Sheets, so even one without coding skills can easily set up and edit a hackfoldr. Imagine a file organizer that has many folders categorized by colorful tags. Hackfoldr is its digital version. Hackfoldr has been widely used in and beyond g0v for organizing events, projects, and even rallies and protests. It was used by protesters in Taiwan's Sunflower Movement and Hong Kong's Umbrella Revolution for sharing information and coordinating action. Every hackathon has its own hackfoldr, which includes all needed

information and also provides a gateway to various communication platforms used by g0vers. Without a pre-planned agenda, participants sign up pitches and presentations to make their own program on hackfoldr. Hackfoldr is where collaboration begins in a g0v hackathon. It's no wonder the first thing a newbie needs to learn is how to navigate and use it. Hackfoldr decentralizes the event, opens spaces within the hackathon space, merges the virtual and the real, and builds up g0v's universe that links to multiplicity.

The screenshot shows the hackfoldr interface for the 26th g0v hackathon. On the left, there is a catalog of projects with sections like 'g0v五週年黑客松共筆 Hackathon Shared Notes', '2017/09/16 09:00 活動資訊', '報名網址 | Register here', 'IRC聊天室', 'slack聊天室', '與會守則 Code Of Conduct', 'Real Time Translation', and '提案流程! Projects'. The 'Projects' section includes a '要提案！看提案！/ project' section with a '提案在這登記' button. On the right, there is a registration page titled 'hackath26n | 五週年黑客松 專案列表 Proposal Registry'. This page features a Google Sheets-like spreadsheet for managing proposals. The columns include: A (Index), B (Name), C (Time), D (Presenter), E (License), F (Topic), G (Office Hour), H (Proposal License), and I (Notes). A specific row is highlighted in yellow, containing the text: '09:30開場，09:40提案開始【3分鐘提案報名】每個 present 3min，提案、徵人。 Starts at 09:30, Presentation begins at 09:40, each propose presentation 3 min'. Other rows show various proposals from different users like Ronny Wang, Hsu Weiyan, poga, Maggie Sheu, Yuren Ju, Jeff, and 小蟹, each with their respective details and links.

Figure 2.5: The hackfoldr of the 26th g0v hackathon. On the left is the catalog. On the right is the registration page for pitches, short talks, and final presentations. (<https://beta.hackfoldr.org/g0v-hackath26n>, accessed on August 21, 2020.)

Pitches started when I was browsing today's hackfoldr. There were 18 proposals on the timesheet, each with the information of its proposer, project name, a link to the slides, license used, and what kinds of collaborators needed. On stage, g0vers raised one after another technological solutions to various social issues, from labor rights, to indigenous language preservation, mis- and dis-information, online civic deliberation, urban renewal, etc. For example, one project wanted to experiment on blockchain technology for registering working

hours so as to keep this information transparent and unalterable for labor inspection. Another project used an online map to disclose urban renewal information and to update the progress of construction. All the pitches were live broadcasting on g0v's Facebook page and YouTube channel. In the meantime, there was real-time translation from Mandarin presentations to English transcripts projecting on one of the screens, helping international visitors to get a sense of what's going on. With the use of multimedia services, the hackathon took place simultaneously on several platforms — stage, screens, Facebook, YouTube, hackfoldr, chat rooms, etc. — so as to allow seamless onsite and remote participation. All these recordings were also published online after the event. These arrangements intended to make g0v open and transparent while they hacked the government to make it open and transparent.

The pitch time lasted for around one and a half hours. It proceeded at a fast pace as a proposer had only three minutes to pitch a project: What was the problem the project wanted to solve? What was the solution and the plan? What kinds of collaborators this project sought for? When Super Mario's game-over tone rang, a pitch had to stop right away and the next pitch soon followed. In such a speedy, information-overloaded session, technical terms like API, LoRa, or IPFS blew my mind. But far from dry, geeky presentations, proposers stirred the audience with memes and jokes. They wittily mocked politicians and made jokes on recent social controversies. Amid "WOW" and "LOL," the pitch time finally came to an end.

"OK, before we start hacking, let's introduce ourselves," announced Clkao, today's host as well as g0v cofounder. "First, please say this with me 'Hello, everyone. My name is.'" Participants repeated in chorus. "Now introduce yourself with only name and two keywords, and don't say 'hello' again!" The microphone was passed down. "Ipa, Jothon, a mother of two." "Yutin, live broadcasting, front-end." "Ronny, digging data, swimming." "Peace, vTaiwan,

fundraising.” “Mg Lee, anthropologist, translation.” Keyword introduction is one of the ritualistic moments in the g0v hackathon. The beginning chorus refreshed the event after hour-long pitches and signaled the beginning of participants’ transformation from listeners to speakers, and then to actors. In the limited words, participants put efforts to display their differences. Those who mastered it knew that the trick was to amuse the audience with gags. Humor was an important element of being a hacker. Microphone was the power of speaking and everyone in the hackathon, even the volunteer staff who were still at the reception, had the chance to hold it and introduce themselves. The fast-paced, non-stop process of passing on the microphone displayed g0v’s effort to keep a balance between efficiency and equality.

After opening, pitches, and self-introduction came the main activity of the day — hacking. Proposers, or *kengzhu* (project owner), took a table and formed their teams. Participants were free to join whatever projects they were interested in or they could shop around until they settled on one project. Some gathered in groups to discuss the framework of a platform; some occupied a corner and immersed themselves into the endless codes. I joined MrOrz’s table. MrOrz, a software engineer, has been participated in g0v since 2014 and is the *kengzhu* of many famous projects such as “Are You Affected by the Service Trade Agreement” during the 2014 Sunflower Movement and “Comparing Presidential Candidates’ Promises” in the 2016 Presidential election. Like many other g0v projects, his projects provide tools for citizens to easily access and comprehend complicated information so as to bring transparency to government operations, legislations, and elections. However, such “transparency” is mediated and translated by digital technologies.

MrOrz proposed two projects that day: one was Cofacts, an ongoing project to build a fact-checking chatbot on the messaging app LINE (see Chapter Six); the other one was Transcript

for Lee, which aimed to open up the Chinese trial on Taiwanese human right activist Lee Ming-che⁹ by transcribing the entire trial proceeding. I decided to take up the transcript task as I was concerned about Lee’s trial and the human rights situation in China. My task was simple: watch the video of Lee’s trial and transcribe it onto HackMD, a collaborative text editor.

Transcription is always important in g0v not only because it is the foundation of transparency but it also produces “raw data” that g0vers can use to build civic tech tools. Furthermore, the act of transcribing provides an easy, unskilled way to participate in g0v. When attending a talk, a meeting, or an event, the first thing a g0ver will do is to open up a collaborative note and start to transcribe as much as possible. This act is voluntary and spontaneous. The link will also be shared so as to invite others to collaborate. Hence, online, collaborative text editors like HackMD and Hackpad are significant infrastructure. For g0vers, doing transcription and taking notes are ways to show concern, to engage in conversations, and to open up information and bring it to those who cannot be there. These transcripts provide rich records of g0v’s activities and demonstrate their insistence on transparency and openness.

To me, transcribing Lee’s trial was a way to learn more about the case. In g0v, participating in a project doesn’t necessarily mean that one is an expert of the issue at hand, but rather that one wants to learn, to care, and even to show support. Indeed, the only skill required by Transcript for Lee was the ability to understand and type in Chinese. This is exactly the *meiyouren* spirit. You don’t need to be somebody in order to take action. By turning oneself into *meiyouren*, a powerless nobody connects with other nobodies and empowers themselves in the action. While

⁹ Lee Ming-che is a Taiwanese activist. He was detained by the Chinese government in March 2017 during a trip in China after the new Foreign NGO Management Law came into effect. In September 2017, he was sentenced to five years’ imprisonment for “subverting state power” as he “attacked Chinese society and encouraged multi-party rule” on messaging platform QQ.

g0v's projects aim to build tools to foster civic engagement, it is often the process of building tools that makes people engaged.

As hacking continued, everyone seemed to be occupied by a task at hand, but there were some newbies who were still lost. For newbies, especially those who had no knowledge in coding, attending a g0v hackathon was like a Muggle running into a magical world full of wizards, magic and technical jargon. It was both exciting and intimidating. But newbies were made not to worry. On the side, there was plenty of food provided to comfort them and opened up a social space for ideas, networking or simply relaxation (figure 2.6). Some g0vers were good matchmakers. They greeted newbies at the food zone, helping them connect with the people they might be interested in or the projects they had something to contribute to. Newbies were much welcomed in every team. And besides joining projects, they could also participate in the hackathon simply by volunteering in food preparation, checking-in process, live broadcasting or other event tasks. As the motto "*meiyouren* can do anything" indicated, the g0v hackathon encouraged contribution and cultivated a voluntary and reciprocal culture. Everyone could be part of the community as long as one was willing to contribute.



Figure 2.6: Volunteers were preparing food.

(CC BY 2.0-g0v, September 16, 2017)

Accommodating new blood was not without pain. Many newbies were not familiar with the idea of open source. Tech tools and jargon also set a bar for newbies to quickly get involved. For years, g0v has developed several tactics to make the community more inclusive and welcoming to newbies. For example, in the Fifth Anniversary Hackathon, newbies were given a list of game-like tasks that led them to connect to the Wi-Fi, get onto the event's hackfoldr, and register g0v's chatroom upon arrival . There was also a 5 to 10-minute newbie orientation, which introduced g0v and explained how to participate, before the hackathon officially began. Having questions? g0v ambassadors in yellow vests (see figure 2.4) were there to help. In the afternoon, every team was also assigned an "office hour" for newbies to meet each team and learn more about their stories. Even with all these efforts, there was still a big cultural gap for newbies to overcome. Some newbies saw g0v as a group of computer experts who they could ask help for. But g0vers were not free labor. If a good idea aroused echo, g0vers would come to "collaborate." They didn't hack "for somebody," but only hacked "with nobody." That's why the motto of *meiyouren* was repeated again and again in the hackathon — "Don't ask why *meiyouren* is doing this. You are the *meiyouren!*"

Food was essential to overcome all the barriers. As g0vers jokingly said, "Hackathon = hack marathon = hackers convene together to eat fried chicken and write code." The hackathon provided three meals — brunch, lunch and afternoon tea — in the buffet style. There were not many places to sit and people were forced to move around, meet and chat with others while eating. Food meant more than networking. It also aroused a sense of pride and belongingness. The food team was so devoted to feeding up all participants and giving everyone an

unforgettable taste of g0v. Fried chicken and pizzas were the basics, and adding to these, there was a great variety of local Taiwanese food — oyster vermicelli, fried rice, oden, aiyu jelly, seasonal tropical fruits, just to name a few. g0vers mocked themselves as “the government of snack” (“*lingshi zhengfu*,” a homophone to g0v’s Chinese name) and admitted that their decentralized community actually centered around food. Food linked g0vers, newbies and longtime participants alike, in the shared bodily experience, provided an icebreaker to start a conversation, and produced a sense of community.

After a long day of hacking, eating and conversations, it was about time to present our work. Some presentations were projects that I didn’t see in the pitch time. These might be new projects that were popped up in mealtime chats or old projects that came to continue their work. A few foreign visitors from other civic tech organizations also came up to the stage to introduce their work at home. The presentations were for sharing, not for competition, so the format and content of a presentation were flexible except for the same time limit. Following the idea of “release early, release often,” incomplete works were welcomed to present what they had done so far and invited future participation and improvement. Most g0v projects took several hackathons and the time between hackathons to develop. Even those who have finished building the technological part, such as Cofacts, would continue their work in maintenance, refinement, and community building. Presentation did not end a project but gave it a new life by opening up collaborative opportunities.

The marathon-like event came to a close in the late afternoon. After being together for the entire day, awkwardness faded away and participants were more bonded as a community. We took a group photo (figure 2.7) with our faces shining with big smiles. But people did not leave after taking the photo. Participants stayed voluntarily to clean up the venue. The stage and

screens were removed, chairs and tables put aside, leftovers wrapped up. The space was empty again. “See you next hackathon.”

For g0vers, the hackathon is a continuous process, not a one-time event. Leaving the hackathon, g0vers carry the *meiyouren* spirit with them to their social lives. Some bring the idea of decentralization to social movements and some introduce openness to government operations; some join civil society groups to hack for sustainable change and some run for government officials to hack from within the system. They do not act collectively under the flag of g0v, but this does not diminish g0v’s political potential. No one represents g0v but everyone can be *meiyouren*. g0vers fork the *meiyouren* spirit in different fields, and at the same time bring new ideas back and invite their friends and colleagues to join. Every g0v hackathon provides the same ritualistic experience yet new ideas and new participants refresh the event and push forward the growth of this hacker community.



Figure 2.7: Group photo at the end of the hackathon. (CC BY 2.0-丞相, taken on September 16, 2017)

People, Projects, and Hackathons

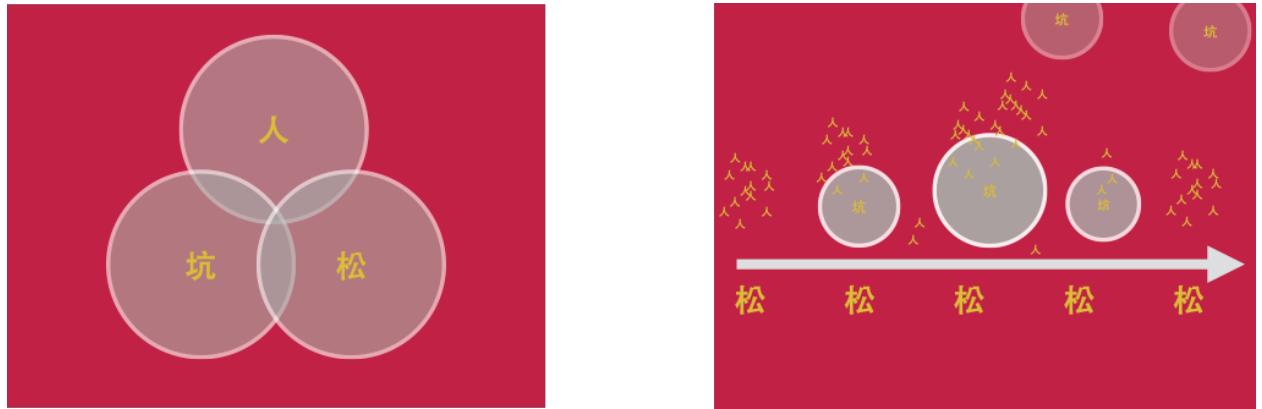


Figure 2.8: Ipa explains the relationship between *ren* (人, people), *keng* (坑, projects), and *song* (松, hackathons) with these two slides.

Ren (people), *keng* (project), and *song* (hackathon) are three pillars that build up g0v. They tell us how g0v maintains as a distributed network through accommodating the diversity of participants, supporting a wide variety of projects, and developing different ways of engagement. Together they create a participatory culture of civic hacking.

***Ren:* Who They Are**

Contrary to the image of anti-social hackers who prefer to interact with machines than human beings, g0vers are far more social than how we imagine they are. As Gabriella Coleman (2017, 94) points out, “hacking is, in most instances, a hypersocialized activity” that demands the collective building of technologies and social spaces. It’s difficult to have precise statistics on how many people participate in g0v and who they are since the community is an open, dynamic one without a fixed boundary. Some numbers give us a clue. Until July 28, 2020, g0v’s Facebook group, which serves as an information portal, has over 14,000 members. More than 8,000 g0vers chat on its Slack or IRC channel (the two chatrooms have been synchronized) on a regular basis and over 200 contributors push code to g0v’s GitHub repositories (a web-based

version control service to share and manage source code). These numbers indicate different ways to participate in g0v and they keep growing. Offline, g0v has held 41 bimonthly hackathons (*dasong*) as well as over dozens of task force meetups or small hackathons (*xiaosong*). In each bimonthly hackathon, due to the space limit, it accommodates up to 120 participants and its online registration is often full before the event takes place. Task force meetups or small hackathons can have 5 to 50 participants, depending on the topic and the venue they are held. Besides hackathons and meetups, g0v has held four biennial summits since 2014, each having around 800 attendees. The g0v summit is a community-run conference where g0vers exchange their successful as well as failed stories with the general public and the international civic tech society. While online spaces allow g0vers to collaborate remotely, these offline gatherings “keep the community heartbeat” says g0v cofounder Clkao¹⁰.

In my observation, most g0vers are in their 20s to 40s¹¹ and well-educated with a college-equivalent or above degree.¹² Male participants are about twice as many as females. Male participants are mostly coders while female participants have more diverse backgrounds. Although male and female participants may contribute different skill sets, there is no noticeable gender gap in terms of contribution, representation, and respect. g0v is also devoted to creating a LGBTQ+ friendly environment. People feel comfortable coming out in g0v. In fact, Audrey Tang, g0v’s active participant and Taiwan’s first digital minister is a well-known trans-woman. She never hesitates to speak out on gender issues in the hackathon. In terms of occupation, the

¹⁰ Claudina Sarahe and Darshana Narayanan, “In Search of 21st Century Democracy: Two Weeks in Taipei,” *Civist*, December 14, 2017, <https://civichall.org/civicist/two-weeks-in-taipei/>.

¹¹ As digital technologies are the main tools used in hacking, g0v tends to attract younger generations who are born and grow up in the digital age.

¹² Taiwan has a very high admission rate to college. According to the statistics made by the Ministry of Education, from 2008 to 2018, the yearly admission rates to college are all above 90% with an exception of 88% in 2012. From Department of Statistic, accessed on August 21, 2020, <https://depart.moe.edu.tw/ED4500/cp.aspx?n=002F646AFF7F5492#>.

diversity of g0vers has been growing since its founding in December 2012. While in the 0th g0v hackathon (counting always starts from zero in g0v¹³), over 80% of participants were coders, from the 13th g0v hackathon, the number dropped to roughly 40% with other 60% of participants from various backgrounds such as designers, lawyers, NGO workers, civil servants, etc. according to the statistics¹⁴ made by researcher Cheng Ting-Yu (2017). We can visibly see the diverse composition through various skill stickers people wear in hackathons.

The number of participants also increases rapidly. Every hackathon has around 30~40% of first-time participants, bringing in new ideas, skills and energy. Although everyone has a personal story of why participating in g0v, many of them express in my informal interviews and chats the frustration or even anger towards the government and an urge to make a change. It's no wonder that the number of newbies often increases significantly after major political events such as mass protests or elections. Not everyone joins g0v to turn their anger into action though. Some NGO workers or researchers participate with a focus on a particular topic they have been working on for some time. They come to seek collaborators and experiment on new technological solutions. Still others attend a g0v hackathon out of curiosity as g0v gets more and more media exposure over the years. Newbies are the key that drives g0v to grow and evolve. With the steady flow of new blood, g0v is able to reach beyond the tech circle and touch upon various social issues.

Keng: What They Do

¹³ g0v has a tradition to count everything from zero rather than one.

¹⁴ The raw data comes from the registration form people fill out when signing up for a g0v hackathon online. In this form, there is an open question about "specialties/skills" (*zhuanchang*) where people can fill in whatever they think they are good at. Since it's an open question, there are all kinds of answers and the answers do not necessarily fit what they do during a hackathon. Therefore, the number only provides a rough idea about the composition of participants.

The second pillar that builds up g0v is *keng* (“pit” in Chinese), which means a project or a task. *Keng* is the basic unit in a g0v hackathon. While a hackathon creates a space for g0vers to meet each other, *keng* invites them to collaborate and to hack. In each hackathon, there are around fifteen to thirty *keng*. Some of them are old ones that continue to develop and some are new ones. *Keng* has no fixed shape and its size and scale may vary. It can be a website, an app, a database, a hardware, a visualization, a piece of writing, a board game, or even an event. Every project has its *kengzu* (project owner), who can be the project proposer or the main contributor. For example, hackathon’s *kengzu* is the Jothon team; Cofacts’s *kengzu* is MrOrz. In the past six years, there have been over hundreds of *keng* and they are of a great variety. They cover topics from government supervision to anything related to the public such as media, food justice, agriculture, social welfare, gender and sexuality, labor rights, transportation, environment, language and culture, etc.

Keng is where action begins. “Digging a *keng*” (*wakeng*) is to initiate a project/task; “Filling a *keng*” (*tiankeng*) is to work on a project/task; “Pushing one into a *keng*” (*tuikeng*) is to match someone with a project/task. *Keng* is often linked with other *keng* to form of a bigger one and it can also be divided up into smaller ones so that g0vers can collaborate on “filling” it. These acts — dig, fill, push — compose the practice of hacking and signify the hands-on imperatives. Dig, fill, push are also acts of connection — they link people with various skills and domain knowledges in the network of collaboration. During my fieldwork, whenever I threw out a new idea to g0vers, they would reply me with “you are the *meiyouren*” and tried to “push” me to “dig” a new *keng*. In so doing, g0v creates an inclusive environment to encourage as many doers as possible to join hacking. The image of *keng* — a pit — allows g0vers to develop rich idioms and phrases that further cultivate a sense of community. They humorously transform old Chinese proverbs and give them a new g0v life. For example: “In my *keng*, there is you. In

your *keng*, there is me (*ni keng you wo, wo keng you ni*).” “One *keng* links to another *keng* and yet another until the end of the world (*keng keng xianglian dao tianbian*).” “If there is a *keng*, there is g0v (*nali you keng, nali jiuyou g-ling-v*).” The term *keng* is so prolific that it has become one of the community passwords that bind g0vers together.

Song: How They Do it

Song is a shorthand for hackathon (*heikesong*), a coding event where people of different expertise collaborate on projects in a confined space within a limited time span. g0v’s bimonthly hackathons, like the one I described in this chapter, are a community ritual where the *meiyouren* spirit is celebrated and embodied. Besides bimonthly hackathons, there are also other topical hackathons. The former is called big hackathons (*dasong*) and the latter is called small hackathons (*xiaosong*). Big hackathons are organized by Jothon (a bilingual pun referring to both “hackathon organizer” in Mandarin and “super” or “fabulous” in Taiwanese), whose members consisted of g0v founders, active participants, and 1~2 paid employees. Bimonthly hackathons used to be named after important historical events in postwar Taiwan such as Martial Mobilization Hackathon and Formosa Incident Hackathon. Starting from the 26th hackathon, they have turned to names that reflect current political incidents. For example, the 33rd hackathon is called “Beijing Will Not Approve This Hackathon” to mock a Taiwan-based pro-China news outlet when it uses the headline “Beijing Will Not Approve” to comment on Taiwan President Tsai’s announcement of running for reelection.¹⁵ These names do not determine the theme of the hackathon, but they do set a tone of g0v’s political intervention that shows a strong Taiwanese identity over Chinese identity.

¹⁵ On February 19, 2019, the China Times published an article titled “Regardless of Beijing’s Opposition, Tsai Ing-wei Is Running for Re-election.” This article aroused public criticism since Taiwan is a democratic polity and its presidential election never needs to get Beijing’s approval. “Regardless of Beijing’s Opposition” soon became an Internet meme.

Unlike big hackathons, small hackathons are named after the topic or project they focus on, and they can be hosted by anyone. For example, a small hackathon focusing on news media is called News Hackathon (*xinwen song*); a hackathon that is dedicated to the project MoeDict is called MoeDict Hackathon (*mengdian song*). Any g0v participant can hold their own hackathons without getting permission from others. While most small hackathons are project-based, these hackathons are not exclusive to project members. People can bring in other projects and form their own teams in small hackathons. Some small hackathons including MoeDict Hackathon and Infrastructure Hackathon are held regularly in-between big hackathons, and others take place randomly. These small hackathons supplement the big ones and help the community build a strong tie.

Meiyouren Can Do Anything



Figure 2-8: In the g0v Summit 2018, the youngest volunteer was helping live broadcasting in the “NOBODY” t-shirt. (CC BY 2.0-g0v, taken on October 5, 2017.)

Earlier this chapter, I showed how *meiyouren* is articulated and practiced in the g0v hackathon. *Meiyouren* is not only how g0vers identify themselves, but also the way they recruit newbies and connect with people who are not (yet) part of the community. *Meiyouren* embodies the values of openness, decentralization, and collaboration. It provides g0v both ontological and aesthetic foundations of activism.

In Chinese, *mei-you-ren* is a three-character noun. *Ren*, a gender neutral noun, means human. Nouns in Chinese do not make a distinction between singular and plural forms. To express amount, a numeric determiner is added before a noun. In the case of *meiyouren*, the numeric determiner is *meiyou*, meaning “none.” Thus, *meiyouren* literally means no one or nobody. The term *meiyouren* is a prolific pun. In “Don’t ask why *meiyouren* is doing this. You are the *meiyouren*,” the first *meiyouren* means no one, the absence of a subject, and the second transforms the absence into presence. The *meiyouren* spirit is exactly this becoming process. *Meiyouren* is both a pronoun and a verb at the same time, turning a powerless nobody into a competent actor through highlighting that “*meiyouren* can do anything.” *Meiyouren* is not defined by ideology, social class or political stance; *meiyouren* is first and foremost a being of action. “To do” is *meiyouren*’s supreme principle. Like hackers, “they don’t wait for language to catch up to them. Their arguments are their actions” (Gunkel 2000, 813). *Meiyouren* disputes the assumption that politics is politicians’ game and encourages everyone’s participation. In this sense, *meiyouren* is a call for action, a becoming of actor.

Ideally, *meiyouren* acts in collaboration without a central organization. g0vers make a clear distinction between cooperation (*hezuo*) and collaboration (*xiezuo*): cooperation requires the division of labor to achieve a set of mutually-recognized goals, and collaboration is to

coordinate individuals without organization based on rough consensus. Venev, an early g0ver who has been rather inactive after becoming a mother, further explains that cooperation is built upon the model of contract; conversely, collaboration relies on “*moqi*” (an unspoken agreement or tacit understanding). In other words, contract-bound cooperation builds upon rational calculation and registers *Homo Economicus* while *moqi*-driven collaboration is relational and affective, pointing to *Homo Sentiens*. A collaborative mode of action is more flexible and responsive to changing circumstances since every participant can take an immediate action without waiting for collective approval. Such a response is not simply individual but based on communal norms—that is, *moqi*. However, collaboration has its flaws. A collaborative project often starts without full planning and has less deterministic schema, and it needs either mass participation or a huge amount of time to grow mature. They are also more likely to encounter “bugs” during the process due to a lack of planning. But g0vers turn this deficiency into a virtue as bugs invite patches and improvements, leading to continuous growth. Sayings like “hackathons’ codes are live and organic because they all have bugs in them” or “release early, release often” show how g0vers welcome errors and encourage imperfection. Completion and perfection only lead to closure while imperfection invites collaboration and opens up possibilities.

