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Opportunities and Challenges in Digital Democracy

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# Taiwan 2014 > 2016

## Open Government Report



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## Open Culture Foundation

The Open Culture Foundation (OCF), is a nonpartisan, nonprofit organization, founded in 2014 by several members of Taiwan's open source community. Our main goal is to support local communities advocate the use of open technologies in broader sectors, including open source software, open hardware, and open data. We help government, enterprises, and NGOs better understand the benefits of adopting open source, and promote the importance of open data to the public sphere. We believe that a culture of open collaboration is the foundation for an innovative society, and the engine of a participatory democracy.

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## Introduction



On January 21st, 2009, the day after US President Barack Obama took office, he signed a memorandum on "Transparency and Open Government." The memorandum stressed that the government should be transparent, embrace citizen participation, and facilitate public-private collaboration to regain people's trust in government. It not only reveals civil society's strong desire for government transparency, openness, and participation, but indicates that open government is a new model of governance. From Occupy Wall Street to the Arab Spring, from Taiwan's Sunflower Movement to Hong Kong's Umbrella Revolution, the ideas of transparency and openness have become the driving force behind the wave of democratization movements of the 21st century.

What is open government? The 2009 Presidential Memorandum stressed that transparency, participation, and collaboration are the keys to open government. In 2011, eight countries (Brazil, Indonesia, Mexico, Norway, the Philippines, South Africa, the UK, and the US) launched the Open Government Partnership (OGP), which is committed to promoting transparency, participation, accountability, and inclusion. Open government is not just a slogan of reform but a political movement. It redefines the relationship between government and civil society and connects government, NPOs, international society, and individual citizens to form a network of stakeholders so as to break bureaucratic hierarchy and facilitate open governance.

Taiwan is not sitting out this global wave of open government. Many civil society organizations in Taiwan have long been advocating open data, citizen participation, and public-private collaboration. However, not until the 2014 Sunflower Movement were these topics discussed together in the context of open government. The Sunflower Movement stormed Taiwan and raised citizens' awareness of government transparency and openness. After the movement, the government started to advocate open data and improve citizen participation as a response to the criticism from civil society. Therefore, when President Tsai Ing-wen took office in 2016, she spoke publicly for

open government and appointed the first Digital Minister in Taiwan who is dedicated to open government. Despite these efforts, we found that open government has made little progress in the past three years due to lack of relevant laws and the culture of openness have not yet been established. Moreover, the Taiwanese Government did not have a clear blueprint of open government policies and most officials showed little political will to encourage relevant actions. This was especially true when it came to major national policies (such as the Infrastructure Development Program [1]). People have not been able to see the government as a system of transparency, participation, or collaboration in these policies, rendering open government an empty slogan of openwashing.

In Taiwan, open government is relatively young and is still developing. As part of the democratization movement, open government cannot be achieved with mere slogans or empty promises. Taiwan is in urgent need of legal and organizational reforms, digital skill training for civil servants, and a new, open culture in civil society. This cannot be done by a few advocates. Open government is a duty not solely borne by the government but by every citizen as well. Only when the value of openness truly takes root in people's mind will the mission of the movement be accomplished.

Taiwan Open Government Report examines the development of open government in Taiwan from 2014 to 2016. The report gives an introduction to the current situation and points out potential challenges. The purpose of this report is to provide a preliminary analysis and a basis for dialogue so that the public can understand the issues at stake. Moreover, advocates and policy makers can build on this report to make deeper analyses, critiques, and policy suggestions.

The body of this report consists of four chapters. It begins with a review of open government laws and policies and points out the problems in the current legal framework. We then use "transparency, participation, and collaboration" from the Presidential Memorandum as the structure of the other three chapters. Chapter Two uses the method of the Open Data Barometer to look into the readiness, implementation, and impact of open data in Taiwan. Chapter Three analyzes the development of citizen participation through several case studies. Chapter Four explores civic tech collaboration between civic tech communities and the government. We want to stress that these four chapters are not the full picture of open government in Taiwan but research directions selected by the researchers after significance and feasibility evaluation. While this report may not cover all important issues, it is expected to serve as a building block of more advanced research and analysis.

Taiwan Open Government Report is a research project conducted by the Open Culture Foundation (OCF). The OCF was established in 2014 with the support of multiple open source communities in Taiwan. Its mission is to promote open source, open data, and open government. OCF researchers, Lee Mei-chun and Tseng Po-yu, collected the materials, wrote, and edited this report. During the research, civic tech communities were invited to collaborate in hackathons and workshops. The drafts were also open to public comments. This report could not be possible without the help of many dedicated members from the g0v community, the open data community, and the government. We appreciate all the comments and critiques. This report is published in both Chinese and English, inviting both domestic and international readers to learn about Taiwan's experiences. We would also like to invite readers to interact with us and play with the data on the report's official website, [OPENGOVREPORT.OCF.TW](http://OPENGOVREPORT.OCF.TW). We hope that the report served as an open platform for participation so that the conversation will continue long into the future.



## Openwashing

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This term is used to describe the situation in which a government pretends to be "open" with pretty slogans or superficial work while, in practice, does not take views from civil society into consideration. Openwashing turns "open" and "participation" into mere propaganda for government and something that has no tangible impact. As a result, civil society comes to have very limited imagination of what open government means.

## The Development of Open Government in Taiwan



### Note

[1] Criticism can be found in the following reports: "Public Hearing on the Forward-looking Program Was Not Open to the Public, Is This Open Government?" (Chang 2017) & "Infrastructure Development Program Proved Open Government an Empty Promise" (CK 2017)



# 1

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## Laws, Regulations, and Policies





## Key Findings

► **No dedicated law on open government and open data in Taiwan**

There is no dedicated law on open government and open data in Taiwan. Promotion mostly relies on executive orders. Except for the Administrative Procedure Law, citizen participation process and deliberative participation is not yet institutionalized.