Meiyouren acts at their own will, not following anyone’s order. *Meiyouren*’s action is spontaneous and multidirectional. There is no need to have mutual consent before an action is taken. Consent is not the premise for action. Instead, action is where consent forms and dissent reveals. Individual actions might converge into a collective one if they share values and goals, and a collective action might come apart if the values and goals diverge. g0vers use coding terminologies “fork” and “merge” to describe this dynamic. To them, fork and merge are so

common and essential to the growth and equilibrium of the community as they allow room for experiments and provide a mechanism to resolve conflicts.

Meiyouren is heterogeneous and refuses to be labelled. The idea of *meiyouren* resonates with what philosophers Michael Hardt and Antonio Negri (2004) call “multitude,” which is “composed of innumerable internal differences that can never be reduced to a unity or a single identity” (xiv). Like multitude, *meiyouren* is one and many at the same time, “a multiplicity of all these singular difference.” But differences do not stop them from taking action together. As Hardt and Negri reveal:

Perhaps in this process of metamorphosis and constitution we should recognize the formation of the body of the multitude, a fundamentally new kind of body, a common body, a democratic body. Spinoza gives us an initial idea of what the anatomy of such a body might be. “The human body,” he writes, “is composed of many individuals of different natures, each of which is highly composite” — and yet this multitude of multitudes is able to act in common as one body. If the multitude is to form a body, in any case, it will remain always and necessarily an open, plural composition and never become a unitary whole divided by hierarchical organs (198).

Meiyouren thus acts like “rhizome” (Deleuze and Guattari 1987), a type of subterranean stem that shatters linear unity. Rhizome resists an organic structure and ceaselessly ramifies and makes connections. It is a becoming that cannot be divided as separate structures. Rhizome brings about the de-territorialization of one term and re-territorialization of the other, and is open and connectable in all of its dimensions. Like rhizome, *meiyouren* resists unity, organism, structures, and hierarchies. *Meiyouren* is a becoming-network that forks erratically and merges

with heterogeneous elements. *Meiyouren* denies the hierarchical organs of a political body and resists the subjectification of the state by blurring the boundary of who is governing and whom is governed. *Meiyouren* is a body of a unique type — no-body, or, in Deleuze and Guattari's word, "a body without organs." *Meiyouren* is therefore a new mode of political figuration that emerges in the era when the neoliberal process of "accumulation by dispossession" (Harvey 2005) takes place globally on the one hand, and the rise of populism, extremism, and radical nationalism spark conflicts and wars in the name of identity on the other hand. *Meiyouren* takes root in but challenges both processes from within — *meiyouren* is at the same time cosmopolitan and grassroots, dancing around the idea of openness while engaging relentlessly in local politics.

In all, *meiyouren* is both one and many, noun and verb, actor and action, being and becoming. *Meiyouren* is an open, rhizomatic network, a body without organs, that keeps challenging boundaries and establishments. Indeed, the *meiyouren* spirit is so abstract and ideal that it seems unlikely to be real. We are left wondering what happens when the *meiyouren* spirit is put into practice. What are the obstacles and the limitations of realizing *meiyouren*? Can this *meiyouren* spirit really make a change in politics as well as activism? The rest of this dissertation tries to tackle these questions, but I must emphasize first that for g0vers, these are not the right questions to ask. *Meiyouren* is NOT the ideal but the process of realizing the ideal. *Meiyouren* never denies failures and imperfections, but failures and imperfections cannot stop *meiyouren* from reaching out and connecting with one another. *Meiyouren* is an invitation: "Don't ask why *meiyouren* is doing this. You ARE the *meiyouren*."

Conclusion

The g0v hackathon is g0vers' rite of passage that transforms participants from slackers to actors, from powerless nobody to empowered *meiyouren*. *Meiyouren* is born through the ritualistic process of hackathons. Shared hackfoldr, live broadcasting, skill stickers, newbie's game, keyword introduction, food sharing, etc. — all these elements make hackathon a liminal space where transformation takes place. Leaving hackathons, this new political figuration, *meiyouren*, plunges into various social fields and political activities. Some of them show up in street protests to provide technological support, carry out live broadcasting, or simply sit in with other activists. Some take a further step to join non-profit organizations, human rights groups, or political parties so as to have engaged and persistent participation in a more focused topic. A few of them even enter the government to serve as consultants or civil servants in the hope of making changes from within. *Meiyouren* never stays simply behind the computer. Either resistance or collaboration, they are making their own ways to hack politics.

The *meiyouren* spirit cultivated in g0v is a response to slacktivism that has long plagued digital activism. Tech critic Evgeny Morozov (2011) criticizes that political activities on social networking sites such as clicking “Like” or “Share,” online petition, or joining a cyber campaign only make us feel useful but have little real-world impact. Even worse, such feel-good online activism, or slacktivism, gives people the wrong impression that another kind of politics — digital, fun, and effortless — is feasible and preferable, thereby undermining conventional forms of activism that are much more willing to confront power for social change. Political theorist Jodi Dean (2009) makes a similar argument. She points out that it is a fantasy that technologies enhance participation. “The technological fetish ‘is political’ for us, enabling us to go about the rest of our lives relieved of the guilt that we might not be doing our part and secure in the belief that we are after all informed, engaged citizens. The paradox of the

technological fetish is that the technology acting in our stead actually enables us to remain politically passive” (37-38).

g0v hackers respond to slacktivism and technology fetishism with the *meiyouren* spirit. They show us that the political potential of the digital is far beyond clicking “Like” and “Share.” They are constantly innovating technologies and adapting strategies for the best hack. Using data to uncover hidden facts, making tools to supervise government operations, or creating new deliberation channels are all different strategies g0v adopts in carrying out digital activism. Moreover, while the Internet is the foundation of g0v projects, *meiyouren* is not confined in cyberspace. g0v’s activism incorporates online campaigns and offline actions to maximize political impacts. As sociologist Martha McCaughey (2014, 2) also notes, “[c]yberactivism is typically combined with many forms of movement organizing and protest from the analog era, including donating time and money, talking to people, showing up to courts, demonstrating on the streets, clashing with police, and otherwise putting one’s body on the line.” Similarly, in g0v, online and offline activities often happen side by side for one can both participate in the physical gathering of hacking and at the same time use mobile technologies to carry out political actions in the virtual space.

Unlike the Californian Ideology that celebrates the liberty of individuals within the marketplace, *meiyouren* resists to become self-interested individuals and seeks new ways of networking differences. It is too simplistic to define g0v by the dichotomy of techno-optimism and techno-pessimism. Beliefs and critiques of technologies take place side by side. As hackers, g0vers are aware that technologies are a double-edged sword. They often stand at the frontline pushing for technological advancement while fighting against techno-political control at the same time. Philosophers Alexander Galloway and Eugene Thacker (2013) discuss how protocol functions

as “a horizontal, distributed control apparatus that guides both the technical and political formation of computer networks, biological systems, and other media” (37) in control societies. They argue that resistance against protocological systems is created in the “hack” — in the “exploit” when one must work to find gaps, moments of escape and freedom from control. “Protocological struggles do not center around changing existent technologies but instead involve discovering holes in existent technologies and projecting potential change through those holes” (157). It is in protocol exploits that hackers, who are the harbingers at the border of techno-cultures, take on their resistance.

However, we should not be blind to the fact that most g0vers are financially stable, which allows them to spend so much time on these payless projects. At least, they don’t need to worry about where the next meal comes from. g0vers are mostly middle class. Even though many of their projects focus on improving social welfare, fighting for labor rights, and building community ties for underrepresented groups such as blue-collar workers, the aboriginal people, the LGBTQ+ community, and immigrants, how to bridge the digital divide and empower these people to become part of their collaborative network is still the issue at stake.

3. Organizing a Non-organization

g0v is a mode of communication and collaboration, non-organization.

— Lee1092

On the other day after the Fifth Anniversary Hackathon, I sat with Jothon (hackathon organizers) members Clkao, Ipa, Tkirby and Ael at a Japanese BBQ restaurant. It was Friday lunchtime, before Jothon had their weekly meeting. During my fieldwork, I worked in the Open Culture Foundation, where Jothon also shared office space.¹⁶ With their consent, I often “overheard” their meetings and joined their tea break conversation. As the Fifth Anniversary Hackathon had just concluded, we decided to have a celebration lunch. It was also when I was about to wrap up my fieldwork and return to the United States. They agreed to give me a lunchtime interview.

Founded in 2015, three years after the first g0v hackathon, Jothon is a task force that organizes g0v’s bimonthly hackathons. Before Jothon was established, g0v’s hackathons were organized by the founders — Clkao, Ipa, Tkirby — who decided on the date and booked the venue. The founding of Jothon standardized the process and allowed more g0vers to join the discussion of community governance. Jothon members were all unpaid volunteers until 2016 when it obtained an industrial fund and started to hire full-time and part-time staff like Ael. With this money, they also founded The g0v Civic Tech Prototype Grant (hereinafter referred to as “The g0v Grant”), which has been supporting sustainable buildings of civic tech projects.

¹⁶ As the lease of the office space came to an end in September 2019, OCF and Jothon moved their offices to separate locations. Jothon moved into a coworking space with other NPOs, which became a new hub for community meetups.

As the waiter brought us our meat, Tkirby said excitedly, “g0v was also born in a BBQ restaurant!” The story began in 2012 when the government released a 40-second commercial for the upcoming policy “Power-Up Plan for the Economy.” Lack of substantial information, the commercial only repeatedly stressed how complicated the plan was and asked for people’s trust. “A few words cannot explain this complicated policy. Many things are speeding up now. Actions speak louder than words. Economy first. Let’s do it!” Shortly after, a report uncovered that this commercial cost nearly five million Taiwanese dollars. Clkao, Tkirby and their two friends were preparing their project for Yahoo Open Hack Day when they saw this news. Infuriated by the commercial, they made a last-minute decision to change their project from Online Window Shopping to Government Budget Maps, which presented the government annual budget as interactive visualization. On Government Budget Maps, budget items were translated into the prices of lunch box, bubble tea, space travel, Dibao (the most expensive mansion in Taipei), etc., and invited citizens to review and rate each item. To their surprise, Government Budget Maps got an honorable mention and won a fifty-thousand prize. As they celebrated in a BBQ restaurant, Clkao raised the idea that they should use the remaining money for a hackathon that focused on public issues like Government Budget Maps. This idea got everyone’s support. They soon held a hackathon on December 5 with nearly 80 participants coming to hack for social good. This hackathon became the very first g0v hackathon.

Indeed, from its very beginning, g0v took a very unique path compared to other civic tech organizations around the world. It was born out of a hackathon before it had a community. It was built upon action instead of ideas. Most importantly, it was designed to be open and decentralized. “Decentralization promises the freedom of participation to various degrees.....When we were imagining g0v, we were thinking about open source — being both

a movement and an ideology. Anyone agreeing with the idea can participate without others' permission," said Clkao in our lunch conversation.

Clkao is an open source hacker who loves cooking, hiking, hot springs, and cats. In his twenties, his coding talent and experience in open source projects led him to a software job in the UK. In 2008, he returned to Taiwan. "I just felt bored and missed Taiwan's mountains." Clkao was an outdoor adventurer before he broke his spine in a paraglider accident in 2012. He was 32 when the accident changed his life from a tech entrepreneur who knew how to enjoy life to a civic hacker who engaged politics with his computer skills. In g0v, Clkao has a special position. They call him Chief Kao, recognizing his "prominent position" although he never really "leads" g0v. He introduces the way open source works to g0v and initiates discussions on key community rules. This is why Ipa calls Clkao a "benevolent dictator":

In g0v, Clkao plays the role of benevolent dictator. When he makes open declarations, everyone will follow.....Every g0v project may have its own benevolent dictator. But in terms of community affairs, like making rules on Facebook posts or conference organization, Clkao is often the one who draws a framework and others continue to complete it.

Clkao was not alone in initiating discussions about community rules. Tkirby, his college friend, also joined him in building g0v from day one. Tkirby is a coder and a photographer. This combination makes him a visual storyteller and an expert of data visualization. After quitting his job from a renowned tech company in Taiwan, he started a startup and has been working with journalists to produce interactive, digital stories. He is not a political enthusiast, nor a

street activist, but he believes that coding can be more than making digital products: “In this digital society, everyone can become the one who makes a social change,” said Tkirby.

Contribution in g0v does not necessarily take the form of coding though. Ipa, a writer and a documentary director, doesn’t know how to code at all. Her tools of hacking are pen and camera rather than keyboard. Ipa is Clkao’s partner and they have two little cute boys. She is a good commander — whenever Clkao raises a new idea, Ipa knows how to mobilize people and things to make it happen. Ipa also plays the role of matchmaker. “The keyword of Ipa is human-project interface,” says g0vers jokingly. She eases newbies’ nerves and directs them to the right *keng* (project). Ipa has written many introductory documents that provide directions to newbies and non-coders in order to lower the participation threshold. She also contributes a lot to g0v’s “infrastructure” — she is the one who initiated Jothon, The g0v Grant, and Infrastructure Hackathon. Nevertheless Ipa calls herself “a skeptic of openness.” She constantly reflects on what openness means in regard to what g0v is doing and how g0v is organized.

We make rules of decentralization to drive the community to grow. G0v has several written rules: the g0v Manifesto, the g0v-talk policy, and the rule of participating in g0v’s Facebook group etc. These rules set up the foundation of g0v’s culture — open and positive, diverse without chaos.....If you look into all g0v’s events and shared notes, you will find the key point is always “open.” “What is open is g0v.” This is a bold assertion. Some people may doubt: “is it okay for people of different positions all claim to be g0v.” Yes, Clkao and open source geeks will agree with this. In this sense, what Jothon is doing is to encourage more people to participate in g0v so as to increase the power of openness and to enable the exchanges between people of different positions and various expertise.

The founding of Jothon made g0v more open and transparent. It redistributed the power that was formerly owned by the benevolent dictator Clkao to a formalized task force. But it also became a center of power. Jothon standardized the task of holding the g0v hackathon and served to maintain all kinds of community infrastructure such as website, chatroom, or tools used in hackathons. Drafting and revising community policies such as GitHub rules and the Code of Conduct are often launched in Jothon meetings and continue in Infrastructure Hackathon. Jothon is one of the examples of how centralization and decentralization are in a constant negotiation in this growing community. With a culture of “do it first,” individuals with experiences and skills often stand out and receive more respect than others. These individuals accumulate reputation and influence power, producing nodes in this supposedly decentralized network. To counterbalance the centralizing process, new task forces emerge and new governance rules are set up. In this centralization-decentralization dynamic, g0v has grown far beyond what was originally imagined by these founders.

MG: Where will g0v end?

Ipa: I think the right question is when Jothon will disband. What is Jothon’s sunset provision? Everyone can claim g0v but no one can end it.

Tkirby: Should we make a will, like what if Jothon members get into an accident on a trip.

Ipa: Bus factor.

Clako: So we should take different flights.

Tkirby: Let’s write a SOP and make it open.

Clkao: And assign a designated survivor.

Tkirby: MG, what about you writing one?

(All laughing.)

***Shequn* and the FOSS Movement**

On g0v's website, it introduces itself as a *shequn* (community) that “pushes information transparency, focusing on developing information platform and tools for citizens to participate in society.” Similar to its English translation “community,” *shequn* has multiple meanings. In its literal sense, *shequn*, unlike *shehui* (society), is a voluntary gathering of people who share similar goals, interests, or values. *Shequn* is also a shorthand for “virtual community,” especially social media groups¹⁷. Besides these two meanings, *shequn* is specifically used by Taiwan’s Free and Open Source Software (FOSS) communities as a self-reference term that, in contrast with *zuzhi* (organization), highlights the values of openness, decentralization, and collaboration. By self-referencing as *shequn*, g0v connects itself with the FOSS movement and the value system it upholds.

The FOSS movement began in the 1980s in the United States when the evolving software industry started to use copyrights to restrict computer users from freely sharing and editing their software products. FOSS, an abbreviation that combines “free software” and “open source software,” is a legal-techno movement that fights against the monopolization of software by technology companies. Richard Stallman, a free software activist and the founder of the GNU Project, proposes the idea of “copyleft,” which “frees” software from proprietary licenses with specific licenses that defend users’ rights to use, distribute, and modify it. He argues that “‘free software’ is a matter of liberty, not price. To understand the concept, you should think of ‘free’ as in ‘free speech,’ not as in ‘free beer’” (Stallman 2002, 43). Later, Eric Raymond rebrands “free software” with “open source” with an attempt to emancipate the latter from Stallman’s social activism and to give commercial value to open source software. Raymond emphasizes

¹⁷ In Taiwan, social media is translated as “*shequn meiti*.”

that open source is about an “innovative and competitive production method perfectly compatible with a new form of capitalist accumulation” (Tkacz 2012, 395). Despite the difference between Stallman’s “free software” and Raymond’s “open source software,” these two terms are often used interchangeably or put together as one long term like FOSS.

The most remarkable contribution about FOSS is its challenge to law and governance. FOSS encourages users to move from “simply following the law to understanding the law, to actually feeling capable of writing the law” (Rushkoff 2003, 58). Embracing a participatory culture, FOSS is not simply a type of software, but it is actually a form of social collective. FOSS has given birth to a great number of digital communities that center around different technological projects, including the famous ones like Debian, Mozilla, and Wikipedia, and it also inspires other open movements, such as open data, open science, open access, etc. As Christopher Kelty (2008) reveals, FOSS is in itself a “recursive public,” which concerns with “the material and practical maintenance and modification of the technical, legal, practical, and conceptual means of its own existence as a public; it is a collective independent of other forms of constituted power and is capable of speaking to existing forms of power through the production of actually existing alternatives” (3). It is exactly from the capability of speaking to existing forms of power that g0v embarks on their political projects.

In Taiwan, long before social media became popular, local FOSS communities like Elixus, OpenStreetMap Taiwan, MozTW, and Ubuntu have been using *shequn* to describe their collectives. These FOSS communities have overlapping participants, shared resources, and joint events. One of the most important events is the annual Conference for Open Source Coders, Users and Promoters (COSCUP), whose tickets are often sold out a few minutes after it gets online. The vibrant FOSS communities provide fertile soil for g0v to grow. Most early

g0vers including the founders Clkao and Tkirby are FOSS practitioners and have known each other in other FOSS events long before g0v was founded. There are also many collaborations and exchanges between communities. For example, g0v uses OpenStreetMap to build resource maps for disaster rehabilitation; WikiTaiwan comes to g0v to solicit editors on political topics; Mozilla provides event space for g0v meetups, etc. Instead of seeing g0v as a political organization, participants claim that g0v is first and foremost an open source community with a special focus on public issues. By calling itself as a *shequn*, g0v connects itself with the FOSS network and appropriates FOSS values as their hacking ethics. Indeed, *shequn* is the password that leads g0v into the world of openness. Taking roots in the FOSS movement, g0v gradually develops its community and culture.

Non-organization

Building upon FOSS and its critiques of the closed flow of information and proprietary control of code, g0v translates openness into community governance and develops its own terminologies. In a collaborative note titled “How to explain g0v as a non-org?”¹⁸ the concept of non-organization (*fei-zuzhi*) is proposed. This note was drafted collaboratively by g0vers right after the 2014 Sunflower Movement when news reported g0v as an anti-government organization and journalists reached out to invite its “leader” for an interview. While anti-government was a rather radical term that did not really fit for g0v, g0vers seemed to be concerned more about being called an “organization.” To g0vers, the request was inconceivable since no one represented g0v and no one dictated the action of these hackers. Resisting being

¹⁸ g0v.tw, “How to explain g0v as non-org,” Hackpad, accessed August 21, 2020, <https://g0v.hackpad.tw/ep/pad/static/U2wyPzSvrSy>. All translations by the author.

labelled as an “organization,” they used the prefix “non” (*fei*) to transform the hierarchical “organization” into an open “non-organization,” just like what they did for *meiyouren* (nobody).

The idea of non-organization is the other side of the story of *meiyouren* (nobody). *Meiyuren* describes the being of action, and non-organization outlines their network; *meiyouren* embodies the imperative to hack and the value system behind hacking, and non-organization delineates how hackers are self-organized and self-governed. *Meiyuren* embodies the political philosophy of hacking; non-organization tells its technique. The negative prefix “*fei*” is generative here since it opens up imaginations of what this assemblage of hackers can be. Among all imaginations, the one depicted by Walkingice especially catches my eye.

In my imagination, g0v is a piece of fenceless grasslands. In the middle of the grasslands is a billboard of the g0v manifesto. Everyone agreeing with the manifesto can walk in freely and walk out anytime.....How do the people on the grassland interact with each other? They do it like the Japanese views cherry blossom: simply to find a space, put on a picnic mat, and start to chat with each other. There are many groups on the grasslands, some groups will interact, some not.....In g0v, you can initiate a project at your will and put on a mat to invite others to join. There are quite a few g0vers enjoying sitting alone and preparing their own delicacies. As they open their meal boxes, the smell will spontaneously attract other g0vers. On the grasslands, no one can give command. People come and go. You might find some familiar faces who stay here longer than others and listen to the stories that happened on the grasslands, but you would never find a representative. When you yell “Who is in charge of here? I want to

say something”, you will only find confusing faces, wondering “what are you talking about?”¹⁹

Grasslands is an open space where everything is rendered transparent. Leadership is absent, and everyone shares part of the grasslands. Freedom is the underpinning tone. Connectivity is built upon individual autonomy and, of course, the delight of food-sharing (a highlight of g0v’s hackathons). People evaluate each other by merit. Respect is achieved, not ascribed. The atmosphere is relaxed and joyful.

The concept “non-organization” resonates with tech scholar Clay Shirky’s famous book *Here Comes Everybody: The Power of Organizing without Organization* (2008). Shirky argues that online social tools have significantly lowered participation threshold and enabled new kinds of group-forming. The process of “filter-then-publish” in the old printing press has given way to “publish-then-filter” in social media platforms. Hands-on digital tools allow people to coordinate large-scale group action without the organization of traditional institutions. The technological power of “organizing without organization” brings forth an anticipation of a new politics that can overturn the malfunctioned, bureaucratic democracy with a more equal, participatory democracy.

In *Blogs, Wikipedia, Second Life and Beyond* (2008), media scholar Axel Bruns makes an in-depth analysis of the online participatory culture that provides us insights to think how a non-organization moderates participation. Bruns argues that the network structure of the Internet has generated new media practices — which he coins “produsage” — that “[break] down the

¹⁹ Walkingice, “g0v is grasslands,” *Walkingice Blogspace*, April 12, 2014, <http://walkingice.blogspot.com/2014/04/g0v.html>. All translations by the author.

boundaries between producers and consumers” and invite communal and collaborative development of content. He identifies four principles of the produsage model that nicely speaks to how g0v works:

(1) **Open participation, communal evaluation:** As the open source’s motto “given enough eyeballs, all bugs are shallow” indicates, g0vers see participation as the key for improvement and are devoted to build an inclusive environment to encourage as many contributors as possible. No criteria to contribute, various approaches to guide newbies, and the idea of *meiyouren* are all ways to encourage participation. Contributions can be small or big, and take various forms depending on contributors’ diverse skills. However, it does not mean that all contributions are equal. g0vers evaluate each other’s contribution by its applicability, relevance and quality. A good contribution will be noted and continued. A bad one will be ignored. Such a mode of communal evaluation pushes participants to engage in “the continuing process of socialization” (25) which in turn forms the community’s ethos.

(2) **Fluid heterarchy, ad hoc meritocracy:** Open participation enables a networked, heterarchical model in which the status and reputation of participants are defined and redefined continuously based on their contributions. A g0ver with lots of contributions is often addressed respectfully as “*dada*,” who is not a leader of any kind but possesses a certain power of influence in the community. Instead of having a single body of command and control, g0v has many loosely-connected task forces working simultaneously for different tasks. Each task force has their own governance model. A “leader” of a task force might be generated according to one’s contributions and merits, but most of the time, leadership just happens when one takes the lead and others follow. “Leaders” can be individuals or teams, and their durations vary according to tasks. The status of “leaders” in g0v is different from the ones in hierarchies as

“leaders” such as *kengzhu* (a project owner) have no mandatory power and are frequently challenged by other participants.

(3) **Unfinished artefacts, continuing process:** A g0v project is continuous and always incomplete. Completion is not the ultimate aim of produsage acts; instead, it is the collaborative engagement of producing and improving a shared work in an iterative, evolutionary process that composes produsage acts. While the applicability and impact of a work matter, the collaborative process of producing it means more significantly. Nowadays, with the support of version control technologies, such as git, the development history of a work can be easily viewed, kept, and even reversed. These technologies enable different works to merge into one or one work to fork into many while keeping available all their past versions. Moreover, the freedom to fork and merge under open licenses further makes work a never-ending process.

(4) **Common property, individual rewards:** The content created in g0v will remain as a common property and available to future participants. Open licenses are essential to ensure such continuity. A clear statement of license is very important in all g0v’s projects since the FOSS movement began from challenging the legal framework of copyrights and has developed their own language of rights. With open licenses and version control technologies, even though the content is communally owned, original authors and individual contributors are honored and rewarded with merits. Participants are thus motivated to contribute to communal projects.

Although Shirky and Bruns both suggest a unique participatory culture enacted by the Internet, it would be naive to take for granted that digital technologies naturally bring about decentralized participation. We have noticed that the advance of technologies can lead to centralization of power into a few giant companies — big tech as they are called — and the

online social spaces are deeply influenced by manipulations of algorithms for commercial or political purposes. Digital participation, like all other forms of participation, needs careful moderation that attends to both technological development and social transformation in order to keep up its ethical promises on openness and decentralization. For the rest of this chapter, I want to provide an in-depth account of three times of g0v's "Seldon Crisis." Through these stories, I show how g0v moderates participation while striving to maintain a balance between community growth and decentralization, how struggles and competitions are reconciled, and how power, representation, and governance work in g0v?

Seldon Crisis: A History of g0v

So far, I've provided a rather changeless picture of g0v. However, change, significant or trivial, happens all the time. Both shifting political circumstances and rapidly evolving technologies contribute to the transformation of this hacker community since its founding. Even the ideas of openness, collaboration, and decentralization are continually rearticulated to cope with change. In retrospection, g0vers identify three times of "Seldon Crisis," a term borrowed from Isaac Asimov's sci-fi *Foundation* to describe an inevitable course of change induced by both internal and external pressure. Each time, debates of representation surged and caused the founding as well as forking of task forces.

"Forking," a duplication of things (code, task forces, etc.) from the origin to start a separate, competitive path of development, is a technical process that lies at the core of open source projects. As Nathaniel Tkacz (2015, 133) points out, "[t]he core freedom in free software is precisely and explicitly the right to fork.' Forking, then, is crucial to the identity of open projects so much so that a project that cannot be forked it's not considered open." In g0v,

forking not only safeguards the freedom to be open, but it is also a process of democratization. Forking provides an exit of conflict and drives power redistribution. It disrupts establishments, reverses the centralizing tendency, and keeps a dynamic balance between radical decentralization and rigid organization in this growing community.

I. Germination: Reaching out to the Public

In g0v's early days, the community was still small and its structure was flat. All g0vers chatted in one IRC chatroom, where everyone knew everyone and shared projects, ideas, and gossip together. Hierarchy was absent, and one's power of influence depended on their merits. In August 2013, the first Seldon Crisis happened, bringing in a large number of new participants and challenging the open principle of the community. This Seldon Crisis took place on the Gossiping Board of PTT, the largest Bulletin Board System in Taiwan. PTT to Taiwan is like Reddit to the US. One day, a post about g0v as "the Keyboard Revolution" went viral on PTT. This was the first time g0v caught huge public attention beyond the open source circle. With the post, hundreds of netizens poured into g0v's chatroom and many also came to the g0v hackathon. Accommodating these newbies was a big challenge, especially because the idea of open collaboration was new to many of them. Also, the extensive usage of digital tools and jargon-loaded conversations intimidated newbies. After a few encounters, g0vers started a series of new measures to lower the participation threshold, for example, doing the newbie orientation in the g0v hackathon and improving the user experience of the g0v website with a comprehensible, step-by-step guide for people who wanted to take part in.

In the meantime, talk and interview invitations came one after another. g0v-talks, a closed email list, was formed in early 2013 to respond to these invitations. This email list was created by Clkao. With increasing invitations for him to share "the g0v story," Clkao set up this email

list to distribute the power (and the burden) of representation. Since then, g0v-talks has served as the interface between the community and the public. Invitations would be directed to this email list and a response would be coordinated within the list. g0v-talks was the first task force that took charge of community-related tasks. As of July 2020, g0v-talks had around thirty members, including the founders and many longtime active participants. To become part of g0v-talks, a candidate had to be endorsed by three existing members. The request of joining would be dismissed if the candidate receives disapproval by more than half of the members. While g0v-talks only responded to talk and interview invitations and did not manage other community affairs, with the chance to speak on behalf of g0v, its members were more likely to be regarded as representatives or even leaders by the public. The representative power of g0v-talks has been diminishing because it is getting easier to reach other g0vers via Slack, a messaging app which has replaced IRC to provide the channel for daily chatting in g0v. As more and more projects established their own task forces, interview invitations would go directly to project owners rather than g0v-talks if interviewers have a particular interest in mind. Also, these invitations are encouraged to be conducted on collaborative notes instead of private interviews so that every g0ver can take part in.

II. Burgeoning: From Decentralization to Polycenters

The second Seldon Crisis was the outbreak of the Sunflower Movement, which took place from March 18 to April 10, 2014. Protesters in the Sunflower Movement occupied the Legislative Yuan against the hasty passage of a trade deal with China. Although g0v was not the leading role in the movement, it shot to fame with its high-tech capacities. For instance, a few g0vers quickly set up speedy Internet connections linking the Legislative Yuan with the outside occupied area. They also established an online platform for protesters to coordinate actions and supplies. The Sunflower Movement stormed Taiwan and gave birth to a generation of

“awakening youth” (*jueqing*), who were skilled in new technologies and envisioned an open and transparent politics against the corrupt, mal-functioned bureaucratic government. g0v’s novel way of digital collaboration and decentralized governance appealed to these awakening youth. Unlike PTT netizens, these awakening youth were self-motivated and enthusiastic to take action. They were the perfect candidates of *meiyouren*. With the end of the occupation, many protesters joined g0v to continue their political activities. Some of them stayed and became the backbone of this growing community.

These new participants came from all walks of life, contributing diverse expertise and revitalizing the community. This was also a time when all kinds of political mobilizations took place and citizens actively engaged in public affairs to an unprecedented degree. These “battlefields”—online and offline protesting sites—providing g0v with opportunities to push forward their digital activism. Similar to the PTT incident, how to accommodate new blood was still an issue, but this time, it was more than bridging the cultural gap. Questions regarding identity (e.g. Who are we?), governance (e.g. What is g0v? How does g0v work?), and political stance (e.g. Is g0v an anti-government collective? Should g0v form a political party?) rose to the center of debates. These debates took place virtually in shared notes and chats. Although no conclusions were drawn to these questions, conversations and reflections around these questions set the base tone that continued to influence the development of g0v in the following years.

At the same time, projects doubled in number and formed task forces that led to burgeoning nodes on this expanding network. A few task forces began to hold their own meetups or small hackathons beyond the bimonthly “big” hackathon. For example, MoeDict, an open dictionary project, first convened a small hackathon in November 2013. After the Sunflower Movement,

it started to hold regular hackathons to fill the gap month of big hackathons, which took place bimonthly. With continuous input, MoeDict soon grew into a powerful online Chinese dictionary with voice over, stroke animation, translations of five languages (English, Germany, French, Taiwanese Hokkien and Taiwanese Hakka), and an offline app. The success of MoeDict inspired two other open dictionary projects — iTaigi on Taiwanese Hokkien and Amis MoeDict on one of Taiwan’s indigenous languages Amis. These open dictionary projects attracted many participants, especially those with no tech background. They exemplified that g0v was not simply a bunch of geeks wanting to use technologies to intervene politics. g0v could also be a collective of creative minds devoted to cultural building.

Besides project task forces, an important community task force, Jothon (meaning “hackathon organizer”), was established in April 2015. In g0v’s early days, big and small hackathons all used the same account “g0v.tw” on the ticketing platform to run logistics. After some small hackathons like Moedict forked out their own accounts, g0v founders decided to register Jothon as the task force of organizing big hackathons so as to avoid overly representing the entire community. Jothon was composed of g0v founders and a few longtime g0vers. They met up weekly to discuss community affairs. Besides holding big hackathons, they also took on various infrastructure works, such as building a portal for all g0v projects or planning newbie orientation. Like g0v-talks, Jothon did not serve as a governing body, nor did it set up policies, resolve disputes, or impose rules. However, with devoted volunteers and regular meetups, Jothon had a notable impact on g0v, especially for it made decisions on big hackathons.

Another important organization, Open Culture Foundation (OCF), was founded earlier in June 2014. Established as a non-profit, OCF provided accounting and logistical support to Taiwan’s open source communities and conferences, including g0v. The discussion of having a non-

profit that acted as a legal entity was initiated by Clkao, who later became one of the five board members, in early 2014. Every year, there were over dozens of open source conferences in Taiwan, but as community events whose organizing teams often dissolved after events ended, their financial management was always a hot potato. The founding of OCF offered a solution. OCF provided an independent account and staff support to each community to raise funds and run events. Except financial management, OCF did not intervene with community operations. To g0v, OCF is both infrastructure and a partner. Before the establishment of OCF, g0v's fund (mainly used to pay hackathon's venue and food) was from participants' small donations collected in hackathons and kept by g0v founders using a Google Spreadsheet. With an independent account maintained by OCF, g0v's finance became more transparent, and it started to raise funds from the public. Furthermore, as OCF began its advocacy in issues relating to data privacy and digital security, it became an important NGO partner to g0v.

The establishment of task forces and partnerships showed g0ver's growing network and its experiments on various modes of organizing the community. Openness was still the shared value, but how to understand and practice openness varied from task force to task force. Translating openness thus depended on the personalities of task force members and their "*moqi*" (tacit understanding). After all, as g0vers would say, "whoever takes the work has the say." For this action-centered community, making things work was prioritized to how to make it work. However, these various ways of organizing and governing task forces would soon become the center of conflict.

III. Blossom: Experimenting New Collaborations

On August 25, 2016, a few months after the elected president Tsai Ing-wen inaugurated, a news struck g0v. Audrey Tang was appointed Taiwan's first digital minister, a new position in charge

of open government and the digital economy (see Chapter Five for more discussion on Audrey’s rise to the minister position). Audrey was a legend with many titles: a hacker, a prodigy, a trans woman, and now a minister. In g0v, she was a contributor to some famous projects like MoeDict and vTaiwan. “Da, da, da. If you hear the sound of keyboard typing, you are hearing the bugs eliminated by Au,” said jokingly by g0vers²⁰. While Audrey was not the first nor the last g0ver entered the government, this high-ranking appointment ignited the third Seldon Crisis, which not only offered g0vers more opportunities of collaborations with both the government and other civil society organizations but, most importantly, inspired various experiments on organizational structures and governance models. Radical decentralization has shown to be unfeasible for this growing community. Task forces emerged spontaneously and grew into centers. Increasing collaborations also happened between task forces and various organizations such as government agencies, NGOs, industries, media groups, etc. Among all collaborations, two projects — The g0v Grant and g0v.news — best illustrated the power dynamic taking place in this phrase. The encounters of different values, governance models, and organizational structures produced new chemistry in g0v and induced one after another forks.

g0v’s increasing political impact pushed Jothon to think about the sustainability of g0v and its projects. While g0vers have initiated over a hundred projects since its founding, a huge number of them stayed in the developing stage and were never put into use. In 2017, with funds from media groups, IT firms, and private foundations, Jothon founded The g0v Civic Tech Prototype Grant (hereinafter referred to as The g0v Grant) to support the advancement of civic tech and open government related projects. Using g0v’s name to run a grant could be controversial,

²⁰ g0v.tw, “g0v slang,” Hackpad, accessed August 21, 2020,

<https://g0v.hackpad.tw/ep/pad/static/MI7fGNldygb>. All translations by the author.

especially when it entailed raising funds from organizations and giving money to selected projects. Jothon endeavored to ensure that the operation of the grant was independent of the funders while including the community in its selection and developing process. The g0v Grant helped the community expand its network. Many of the proposers came from NGOs, civil society groups, or teams formed by college students. The grant was not a one-time award but a 24-week long process of prototyping and mentorship in addition to a significant amount of prize. Winning teams had to report progress in big hackathons and they were also encouraged to look for collaborators in g0v. Winning the grant therefore meant more than receiving money; it was also to obtain mentorship, forge collaboration, and learn to become *meiyouren*. The grant awarded over two dozen projects in three years of operation, including some famous ones like Cofacts Line Bot, a fact-checking chatbot in the messaging app LINE; Agri Weather, the data-driven microclimate analysis system; and Taiwan National Treasure, an open historical archive project. Some projects were so successful that they developed their own communities or turned into start-ups.

Not every collaboration ran smoothly like The g0v Grant. Collaboration between g0v and OCF was more rugged. Because Clkao was at the same time the co-founder of g0v, the member of Jothon, and one of OCF's board members, the relationship between g0v and OCF gradually went beyond simply financial management to a close partnership. Through Clkao's liaison, in early 2016, Jothon and OCF obtained a huge fund and co-hired an employee, Ttcat, who became the first paid staff in Jothon. Ttcat has been participating in g0v since the second hackathon. Coming out as a gay at a young age, Ttcat was an active activist and organizer of the LGBTQ+ rights and anti-nuclear movements in Taiwan. He was a people person with a warm and natural character that made him approachable. But he was also sensitive and could be moody sometimes. Although being a coder, Ttcat was different from Clkao, Tkirby, or many

other coders in g0v, who tended to be more restrained and always spoke in a rational tone. Ttcat was not good at hiding his feelings and it was easy to find out who he liked and who he didn't. His outgoing and warm character made him a perfect bridge between the community and the foundation. His activist background also helped g0v reach out to other activist groups.

Ttcat's job was split into two parts: one part was to assist Jothon to run big hackathons and The g0v Grant, and the other part in the OCF was to build up a global civic tech network. While these two jobs supplemented each other, they ran on different structures. On the one hand, Jothon was a g0v task force that was devoid of a formal structure and adopted a collaborative model. Compared to other Jothon members, who saw their participation as a contribution to the community rather than a responsibility, Ttcat's role as a paid employee ambiguously swung between work duties and community devotion. Also, while there was *moqi* that Jothon has no hierarchical structure, Ttcat had a clear sense that g0v founders Clkao and Ipa were his bosses. On the other hand, OCF as a foundation has a hierarchy and division of work. Job duties were assigned instead of volunteering, management was hierarchical, and there were many institutional policies and regulations. In OCF, Ttcat was a manager that commanded a few of us and was supervised by Clkao. The dual positions of Ttcat and Clkao, as well as the power dynamic that produced in the conjunction of roles, encapsulated the complicated and tense relationship between g0v and OCF.

The most notable tension came from g0v's representation on the international stage. Before Ttcat was hired, it was Clkao who often traveled around the world to attend civic tech-related conferences and invited renowned practitioners and scholars to visit Taiwan and give talks. This international exchange was later institutionalized as part of OCF's work with Ttcat's employment. Under Ttcat's leadership, OCF started to organize visiting groups that included

hackers, activists and government officials to attend conferences and meetings overseas. In these conferences and meetings, Ttcat would share the success of g0v. At first, g0vers were proud to see their community shine on the international stage. Yet as g0v gained more and more reputation, some started to question if g0v's international connection was monopolized by OCF, which, as an organization, had more resources to travel abroad, especially when most people in these conferences couldn't clearly tell the difference between g0v and OCF, and treated the latter as the contact of the former. Even Ttcat was troubled by role confusion. "Am I doing this as a job, or as a g0v participant?" In 2019, after a few arguments, he left the jobs in both Jothon and OCF. In the meantime, a few g0vers launched the g0v-intl task force, wanting to take back international representation from OCF to the hands of the community. They also started a conversation on how to introduce a more open and transparent governance mechanism. Since then, g0v-intl has been active in connecting with global civic hackers, especially Asian partners.

Another collaborative work between g0v and OCF was g0v.news, a Chinese and English bilingual news platform that offered readers in-depth stories and news digest on topics of civic tech, open government and open data. Although carrying the name g0v, it was actually run by a small team of writers and editors in OCF. The name of this news platform came from a poll taken on g0v's Facebook page in the hope that the platform to be an open experiment on news production. However, it turned out that open collaboration was often in conflict with the rigorous method of news production. Questions about authorship, accountability, and journalist ethics challenged the g0v.news team. Who had the right to write, edit and publish? Who should be responsible for what's written? When g0v.news writes about g0v's stories, what kind of position should it take? An insider or an outsider? While most g0vers saw g0v.news as one of the g0v projects, g0v.news team did not identify themselves as part of the community. "Do you

think you are a g0v participant,” I asked one of the writers. “No,” the writer denied. “But you write for g0v.news! Why do you think you are not part of them?” “Writing for g0v.news is my job in OCF. And the duty of journalists is to question. This is not what g0v does.” In his view, the role journalists played essentially contradicted g0v’s *meiyouren* spirit, for the former stood in a critical space from the subject they wanted to investigate, and the latter jumped directly into the problem space, rolling up their sleeves to hack for solutions. The paradox of g0v.news never found an exit. In July 2019, OCF decided to fork the platform and renamed it OCF Lab. The old g0v.news website was taken over by g0v-intl. Since then, there were a few articles published, but it was no longer a news platform that continued to produce stories on a regular basis.

IV. Retrospection: Open? What Then!

From a few open source hackers who came forward with a belief that their technological expertise could make a social change, to a huge assemblage of civic hackers from all walks of life to collaborate for the ideas of openness and transparency, g0v’s experiment of digital democracy underwent a huge transformation. With task forces mushrooming, g0vers stopped claiming itself a decentralized community and acknowledged the existence of many centers. Openness was constantly rearticulated and reaffirmed to deal with the internal and external changes. In the 2018 g0v Summit, voices of self-criticism and reflection replaced the optimistic attitude towards digital democracy. The tagline of the summit, “Open? What then!” artfully posed a series of critical questions: What is open? Are we truly open? What we should do if we aren’t open enough? What comes after openness? The exclamation mark of the tagline made it not simply a question but also a call for action. It urged g0vers to find answers and to act responsively.

Later in early 2019, with a series of conflicts and subsequent forks, members of Jothon and g0v-Intl started several collaborative notes on community governance, in which, for the first time, all task forces that handled community affairs were listed with a clear description of their compositions, participation mechanisms, roles and duties. Along with the list was a guideline that reiterated the values of openness and participation, and emphasized again that g0v cannot be represented. “When speaking in front of public, one should inform audience that ‘this is a participant’s point of view’ and use ‘I think’ instead of ‘we think.’” The reflection on representation and governance was again shown in the amendments to The g0v Manifesto, proposed later in October, which replaced the line “we are a decentralized community, we practice a liquid democracy” with “we are a polycentric community of self-organized contributors.” It was also around this moment that g0v founders — Clkao, Ipa, and Tkirby — gradually withdrew from Jothon’s operation due to their jobs or other responsibilities. While their names remain on Jothon’s list, new volunteers Isabelhou, Ronnywang, and Chewei, and employees Bess, Ichieh, and SeanGau took over their work and continued to push the boundary of openness. From decentralization to poly-centers, g0v never stopped challenging representation and experimenting on a non-organizational way of governance.

In software development, there is a popular concept called “minimum viable product” (MVP), which describes a product with just enough features to attract early customers to provide feedback for product advancement. The idea of MVP resonates with the open source saying “release early, release often.” It prioritizes workable solutions to full planning and believes that progress will only be possible if people share their immature, unfinished works for others to contribute. In many aspects, g0v follows this MVP logic. Task forces are often founded to fix emergent problems without having a complete planning and continue to receive patches and updates for improvement. As time passes by, improvement ceases and structure becomes rigid

and fixed. It is at this moment that challenges come up, forcing them to transform or they would be forked. This grow-and-fork dynamic is the drive behind g0v's expanding network. It might accompany growth pains — frequent arguments and fights as well as self-examination and criticism — but with forking as an exit, this growing community is able to keep distributed while connected.

Countering Centralization with Forking

Democracy, which builds upon the ideas of equality and participation, often compromises with hierarchical bureaucracy and representative politics, and ends up becoming counting votes and majority rule. The idea that every citizen participates in every discussion of every public issue is a fantasy. Yet, as the invention of the Internet changes the way of communication from one-to-many broadcasting model to many-to-many interactive model, it has revived the prospect of participatory democracy. Ideas like “participatory civics” (Zuckerman 2014) or “networked public sphere” (Benkler 2006) describe new forms of civic engagement based upon a network structure that is enabled by digital technologies. In the article “Birth of a Digital Nation,” journalist John Katz (1997) boldly proposes a digital nation formed by a new social class — the digital young — who are well educated and equipped with technological skills to challenge authority and build a leaderless network. Similarly, open source advocate Douglas Rushkoff (2003) argues that interactive networks that are formed around the participatory culture of the Internet will promote “a globalism modelled on cooperation instead of competition, and on organic interchange instead of financial transaction” (47). With the advancement of digital technologies, the network has arised to be an ideal social morphology that poses a challenge to representative politics and profit-driven capitalism.

However, contrary to the digital hype, a distributed network does not promise equal participation. Without moderation, participation in a network is always uneven and very likely to concentrate to a few nodes. This uneven distribution is described by “the power law,” a statistical model that shows a disproportionate distribution with an extremely high peak followed by a long tail (see Figure 3.1). Power law distributions are a result of preferential attachment, that is, ‘the rich get richer.’ People or things that have more resources tend to attract even more so as to produce a few giant nodes among many other nodes in a network. In g0v, while everyone is free to initiate a project, most participants would simply join existing, especially famous ones, producing a few big projects. It is also common that a few g0vers contribute far more than others. For example, the website of MoeDict had 26 contributors but more than 75% of the commits are made by one person. g0v is leaderless, but it does have a few “*dada*” (opinion leaders, literally means “big”), such as g0v founders, who have more connections and the power of influence than others. These “*dada*” are most likely to take the role of planning and deciding community affairs.

The centralizing tendency of the power law gets stronger when the network grows bigger. Tech writer Clay Shirky (2008, 125) argues that “the imbalance drives large social systems rather than damaging them” since a power law offers “a spontaneous division of labor.” However, we should also note that this spontaneous division of labor runs the risk of producing “the tyranny of structurelessness,” as warned by American feminist Jo Freeman. A distributed network might become a hierarchy once a few nodes grow over-centralized and turn into a fixed structure. Even worse, “[t]he idea of structurelessness becomes a smokescreen for the strong or the lucky to establish unquestioned hegemony over others. The hegemony can be so easily established because the idea of ‘structurelessness’ does not prevent the formation of informal structures, only formal ones” (Freeman 1972, 152).

Ideally, g0v as a non-organization is anti-hierarchical and anti-establishment. Like “smart mobs” described by tech author Howard Rheingold (2007), g0vers coordinate their actions by digital technologies and take swarming strategies to carry out “connective action” instead of “collective action” (Bennett and Segerberg 2012). But in practice, g0v is never as structureless as smart mobs. g0v is convened around a set of values encapsulated by the *meiyouren* spirit and organized as a network of *ren* (people), *keng* (projects), and *song* (hackathons). There are also *kengzu* (project owners) and *dada* (opinion leaders) who have more power of influence than other participants.

g0v has strived to balance between radical decentralization and anti-establishment on the one hand, and efficient operation and sustainable impacts on the other hand. However, the balance is fragile and often disrupted by internal and external forces. The community’s rapid growth along with increasing political impacts have accelerated the process of centralization and led to tension and conflicts. Forking comes up as an anti-power law process that drives power redistribution. It not only offers an exit of conflicts but also urges g0vers to reflect on issues of representation and governance. With a series of forking since its founding, g0v has developed into a polycentric network. Interestingly, as I’ve shown in this chapter, a polycentric structure does not mean that power is concentrated in a few hands. Instead, it redistributes power from a few opinion leaders (*dada*) in one undifferentiated whole into a number of task forces with their own governance principles in the heterogeneous network. This is not a one-time process but a constant back-and-forth negotiation that produces a dynamic between centralization and decentralization.

This chapter delineates the internal struggle of power that is often overlooked by g0v’s public script of openness. As Freeman reminds, the denial of a formal structure leads to the rise of an

informal structure, which is hard to make accountable and easy to turn into tyranny. Claiming to be radical structurelessness masks how power truly operates in g0v and fails to take account of the negotiations, struggles, compromises, dissents that shape this community. The founding and forking of community task forces display g0vers' self-awareness and critiques of the centralizing process and their nonstop endeavors to challenge the boundary of openness.

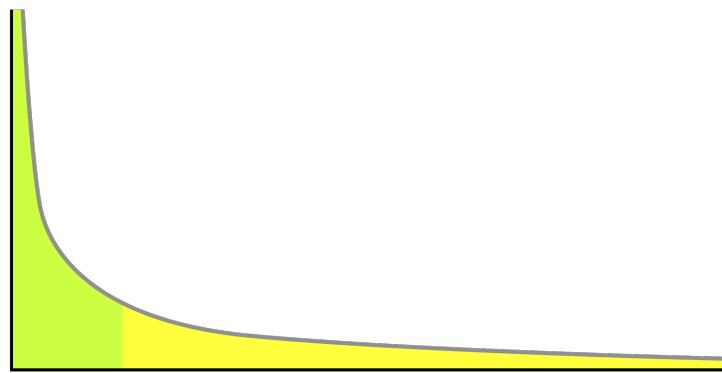


Figure 3.1: An example of power law distribution.

(Wikipedia, CC0, https://en.wikipedia.org/wiki/Power_law#/media/File:Long_tail.svg.)

4. Free the Data from the Birdcage

“Free the data from the birdcage!”²¹ This is the slogan of the online initiative Campaign Finance Digitization (CFD) that caught my attention on Facebook. On April 19, 2014, g0v launched CFD, which aimed to release campaign finance reports that were locked away in government offices. In Taiwan, political candidates and parties are required by law to report donations and campaign expenditures to the Control Yuan, a government investigatory agency, yet these reports are not released publicly. The CFD considered the campaign finance reports as evidence of corporate political ties that people in power wanted to hide, so the project’s mission was to “rescue” the reports and make them “open data” online before the elections scheduled for the end of 2014. The aim was “bringing sunshine”—referring to Taiwan’s Sunshine Acts—to *hejin* (black gold) politics—the complicated interpersonal network of politicians, gangsters, and businessmen established through bribery and crimes in postauthoritarian Taiwan. Thus, a few g0vers built a crowdsourcing website and invited *xiangmin*²² (netizens) to join their action. Their call for action went viral overnight:

Campaign Finance Digitization invites netizens to join the battle with keyboards. Join us to digitize campaign finance reports, which were previously kept in the Control Yuan, into “real open data.” We aim to hold the government transparent and accountable by building an online database for the public to search and examine these reports.²³

²¹ Campaign Finance Digitization, “On that day, people recalled their anger of being manipulated,” Facebook, May 13, 2014,

<https://www.facebook.com/cy.sunshine/photos/a.586795871432930/592438784201972/>.

²² *Xiangmin*, literally translated as “villagers” in Mandarin, is internet slang that emerged from PTT, the largest bulletin board system in Taiwan. It describes those who join a crowd online to create attention about a subject.

²³ g0v.tw, “[Campaign Finance Digitization] OCR by netizens. Good news of victory after 24 hours,” Facebook, April 19, 2014,

Thanks to thousands of shares, numerous *xiangmin* flocked to the website, contributing their tea breaks or lunch hours to transcribe scanned reports into bits and bytes. Within only twenty-four hours, over ten thousand *xiangmin* had digitized three hundred thousand campaign finance records. “Free the data from the birdcage” stormed the internet to become a movement overnight.

The CFD provides an interesting example of how to think about data differently. While data are seen as something raw that needs to be collected so as to reveal facts, CFD turns data into process and political practices. I examine this data initiative to ask how campaign finance data triggered political action even before they showed “facts.” On the surface, it seemed that g0vers and *xiangmin* participated in CFD because they believed that the data they opened up could reveal hidden political facts. There was an assumption that campaign finance data are objective and factual, and they can hold the government and politicians accountable. However, a closer look at this initiative reveals that the data were not simply uncovered but also underwent a series of transcription processes. This forged different assemblages that then mobilized activism. Here I borrow the concept of “assemblage” from Anna Tsing’s work to attend to “how gatherings sometimes become ‘happenings,’ that is, greater than the sum of their parts” (2015, 23). I argue that the crowdsourcing technology used by CFD harnessed an assemblage of humans, machines, codes, and signals around the data, and turned this gathering into a political movement. With mass participation, the data were able to act beyond the descriptive form of representation to produce a new type of digital, participatory citizenship. In other words, the power of campaign finance data did not come from what they revealed but from how they

<https://www.facebook.com/g0v.tw/photos/a.456791061028852/706021376105818>. All translations are by the author.

were assembled. In following the footsteps of this particular set of data, I go beyond the debate of data objectivity to show how data urge people to see and believe, and to feel and act. Most importantly, I show how data make politics.

Digital activism became an essential form of social movements over the past decade. Scholars (e.g. Bonilla and Rosa 2015; Hands 2011; Juris 2008; Wolfson 2014; G. Yang 2009) discuss how digital technologies provide tools for political mobilization, and how the internet offers new ways to channel people's affective power into political actions, which Manuel Castells (2012) calls "networks of outrage and hope". Most of these studies focus on movements provoked and enabled by social media platforms such as Occupy Wall Street, Arab Spring, and #MeToo Movement. Unlike traditional social movements, these protests broke out not as well-planned actions but as decentralized guerrilla warfare—without a command center and rigid organization. More than networking protests, digital activism shows a radical face through hacking and data breach. Studies of Anonymous and WikiLeaks reveal how trolls and pranks blur the ethical line of activism yet also open a space for dissensus (W. Brown 2003; Coleman 2014; Ravetto-Biagioli 2013). One key feature that distinguishes radical hacktivism from networked protests is that the former requires technological expertise. While the power of networked protests comes from the sheer number of loosely organized, non-skilled participants, technological expertise is essential to radical hacktivism; and oftentimes a few hackers can ignite a cyberwar. In between networked protests and radical hacktivism emerges a new approach of digital activism, which Andrew Schrock (2016) coins as "civic hacking"—a form of alternative/activist media that uses data and other technological tools to empower citizens and to challenge dominant power structures. As one among the proliferated genres of hacking, civic hacking applies hackers' techniques of repurposing technologies to politics and translates social problems into "codable tasks" (Ermoshina 2018, 82). The digital collaboration between

technological experts and citizen volunteers is central to civic hacking. As I show in this article, while g0vers played an important role in initiating CFD, it was the grassroots, mass participation of citizen volunteers that turned this action into a movement.

The Politics of Data

According to historian Daniel Rosenberg (2013), the term data emerged in the seventeenth century to refer to the constellations of information produced through scientific observation and experimentation, along with the concepts of knowledge. In the process of knowledge production, data function to “identify that category of facts and principles that [are], by agreement, beyond argument” (20). The idea is to let data speak for themselves. Such belief in data embraces mechanical objectivity (Daston and Galison 1992), which becomes an ethical guideline in modern science. However, as Steven Jackson and David Ribes (2013) note, data are neither objective nor out there to be discovered. Data must be generated through a careful design of experiments and interpreted under a shared language to re-present facts. Even after data are generated, they continuously demand care—to maintain databases, to keep a record of changes, to ensure no data loss or corruption when transmitted, and so on. All these activities—imagining, designing, interpreting, maintaining, and repairing—call for a specific way of understanding—that is, a knowledge system—and a worldview in which data are deeply embedded.

Thanks to computer science advancement in the mid-twentieth century, data have been given a new, electronic life. As public and private lives move more and more online, the virtual traces people leave behind produce “data doubles” that fuel what is called a “big data” boom. Data are now used widely to show patterns, map profiles, and predict trends that enlarge people’s

understanding of the world, but they also permeate everyday life and substitute our independent thinking with algorithmic options (boyd and Crawford 2012; Cheney-Lippold 2018). While data make our decisions better informed and our lives more efficient, they can also be used to manipulate our beliefs and desires (d'Ancona 2017). Even worse, they can become a weapon of surveillance, or to use Rita Raley's (2013) word, "dataveillance." Users' online data is continuously monitored "for unstated preset purposes" (van Dijck 2014, 205). Gilles Deleuze (1992) insightfully reveals that data facilitate a control society in which a numerical language turns individuals into "dividuals," masses, samples, data, markets, or banks.

Data have always been political. Reflecting on Jacques Rancière's thesis of photography's representational aesthetics, Alexander Galloway (2011) turns to data visualization and asks if data adequately represent the control society Deleuze describes, and if data representation provokes affective responses. Rather than asking if data are truthful, he questions both the aesthetic and ethical interpretation of data. Galloway comes to a rather pessimistic conclusion: "The problem is that adequate visualizations of control society have not happened. Representation has not happened. At least not yet" (95).

This article responds to Galloway's argument. While I agree with him that what matters is how data affect and mobilize instead of what they reveal, I argue that data's affective power does not just derive from their visual representation. Instead, the case of CFD shows that data can affect and mobilize even before they are represented and visualized. Indeed, visualization is only one small part of opening up data. To understand the power of data in mobilizing action, I suggest seeing data not as an object but as a practice to examine how data are generated, interpreted, and cared for; who engages in this process; and what impacts they make throughout the process.

Join the Battle with Keyboards

I first noticed CFD's call for action when I read the Facebook post I quoted earlier. Curious about what "joining the battle with keyboards" could do with campaign finance, I followed the link to its website.²⁴ A big headline welcomed me: "Please type the number, the character, or the date shown in the image." Below were a scanned image and an empty box. In reading the instructions, I learned that these images were segments of campaign finance reports submitted by candidates standing for election to the Control Yuan. Because the Control Yuan refused to publish these reports online but only allowed people to read them in their office or pay to make physical copies, most citizens could not access these documents. And the reports were certainly not used to hold candidates accountable. Hoping to unravel the corporate political ties behind these politicians before local elections took place in November 2014, g0vers built this crowdsourcing website to collaborate on digitizing these reports. On the website, I typed and submitted my answer. To my surprise, the number indicating the remaining undigitized images suddenly decreased by a dozen. There were also others submitting answers at the same time, I thought. Feeling motivated by the invisible companions, I typed a few more answers, and the remaining number decreased quickly. When I went back to Facebook, the post had been shared over three thousand times. Comments to the post included: "The *xiangmin* government is way more efficient than the ROC [i.e. Taiwan] government!"; "I cannot stop this typing game."; "Let's fight together! I won't sleep before I submit ten thousand answers."²⁵

²⁴ <http://campaign-finance.g0v.ctiml.tw/>.

²⁵ g0v.tw, "[Campaign Finance Digitization] OCR by netizens, good news on victory after 24 hours," Facebook, April 19, 2014,

<https://www.facebook.com/g0v.tw/photos/a.456791061028852/706021376105818>. All translations by the author.

The CFD was born in a g0v hackathon, held on April 19, 2014. Earlier that year, members of a civil society group, No Nuke, approached Ronnywang, a g0v hacker and data expert, with a ten gigabyte file of campaign finance reports they had printed and then scanned from the Control Yuan. These reports carried rich information, but they were too huge to make sense. In the hackathon, Ronnywang pitched the idea of opening up campaign finance. He soon gathered a few hackers to brainstorm how to make these reports usable and useful. The first challenge they met was to transform these human-readable documents into machine-readable datasets so a computer could process them. “Let’s use the power of enormous *xiangmin* to accomplish this task,” proposed Ronnywang.²⁶ They then built a crowdsourcing website on which *xiangmin* were invited to digitize these reports.

Xiangmin are often criticized as “slacktivists” who hide behind computers, click “like” and “share,” believe that they are active participants but, in reality, hesitate to take action or confront power for social change (Morozov 2014). However, by delegating the digitization task to *xiangmin*, the CFD turned *xiangmin* from slacktivists to “keyboard warriors” who can “save the nation by keyboards.”²⁷ The collaboration between g0vers and *xiangmin* made the CFD possible: while g0vers built tools to make digitization a simple task, *xiangmin* formed an online army to digitize the huge number of reports. In an invited talk, someone asked Ronnywang why he chose not to use automatic tools to digitize these reports. Ronnywang first acknowledged that the watermarks on the scanned documents made automatic recognition

²⁶ “g0v.tw hackath8n Pitch” YouTube video, 4:54, from a recording of a hackathon pitch by Ronnywang, posted by “g0v.tw,” April 19, 2014,

<https://www.youtube.com/watch?v=Pu8Q5jD4nFM&list=PLdwQWxpS513DsiaJRkDCy0oaHo8ELetMM&index=5>. All translations by the author.

²⁷ Campaign Finance Digitization, “If you follow news closely these days, you should notice the warlike atmosphere recently,” Facebook, July 10, 2014,

<https://www.facebook.com/cy.sunshine/photos/a.586795871432930/621967117915805/>. All translations by the author.

difficult, but he went on to emphasize that what CFD wanted to do was to motivate as many *xiangmin* as possible to take action. Although digitizing the reports was the goal, achieving it in a participatory way was what made it a movement.

The CFD's ambition was more than digitizing the reports provided by No Nuke. In the short term, they wanted to build a complete database of campaign finance. In the long term, they aimed to push the government to revise the Political Donations Act and to release campaign finance reports online. To achieve these goals, they called for the forming of two "corps," with one visiting the Control Yuan to collect more copies of reports, and the other contacting legislators to address the need of revising the act. These corps, instead of being organized centrally, followed the protocol document written by g0vers: they took actions individually and autonomously. The forming of these corps mimicked a popular Japanese manga series, Attack on Titan, which involves a fictional world in which humans live an easy and comfortable life within enormous walls to hide from the attacks of man-eating giants. Only a group of brave young soldiers are willing to fight the giants and search for the hidden truth beyond the walls. Imitating the tone of Attack on Titan, the CFD turned this cyber campaign into a battle of justice:

On that day, people are reminded how infuriated they are to be manipulated by those in power and how enraged when data are imprisoned in the birdcage. Soldiers! Let's open up more data behind the walls and allow more citizens to supervise these giants and their hidden financial flows.²⁸

²⁸ Campaign Finance Digitization, "On that day, people are reminded how infuriated they are to be manipulated by those in," Facebook, May 13, 2014, <https://www.facebook.com/cy.sunshine/photos/a.586795871432930/592438784201972/>. All translations are by the author.

The popularity of Attack on Titan among the younger generations in Taiwan helped the post gain many “likes” and “shares.” The mimicry of this manga series made the CFD a game-like event, and turned *xiangmin* into heroines and heroes. *Xiangmin* found the meaning and passion through this analogy to take action and support the cause.

The CFD’s mission was never easy to carry out because the administrative procedures of even obtaining the reports were complicated, and there were so many of them. This is not to mention the time-consuming process of printing, scanning, and digitizing. Given that it was monotonous and unpaid work, g0vers were not sure if *xiangmin* would join their action. Yet, to everyone’s surprise, this digital collaboration between g0vers and *xiangmin* quickly became a huge success when more than two thousand reports were digitized on the first day. In the following few months, more *xiangmin* joined and reports from previous elections were also digitized. The small contributions of every *xiangmin* became surprisingly powerful when combined. Data scientists and journalists also took part, using the data to sketch politicians’ business alliances, further increasing the CFD’s impact. A belief in the power of data to reveal hidden facts brought together hackers, *xiangmin*, and journalists in opening up and analyzing the data.

Data Are Like Gravity

“Data are like gravity. They exert an attractive force to people and form a community around [them],” said Audrey Tang, a g0v hacker and the first digital minister in Taiwan, in an interview conducted on July 18, 2015. In this section, I provide a close reading of how campaign finance data harnessed an assemblage of various actors through a series of transcription processes. “Transcription” is a concept that I borrow and adapt from the discussion on inscription and

translation in Actor-Network Theory (Callon 1984; Latour 1986; Law 1992). It refers to the process of displacement, rearrangement, and codification data undergo from one medium to another. The concept of transcription allowed me to think about how technologies make social realities through their materialities and programs.

Every data entry in the CFD went through a long journey before it was opened up to the public. For example, when money was deposited into a candidate's campaign funds from a donor, a record of this political contribution was created in that donor's bank account, forging a political alliance between the two ends of the monetary flow. A few months after every election, following the Political Donations Act, an accountant assembled all these records and filed them in reports sent to the Control Yuan. The reports turned campaign finance data into legal subjects governed by the state, and were matched, calculated, and examined for their legality. They were then locked away in a government building, and only a few experts, such as accountants and bureaucrats, looked at them.

Responding to the CFD's call to "free the data from the birdcage," some *xiangmin* voluntarily visited the Control Yuan, requested these accounting reports, and printed out copies. The data were no longer restrained to a small circle of experts. Yet, as physical copies, they only reached few people. Volunteers then scanned these copies to turn them into digital images. A piece of computer program written by g0vers chopped these digital images into small pieces that they put on the CFD's website, where *xiangmin* were invited to decipher their messages. This was the moment when the data finally entered the public domain. *Xiangmin* read these images on-screen and transcribed them into numbers using their keyboards. These pieces of information were then reaggregated as campaign finance datasets. Finally, after a series of transcription processes, campaign finance data were opened to the public on the internet.

During this long journey, data were printed, scanned, cut up, identified, labeled, and reaggregated via transcription using scanners, screens, keyboards, etc. Every process of transcription introduced different actors and formed a different social-technological network. Transcriptionists have “become mediators—that is, actors endowed with the capacity to translate what they transport, to redefine it, redeploy it, and also to betray it” (Latour 1993, 81). The CFD claimed to bring “transparency” to campaign finance data by making it “visible” via rendering, and the process was in transforming the data and the networks they connected.

The key to making the CFD into a movement was the crowdsourcing technology used in transcription—CAPTCHA. CAPTCHA is a computer test to determine if an online user is a human by asking that user to decipher distorted images of numbers and letters that a computer cannot read. This technology is often used to protect a website from being attacked by robots designed to spam, hijack, or disrupt normal access. Other than its security function, CAPTCHA is also used in digitization tasks. As a transcription device, CAPTCHA relies on mass participation and “the granularity of available tasks” (Bruns 2008, 20). The trick is to divide the entire job into small tasks so that everyone can contribute without the burden of an extreme workload. Through CAPTCHA, the CFD delegated the task of digitization to *xiangmin*, whose eyes and hands became transcription devices, turning the human-readable images into machine-readable datasets.

In g0v, this crowdsourcing technique is called *fenshen fashu*, which literally translates in Mandarin as “chopping firewood with clones.” Data are described by g0vers as *chai* (firewood), because the metaphor of firewood symbolizes both the rawness of data and their potentiality to ignite action. A government website full of information is *haochai* (good firewood). The act of

programming web crawlers to scrape contents from websites is *kanchai* (chopping firewood). If the amount of data on a website is large, they will organize *futou bang* (axe gang) and collaborate on *fenshen fashu*. *Fenshen*, a mysterious, supernatural skill of cloning oneself, becomes a metaphor of collaboration. *Fenshen* not only highlights the magical power of this hacker community but also implies its “rhizomatic network” as one is many, and many is one (Deleuze and Guattari 1987, 6). Nevertheless, to g0vers, *fenshen* is neither a supernatural power nor a philosophical theory but a collective action enabled by crowdsourcing technologies like CAPTCHA. As realized by the CFD, *fenshen fashu* meant that participants contribute only a small part of their time and effort, but together they achieved a tremendous goal.

Although I have been emphasizing the process of data transcription, I do not mean that the data opened up by the CFD were intentionally manipulated or that the data were not trustworthy. What I am proposing is to suspend what were seen as “facts” in data and look instead at how they were constructed through data. The data were never raw and untouched. An examination of the transcription processes shows that the data took various forms and forged different relationships around them. The participatory action of digitization facilitated by the crowdsourcing technology was when the data turned into a political movement. It was during this transcription process that human and nonhuman actors were organized and activated. In other words, data activism did not happen after the data were opened up but happened at the very act of opening up the data.

Bring Sunshine to the Sunshine Acts

The CFD was said to “bring sunshine to the Sunshine Acts”²⁹ when the latter failed to make campaign finance data easily accessible to the public. Taiwan’s Sunshine Acts stipulated that candidates had to report campaign financing to the Control Yuan, but these reports were then locked away until someone filed an application and paid an administrative fee to copy them. As noted earlier, it is not surprising that only a few people learned the stories behind these reports before the launch of the CFD. The govers argued that these reports belonged to the public as they could hold politicians transparent and accountable, but bureaucratic procedures and fees limited their accessibility and thus hindered public access. The mission of the CFD was to rescue the data from being confined by the Control Yuan and to shed light on the invisible relationships between businesses and politicians. This would empower citizens in the fight against black gold politics. A rhetoric of transparency underlines this data activism.

Democracy and popular elections have a short history in Taiwan. Having experienced Japanese colonization (1895~1945) and the following martial law under the Kuomintang (KMT, or Chinese Nationalist Party; 1949~1987), Taiwanese people only started to enjoy the freedom to organize political parties and to vote since 1987. Because popular elections did not come easily, people were enthusiastic about them. Blending with a culture of *guanxi* (interpersonal relationship based on gift exchange; see (Smart 1993; M. M. Yang 2002)), elections in Taiwan were full of bargaining and under-the-table deals. Taiwan was notorious for *heijin* politics. The former longtime ruling party KMT used to consolidate its power through secretive alliance with gangs and illicit exchange with enterprises, while the largest opposition party, the

²⁹ Campaign Finance Digitization, “The deep throat of the Watergate scandal said: Follow the Money!” Facebook, April 25, 2014, <https://www.facebook.com/cy.sunshine/posts/583574211755096>. All translations by the author.

Democratic Progressive Party, which first took office in 2010 and again in 2016 and 2020, was also plagued by corruption scandals. Rumors and conspiracy stories about campaign finance abounded and covert monetary flows influenced election results.

A crucial year for Taiwan's democratization was 2014. It was a year filled with ambitious social movements and passion for local elections. In March and April, supporters of the Sunflower Movement occupied the Legislative Yuan and its surrounding areas, igniting one of the biggest mass protests in Taiwan's post-martial law era. Upset by the hasty passing of the Service Trade Agreement with China, protesters demanded *gongkai touming* (openness and transparency) in reviewing and renegotiating the trade pact, clause by clause (M. Ho 2015; M. Lee 2015; Rowen 2015). At the same time, mayoral and council campaigns were being staged for the upcoming elections at the end of November. The occupation ended with no clear promise by the KMT government, so the elections became a new political arena for activists to push their demands of openness and transparency. Even candidates were now using "openness and transparency" as their slogans of reformation. In govt's hackathons following the Sunflower Movement, projects about government transparency and fair elections doubled. This included building a website to provide a voting guide that revealed candidates' past sponsored bills and political donations, collecting cases of corruption, and placing them on the website for voters to inform themselves. It was against this background that the CFD started its mission to open campaign finance data.

The CFD's call for action started on April 19, 2014, shortly after the end of the Sunflower Movement. It soon opened up the data of the candidates running for mayor in five municipalities, and urged the KMT to amend the Political Donations Act by the end of 2014. The amendment stipulated that campaign finance reports must be published online, but it was

long delayed for legislative consideration. In 2017, with the amendment going nowhere, a longtime g0v hacker Hcchien and his news team at the media outlet Mirror Media relaunched the call for action as CFD 2.0. *Xiangmin* arose again. In June 2018, five months before local elections, the amendment was finally passed, but this was not the end of the story. In April 2019, Ronnywang, CFD's main developer, decided to run for legislator in the 2020 election. Knowing that it was unlikely for an amateur politician to win the election, he made his purpose clear: “I want to learn more ‘know-how’ behind political donations and make this process open.”³⁰ Having hacked into government data, the hacker was moving a step forward and hacking into the political system.

Information Wants to Be Free

Projects run by g0v cover a wide range of topics, from government supervision to labor issues to environmental protection to food justice to online rumors, and more. Regardless of the topic, information transparency is always the pivotal point. As the g0v manifesto states:

Built on the spirit of the open-source community, g0v stands for freedom of speech and information transparency. We aim to use technology in the interest of the public good, allowing citizens easy access to vital information. Opening up and making data public allows the people of Taiwan to take a closer look at politics and important issues. This gives them the tools needed to evaluate their government and exert their democratic right to decide how politicians act.³¹

³⁰ Legislator Candidate Wang Hsiang-Jung, “Why I want to run for the legislator,” Facebook, April 28, 2019, https://www.facebook.com/permalink.php?story_fbid=2260001314043433&id=2254769834566581. All translations by the author.

³¹ “g0v Manifesto,” g0v, accessed August 21, 2020, <https://g0v.tw/en-US/manifesto.html>.

This clearly illustrates g0v's belief in the power of information to bring forth government transparency and accountability.

In 2012, the Taiwanese government released a forty-second commercial for its upcoming policy known as Power-Up Plan for the Economy. The commercial told viewers, “A few words cannot explain this complicated policy.....Many things are speeding up now. Actions speak louder than words. Economy first. Let’s do it!”³² Lacking any substantial information, the commercial only stressed how complicated the plan was and asked for the people’s trust. Soon after, a report uncovered that this commercial cost nearly NT\$5 million. Clkao, Tkirby, and two friends were preparing their project for Yahoo Open Hack Day, a twenty-four-hour hackathon contest, when they saw this commercial. Infuriated by it, they made a last-minute decision to change their project subject from online window shopping to government budget maps. They presented an interactive government annual budget, so that budget items were translated into the prices of lunch boxes, bubble tea, space travel, Dibao (the most expensive mansion in Taipei), and so on, and invited citizens to review and rate them. “Government Budget Maps” received honorable mention from the contest, which included NT\$50,000. With this money, Clkao and Tkirby hosted a hackathon on civic-related issues in December 2012, which became the first g0v hackathon.

To g0vers, information transparency is not simply a means to an end; pursuing freedom is information’s nature. They uphold the idea that information wants to be free. In an interview about what data should be open and ethical concerns, PM5 said:

³² “Power-Up Plan for the Economy by Executive Yuan (Backup)” YouTube video, 00:13, from an advertisement by the Executive Yuan of Taiwan, posted by “hsnujeffy,” October 16, 2012, <https://www.youtube.com/watch?v=RAbD3AGFX6I>. All translations by the author.

It is humans who stop information from free distribution. Take the information about people with AIDS for example. The harm is caused by those who discriminate, not the information itself. Which information is harmful is a social matter and will change with time. This is why there is no absolute principle to decide which information should be open and which should not. Maybe in the future, when we no longer make a moral judgment on people's illness, all medical records can be opened up.

While PM5's argument is not to dispute the importance of privacy (in fact, g0vers are far more aware of data privacy than others), it reveals how he sees ethics as time- and context-sensitive variables associated with value-free information. Information is seen as objective while human interpretation leads to subjective judgment.

With strong belief in the notion that information wants to be free, g0vers are firm supporters of Open Government Data (OGD), a global trend emerging from the trajectory of Freedom of Information Act (FOIA) legislation and the big data boom in the past decade. FOIA safeguards citizens' right to government information to ensure government transparency and accountability. Taiwan's Freedom of Government Information Law was first enacted in 2005. The law, as most FOIAs around the world, does not detail how the government should publish its information. OGD advocates request government information released as machine-readable datasets, so that everyone can freely access, use, and share it online. They believe that OGD can promote government accountability and offer civil society organizations new channels to leverage advocated policies. At the same time, governments and international organizations, such as the Organisation for Economic Co-operation and Development and the G20, are also actively adopting open data policies, seeing data as a gold mine that has yet to be exploited

economically. Civil society and governments thus hold very different agendas of what data to open up and how to open them up.

The g0vers make a clear distinction between *kaifang* (open) and *gongkai* (public). While public means to make the data known, open emphasizes the legal-technological framework to make the data known and usable. To make data open requires specific copyright licenses and sets of technological standards that allow machines to process them. From a legal perspective, open data should have an open license that grants free flow of information and unrestricted participation in using, sharing, and modifying them. From the technological perspective, open data should be available in bulk and use a format that is editable by non-proprietary software, so that there are no technical barriers in using the data. With these criteria, some common data formats are disqualified; for example, Portable Document Format (PDF) files are not editable and Microsoft Office files (e.g., Word, Excel) are proprietary formats, not open formats.

“Data are to be used, not to be read,” Ronnywang said in an interview. Instead of simply advocating OGD, g0vers are both users and producers of OGD. They constantly scrape public information from government websites, turn it into open data, and utilize it to build tools to solve civic-related issues. For example, the Council Voting Guide shows councilors’ sponsored bills and financial records for voters to make more informed decisions. AirMap visualizes Particulate Matter (PM2.5) data on a real-time map to raise people’s awareness on air pollution. Labor Law Calculator turns different drafts of the Labor Law into an online calculator for workers to check which draft will benefit them most. The underlying idea is that data help people solve the conflicts caused by misunderstanding and lack of information. Every person can make their own judgment once they have been given sufficient information. “There must be something that data cannot solve, but if we can solve some basic disputes by showing people

data, the rest of the work should be simple,” said g0v hacker Nchild in our conversation on g0v and open data.

To g0vers, the idea of open data is more than technical; data are a communal project and a cultural practice. The CFD is not simply the crowdsourcing website or the database of campaign finance reports; it is the process of engaging data, people, and machines in political action. As CFD invites *xiangmin* to collaborate on opening up campaign finance data, it also encourages them to freely use the data to make infographics, conduct research, and produce news and reports. The CFD participants are both the producers and users—what Axel Bruns (2008) calls “produsers”—of the data. As with other produsage projects, such as Wikipedia, CFD engages in a communal and collaborative creation of shared content “in a networked, participatory environment which breaks down the boundaries between producers and consumers and instead enables all participants to be users as well as producers of information and knowledge” (21). Both the resurgence of *xiangmin* in CFD 2.0 and Ronnywang’s campaign for legislator show that the CFD is “inherently incomplete, always evolving, modular, networked, and never finished” (22). Data are the temporary outcomes of this continuous process, and the political significance of the CFD lies not in the “facts” revealed in the data but in the collaborative practice of opening up the data.

Kregg Hetherington (2008; 2011), in his study of public documents in Paraguay, argues that transparency is an open relationship of representation and reality always under political negotiation. Transparency “produces citizens by extending the public sphere of deliberation about government through the circulation of information about government” (50). In the similar vein, Martin Webb (2012) reveals how middle-class activists in Delhi assist and thereby remake the urban poor “active citizens” by introducing transparency mechanisms such as Right

to Information requests. This produces new political brokerage as these activists become expert mediators for the urban poor to engage the state. In the case of the CFD, the demand for transparency through open data extends the public sphere into the digital space. Physical documents are no longer considered transparent. Online open data have redefined the relationship between representation and reality, between the state and its citizens. Yet unlike Delhi's middle-class activists, g0vers did not mediate the requests of transparency. Instead, they built tools for the action to form. By inviting *xiangmin* to "join the battle with keyboards," g0vers helped produce a new form of digital, participatory citizenship in Taiwan.

Conclusion

Critical data scholars (e.g. Bowker 2005; boyd and Crawford 2012; Edwards 2010; Raley 2013) have been discussing the politics of various types of data, for example biomedical, scientific, and social media. These data shape people's knowledge and affect their actions. Even more, they become tools of surveillance used to discipline and control ideas and bodies. While these studies remind readers that data are always about power and can never stray from politics, few studies directly deal with political data and their impacts. The CFD offers a special case study that focuses on campaign finance data and their political implications. What makes this case interesting is that the data triggered cyber activism even before they showed facts. Setting its goal to "free the data from the birdcage," the CFD made a crowdsourcing call to invite *xiangmin* to transcribe campaign finance reports from physical documents to digital datasets, so as to open up the secret politics in postauthoritarian Taiwan. Not only did thousands of *xiangmin* join the action, but media outlets and researchers also contributed. The action eventually forced the government to revise its Political Donations Act in June 2018, requiring future campaign finance reports to be published online.

After carefully examining this data initiative, I argue that the key to CFD's success was the crowdsourcing approach it adopted. The crowdsourcing technology CAPTCHA helped harness an assemblage of humans, machines, codes, and signals around the data, and turned this activity into a political movement. This exemplifies how civic hacking forges a collaboration between computer experts and citizen volunteers. By delegating the digitization task to *xiangmin*, the CFD transformed *xiangmin* from slacktivists to keyboard warriors, and gave birth to what Ethan Zuckerman (2014, 151) calls “participatory civics,” which “uses tools of participatory media and relies on theories of change beyond influencing representative governments to seek change.” The world is now witnessing the emergence of civic hacking as a new form of digital activism. Instead of simply celebrating the power of technology, this study attempts to bring to light the interplay between technology and politics in its situated context. With the disillusionment of a digital democracy after the rise of populism and extremism around the world, it is more important than ever to examine critically what opportunities civic hacking generates, what challenges it encounters, and what limitations it faces.

5. Fork and Merge an Open Government

On August 25, 2016, a Taiwanese hacker made the headlines. With pale skin and black, wavy long hair, 35-year-old Audrey Tang, was appointed Taiwan’s first digital (*shuwei*) minister — a new position in charge of “open government” and the digital economy. Audrey Tang was not like any other politician we know in Taiwan. She never held any government positions. She was young and transgender. Dropping out of school at the age of 14, she learned coding on her own and later became an entrepreneur in Silicon Valley. At 33, she already announced retirement. Since then, she has been active in g0v and contributed to many civic tech projects. Being a prodigy, hacker, and entrepreneur, the least role that she could be associated with was a politician. Within a week after the announcement of the appointment, Audrey Tang became a media sensation, covered by the news with headlines like “internet prodigy” or “hacker minister.” Journalists applauded the bold move of the Democratic Progressive Party (DPP) and its leader Tsai Ing-wen, who had just won the presidential election in May 2016, pushing the Chinese Nationalist Party (Kuomintang, or KMT) out of office. Even g0vers were celebrating. For many of them, Tang was not only a fellow and a friend, her appointment also showed that the values of openness started to be adopted by the government. After all, what could be more exciting than a hacker really “hacked” into the government?

Among all comments and praises, one Facebook post stood out and caught my attention. Ben Jai, a famous IT entrepreneur, commented that Tang “isn’t joining the government alone.” “Instead of saying Audrey Tang being the minister,” Jai continued, “it is the *shequn* [community] friends who push her into this *keng* [position] and ask her to lead them.....In

this sense, she is actually *shuwei* [digital/plural] minister(s).³³ Jai was making the pun of the Chinese word *shuwei*, meaning both “digital” and “plural.” By referring to this high-ranking position as a *keng* — a community project, Jai decentralized this minister role and argued that it was not Tang alone but the *shequn* — g0v — behind her that was appointed as the minister. The *shuwei* pun soon went viral over social media. It provoked a hype that the appointment of Tang would “open” this minister position and revolutionize the bureaucratic government through connecting a network of civic hackers.

However, not everyone agreed with Jai. Shortly after Jai’s post, g0v’s co-founder and Audrey’s longtime friend Clkao commented on Facebook that “leadership is not a value g0v embraces. The [g0v] community will not endorse whatever Audrey Tang is going to do [as a minister].”³⁴ Ipa, also a cofounder, added that “saying g0v as the ‘backup’ of Audrey Tang and the minister as the ‘leader’ of the civil society contradicts g0v’s principle of decentralization.” She pointed out that g0vers, although many had previously worked with Tang in various projects, were ready to supervise this new minister:

Explaining *shuwei* as numerous may be attractive, but, in reality, there is only *one* digital minister. We will follow closely on how this minister uses limited resources to reform the government and how she builds channels for the civil society, communities and other stakeholders. If a policy evokes resonance, the community will support the

³³ Ben Jai, “Audrey Tang was appointed as the minister without portfolio,” Facebook, August 26, 2016, <https://www.facebook.com/ben.jai/posts/10154588017264113>. All translations by the author.

³⁴ Chia-liang Kao, “Leadership is not a value g0v embraces,” Facebook, August 26, 2016, <https://www.facebook.com/clkao/posts/10153992913790668>. All translations by the author.

cause. However, there is never one *singular* voice among the vibrant open government community. (emphasis added by the author)³⁵

Disputing Jai's *shuwei* pun, Clkao and Ipa showed a critical stance towards Tang's appointment. They carefully drew a boundary between g0v and Tang in order to avoid the impression that g0vers would endorse the DPP government. While Jai optimistically read Tang's minister appointment as the government's attempt to open itself up and embrace a new, collaborative governance, Clkao and Ipa worried that it might be the opposite. Was the appointment a tactic to co-opt resistance? Would the emphasis on Tang's technological background run the risk of depoliticizing this political position and masking the power imbalance between a minister and g0vers?

Following the story of a hacker becoming a minister, this chapter examines the politics of openness. I trace the rise of open government in Taiwan and reveal the tension among g0vers as the state attempts to institutionalize "openness" (*kaifang*) under its agenda of "open government" (*kaifang zhengfu*). Delving into the debates surrounding Tang's appointment, I reveal how the equivocation and multiplicity of openness create a space in which g0vers tactically maneuver through community crises and maintain the subversive power of hacking. Borrowing from media scholar David Gunkel (2000), I contend that hacking takes place as "a parasitic activity," in-between inside and outside, continuity and disruption, control and resistance. g0v's hacktivism does not aim at overthrowing the government but unsettling it from within. While hacking struggles to disrupt the system, it can only bring systemic change when it turns into power. However, once in power, hacking loses its subversive potential and

³⁵ Hsiao-wei Chiu, "Describing g0v and OCF as Audrey Tang's backup force," Facebook, August 26, 2016, <https://www.facebook.com/ipa.chiu/posts/10210321296847933>. All translations by the author.

is longer hacking anymore. In other words, hacking is always struggling in power-to-be and the very activity of hacking is its ultimate goal.

Translating Openness

As one of the key concepts of the information age, openness has become so pervasive that it is applied to a wide array of things, from open data to open access, open science, open city, etc. (e.g. Delfanti 2013; Reagle 2010; Tkacz 2015; Townsend 2013; Lathrop and Ruma 2010; Pomerantz and Peek 2016). In the study of Wikipedia, Nathaniel Tkacz (2015, 32) digs into the politics of openness and points out that “[t]he open circulates, scales up, garners new allies, is reconfigured, distinguished and remixed; each movement troubles and destabilises the articulation of its meaning.” Openness registers a sense of future, and its multiplicity and equivocation create an interpretative space for translating what this future may be like.

In g0v, openness is both the means and ends, value and principle. Openness is translated to various practices and ideas, from open source, to decentralization, inclusion, and collaboration. These translations interweave with each other and together construct a prospect of digital democracy. To g0vers, openness is firstly and fundamentally about open source. The “open” in “open source” means the *freedom* from the restriction of copyright and the *rights* to use, share, and modify a piece of work. As described in Chapter Two, g0v takes roots in the Free and Open Source Software (FOSS) movement. g0v’s projects — their codes, texts, and images, etc., — are open by default. Participants see g0v more as an open source community than a political organization. The idea of open source is also applied to data. Some of the projects I explored in previous chapters, such as Open Budget Visualization and Campaign Finance Digitization, work on opening up data to make the government transparent and to promote civic participation. Besides code and datasets, when openness is used to describe a community, it is

translated as *decentralized governance*. Openness means no leadership and membership. Relating to the idea of decentralization, openness is further translated in social terms as *inclusion and diversity*. Making a community open implies having no criteria for participation and embracing differences among participants. Participating in g0v does not require coding skills even though most of its projects aim to produce computer applications or websites. In fact, every g0v project needs people of different expertise — to understand law, to write content, to design interfaces, to collect and sort data, to manage a project, etc. As Ipa reminds, “roles are generated in relation to different projects. Participants decide their own roles in each project, and the roles will change with time.” Lastly, openness is translated to the idea of *collaboration*. It is about connecting differences without imposing a set of rules and authority. Open collaboration suggests what law professor Yochai Benkler (2006) calls “commons-based peer production,” which is “radically decentralized, collaborative, and nonproprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands” (60).

Articulating along with these concepts — freedom, transparency, decentralization, participation, inclusivity, and collaboration — the legal-techno implications of openness as in “open source” are after all translated into the political discourse of “open government” (Lathrop and Ruma 2010). Open government has been on the horizon both in Taiwan and around the world in the past decade. While the idea of openness has a long tradition in liberalism, open government is derived more directly from the introduction of digital technologies into the operation of the government. E-government, which emerged in the late 1990s with the widespread use of the Internet, is the predecessor of open government. In e-government, technologies are used as new communication tools to promote government

policies and to improve government efficiency. Although e-government frames itself as one-to-one communication and heralds immediacy and efficiency, it actually reinforces the top-down, one-to-many structure of representative politics and fails to reform the democratic process (Mazzarella 2006; Losh 2008). Open government, instead, does not see technologies merely as a means of communication. Ideally, it is to open up government data and renovate public service to promote transparency, civic participation, and private-public collaboration. Open government also appropriates many of the approaches used in Silicon Valley such as agile development, service design, and data-driven decision making so as to drive reforms and innovation in government.

The idea of open government first became widespread after the American President Barack Obama signed the memorandum on “Transparency and Open Government” in 2009. It soon swept the globe and led to the founding of the Open Government Partnership (OGP) in 2011, whose members have rapidly grown into 79 countries in 2019. Besides governments embracing the idea of openness, startups and nonprofits are also burgeoning to provide tech solutions — often coined as civic tech — for governments. The most famous example is Code for America, a nonprofit founded in Oakland, United States, whose aim is to “make government work for the people, by the people, in the digital age.” Code for America operates a Fellowship program that sends programmers and designers to work with city governments to improve public services with the aid of digital technologies. Code for America has been so successful that it inspires and leads to the establishment of a global Code for All network, which g0v joined in 2017.

When g0v held its very first hackathon at the end of 2012, the term “open government” was not yet popularized in Taiwan. Clkao might be the first one who related what g0v was doing to

the idea of open government. In 2013 and 2014, he used the title “From Open Source to Open Government” when he presented g0v on various occasions. In his description, the government is like a technology system and policies are data. Because the system (government) lacks interactive interface and its “data” (policies) are hard to use, service delivery is poor and no one is held accountable. Through opening up government, he proposed, g0v can optimize the system and bridge the gap between the government and the people so that policies can be more easily digestible, government is held accountable, and people are more willing to participate in public affairs. “People have the right to choose what ‘code’ to run. This is what democracy should be like,” said Clkao at the 2013 Conference for Open Source Coders, Users and Promoters. Such a translation between technologies and politics happens regularly in g0v. As we will see in this chapter, to g0vers, what open government means is not just to open up government data and turn policies into more interactive platforms, but to translate the very concept of openness from the digital culture into the realm of politics.

Translation is not as simple as switching channels. Anthropologists (De la Cadena 2015; Giordano 2014; Povinelli 2001; De Castro 2004) have reminded us that translation, as a way to relate different worldings, inevitably leads to equivocation and incommensurability. The equivocation of translating openness from technologies to politics leads to tension and conflicts among g0vers. These conflicts are community challenges, but they also provide opportunities. The equivocation of openness allows g0v to take a parasitic position when interacting with the government. On the one hand, g0v pressured for more open data and transparent government operations; on the other hand, its open principle encouraged g0vers to connect and collaborate with the government. Tang’s rise to be a minister and the following debates around this official appointment uncovered g0v’s parasitic in-betweenness. In this chapter, I argue that by

contesting what openness means and what is the best way to practice it, g0v maintains its subversive power and keeps on hacking in-between resistance and collaboration.

The Up/rising of g0v

While the appointment of a hacker as a minister was unprecedented, it did not happen all of a sudden. g0v emerged onto the political stage with its involvement in social movements during 2013 and 2014. Without a unified political stance, g0v never led political movements, but its participants often took up a technological support role in protests and rallies. Amongst them, the Sunflower Movement not only brought g0v into the media spotlight but also led Tang to her political career.

The Sunflower Movement exemplified how digital technologies mobilized hundreds of thousands of protesters, facilitated public debates, and, most importantly, performed openness and transparency. The movement was a 24-day occupation of the Legislative Yuan (equivalent to the Congress in the US) in protesting the “black-box” negotiation of the Cross-Strait Service Trade Agreement between Taiwan and China. When the student protesters broke into the Legislative Yuan in the late evening of March 18, they did not know their action would cause a political storm in Taiwan. Within a few hours, words and photos of occupation went viral on social media and messaging apps, calling for supporters to convene around the Legislative Yuan so that the police could not evacuate the protesters. Soon later, thousands of people showed up. They later set up tents, media centers, first-aid stations, teach-in classrooms, mobile kitchens etc., and stayed one night after another, making the biggest and longest occupation in Taiwan’s history.

The trade pact was merely a trigger. The Sunflower Movement was caused by a complicated interplay of several political, economic, and cultural factors: the rising anti-China sentiment and a Taiwanese identity, the struggle against neoliberalism and free trade, the dissatisfaction with representative politics, and generational conflict. Since it was impossible for one movement to solve all these grand issues, the movement concluded into one shared demand — “openness and transparency” (*gongkai touming*) — which later became a new political ideal. The demand of openness and transparency was not only put against the trade pact and the government, but also against the movement itself. Its realization, however, depended largely on the mediation of technologies. Yutin, a g0ver and a civic journalist, described to me the occupied site as a fast evolving “tech city,” where hackers met activists in the common pursuit of openness and transparency. The entire occupation was live broadcasted through countless smartphones and tablets by the protesters uninterruptedly. People from everywhere could easily watch what’s going on at the occupation site remotely. “What traditional media fails to report, we will report it,” said protesters. With the ever-present gaze behind self-held cameras, the occupation site was turned into a transparent theatre, a real-life version of *The Truman Show* (M. Lee 2015).

As the movement relied heavily on digital technologies, g0v rose to prominence. They firstly set up speedy Internet connection to ensure smooth communication between protesters and to support non-stop live broadcasting. They then built a website “g0v.today” to serve as an information center where protesters shared news, coordinated actions, and distributed resources. Also, in contrast to the legislators’ hasty passage of the agreement, g0vers translated the convoluted legal language of the trade pact into a searchable web page where people could easily look up how the agreement might influence their lives. All these actions, as they argued, were to bring more transparency to the movement. Tang was one among a few g0vers who

helped live broadcast the protest the night before protesters broke into the Legislative Yuan. She recalled the moment in a talk: “At first when we were live broadcasting the protest, we didn’t know they would break into the Legislative Yuan. But only the neutral Internet could connect between people inside and outside of the wall [of the Legislative Yuan]. Communication reduced conflicts and misunderstanding.”³⁶ A rhetoric of technological transparency and neutrality underpinned her talk.

Transparency is a contested realm of representation. As Todd Sanders and Harry West (2003) note, transparency as a global ideoscape “travel[s] pathways delineated by human institutions embodying complex and differential relations of power.” Radical transparency is unattainable because how realities are situated and represented differs in various social contexts and local power relations (Comaroff and Comaroff 2003; Strathern 2000). What g0v did was never simply to provide channels of communication and enable transparency. Instead, by building various technologies of transparency, g0v joined the battle of representation and showed that they could better safeguard transparency with their computer skills.

After the Sunflower Movement, the then ruling KMT government started to take remedial measures by re-appropriating and institutionalizing openness. The government simplified the cause of the movement as a lack of communication. Instead of making substantial changes, it took technological reform as an easy solution to alter its black-box image. Open data was put on the reformative agenda along with new online communication channels. Instead of engaging in conversations with protesters, the KMT government reached out to g0v, either proposing collaboration or inviting g0vers to serve as consultants in different agencies so as to harness

³⁶ Audrey Tang’s interview with Ursula Gauthier, May 14, 2018. Full transcript, accessed on August 21, 2020, <https://sayit.pdis.nat.gov.tw/speech/359032>.

resistance. Compared to the protesters, g0v's attitude towards the government was ambiguous. Some g0vers were revolutionaries while others, like Tang, were reformists who were more willing to work with the government for a change. As mentioned earlier, g0v upheld a nonpartisan position. While participants shared certain political attitudes and opinions (for example, most of them supported the Sunflower Movement), they were conscious not to consolidate any political stance as a community but left it to individual choices. The idea of open collaboration and the motto of “you are the *meiyouren* (nobody)” also encouraged g0vers to work with people from different backgrounds, both activists and officials. Through the opportunity to collaborate with the government, g0v gradually increased its political influence, and began hacking into the government.

vTaiwan: An Experiment of Digital Democracy

After the Sunflower Movement, there began more and more collaboration between g0v and different levels of the government. Among them, vTaiwan was the most successful one, which had led Tang to the minister position. vTaiwan — v for “virtual” — is an open consultation process which brings citizens and government agencies together to make or adjust laws so as to keep up with the technological transformation. As of May 2020, vTaiwan has handled 27 rulemaking proposals including some famous ones like the regulations on UberX, drone, and online liquor sales.

vTaiwan was initiated in a g0v hackathon. In December 2014, the then minister without portfolio Jaclyn Tsai came to the g0v hackathon to call for collaboration on designing a deliberation process for making cyber regulations. After one day’s brainstorming with a few g0vers including Audrey Tang, vTaiwan was born. Audrey Tang and Jaclyn Tsai played the

key roles in the founding of vTaiwan: Tang was the main contributor to the design and building of vTaiwan's framework and Tsai used her political authority to introduce the vTaiwan process into the government. Through vTaiwan, Tang began frequent interactions with the government and was invited to serve as a consultant in a number of official committees.

vTaiwan is not simply a website to collect citizens' opinions. It is a deliberative process that combines online and offline platforms to form consensus on cyber-related issues. The vTaiwan process consists of four stages—proposal, opinion, reflection and legislation — with a set of methods that integrate collaborative technologies, survey tools, and facilitation techniques. In the proposal stage, government agencies bring cyber-related issues to vTaiwan to make a case. vTaiwan's editors will work with the agencies to turn proposals into several discussable items and put them onto the vTaiwan platform. Then, in the opinion stage, online surveys are conducted using various digital tools such as Discourse, Pol.is, Typeform, and Sli.do. These surveys are spread through social media and stakeholders' networks so as to reach as many as possible. The opinion stage seeks to raise public awareness of the issue, to identify stakeholders, and to find out rough consensus and pinpoint disagreements. Following the opinion stage, vTaiwan convenes consultant meetings of all stakeholders. A facilitator helps moderate these meetings by using the ORID method to delineate objective, reflective, interpretive, and decisional statements so as to enable a focused conversation. These meetings are also live broadcasted and transcribed, ensuring online channels for those who cannot attend physical meetings. In the last legislation stage, the agency in charge gathers all suggestions, puts them into a draft bill, and sends the bill to the Legislative Yuan for approval. Not all proposals proceed in such a linear progress. If necessary, a case in the reflection stage can move back to online surveys to deal with newly emergent debates. With a deliberative method and

technological support, the vTaiwan process helps government agencies engage with citizens and stakeholders when making cyber-related policies and laws.

What is exciting about vTaiwan is that its integration of digital technologies facilitates discussion and enables deliberation on a national-scale. Throughout years of its development, it has experimented with dozens of different tools, which can be roughly distinguished into three types. First, presentation tools such as SlideShare and GitBook help present content digestible by the public and stakeholders. Second, transparency tools such as YouTube, SayIt, and Hackpad keep an open record of every online and offline discussion. Third, survey tools such as Typeform, Discourse, Pol.is collect opinions and facilitate conversations. The extensive usage of technologies is due to the nature that vTaiwan deals primarily with regulations emerged in the digital age and many of their stakeholders are Internet users. Clkao admitted that vTaiwan is not ready yet for other more controversial social debates.

Amongst all technologies used, Pol.is is discussed the most. Pol.is is an online survey tool that uses an interactive graph to show the real-time distribution of opinions and to facilitate conversation among oppositional groups. In a controversial case like UberX, Pol.is helped build a common ground for making regulations on the polarized subject. The Pol.is survey started from a few statements such as “I think it is the responsibility of the government to actively outlaw unlicensed passenger vehicles” or “I will prefer Uber to taxi if I am not in a hurry” for participants to click “agree,” “disagree,” or “pass.” Upon submitting an answer, a participant’s avatar would move towards those who share similar opinions in a visual graph. Besides these options, participants could freely add statements for others to vote on. A month after the survey went online, Pol.is gathered 99 statements and grouped the participants in two clusters. Other than the obvious opposition between Uber supporters and opponents, Pol.is

found out some statements that were largely agreed by both groups. For example, the statement “the government should leverage this opportunity to challenge the taxi industry to improve their management and quality control system, so that drivers and riders would enjoy the same quality service as that of UberX” won 95% agreement across groups.

In 2016, the government ratified the consensus items made in vTaiwan into a new regulation and legalized Uber-like apps. While UberX still failed to comply with the new law, other similar apps and services have since put on the market. The UberX case showed that Pol.is could facilitate a virtual conversation and identify consensus between polarized groups. Although it was impossible to have all stakeholders agree on every detail, using Pol.is in deliberation helped find out the common ground to start a conversation. As Tang explained, “think of a blender filled with hard fruits — rockmelons and pineapples — but no water. Turn on the blender. The temperature will rise, and violent confrontations between solid surfaces may even start a fire! That is what may happen in a debate of stakeholders when interests are in conflict with each other. Considering the risks involved, the vTaiwan rulemaking process aims for coherence (rough consensus), not convergence (coordinated consensus).”³⁷

vTaiwan is a sophisticated process of rulemaking deliberation. Since it is not institutionalized, it relies on the voluntary participation of both government agencies and vTaiwan volunteers. The idea is that government agencies find vTaiwan useful for them to reach stakeholders when making laws and citizens can express opinions and participate in the lawmaking process via vTaiwan. In real practice, however, vTaiwan meets two challenges. First, how do citizens make the government accountable after the vTaiwan process? If the government is not obligated to

³⁷ Audrey Tang, 2016, “Uber responds to vTaiwan’s coherent blended volition,” *pol.is blog*, May 23, 2016, <https://blog.pol.is/uber-responds-to-vtaiwans-coherent-blended-volition-3e9b75102b9b>

include the suggestions made in vTaiwan, why should citizens spend time participating? In fact, it is the legislators that have the final say on draft bills and what vTaiwan provides is only consultation. The draft bill of online liquor sale, for example, was rejected by legislators after going through the vTaiwan process. Such a result was disappointing to participants and damaged people's trust in vTaiwan. Second, how to encourage government agencies to adopt vTaiwan in their rulemaking process when deliberation through vTaiwan means extra work and a prolonged process. Also, many of the technological tools used in vTaiwan are new to civil servants, but law-based administration and the bureaucratic culture do not appreciate new, innovative approaches that are not part of their work routine.

In the time when Jaclyn Tsai was the minister, she used her political power to deal with these challenges. Billy, a g0ver who later worked in Tang's office, pointed out in an interview that “vTaiwan’s former successes, personally, I think came from the political will from a powerful Minister, Jaclyn Tsai. Jaclyn’s strategy was to pick the particular bills she wanted to see through in the Administration, and hand them to vTaiwan. After vTaiwan came up with recommendations, Jaclyn will then make sure they are brought back to administrative processes, and exercise her political power to make sure they get through.”³⁸ After the transition of power from the KMT to the DPP in 2016, Tsai left the government and Tang became the minister. They then switched their positions in vTaiwan — Tang represented the government while Tsai the civil society. Tang had a different political philosophy from Tsai. Tang refused to mandate government agencies with her power. As a result, fewer and fewer agencies make proposals. When I attended vTaiwan’s weekly meetup in September 2018, the community was very concerned about the future of vTaiwan. After all, there wouldn’t be any deliberation if the

³⁸ g0v.tw, “vTaiwan Shared Interview QA,” Hackpad, accessed on August 21, 2020.

<https://g0v.hackpad.tw/ep/pad/static/H6mF7r7Kwbt>. All translations by the author.

government did not take part in it. As Billy reflected, “from a technological, instead of political, point of view, we might be amazed by what vTaiwan has achieved. However, technologies are just a supportive role. To make the vTaiwan process really work depends on how much authority high-ranking officers give to the vTaiwan process and its community, how they use their power to mediate between the community and the government, and whether or not they are going to take the political responsibility after all.” Although a participatory democracy is vTaiwan’s design, it is still yielded to representative politics. Even worse, it can become an anti-politics machine (Ferguson 1990) if the government chooses to use it only for endorsement instead of deliberation. Without institutionalization, the vTaiwan process continues to live on the government’s will and struggle for the support of a strong politician to make it happen.

The Hacker Minister

When Audrey Tang was appointed the minister, many people looked forward to her bringing openness and transparency into the government, to pushing open government data further, to revolutionizing bureaucracy, and to realizing a digital democracy. But she refused to lead the change. “My existence in the government is not to speak for certain communities, nor to help the government do better public relations in the digital space. Instead, I want to become a ‘channel’ to bring together wisdom and power of all parties,” said Tang.³⁹ Self-identified as a “conservative anarchist,” Tang performed the minister role in her unique hacker style.

Tang has been practicing transparency long before she entered the government. As a hacker who has deep faith in information transparency, Tang insists on opening up all her public talks

³⁹ g0v.tw, “Digital Minister: The New Challenge of g0v x gov,” Hackpad, accessed on August 21, 2020, <https://g0v.hackpad.tw/ep/pad/static/zZD5rfTKDNq>. All translations by the author.

and conversations. I remember the first time I interviewed her. It was a summer visit long before Tang became a minister and I just started learning about g0v. Rejecting a private interview, she invited me to a hackathon, where our conversation was attended by other g0vers. I asked if I could record the conversation. She gave me a green light and suggested that we should put this interview online. I later transcribed the conversation and shared it on g0v's chatroom. To my surprise, people read and commented on this long piece (it's an hour-long conversation), producing postscripts beyond my expectation. Months later, as my fieldwork officially began, I realized that this was the way g0v always worked — live broadcasting, full transcription, online open records, etc.

When Tang became the minister, she brought these “tools of transparency” into the government. For example, although the press all wanted to get an exclusive interview with her about the new minister position, she asked journalists to post questions on Wiselike, an online Q&A platform, where she could reply openly together online instead of one-on-one. Tang declared that she would not engage in any close-door meetings and handle any confidential documents. Even more, she hired real-time transcribers to help her open up all meetings she had in the government and put them on her official website, where every sentence in these meetings had their own URLs for sharing and cross-referencing. Interviewing Tang was like interacting with a super computer — not just because she was so knowledgeable and always referencing online sources as if she carried with her these hyperlinks, but also because she presented a rational, positive, and almost emotionless attitude in her soft tone. In one sense, we could say Tang was a transparent person; however, I felt the opposite might be the truth — beneath her perfect, machine-like performance, the human side of her has been hidden very deep.

Tang describes herself as a “conservative anarchist,” who “keeps what always has worked in the Internet culture and tries to bring it gradually to fuse with the rest of society.”⁴⁰ For her, being a hacker is to be an anarchist as the Internet is decentralized and free of domination while code is disruptive and violent. “Code has the potential of the effect on excluding even the ways to think about possibilities,” she says. However, instead of practicing anarchism radically, she argues that her method is one of “humanistic conservation,” that is, taking a modest approach to introduce technological innovation “for the benefit of the society” while preserving “the tradition of human civilization.” But how in practice does a conservative anarchist work in a bureaucratic system? She answers that her role in the government is to serve “as a channel” to facilitate the conversation among government agencies, civic hackers, and civil society organizations. “I bill myself as a public servant of public servants. I help the civil service. I don’t ever give commands. As an anarchist I don’t believe in commands. Basically, I treat the civil service as my peers and I try to make only Pareto improvements.”⁴¹ Tang’s political view is radical, but what she does in the government is far from radicalism. In fact, some g0vers criticize her for not progressive enough even in topics related to digital government such as open data and electronic ID cards when occupying such a key position. Tang has no intention to reform the bureaucratic machine but only tries to hack it — exploiting its loopholes and planting the seeds of change from within. Her title gives her authority, but instead of using it to command, she uses it to lift the bureaucratic control so as to enable experiments.

One experiment Tang did in the government was the establishment of the Participatory Officers (PO) network. The PO network is composed of Participation Officers (POs) from every

⁴⁰ Audrey Tang’s interview with Kim Hill, August 12, 2016. Full transcript, accessed on August 21, 2020, <https://sayit.pdis.nat.gov.tw/2016-08-12-interview-with-kim-hill#s64769>.

⁴¹ Audrey Tang’s interview with Ludovic Sinet, March 21, 2018. Full transcript, accessed on August 21, 2020, <https://sayit.pdis.nat.gov.tw/2018-03-21-interview-with-ludovic-sinet#s150898>.

ministry and agency to co-work on cross-ministry policymaking. As declared in the *Directions for Implementing the Role of Participation Officers*, the goal of the PO network is to “put into effect the principle of open government, and establish a relationship of mutual trust and partnership between the government and all sections of society.” The PO network adopts and revises the vTaiwan deliberation process and practices a multi-stakeholder approach. Every month, POs gather the topics both raised by citizens via the e-petitioning platform Join and suggested by POs themselves, and then vote for which topic to focus on that month. The topics discussed in the PO meetings are not limited to cyber-related policies but cover issues from drunk driving to in vitro fertilization, everything that needs coordination between ministries. Through the facilitation by the Public Digital Innovation Space (PDIS) team, which is directed by Tang, POs work with citizen proposers and stakeholders to revise policies and renovate public services. The design of the PO network is to empower civil servants, equip them with new tools, and encourage them to think and act as policy experts instead of a cog in the bureaucratic machine. By connecting POs across ministries in collaborating policymaking, the PO network challenges the hierarchical bureaucracy and intends to drive cultural change in public services.

The PO network is a “sandbox” — a testing environment that is separate from the main system so as to allow experimentation without risking the entire system — of open government. Like vTaiwan, it utilizes digital tools in its deliberation process. Technologies serve both to make the government accountable (by opening up all meetings and information online) and to facilitate conversations. One of the goals of the PO network is exactly to introduce new tools to the rigid government so that “public servants won’t resist these tools as they know that someone used them before, and these tools can help reduce their burden,” said Billy. Technologies are not simply the tools used, but they also set up the qualification to be a PO.

The Directions specifies that the POs are civil servants “who are able to conduct public communication warmly and sincerely, and are familiar with policy work and adept at using internet tools.” Furthermore, POs are supervised by the deputy agency heads or chief information officers of their ministries. Digital technologies have become an indispensable part of the PO network. While promoting participation in the policymaking process is the main mission of the PO network, it is achieved and mediated by technologies.

The PO network is a small cohort of civil servants and the policies they deliberate together with citizen stakeholders only count a tiny part of all government policies. Even so, it pushes what vTaiwan has achieved a step further. Unlike vTaiwan, the PO network is institutionalized and integrated into the policymaking flow. The PO network is able to continue their work even if Tang leaves the office. More challenges still await ahead. Is the PO network able to deal with highly controversial and polarized issues? Can POs really make a cultural change in such a huge bureaucratic machine? Nevertheless, the digital minister has demonstrated what she thinks an open government should be like: instead of making commands to “implement” open government policies, she gives civil servants digital tools to develop a new, collaborative way of policymaking. Then, she retreats from the scene and lets them work their own way out, not as a part of the bureaucratic machine but as autonomous individuals and policy experts.

Contesting Openness, Making Politics

This chapter started with the Chinese pun, *shuwei* (digital/plural), which implied that Tang’s appointment would introduce the network of g0v hackers into the government. Some g0vers cheered for this idea; some raised warnings. Undoubtedly, Tang’s rise to the minister was largely due to her involvement in g0v’s activities during the Sunflower Movement and her

contribution to the vTaiwan project. This minister appointment demonstrated the DPP government's attempt to consolidate its relationship with these hackers as well as the younger generations who share the same language and culture. However, even though g0vers felt excited to see themselves being regarded as politically important, they found it alarming to be too close to the government. After all, there was a lack of trust in representative politics and the bureaucratic system.

Foreseeing the concerns and doubts of Tang's new role in the community, she and a few g0vers released an online Q&A document⁴² in which g0vers raised questions regarding her new role and future relationship with the community, and she replied one by one. This Q&A was a collaborative work, powered by Hackpad, an online collaborative text editor. Anyone could add, comment, and edit the document without others' permission. Each question came with an ID in the end to show who asked the question. All edit records were kept open to the public, ensuring transparency of the entire process. The document kept growing longer and longer after going online, becoming an ongoing conversation between g0vers and Tang. Even a year after Tang entered the government, she returned to the document and added updated comments.

As of December 2019, there are over 60 questions on the Q&A, varying from asking Tang's new job duties to how she will adjust her relationship with the community. Some questions demonstrate their support of Tang's new official role while others challenge her with more provocative questions like what she will do if her superiors (i.e. the president and the premier) make wrong decisions, or under what circumstances she will resign from the post. Underlying these questions is the concern of openness. They ask how she is going to improve open data

⁴²g0v.tw, "Digital Minister: The New Challenge of g0v x gov," Hackpad, accessed on August 21, 2020, <https://g0v.hackpad.tw/ep/pad/static/zZD5rfTKDNg>.

policies, to make public procurement more transparent, and to implement vTaiwan-like deliberation in policymaking. Besides questions on specific policies, Clkao challenges her, “as part of the administration, what will you do if the government does something that violates your value, for example, implementing important policies without a proper deliberation process.” Tang replies, “My core value is conservative anarchism. In practice, I will propose better methods for civil servants to follow.” “But what if they don’t take your advice?” Ipa follows up. “As the word ‘conservative’ indicates, I will demonstrate how the methods work again and again until civil servants are willing to adopt them voluntarily.”

Tang’s reply does not clear up the doubts but only initiates debates. For supporters, she embodies the spirit of openness and makes herself an example of how open government should work. Rather than imposing top-down commands to implement open government, they argue that Tang takes a much harder, but long-standing approach to cultivate an open culture in the government. For critics, her anarchist stance means doing nothing in a powerful position, particularly when the DPP government shows reluctance to improve open data policies and only selectively involves the civil society in policy-making processes. “If Audrey Tang is unwilling to give orders and make policy blueprints, how can she be in charge of open government as a minister?” asks a critic. Also, what kinds of responsibilities she takes and how do we hold her accountable when what she does is merely to give advice? After all, why wouldn’t she just continue her consultant role if she only wants to advise rather than to command?

There is also criticism about how she advertises Taiwan as “the future of democracy” in her talks around the world. In Tang’s description, Taiwan, in contrast to China, is an island of freedom and openness. Its embracement of democracy and the willingness to experiment with

new technologies drive it in the vanguard of a digital democracy. Taiwan, officially as Republic of China, yielded its United Nations seat to the People's Republic of China (the Communist China) in 1971 and since then has been losing its allies. Tang's talks and interviews are good opportunities to increase Taiwan's visibility when China continues to suppress Taiwan's international participation. "Open government can be a diplomatic means for Taiwan because this is what the Chinese government has no say at all, at least, in the foreseeable future," says Tang. This strategy has proven to be so successful that she has been invited to attend United Nations' meetings (through a telepresence robot) and delivered presentations on Taiwan's open government and digital innovation via live broadcast. The story of Taiwan told by Tang wins much applause. It feeds the fantasy of a digital democracy on a "Far Eastern" island when political turmoil and crises are everywhere across the globe. However, her overly positive tone of Taiwan's digital democracy produces anxiety among some g0vers as they want to push the government to be more open and transparent. Frustrated by the slow progress of open government under the DPP government, they mock Tang as a "mascot" and accuse her of being the DPP's means to "open-wash"⁴³ the not-so-open government.

g0vers are also concerned how g0v maintains its openness after Tang's appointment, and therefore try to draw a boundary between the community and Tang. Interestingly, the second part of the Q&A turns from questions for Tang to questions for g0v. These questions are still raised by g0vers, but they are asked as if the questioner is an outsider who challenges g0v's political position. For example, one question charges that g0v is becoming a front organization of the ruling DPP party; another criticizes that g0v is going to merge with the government. Indeed, these questions reflect a sense of crisis that emerges alongside Tang's new role. The

⁴³ The term "open-wash" is derived from "green-wash" to mean deceptively branding a product or an organization as open while it is not (cf. Thorne 2009).

answers below not only try to fight against doubts and critiques on g0v, but also serve to reaffirm and rearticulate g0v's core values of openness, collaboration and decentralization. They emphasize that g0v is an open community with participants of various political positions. The community will remain a space of hacking no matter how different they are. Through reading and answering these questions, clarifying their stances, arguing for a boundary between g0v and the government, g0vers readjust their position between collaboration and resistance in order to find ways out of this crisis.

In *Hacking Cyberspace*, David Gunkel (2000) describes hacking as a parasitic activity “that always requires a host system in which and on which to operate. The logic of the parasite, however, is remarkably complex. It is not, as Jacques Derrida points out, ‘a logic of distinction or of opposition,’ for a parasite is ‘neither the same as nor different from that which it parasites.’ The parasite, therefore, behaves according to another kind of logic, one that exceeds the simple dichotomies of inside/outside, legitimate/illegitimate, legal/illegal, cause/effect, and so forth” (800). This parasitic position is what g0v stands in relation to the government. Tang’s rise to be a minister and the following debates surrounding this official appointment uncovered g0v’s parasitic in-betweenness. Through the shifting translations of openness, g0vers swing between resistance and collaboration, continuously voicing dissents and making politics.

“Suspended Government”

Tang is not the only g0ver who works in the government and, in fact, there are also civil servants, like Jacklyn Tsai, participating in g0v’s hackathons. g0vers have always been open to everyone no matter what social positions they are in. But why does Tang receive such attention and face strong criticism? The political importance of the minister position is one of

the reasons, but the criticism against Tang also reflects g0vers' anxiety towards the institutionalization of openness. In fact, among g0vers, the attitude towards the government has been swinging between an activist one and a revisionist one. In the early days, g0vers used to describe their activities as "civic hacking," but it has been gradually replaced by the more moderate "civic tech." Similarly, during the Sunflower Movement, they often addressed the slogan "tear apart the government in order to rebuild a new one from the bottom up", but now, they talk about "suspended government" (*daiyong zhengfu*), which is "a beta or an alternative choice of what government could be." *Daiyong*, literally meaning "waiting to be used," is a term borrowed from "suspended coffee" (*daiyong kafei*), a new urban movement in which, as an act of charity, people pay for a coffee or a meal in advance for those in need to request later. Underlying "suspended government" is the idea that the government system is flawed and cannot be rebooted. Instead of overthrowing the government, g0vers fork the system, provide alternatives, and encourage the government to merge them.

The idea of "suspended government" exposes g0v's parasitic position. Hackers like g0vers are never political leaders. Leadership is not how they work and they do not adhere to a shared political position. They never attempt to replace the government with a new one. As parasites, they live on the loopholes of the government system — the larger the loopholes are, the angrier the hackers are, and the stronger the community grows. As a matter of fact, g0v will no longer exist if the government collapses or reaches perfection. Tang's entry into the government disrupts this parasite-host relationship, unsettling the principle of openness. Civic hacking is on the verge of collapse. However, g0vers do not stay reactive to this crisis. They draw the boundary between g0v and the government, make dissents on Tang's appointment, and debate what openness means and how to practice it. Both the responses to Jai's post and the Q&A

document reveal how g0vers tactically choose one translation of openness over the other to defend the subversive potentialities of hacking.

The debates surrounding Tang make explicit the equivocation of openness and reveal the paradox of practicing open government in a closed bureaucratic hierarchy. Tang's appointment not only challenges the discourse of openness but questions if collaboration can accommodate hierarchy and if openness has a boundary. While openness presumes collaboration and inclusion, a hacker being the minister brings in a hierarchical structure that threatens the decentralized model of collaboration and further weakens hackers' subversive power. Moreover, Tang's declaration of being a conservative anarchist and refusing to give commands generate debates on what openness is and how to practice open government. These debates return to the definition of openness, subverting the hegemony of this very principle, and opening up a space of dissensus. By making open government contestable, g0vers continue to make noises and resist being institutionalized when the zeal of resistance fades away under the DPP regime. The equivocation of openness is manipulated as a tactic to continue hacking from within the system. It is in this process of contesting openness that g0vers maneuver a parasitic position between inside and outside, continuity and disruption, control and resistance in order to keep on making politics. In this sense, the controversies of Tang as the digital minister really make her a channel of producing politics in the battle of openness.

6. Checking Facts by a Bot

On September 2, 2018, when Taiwanese were relieved as the Super Typhoon Jebi just bypassed Taiwan and headed north, no one anticipated that Jebi was going to strike Taiwan again and take a life away through its virtual presence. Two days later, Japan's Kansai International Airport was hit hard with Jebi's torrential rain, strong winds, and the subsequent flash floods. A bridge leading to the airport, which is built on an artificial island in the middle of Osaka Bay, was damaged, leaving thousands of domestic and global travelers as well as airport staff stranded on the isolated island.

As foreign consulates in Osaka all tried to rescue their citizens from the airport, a fabricated story about the Chinese consulate managed to send fifteen buses to rescue its citizens and some Taiwanese got on these buses after they admitted they are Chinese started to spread on PTT, the biggest online forum similar to Reddit in the US. Many Taiwanese felt insulted to know that their fellow citizens had to identify themselves as Chinese in order to be rescued. It touched a nerve on raising Taiwanese identity. Comments flooded in, slamming Taiwan's representative office in Osaka and the DPP government for failing to rescue its people. Some people felt that this seemingly kind gesture only showed that China never stopped their ambition to take over Taiwan. Taiwan's mainstream media outlets, which have been notoriously writing reports based on PTT posts, soon picked up the story and made sensational headlines, such as "Taiwanese had to rely on Chinese transportation to get away" and "To get on the bus, one has to pretend Chinese".⁴⁴ Even after Frank Hsieh, the leading representative in Japan, rebutted the story, public criticisms did not stop but only escalated.

⁴⁴ Oiwan Lam, "TAIWAN: What Really Happened During the Kansai Airport Evacuation," The News Lens, September 28, 2018, <https://international.thenewslens.com/article/105060>.

On September 14, diplomat Su Chi-cheng, who was in charge of the Osaka office, took his own life after suffering from harsh criticism.

The next day, Taiwan FactCheck Center (TFCC), a non-profit fact-checking organization, released their report that debunked the rescue story. The report explained that all stranded passengers left the airport by the buses provided by the Japanese authorities. Although staff from China Southern Airlines gathered most Chinese passengers to take the same buses, these were never Chinese buses and everyone regardless of nationality could get on them. Shocked by Su's death, all of a sudden, the public opinion changed its direction. New stories revealed how Su made efforts to assist stranded Taiwanese during the Kansai airport closure and how he devoted his diplomatic career to building friendships between Taiwan and Japan. A news headline concluded: "Fake News Killed the Diplomat!"

Su's tragic death happened just before Taiwan's midterm elections held in November 2018. Besides voting for local representatives, several national referendums including proposals related to same-sex marriage, gender equality education, and nuclear power plants were going to take place on the same day. To win people's votes, political parties and politicians, religious groups, media outlets, online influencers, and cyber armies all came to join this massive race of "discursive engineering" (Graan et al. 2020). Meanwhile, China continued to exert its influence through both pro-China media and disinformation attacks. According to the research by V-Dem, Taiwan suffered the most from foreign online disinformation campaigns among 202 countries in 2018 (V-Dem Institute 2019). Sensational click bait, misleading images, propagandas, rumors, memes, and trolling flooded the digital space, especially Facebook and LINE, the most popular social media platforms in Taiwan.

Cofacts: Collaborative Facts

A few days after TFCC released the report, on a Wednesday evening, I sat with Cofacts' developers in their weekly meeting. Cofacts, which stands for "collaborative facts," is a fact-checking chatbot run on the messaging app LINE. Cofacts is composed of two parts: a database of online rumors that crowdsources fact-checking to volunteer fact-checkers (who are called "editors") and a chatbot that connects fact-checking results with LINE users. Users can forward suspicious contents to Cofacts and its chatbot will provide matching fact-check results found in its database. Cofacts' mission, according to its founders MrOrz, is to help those "who do not know how to google" to look for more reliable information. Cofacts' crowdsourcing approach of fact-checking challenges the conventional, authoritarian practices of knowledge production by experts, scholars, and the authorities, and displays its ambition to cultivate an online public in the fight against online rumors.

"Even though the freedom of speech and the Internet bring about rumors and fake news, they can become a powerful weapon to fight online rumors," said MrOrz.⁴⁵ On October 14, 2016, in the 21st g0v hackathon, MrOrz proposed the idea of building a fact-checking chatbot, which was later named Cofacts,⁴⁶ to debunk rumors circulated in the chat rooms of the messaging app LINE. In an interview, MrOrz said his initial idea was simple: "There were so many rumors circulating on LINE, and these rumors can be easier debunked by googling them. As a programmer, I was thinking if we could have an automotive system to do this." Like many g0v

⁴⁵ Cofacts' interview by students of the Department of Communication and Technology, National Chiao Tung University, April 6, 2018. Full transcript, accessed on August 21, 2020,

<https://hackpad.tw/ep/pad/static/X1i6gJNdsZH>

⁴⁶ The chatbot was firstly named *Zhende Jiade* (literally "Real or Fake") in Chinese when MrOrz first proposed the idea in the g0v hackathon. Its English name "Cofacts" came later in April 2017 after the chatbot went online.

projects, they started from seeking solutions in technology. “At first, we tried to link the chatbot with Google Search, but Google gave us even more unreliable information from content farms. This was when we started to recruit volunteer editors and make the fact-checking process crowdsourced.” Crowdsourcing fact-checking is what makes Cofacts different from other fact-checking organizations. While most fact-checking organizations, like TFCC, hire professional journalists and researchers to check facts, Cofacts delegates this task to volunteers from all walks of life. Seeing itself as a platform, Cofacts does not want to play the role of “arbiter of truth:” “Cofacts is not a place of absolute truth; instead, it is a platform to display various ‘facts,’ including fact-check reports made by other organizations.....We believe in the free market of speech. Our goal is to become a Wikipedia of online rumors” MrOrz added.

Cofacts’ founders MrOrz and Billion are both active g0vers. MrOrz is tall and fit with his long black hair tied up neatly in a bun. His tone is soft yet confident. When speaking, MrOrz is like the code he writes — logical, organized, and can always hit the nail on the head. With a computer science background, he has deep faith in the free flow of information. Before Cofacts, MrOrz participated in several g0v projects that all attempted to open up and translate complicated information to promote civic engagement. For example, during the 2014 Sunflower Movement, MrOrz took part in the project “Are You Impacted by the Free Trade Deal?” which translated the legal language of the trade pact into a searchable webpage that people could simply check if their jobs were impacted by the trade deal or not. Compared to MrOrz’s softness and low-key, Billion is spirited and passionate, warm and cheerful. It feels like there is endless energy coming from her tiny body. She always dresses up elegantly, which makes her outstanding among a bunch of geeks in T-shirts. Billion studies political science and never hesitates to express her views on social issues. Yet she knows the art of communication and is never too aggressive to be approached. In Cofacts, MrOrz handles the codes and Billion

takes care of the editors. They represent the two pillars of Cofacts: the logical chatbot and the enthusiastic volunteer editors.

A few months after MrOrz proposed the idea of a fact-checking chatbot, Cofacts won The g0v Civic Tech Prototype Grant. With a prize of fifty thousand Taiwanese dollars, the Cofacts chatbot officially went live on LINE in March, 2017. Since then, its users have increased rapidly. As of July 2020, it had accumulated over eight thousand users, who together sent over thirty-eight thousand suspicious messages to the chatbot. The Cofact chatbot is linked to a database of rumors, where over 1.3 thousand volunteer fact-checkers, or “editors” as Cofacts calls them, verify or debunk these rumors in a timely manner. Beside sending fact-checking responses back to Cofacts’ LINE users, Cofacts also publishes them on its website, allowing Internet users to search fact-checked rumors online. By July 2020, Cofacts’ website has more than twelve million page views. After three years, Cofacts has become the largest fact-checking system in Taiwan.

MrOrz’s word sparks my interest in Cofacts. What does it mean to crowdsource facts? Why is “googling” the key skill to combat online rumors? How does a Wikipedia of online rumors work? As an anthropologist, I see both facts and rumors as situated knowledges that convey social meanings and epistemological framings, and they require a cultural reading to understand their implications. Like the stories surrounding the typhoon Jebi and Su’s death, the acts of pointing something as fake and constructing others as true are always political as they mobilize information, power, and publics to accomplish certain aims. From this viewpoint, I wonder what kind of politics Cofacts participates in, which public Cofacts addresses, and what role technologies play in this process.

Rumors in the Post-Truth Era

Rumors are nothing new. They have existed since human beings started to communicate and network. Rumors are the shadow of facts — and indeed, they are in Émile Durkheim's sense “social facts” that consist of collective actions, feelings, and thoughts, and are imposed onto the individual. Anthropologists (e.g. Stewart and Strathern 2004; Feldman-Savelsberg, Ndonko, and Schmidt-Ehry 2000; Paz 2009) have shown that rumors as a practice of knowledge-making can carry more nuance than truth claims. Rumors are “situated knowledges” (Haraway 1988). They are, like all other knowledges, “partial, locatable, critical knowledges sustaining the possibility of webs of connections called solidarity in politics and shared conversations in epistemology” (584).

But seeing rumors as situated knowledges does not mean that we should never challenge their claims and ask ethical questions. Borrowing the concept of “factual truth” from Hannah Arendt, Ho et al. (2019) call our attention to how power and politics shape knowledge and silence other voices with new socio-technological tactics in the so-called “post-truth” era.

Perhaps even more crucially, Arendt recognized that what is at stake in these powerful inversions and “modern political lies,” driven by the “interests of men,” is that they can become “so big that they require a complete rearrangement of the whole factual texture — the making of another reality, as it were, into which they will fit without seam, crack, or fissure.” In other words, “organized lying” and the “modern manipulation of facts” require the bending of the very social and historical context to fit the lie, thus upturning the larger historical and factual fabric in which factual truths are situated, rendering it difficult to make the necessary distinctions between lies and facts, between opinions and larger historical records and social contexts (162).

These “organized lying” and the “modern manipulation of facts” have been coined as “fake news” since 2016 before this term was corrupted by US president Donald Trump. “Fake news,” as it is discussed in current political debates, can be seen as a unique genre of rumors. Today, it means various phenomena of information disorder (Wardle and Derakhshan 2017), including but not limited to fabrication, manipulation, advertising, trolling, and propaganda. A piece of fake news can be an outright fabricated story, but more than often, it is a mixture of facts and lies, aiming not only to mislead but also to distract and to confuse (King, Pan, and Roberts 2017; Benkler, Faris, and Roberts 2018). As philosopher Joshua Habgood-Coote (2018) reveals, “[t]his brings the idea of ‘fake news’ closer to Princeton professor Harry Frankfurt’s notion of bullshit than lying. A liar says what he or she believes to be false, whereas the bullshitter says whatever is in their interest, irrespective of its truth.”

In the US, more and more scholars and political commentators (Collier 2018; Fisher and Karlova 2013; Funke 2018; Habgood-Coote 2018; 2019) argue that the term fake news has been misleading after excessive usages by politicians and propose to replace it with terms like misinformation (inaccurate information) and disinformation (deceptive information). In Taiwan, nevertheless, the term fake news (*jia xinwen*) still maintains its valence as among the general public, while some journalists and scholars have started to use *jia xunxi* (fake information) or *bushi xunxi* (not-true information) to replace the term. The continuous emphasis on *xinwen* (news) instead of *xunxi* (information) shows the distrust towards the news media in Taiwan and, most importantly, the role of news media in the chain of authentication (Graan et al. 2020) that makes rumors viral.

In addition to politicians and news media, profit-oriented social networking sites are also the key player in this information disorder. Information manipulators have taken advantage of

social algorithms (Howard 2016) and the business models of platform companies. They use technologies of data surveillance to “target the weak points where groups and individuals are most vulnerable populations to strategic influence,” producing what Nadler et al. (2018) call “Digital Influence Machine.” The outbreak of the Facebook-Cambridge Analytica scandal in 2018 has shown that people’s political behaviors can be so easily manipulated by the coupling of disinformation campaigns and surveillance technologies.

In the post-truth era, rumors are produced in a socio-digital complex that needs a careful description of its “problem-space” so that we will not rush into judgement and definition. This complex is a transnational agglomeration but operates at the local, and oftentimes, interpersonal level. It is a co-produced by profit-oriented mainstream media and the frantic competition of click-through rate, data-exploiting social networking sites and their black box algorithms, content moderators and data brokers, trolls and cyber armies, influencers including traditional figures like politicians and experts and non-traditional ones such as YouTubers and internet celebrities, and, last but not the least, split publics in which sensational stories or conspiracy theories easily hijack people’s attention and erode their trust in media and professionals.

While it is not the goal of this chapter to unravel all aspects of this complex, it is important to bear in mind the multi-dimensional and interconnected causes of online rumors. In this chapter, by examining Cofacts and its crowdsourcing fact-checking system, I intend to look into the split publics that are addressed and created through the technological mediation of knowledge production.

Information Disorder in Taiwan

Since the lifting of Taiwan's martial law in 1987, restrictions on freedom of speech and the press started to loosen on the island. In 1993, Cable Radio and Television Act was enacted and the media industry began to prosper. Commercial media companies established one after another, and the number of TV channels has grown from three to over two hundreds, including a dozen news channels broadcasting 24-hour nonstop (Wang 2004). Besides broadcasting media, there was also an increase in newspaper publishers. Among four of the dominant newspapers, Apple Daily, owned by a Hong Kong-based media group and first published in 2003, brought in tabloid-style news reporting that significantly impacted Taiwan's journalism (Hung, Liao, and Lin 2008). Its strategy was a big success — it soon became the best seller — and other news outlets started to follow through. The fierce media competition following the deregulation led to more sensational reporting, unverified stories, celebrity gossip, and false stories. Meanwhile, media outlets were also polarized along partisan lines as “pan-blue” (*fanlan*, pro-Koumintang or pro-KMT) and “pan-green” (*fanlu*, pro-Democratic Progressive Party, or pro-DPP), producing biased reporting and causing social opposition. In addition to “pan-blue” and “pan-green,” there also emerged “red media” (*hongmei*) which took a pro-China position and often disseminated Chinese propaganda because of their owners’ business interests in China (Y. Lee and Cheng 2019). Overall, Taiwan enjoys a high degree of media freedom, which has been ranked top among Asia countries consecutively from 2013 to 2018 by Reporters Without Borders (RSF). However, as RSF comments in the 2019 World Press Freedom Index⁴⁷, “[p]olitical interference is rare and less tolerated, but Taiwan’s journalists are suffering from a very polarized media environment dominated by sensationalism and the pursuit of profit.”

⁴⁷ 2019 World Press Freedom Index by Reporters Without Borders, accessed on August 21, 2020, <https://rsf.org/en/ranking/2019#>.

The rise of social media has posed even more challenges to journalism and the news industry. Taiwan has a high Internet penetration rate, with 89.6% of people aged 12 or over being online in 2019. Among this online population, 94.8% has used messaging apps and 79.2% has used social media platforms (TWNIC 2020). As readers and audiences moved online, journalists began to change their style of reporting and the news industry looked for innovative ways to make profits. On the one hand, instead of discovering and investigating stories on their own, more and more journalists look to social media such as Facebook or PTT for stories — many of them are not verified. On the other hand, advertorials, advertisements that are disguised as objective and independent news, become one of the main sources of revenue for the news outlets. These advertorials blur the line between genuine news reporting and advertisements, disrupt journalistic ethics, and make people numb to unauthentic news (C. Lin 2005). All these phenomena — sensational reporting, polarized media environment, lack of genuine and investigative stories, and the proliferation of advertorials — lead to a general lack of trust in mainstream media and journalism in Taiwan and provide the soil for rumors, propaganda, and misinformation to grow.

Taiwan has also suffered from disinformation attacks coming from both within Taiwan and beyond. Domestically, the opposition between the KMT and the DPP brings about intense political competition. Both parties and their supporters deploy various kinds of propaganda in an attempt to interfere with elections. Fake political mobilization and “paid supporters” (*zoulugong*) happen in both physical rallies and online spaces. There are also cyber armies (*wangjun*), who take coordinated actions to influence public opinions (*dai fengxiang*).

Taiwanese are not only accustomed to domestic propaganda, they are also used to foreign information operations, especially from China. The Chinese Community Party (CCP), to which

the KMT lost battles in the Chinese civil war (1927~1949) before they fled to Taiwan, has been trying to interfere with Taiwan's democracy by means of military threats, diplomatic suppression, trade wars, economic inducements, propagandas, and disinformation campaigns. Taking advantage of Taiwan's press freedom, the Chinese government buys advertisements, implants advertorials, and manipulates news reporting through pro-China "red media" (*hongmei*). On social media, 50 cents party (*wumao dang*, online commentators paid by the Chinese authorities to spread pro-China narratives) and little pink (*xiao fenhong*, young nationalists who voluntarily fight online battles for patriotic propaganda) from China use Virtual Private Networks (VPNs) to get around the Great Firewall. They troll and spam the social media accounts of Taiwanese officials, celebrities, or media outlets so as to "distract the public and change the subject" from discussion that might pose threats to Beijing (King, Pan, and Roberts 2017; Monaco 2017). One of the famous incidents is the Di Ba Expedition taking place in January 2016, a few days after DPP candidate Tsai Ing-wen was elected as Taiwan's president. Chinese netizens from Baidu's Di Ba forum organized a collective cyberattack and flooded Tsai's Facebook page with anti-Taiwan independence messages and meme images (*biaoqing bao*).

Besides flagrant trolling, disinformation attacks also take more tacit and intricate strategies, for example, using fake accounts controlled by bots to spread propaganda, paying micro-celebrities to share specific contents, buying social media accounts to implant disinformation, or setting up content farms to disseminate false or misleading stories. Some of these content farms are sponsored by foreign governments while others are profit-oriented. They recruit writers and produce fake stories through a transnational network (Liu, Hsu, and Ko 2020). The stories they write are cross-posted on different social media and further endorsed by mainstream media and online celebrities. A complicated political economy shaped by the

market-driven digital industry, geopolitical conflicts, and domestic political struggles lies behind such transnational supply chains of online rumors and disinformation.

In Taiwan, there have been many efforts taken by the government, social media platforms, and civil society to combat online rumors, propaganda, mis- and dis-information. Concerning the freedom of speech, Taiwan does not impose a “fake news law” like what Singapore does. Instead, the government has tried to improve its methods and techniques of communication with citizens and set up web pages dedicated to dispelling rumors about the government and its policies. Social media platforms, like Facebook and Twitter, also periodically take down bot accounts and content farms even though the latter return with new profiles again and again. Moreover, civil groups and activists in Taiwan have been protesting against political interference in news reporting. The Anti-Media Monopoly movement in 2012 and a rally against “red media” in 2019 are both protests against Beijing’s attempts to mingle Taiwan’s media. Fact-checking services are also provided by civil society groups and individuals, such as Taiwan FactCheck Center, MyGoPen, and Rumtoast. Many g0v projects also join this battle against misinformation. News Helper, for example, uses a web extension for users to report suspicious news on Facebook. FakeNews.tw is another news app that displays all filed complaints of TV news submitted to the regulatory agency National Communication Committee. But none of them have gained so much attention like Cofacts.

The Chatbot



Figure 6.1: Cofacts' system flow. (CC BY 4.0 – Cofacts)

One important factor that makes Cofacts so big and influential is its focus on rumors circulating on LINE. LINE is the most popular messaging app across generations in Taiwan. In Fall 2019, LINE reported 21 million users on this island of 23 million people, which means over 90% of Taiwanese use this app. Similar to WhatsApp, LINE supports message exchanges as well as voice and video calls. It is also a social media, where users can share thoughts and images on their Timelines. In addition, LINE provides various digital services such as digital wallet LINE Pay, news feeds LINE Today, video streaming LINE TV, etc. LINE is especially known for its cutesy stickers. These stickers act like emoji that are sent along text, enriching conversations with their prolific and humorous expressions. On LINE, people form all kinds of chat groups, varying from families to friends, classmates, coworkers, and hobbyists. Companies and government departments are also using LINE as a way to communicate. Given that Taiwan has very cheap rates for unlimited usage of cellular data, LINE has largely replaced phone calls and emails in sending messages, images, videos and even documents.

The closed environment of LINE chat rooms provides a hotbed for rumors to grow and spread. It creates filter bubbles that block external voices. LINE makes forwarding messages easy;

however, it is hard to verify them in chat rooms let alone track their sources. These forwarded messages thus form a regime of rumors, proliferating in “private” conversations and spreading from one chat room to another. Like the old saying “rumor has a hundred mouths,” everyone forwards these messages, but no one knows where they actually come from. Rumors circulated on LINE vary greatly in form and topic. They can look like news reports, government announcements, experts’ advice, or personal stories. Some might contain fake images or videos while others include phishing links. Not all rumors are hoaxes or disinformation though. Some are just outdated information while some are decontextualized messages. There are also fake stories originating from other Chinese-speaking places, such as China or Malaysia, but disguising themselves as local Taiwanese news.

According to Billion, the most common topic of rumors is health advice, followed by fake policies. Conspiracy theories or political propagandas also happen periodically when elections or other major political events take place. Many of these forwarded messages share similar rhetoric that combines a language of authority and a language of care. On the one hand, they are often wrapped as expert advice or official announcements, for example: “a doctor says that drinking tea often can help prevent cancer” or “a new speed limit on highways will be effective from the 20th this month.” On the other hand, they usually begin or end with “this is a kind reminder,” “my dear friends,” “pray for you,” “share with your loved ones” etc., making the act of forwarding a gesture of care. Unfortunately, people tend to believe in these messages as they are sent by families or friends.

By linking fact-checking results with a chatbot, Cofacts makes verifying messages as simple as forwarding them. Take this message for example (see Figure 6.2):

Starting from tomorrow, recreational marijuana will be legalized in California. Be sure to teach kids how to avoid candies and drinks that contain THC because THC is marijuana. Merchants now blend marijuana into food and label it as THC to lower people's alertness. If you buy these candies and bring them to Singapore, Malaysia, or the Philippines, you will be accused as a drug dealer and be sentenced to death.

Upon forwarding this message to Cofacts, whom I have added as a friend in my LINE app, it identifies something and replies:

we found several messages matching what you sent me. Hoax messages are often re-edited and re-shared, so please choose one from below that is closest to your message.”

Below are two boxes of matching messages and one last box saying “I can't find a matching message.” I click the first one — almost the same as the one I sent out with only a small difference that it is not California but Canada. The bot gets back to me:

Cofacts' volunteer editors have different views on this message. One says it contains misinformation, and the other says it is not related to fact-checking.

I choose the first one as it has 169 thumbs-up and only four disappointed faces. The bot immediately withdraws it from the database:

A kind person responded to this message: False. Even marijuana is legalized in Canada, food containing marijuana is not everywhere. All places that sell recreational marijuana

need to get the government's permission. Also, you can't buy cannabis-infused food in a random supermarket.

Along with this message is a reference link and the bot continues:

“(Up arrow emoji) In brief, the responder thinks this message contains misinformation. (Man tipping hand emoji) Above information is provided by a kind person. Please refer to its source of information and make your own judgement carefully. (Speaking head emoji) There are multiple responses to this message. We recommend you read them all before making a judgement. (Exclamation question mark emoji) If you have a different opinion against this message, please follow the link below to write your response.”

“Does this response help? Yes or No?” “Thank you and the other 172 people for your feedback.” “(Mobile phone with arrow emoji) Don’t forget to forward the above response back to where you receive! (Man tipping hand emoji) If you think you can compose a better response, please submit a better one here.”

All above conversation happens in just a few clicks.

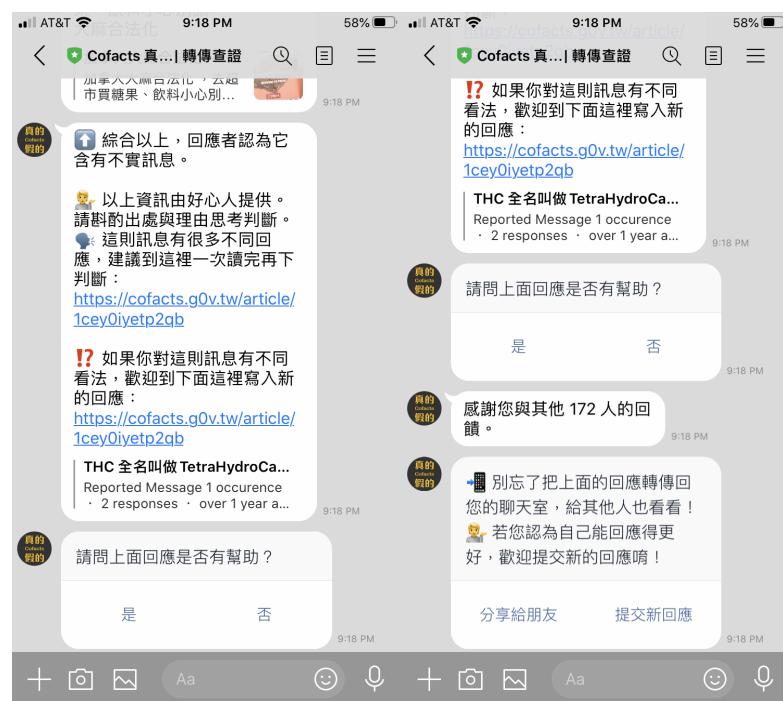
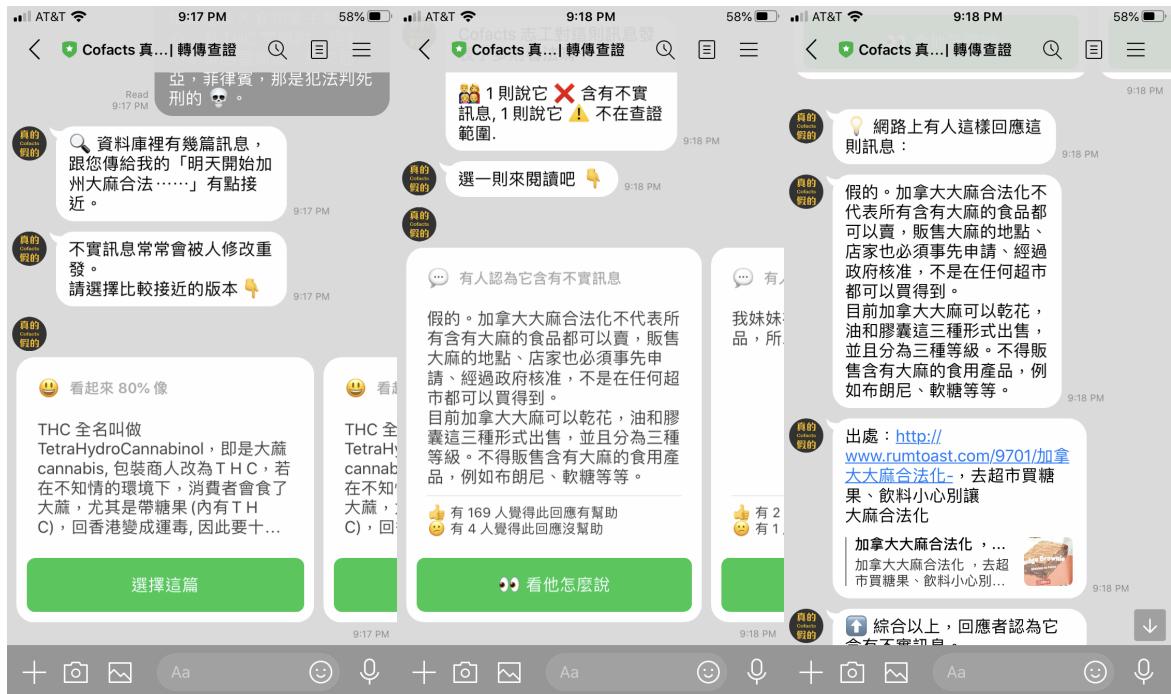


Figure 6.2: Screenshots from a conversation with Cofacts LINE chatbot.

Cofacts is the digital persona of “the wisdom of the crowd.” Its swift and intelligent responses come from online contributors to its database. Cofacts’ database is composed of two parts: one is rumors submitted by chatbot users via LINE, and the other is fact-checking responses made by volunteer editors through its website. The chatbot provides a pathway, a personified one,

that users can access to the database simply by having a “conversation” with it. To be noted, the chatbot carefully avoids speaking like an authority and refuses to act as *one* unified voice. Fact-checking editors do not hide backstage. They are made present as “a kind person” or “volunteer editors” in the conversation. As stated on Cofacts’ website, “all the responses on Cofacts are provided by other users. There is no *one* omniscient judge but only contributing citizens collaborating on Cofacts. Do you think these responses are not good enough? Do you know something that others have checked yet? Come to write your response and join us to help more people.”

The developers have designed the chatbot in a way that users are not only recipients but also contributors. Users can submit suspicious messages to Cofacts’ database, where these messages will be checked by editors. When submitting new messages to the database, users are asked to write the reasons. By doing so, Cofacts hopes that users learn to read messages critically and to discern matters in issue. Through these designs, Cofacts not only aims at debunking online rumors but also encourages its users’ to read carefully, think critically, and even write their own “facts.” As political scientists Austin Horng-en Wang and Howard Liu (2019) argue, fact-checking apps like Cofacts can act as users’ personal trainers to push them to search for more information and consequently improve their media literacy. For Cofacts, users are the source of online rumors. They are the essential part that builds up the system. By training its users to be critical readers and active contributors, Cofacts makes fact-checking not just producing another piece of information into the sea of rumors, but a collaborative practice to combat online rumors.

Besides users, another important role in this collaboration is the volunteer editors.

Editor Meetups



Figure 6.3: The 5th editor meetup on November 19, 2017. The number “123” on the screen indicated the total number of rumors we debunked.

On a Saturday afternoon in November, 2017, I was sitting in a Cofacts editor meetup with eighteen volunteer editors. Cofacts’ editor meetups were held every other month in downtown Taipei whenever there was no g0v hackathon⁴⁸. It was free and public; anyone could sign up and participate. These volunteer editors came from different backgrounds. There were students, scientists, doctors, journalists, engineers, etc., and we barely knew each other. About half of the participants attended Cofacts’ events for the first time.

The Cofacts team never reviews, screens, or selects editors. To become an editor, one only needs to register on Cofacts’ website with a social media account in order to access its database and compose fact-checking responses. Cofacts also set up a Facebook group for editors to exchange ideas and tips. Editors are encouraged to post rumors that they have no clues or their

⁴⁸ Cofacts team and editors also meet at the bimonthly g0v hackathons.

draft responses for review. Every week, Billion will publicly honor those who do fact-checking during the week. As the entire process takes place online, attending a meetup is not mandatory. However, physical gatherings are crucial for Cofacts to build its community and recruit new editors.

The Cofacts team knows that the biggest challenge of its system lies in the editor part rather than the chatbot part. Cofacts describes its job as “a chase between rumors and fact-checking” as rumors are pouring in every single day. How to recruit more editors to join its combat against online rumors is the most important yet difficult task. Editor meetups and g0v hackathons are the main channels for Cofacts to solicit new volunteers while pushing for continuous contributions. As of July 2020, Cofacts has held 21 meetups. However, among all registered editors, only a few dozens of them debunk rumors online actively and regularly. Physical gatherings are an effective way to increase fact-checking rate in a short period of time. Person-to-person interaction also helps ease new editors’ anxiety about the technology and facilitate exchanges of tips and domain knowledge. Most importantly, these gatherings make Cofacts not simply a technology, but a community.

I knew Cofacts in the g0v hackathon. From MrOrz’s first pitch to later his calls for developers and editors, Cofacts always occupied a corner in the hackathon. But this was my first time attending its editor meetup. After a short introduction of how to use Cofacts’ database, we were divided into four teams to compete with each other. My team comprised two medical students, one scientist, and two engineers in addition to me, an anthropologist. The prize that day was a box of fried chickens—a familiar smell that quickly took me back to the tasty moments of the g0v hackathon. Fact-checking could be a monotonous and tedious job, but with passionate companions and a tempting reward awaited ahead, it could also be fun. With our laptops

connected to Cofacts' database, we embarked on an expedition amid rumors and misinformation.

Rumors in the database covered all sorts of topics, ranging from hoax to conspiracy theories, from folk remedies to fabricated official announcements. In the vast sea of rumors, I picked up one to give it my first try: "Watch this video. South Korean restaurants hand-make vegetables with chemicals! How dare you still go to South Korea and use South Korean products. You'll die eating these poisons!" followed by a YouTube link of a three-minute clip from a Korean TV show. Although I didn't understand the language in the clip, it seemed to be about introducing something interesting rather than a disclosure of a business secret. However, to write a fact-checking response required more than a gut feeling. There were three steps to complete a response: first, choose a category from four options: "contains true information," "contains misinformation," "contains personal opinions," and "not related to fact-checking;" second, write a short paragraph of explanation, which cannot exceed 140 characters; and last, include reference links. These three steps were designed to ensure that all responses were mobile friendly and could be held accountable.

The Cofacts team also provided an online editor tutorial, including a step-by-step instruction, a guideline of composing responses, and dozens of fact-checking examples. Following the tutorial, I began by analyzing the message: Which statements were put as "facts" but might be questionable? Which were the author's personal opinions? Why did users think this message was suspicious? And, as the tutorial put it, "what are the *keywords* in the message that can be used for *search*" (emphasis added by the author). I picked up "South Korean restaurants," "vegetables," "chemicals," "poison," and tried different combinations on Google Search. It took me some time after several searches that I found a post on a news website that used the

same video clips to introduce food models in Japan. Bingo! This was exactly a reference I needed. But then writing was another challenge. In 140 words, I had to make an argument and properly cite the references to convince Cofacts' users. When thinking there would be hundreds of thousands of people reading my response and taking it as a fact, I couldn't help but take extra caution as if writing a research article — even my article will not be seen by so many people! Eventually, it took me around twenty minutes to complete my first response.

Most rumors in the database were much more challenging than this one. They could be a mixture of facts and lies, a conspiracy theory, a fake story that was disguised as personal experience, or something that needed expertise or domain knowledge to verify. Health-related rumors, which range from unverified food remedy to fake science studies, occupy a big part of the database. In the meetup, I constantly turned to my teammates who were medical students for advice. We made jokes but also searched for answers together. In the lonely and self-doubting process of fact-checking, working with a team was a comfort and an encouragement.

After immersing ourselves deeply in rumors, we had lost track of time. The host announced the end of the contest. The winning team was honored in front of a screen that showed a big “123,” the number of rumors we had debunked together in the meetup! Fried chicken arrived fresh and hot, and they were just enough for everyone to get a bite. We convened as a huge group, chatting, eating, and exchanging thoughts about online rumors with new friends.

A Wikipedia of Online Rumors

MrOrz wants to make Cofacts “a Wikipedia of online rumors.” By this, he is referring to two main pillars of Wikipedia: the collaborative approach and the Neutral Point of View (NPOV)

policy. Open collaboration is built into the very design of Cofacts. Like other g0v's projects, Cofacts' codes and database are open (with an open license) for copy, share, and edit, and the team welcomes patches and contributions. Meanwhile, Cofacts' database is built upon "the wisdom of the crowd" — both rumors and fact-checking responses are produced through the crowdsourcing technology.

In addition to open collaboration, Cofacts' guidelines for editors resonate with Wikipedia's NPOV policy. On Wikipedia's NPOV page, it states that that "all encyclopedic content on Wikipedia must be written from a neutral point of view (NPOV), which means representing fairly, proportionately, and, as far as possible, without editorial bias, all the significant views that have been published by reliable sources on a topic."⁴⁹ This position of neutrality is not a naive belief of objectivity. As tech scholar Joseph Michael Reagle (2010, 11) points out, NPOV "recognizes the multitude of viewpoints and provides an epistemic stance in which they all can be recognized as instances of human knowledge — right or wrong. The NPOV policy seeks to achieve the 'fair' presentation of all sides of the dispute." In a similar vein, Cofacts claims itself as a platform of different viewpoints rather than an authoritarian voice. What users receive from the Cofacts chatbot is not a final fact-checking report, but multiple responses that form a growing conversation between different perspectives. Cofacts' users can rate these responses or even add a new one. As one of the editors Butterfly says, "This is no more the era that truth is confirmed by authority. The more people to help, the better."

To better achieve NPOV, Cofacts designs the categories of rumors in a way that does not fall into the true-false dichotomy. Cofacts' four categories of rumors — contains true information,

⁴⁹ Wikipedia, "Wikipedia:Neutral point of view," *Wikipedia*, assessed on August 21, 2020, https://en.wikipedia.org/wiki/Wikipedia:Neutral_point_of_view.

contains misinformation, contains personal opinions, and not related to fact-checking — use rather indecisive language to replace “facts” or “lies” so as to allow rooms for different voices. Editors can mark a message mixed with facts and lies as “contain true information” or “contain misinformation” according to their sources of references and judgements. The Cofacts team does not review editors’ responses. Nevertheless, as the team told me, in their observation, editors tend to be strict and only mark messages as “contains true information” when they cannot find any fallacies. Since all the messages in the database are in a sense pre-screened by users as “suspicious,” almost 45% of these messages are marked as “contain misinformation”, along with 22% “contain true information,” 10% “contain personal opinions,” and 22% “not related to fact-checking” (see figure 6.4).

What are the portions "Contains truth", "Contains misinformation"... etc?

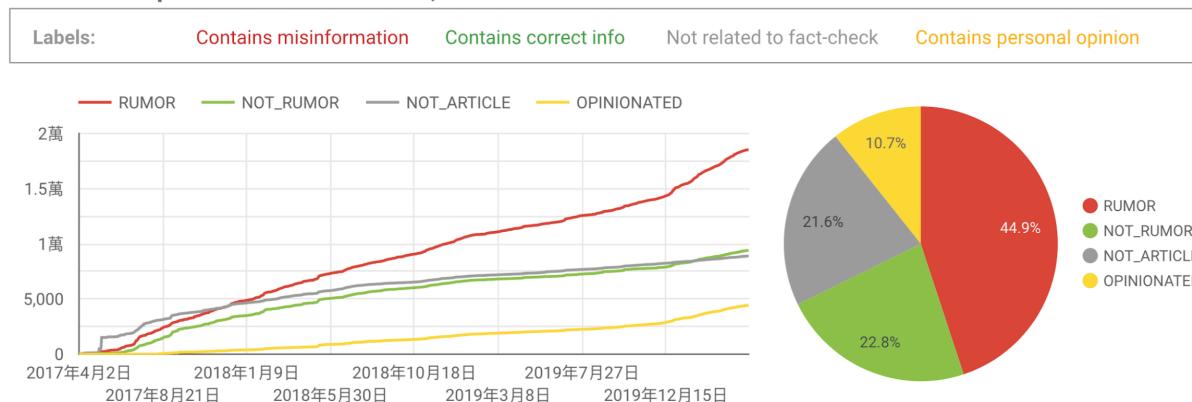


Figure 6.4: Four categories of rumors and their distributions. (From Cofacts Analytics, https://datastudio.google.com/u/0/reporting/18J8jZYumsoaCPBk9bdRd97GKvi_W5v-r/page/mVfZ. Accessed August 21, 2020.)

Another important feature that also resonates with NPOV is the category of “contains personal opinions.” When MrOrz announced the addition of this “contains personal opinions” category in August 2017, he wrote:⁵⁰

Since May, we have noticed there are some difficult messages. These messages are mostly personal opinions. Because they do not claim objective facts but only express personal opinions, it is hard to mark these messages as true or false.....They are a big challenge to our editors because on the one hand, editors usually do not agree with the points made in these messages, yet on the other hand, there is nothing to be debunked.....We cannot ask our editors simply to ignore them. Editors all work independently; if one editor ignores such a message, it will remain in the database, and another editor will encounter it again. New editors might feel frustrated if most of the unchecked rumors are all personal opinions. As we rely heavily on volunteer editors, this is an urgent issue to be resolved.....So we think, if it's impossible to ask editors to ignore them, why not allow editors' viewpoints to be expressed so that people can exchange different ideas and users can make more informed judgements?

Unlike the other categories, marking a message as a personal opinion does not need to provide any “evidence.” Instead, editors are asked to include references of different “viewpoints.” This category is often applied to messages that use personal stories to make arguments, making it hard to be checked for authenticity. Most of these messages relate to highly-controversial topics such as same-sex marriage. Hence, marking a message as a personal opinion, editors can then

⁵⁰ Johnson Liang, “[2017/8/16] New Response Category ‘Contains Personal Opinion’,” Cofacts, Medium, August 16, 2017, <https://medium.com/cofacts/2017-8-16-%E6%96%B0%E5%9B%9E%E6%87%89%E5%88%86%E9%A1%9E-%E5%80%8B%E4%BA%BA%E6%84%8F%E8%A6%8B-%E5%8F%83%E4%B8%8A-f96d92a9965f>.

raise different perspectives in their responses. This category also explains why Cofacts calls these volunteers “editors” instead of “fact-checkers” for their main job is not to check “facts” but to curate and organize online fact-checking information for users.

Cofacts rejects to be viewed as a third-party fact-checker and insists on acting as a platform — a marketplace — of different viewpoints. In fact, professional fact-checkers from other organizations also write responses and link their reports to Cofacts so as to reach a wider population. MrOrz describes Cofacts as “a free market of speech” where everyone can express their own ideas. “The central idea of this project is to let ‘different voices’ be heard. In my opinion, from online rumors to their fact-checking responses, from personal opinions to editors’ perspectives, these are all different voices. I think people believe in rumors because they either have no access to or are reluctant to hear different voices. Even if one wants to learn more about what others think, the environment of LINE makes it difficult,” says MrOrz.⁵¹ In his view, the mission of Cofacts is to connect voices blocked by chat room bubbles. Once people are informed by different perspectives, they can make better judgements on what is right and what is wrong.

Positioning Cofacts as a platform is problematic, and indeed can be dangerous. Platform companies have been failing in the combat against misinformation and hate speeches (see Howard 2016; Benkler, Faris, and Roberts 2018). One of the main issues of these platform companies is that they make profit from selling users’ data, a practice that fosters information manipulations to serve political aims. Cofacts does not have any intention to be commercialized and profit from its database. Yet still, its market analogy reminds us of the unsettling

⁵¹ Cofacts’ interview by students of the Department of Communication and Technology, National Chiao Tung University, April 6, 2018. Full transcript, accessed on August 21, 2020, <https://hackpad.tw/ep/pad/static/X1i6gJNdZH>. All translations by the author.

relationship between civic hacking and the neoliberal discourse of Silicon Valley entrepreneurship. We should ask if a platform can solve the problem of another platform? The Cofacts team has no answer to this yet and is still exploring its possibilities as well as limitations. In a 2018 interview, the Cofacts team was asked what if the system is hijacked by malicious editors or bot armies. They honestly answered that they haven't had any solutions: "We are as vulnerable as PTT is, since we do allow all to become editors. It is very difficult to balance between inclusion for everyone and the prevention of malicious intent."⁵² Apparently, inclusion has been regarded as more important than the prevention of trolling at the moment when there was still a lack of editors and the system was not so famous yet to get trolls' attention.

A few cases in 2019 and 2020 finally pushed the team to come up with a standard procedure of content removal. The first case happened in May 2019 when the responses to one hoax message was spammed. While there was a short discussion on what to do with these spam messages, no conclusion was drawn. Soon later, a better response was up-voted to the first place and outran the spam. Then in early 2020, there was an improper response that used a swear word to curse users and did not even fact-checked the message in question. This time, the team removed the response and published a policy on content removal. However, the policy still did not detail what kind of responses will be removed but only specify the procedure of removal. This fact-checking platform, like its social media counterparts, is reluctant to make explicit definitions on what is okay and what is not.

⁵² Cofacts' online interview by Nick Aspinwall, October 11 to 22, 2018, accessed August 21, 2020, https://docs.google.com/document/d/112floc_56laTe5J5s6hu8GFifkt5DgReLZU_e4bv80k/edit.

“Currently, we only react when things happen. We will prefer an automatic solution that does not rely on human moderation. Otherwise, a Wikipedia-style committee might be necessary for content moderation.....Nevertheless, if one day Cofacts corrupts, all our data and codes are open source, and anyone can fork them to build a new version of Cofacts that uses whatever more effective methods to defend trolling,” says MrOrz.⁵³ Cofacts strength is exactly its limit. Although crowdsourcing makes fact-checking efficient, timely, and decentralized, collaborative efforts can be simply destroyed and hijacked by malicious users, and this fact-checking platform can turn into another site of online rumors.

Intergenerational Conflict

As researcher Dean Jackson (2018) points out “[e]ffective disinformation campaigns usually draw on preexisting divides within target societies and produce content for which there is societal demand.” Platform algorithms and closed chat rooms help deepen these preexisting divides into split publics. What Cofacts deals with are more than random rumors, but rumors that proliferate from chat rooms to chat rooms, where voices are filtered and bias amplified, where split publics are formed and reinforced. In Taiwan, one of the main preexisting divides is generation.

For MrOrz, not everyone shares the same skills of knowing how to engage in the “free market of speech”: “Many users are still not familiar with googling for more reliable information. In a closed network of messenger apps, such as LINE, misinformation is easily forwarded and spread around. This chatbot offers a service for those who know how to forward messages but

⁵³ Johnson Liang, “How to deal with trolling,” Facebook, May 31, 2019,
<https://www.facebook.com/groups/cofacts/permalink/2396392667259215/>.

not skilled at googling to check the credibility of online information.”⁵⁴ Under this rhetoric, “facts” are to be “googled” and fact-checking relies on the ability of “using” the Internet. People who know how to navigate, search, and evaluate online information can become a Cofacts editor. Others not.

In Cofacts’ rhetoric, receivers of online rumors are divided into two groups: younger generations who are “digital natives” and understand that the Internet runs on an interactive model, and older generations who are “digital immigrants” and see the Internet merely as another source of information. This rhetoric of the young versus the senior, digital natives versus digital immigrants can be found in Cofacts’ event page, where it writes: “By participating in Cofacts’ editor meetups, you are helping our seniors who are not familiar with high-tech products to improve their media literacy.”⁵⁵ Or, in the 3rd meetup, which was also the traditional Double Nine Festival to honor and show respect to the elderly, Cofacts posted: “In tradition, we ought to wash our mothers’ feet on the Double Nine Festival. But today, we should debunk rumors for them” (Figure 6.5). It is also common in conversations with other editors that they talk about receiving rumors from their parents, and how they tactically use the Cofacts chatbot to debunk the rumors without “hurting their emotions.” There is a widespread belief that senior family members are the facilitators of online rumors.

⁵⁴ Cofacts’ interview by students of the Department of Communication and Technology, National Chiao Tung University, April 6, 2018. Full transcript, accessed on August 21, 2020, <https://hackpad.tw/ep/pad/static/X1i6gJNdsZH>

⁵⁵ Cofacts 20th Editors Meetup, accessed on August 21, 2020, <https://cofacts.kktix.cc/events/cofacteditor20>.



Figure 6.5: The event image of the 3rd editor meetup.

In part, this can be explained by the distinct ways of using LINE between generations. Growing up with mobile phones, younger generations are accustomed to typing messages and using emoji's and stickers to express themselves. However, for seniors, these are all new skills to learn. The small keyboard on the phone screen is unfriendly to seniors, so instead of typing, many prefer to use voice input. They are also more prone to forward messages and images as forwarding needs just a few clicks. The introduction of LINE to senior users as a replacement of phone calls gave birth to a unique Internet phenomenon — “senior images” (*zhangbei tu*). “Senior images” are a type of image macro that are produced by and distributed among seniors. These images are mostly beautiful scenery and flowers, superimposed by texts about greetings, blessing, encouragement, or inspirational quotes. Senior images are also called “good morning images” (*zaoan tu*) as these greeting images are often distributed early in the morning by seniors to the chat rooms of their families and friends. These senior images are amateur works, with texts styled by colors, outline, shadows, etc. basic effects (see figure 6.6). The origin of the senior image was said to be in a computer class, where seniors learned how to edit images and type words. Nowadays, some seniors can produce these images simply with mobile apps. These images are the memes of the senior; they are like “(post)modern folklore, in which

shared norms and values are constructed through cultural artifacts such as Photoshopped images or urban legends” (Shifman 2014, 15).



Figure 6.6: Senior Images

The phenomenon of senior images shows that seniors are never passive receivers of online information; instead, they actively interact with each other using new digital skills. While memes for the younger generations are about fun and laughter, for the older generations, these senior images are about care and connection. In fact, care and connection are also the main motivations behind forwarding rumors. As discussed above, online rumors are often wrapped in a mixed language of authority and care. Forwarding them becomes a gesture of care and a way to connect in the digital space. Ironically, the generosity of care makes seniors vulnerable to online rumors.

The division between digital natives and digital immigrants reflects more than their ways of using the Internet. It indeed reveals the intergenerational conflict in Taiwan's current socio-political atmosphere. From the late 80s to early 2000s, Taiwan experienced rapid change in political and economic spheres. Politically, after the end of martial law in 1987, Taiwan gradually transformed from a one-party military dictatorship to a multi-party democratic polity.

At the same time, a new and inclusive Taiwanese identity across all ethnic lines, soared over a Chinese identity especially among younger generations, who are “naturally independent” (*tianrandu*). Economically, however, the glory of being one of the Asian Tigers in the 60s and 70s started to decline. Since the late 1990s, economic stagnation has struck Taiwan and resulted in the widening gap of income inequality. The conjunction of political liberation and economic stagnation at the turn of the century shaped the generational gap. The digital immigrant generations, who are also baby boomers, were growing up in an authoritarian regime during the Cold War. Political stability was deemed more important than any other values. It was also a time when Taiwan experienced rapid economic growth, so if one kept silent on politics and worked hard, one would be rewarded with a well-off life. In contrast, the digital native generations were born into a democratic and wealthy Taiwan, and then, when they were ready to develop a career, waves of financial crises hit the country. Low salary and rising housing costs put them under heavy pressure. Working hard no longer promised a good life. For a long time, they were accused by the older generations of being lazy and hedonist. Yet in fact, they were desperate and angry, and were more willing to take streets to fight for rights, equality, and justice.

The intergenerational conflict has been shown in various social debates from the occupation of congress during the Sunflower Movement in 2014 to the referendum of same-sex marriage legislation in 2019. Besides debates in the parliament and rallies on streets, home becomes another center of conflicts. These intimate tensions, quarrels, and even fights between parents and their children tore apart many families. They expose the disparity of values and worldviews between generations. During these social debates, information is divergent and confusing, and rumors are rampant. People share unverified messages and rumors to strengthen their beliefs, to find allies, and to convince the other side. Often, the introduction of Cofacts is not simply to

bring facts onto the table, but to push forward one's original perspective with the authentication of the chatbot.

In other words, the combat against online rumors by the younger generations is a form of resistance. With Cofacts, digital natives are claiming their power of speaking, of telling truth from false. By pointing out rumors, they reject the authoritarian voice of their parents. They demonstrate that their collaborative approach to cope with misinformation has been more effective than any official efforts. As one of the editors told me, "I was troubled by all the rumors forwarded by my parents to our family group. But now, with Cofacts, I can send back the right information and correct them without hurting their heart. I don't need to say they're wrong. I only need to forward what the bot says." The bot becomes an agent of these digital natives. They render their voices to the machine, and use the machine to challenge the patriotic hierarchy at home and in the society.

Underpinning Cofacts crowdsourcing approach is the intergenerational conflict between digital natives and digital immigrants. Collaborative knowledge production is a pushback of the younger generations against the older ones who have long held the power to speak politically and economically. By crowdsourcing facts to those who know how to "google," Cofacts cultivates an online public that upholds the values of diversity, multiplicity, and decentralization. The emphasis on multiple voices, crowdsourcing technology, and the techniques of "googling" challenge the authoritarian voice of the older generations who are latecomers in the digital world. Through Cofacts, younger generations are claiming their power of speaking through the mediation of digital technologies.

7. Zero

In December 2019, a then unknown pneumonia, which was later named COVID-19, started to spread silently in Wuhan, China. Dr. Ai Fen, who worked at the Emergency Department of Central Hospital of Wuhan, received a report of her patient that indicated a possibility of Severe Acute Respiratory Syndrome (SARS), an alarming name that once killed 773 and caused more than 8000 ill during the 2003 outbreak. Dr. Ai uploaded the report to her peer group and from there, the words of a SARS-like pneumonia were spreading from among healthcare providers in Wuhan on WeChat to netizens on PTT in Taiwan.

When the Chinese authorities suppressed the news of the pneumonia and investigated the doctors who they thought were spreading rumors, a Taiwanese CDC officer noticed the news on PTT and reported it to his superior. The next day, Taiwan's CDC emailed the Chinese government for confirmation, and sent a message to the World Health Organization. SARS left a traumatic memory to Taiwanese. Taiwan was among the countries that were hit hardest by the 2003 outbreak. The rapid transmission and high mortality rate took away 73 lives and caused a social panic in Taiwan. It was no wonder why the CDC reacted to the PTT post with caution. Soon, before the world paid attention to the coming global health crisis, Taiwanese government had started a series of measures: border control, mandatory quarantine for travelers, face masks required in public areas, temperature monitor stations across the country, and daily press conferences. Learning from the SARS experience, the Taiwanese government also banned the export of surgical masks and coordinated manufacturers to boost mask production at the end of January. In the first week of February, Taiwan started rationing surgical masks.

On February 2, a few days before the rationing started, g0vers flocked into the chatroom to discuss the development of face mask maps. Since the start of the crisis, they had been waiting for opportunities to contribute. With the rationing system rushed to kickoff, they started to develop applications that helped ease the burden of pharmacies and assisted people to get masks without waiting in long lines and exposing themselves to the invisible virus. Audrey Tang, a g0ver and Taiwan's digital minister, joined the discussion and coordinated government agencies to release the Application Programming Interface (API) of the rationing data. Within four days, dozens of applications and chatbots were developed to provide users multiple channels to check up where to get a mask without waiting long hours. These apps helped distribute both the online traffic of inquiry and offline panic buying. While these apps could not kill the virus or cure patients, they reduced people's anxiety. Hcchien, a g0v and a journalist, reflected in an open interview with Glen Weyl⁵⁶,

I think it's important to have transparent and open information. For example, when the government decided to implement face mask rationing, it soon opened up the data of face mask inventory level. Taiwan's CDC also held press briefs every day to update the latest situation. These measures made people feel at ease and are willing to understand the reason behind every government measure. It really requires the government and the people working together to contain the spread of the disease.

The trust built upon openness and transparency became the foundation of Taiwan's success against COVID-19. By the end of August 2020, when the case number of COVID-19 reached six million in the United States, Taiwan had no more than 500 cases and the country was never locked down.

⁵⁶ g0v's interview by Glen Weyl, April 2020, <https://hackmd.io/@GlenWeyl/Hkqvk4dBL>.

This joint effort by g0v and the government demonstrates an example of civic tech collaboration: “The government released open data, civic tech communities swiftly developed apps, and users obtained useful and convenient tools.”⁵⁷ This collaboration was only possible when all parties involved took faith in openness, even in its different meanings: the government was willing to open up its data for hackers to examine and to use; hackers collaborated on building tools to make information accessible; and citizens celebrated the transparency of the government. The faith in openness united them in a united front against the common enemy — the coronavirus.

Face mask maps are not the first gov-g0v collaboration and surely won’t be the last one. Earthquakes, typhoons, explosions, etc. On this island of so many natural and man-made disasters, g0v has been a strong, active community that fills in the gap of public services and provides quick fixes when bureaucracy is too slow to respond. But thinking g0v as merely an extension of government is a big mistake. When some g0vers were working on face mask maps, others were paying attention to the government’s plan of a new electronic national ID card (New eID), a policy that was criticized for not being transparent enough and might lead to privacy intrusion and data security issues.

In early 2020, amid the pandemic, the debate on New eID arose in Taiwan. This new eID would not only replace the old paper ID card but also incorporated existing personal ID cards such as drivers’ license and National Health Insurance card into one chip card. The government saw New eID as key digital infrastructure that supported a service-based digital government, and “digitization is a global trend.” With this powerful ID card, government agencies could link their databases and provide better, quicker and more convenient services. The government saw

⁵⁷ g0v’s interview by Glen Weyl, April 2020, <https://hackmd.io/@GlenWeyl/Hkqvk4dBL>.

its success in containing COVID-19 with the aid of high tech as an opportunity to push forward this policy. If people did not mind being tracked and monitored in the name of fighting the pandemic, maybe a national electronic ID card was nothing to scare as well.

But the government was wrong. The planning of New eID alerted the forming of a surveillance state, which undermine openness and democracy. Not only scholars and civil society organizations raised harsh criticism against New eID, g0vers also initiated a project to raise public awareness on its danger of privacy intrusion and data bleach. In the time of pandemic, governments could easily expand their control over citizens for the sake of public health, but g0vers will never compromise their pursuit of transparency and openness.

Indeed, as I have shown in this dissertation, g0v's activism is never to be defined by collaboration with or resistance against the government. It is defined by openness, an ambiguous concept by design so as to keep its momentum in the complex, changing world. The reference of zero in its very name reveals g0v's ambiguity and potentiality — zero are empty and have no value; zero are before the beginning and after the end; zero can be nothing and everything. This dissertation cannot detail zero in its empty/fullness. It is merely an attempt to connect and intervene it as all these stories unfolds.

The slow pace of writing is hard to keep up with the rapid development of technologies and politics. From the first day of this research in 2014 till now, live streaming has changed from a technology for transparency to a marketplace of runways where broadcasters make profits by earning virtual gifts. Social media sites are no longer simply for mobilizing movements but also used to spread hate speeches and misinformation. Taiwan has had two presidential elections amid attacks from foreign and domestic information campaigns and the US-China

trade war. New task forces, new projects, and new collaborations develop in g0v. Nothing stays the same when the anthropologist is writing. This dissertation has come to an end, but the stories described here have not. g0v will continue to fork and merge, grow and transform, and seek opportunities for the best hacks.

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Glossary

<i>biaoqing bao</i>	meme image 表情包
<i>bushi xunxi</i>	disinformation 不實訊息
<i>chai</i>	firewood 柴
<i>cuowu xunxi</i>	misinformation 錯誤訊息
<i>dada</i>	opinion leaders 大大
<i>dai fengxiang</i>	coordinated action that aims at influencing public opinions 帶風向
<i>daiyong zhengfu</i>	suspended government 待用政府
<i>dasong</i>	big hackathons 大松
<i>fanlan</i>	pan-blue 泛藍
<i>fanlu</i>	pan-green 泛綠
<i>fei-zuzhi</i>	non-organization 非組織
<i>fenshen fashu</i>	chopping firewood with clones 分身伐樹
<i>futou bang</i>	Axe Gang 斧頭幫
<i>gongkai</i>	public 公開
<i>gongkai touming</i>	openness and transparency 公開透明
<i>guanxi</i>	interpersonal relations 關係
<i>haike</i>	hacker 駭客
<i>haochai</i>	good firewood 好柴
<i>hejin</i>	black gold 黑金
<i>heike</i>	hacker 黑客
<i>hezuo</i>	cooperation 協作
<i>hongmei</i>	red media 紅媒
<i>jiaxinwen</i>	fake news 假新聞
<i>jueqing</i>	awakening youth 覺青
<i>kaifang</i>	open 開放
<i>keng</i>	project/task 坑
<i>kengzhu</i>	project owner 坑主
<i>lingshi zhengfu</i>	the government at zero o'clock 零時政府
<i>lingshi zhengfu</i>	the government of snack 零食政府
<i>meiyouren</i>	nobody 沒有人
<i>moqi</i>	an unspoken agreement or tacit understanding 默契
<i>ren</i>	people 人
<i>shequn</i>	community 社群
<i>shequn metiti</i>	social media 社群媒體
<i>shuwei</i>	digital / plural 數位
<i>song</i>	hackathon 松

<i>tiankeng</i>	filling a keng 填坑
<i>tianrandu</i>	naturally independent 天然獨
<i>tuikeng</i>	pushing one into a keng 推坑
<i>wakeng</i>	digging a keng 挖坑
<i>wang jun</i>	cyber armies 網軍
<i>xiangmin</i>	netizen 鄉民
<i>xiaosong</i>	small hackathons 小松
<i>xiezuo</i>	collaboration 合作
<i>yanshidai</i>	lost generation 厥世代
<i>zaoan tu</i>	good morning image 早安圖
<i>zhangbei tu</i>	senior image 長輩圖
<i>ziyou</i>	freedom 自由
<i>zoulu gong</i>	paid supporters 走路工
<i>zuzhi</i>	organization 組織

Amis MoeDict 阿美語萌典

Apple Daily 蘋果日報

Audrey Tang 唐鳳

Cable Radio and Television Act 廣播電視法

Campaign Finance Digitization (CFD) 開放政治獻金

Chinese Communist Party (CCP) 中國共產黨

Cofacts 真的假的

Conference for Open Source Coders, Users and Promoters (COSCUP) 開源人年會

Democratic Progressive Party (DPP) 民進黨

Dibao 帝寶

Freedom of Information Act (FOIA) 資訊自由法

Government Budget Maps 政府總預算視覺化

Infrastructure Hackathon 基礎松

iTaigi 愛台語

Jothon 揪松

Kuomintang (KMT) 國民黨

MoeDict 萌典

MoeDict Hackathon 萌典松

News Hackathon 新聞松

Open Culture Foundation (OCF) 開放文化基金會

Open Government Data (OGD) 開放政府資料

Power-Up Plan for the Economy 經濟動能推升方案

Public Digital Innovation Space PDIS 公共數位創新空間

Su Chii-cherng 蘇啟誠

Taiwan FactCheck Center (TFCC) 台灣事實查核中心

The Anti-Media Monopoly Movement 反媒體壟斷運動

The Control Yuan 監察院

The g0v Civic Tech Prototype Grant 公民科技獎助金

The Legislative Yuan 立法院

The Participatory Officers network 開放政府聯絡人