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► **Taiwan Government started a series of policy making on open data in 2012**

In the early days, the Administrative Procedure Law and the Freedom of Government Information Law were the key laws stipulating that government information should be made public. In 2012, thanks to the call for open government worldwide and for transparent governance in Taiwan, the government started to put many efforts into formulating policies and executive orders related to open government.

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► **Open data is mainly driven by the Executive Yuan and supported by the advisory teams composed of agencies and civil society representatives. However, this structure does not work well as expected**

In Taiwan, open government and open data policies were mainly driven by the Executive Yuan with the Board of Science and Technology (BOST) and the National Information and Communications Initiative Committee (NICI) as its staff organizations. All second-level agencies under the Executive Yuan have an open data advisory team. However, due to the lack of knowledge in open data among administrative agencies, the above structure does not work as expected.

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► **The Taiwanese government lacks high-level planning when it comes to open government. The result of open data policy highly relies on the political will of political appointees**

The government does not have a clear blueprint of open government and how it works in current governmental structure. That is why the government has made many political valuable promises yet lack concrete strategic planning for the framework, political culture, and legislation.

# 1-1 Laws, Regulations, and Policies on Open Data and Open Government in Taiwan

## Legislative History of Relevant Laws and Regulations

The realization of open data and open government relies on the support of a healthy legal environment. In Taiwan, the legislation began rather early. The government started promoting e-government as early as 1989. Although the focus was on improving government efficiency, the use of digital data was already an important topic. In the 1999 Administrative Procedure Law, there were early-stage guidelines for making government information public but with the purpose of protecting civil rights.

The 2005 Freedom of Government Information Law (referred hereafter as the Information Law) is the first law in Taiwan stipulating that government information should be made public. Its purpose is very clear: "This Law is enacted to establish the institution for the publication of government information, facilitate people to share and fairly utilize government information, protect people's right to know, further people's understanding, trust and oversight of public affairs, and encourage citizen participation in democracy."

The Information Law also clearly defines that government information should be made public, and that all information shall be actively made available to the public unless otherwise specified as being exempt. Such information to be made public includes regulations and orders, structures and communication of government agencies, administrative guidance, administrative plans, budgets and audits, results of petitions, decisions of administrative appeals, documents related to public works and procurements, subsidies, and meeting records of agencies based on a collegiate system.

However, even though the Information Law does require the government to make information public in an "active and timely" manner, it does not clearly define what "timely" is or specify the form and channel through which the information should be made public. The scope of the Law is confined to

safeguarding "people's right to know" and does not touch upon the aspects relevant to information application (Zhu & Zeng, 2016).

Across the globe, as technology and democratization movements advance, people's demand for transparent and open government grows. In 2008, the US Federal Government took the first initiative to open government data on a large scale. When Barack Obama became the US President in 2009, he immediately signed a memorandum on "Transparency and Open Government". The memorandum stressed that government should be a system of "transparency, public participation, and collaboration". By 2011, open government became an unstoppable movement worldwide and the Open Government Partnership (OGP) was established. The OGP now has 75 member countries that work together to open government data and achieve transparent governance.

This trend also influenced how the Taiwanese Government viewed open government data. In this period, Taiwanese society began to call for a more transparent government and government accountability. The 2014 Sunflower Movement is a good example of people's distrust of the government due to a lack of public information and accountability in decision-making on the Cross-Strait Service Trade Agreement with China.

The global wave of open government and changes in Taiwan's political environment drove the government to consider the importance of open data and open government. In 2011, Minister without Portfolio Cyrus Chu tried to implement open data yet the departments still lacked motivation and consensus. In 2012, Minister without Portfolio Simon Chang (who later became the Premier of the Executive Yuan in 2016) also strongly supported open data. At the same time, open data and civic tech communities began advocating the idea

from outside the government. The communities engaged in in-depth communication with and gave consultation to government agencies and acted as the bridge between the government and citizens. More importantly, they collaborated with the government to develop open data formats and licenses. This public-private collaboration accelerated open data in Taiwan.

In October 2013, the "Strategy to Promote Open Government Data" was discussed in the 31st NICI meeting [1]. A month later, at the the 3322nd Executive Yuan Meeting, the Executive Yuan (a Yuan is a first-level government agency in Taiwan) took the initiative to plan for open government data (Lee, Lin, & Chuang, 2014). The "Resolution of the 3322nd Executive Yuan Meeting" became critical to later open data legislation and affected many relevant laws and regulations, including the 2014 "Open Government Data Operating Principle for Agencies of the Executive Yuan" (referred to hereafter as the Operating Principle) and the "Essential Requirements for Open Government Datasets". Under this policy, the National Development Council (NDC) established the open government data platform, DATA.GOV.TW, to supervise open data in second-level agencies.

The ide@Taiwan 2020 Policy White Paper published in 2015 reveals that the government attaches great importance to open data and citizen participation. Also, it looks into and plans for deregulation on advancements of the digital era, such as the sharing economy, virtual currency, cross-border online transaction tax, online petitioning and voting, digital assets and legacy, and copyright laws and regulations amendments. The "Fifth Stage E-Government" project launched in 2016 is data driven, people-centric, and relies heavily on public-private collaboration. The purpose is to "gather and analyze people's needs through big data, improve government transparency and public information through open data, and provide more comprehensive services that meet people's needs through personal data (my data)."

After the advocacy and collaboration of open data and tech communities, the NDC under the Executive Yuan published the "Open Data License Terms" to replace relevant terms in the "Essential Requirements for Open Government Datasets". This license covers all data on DATA.GOV.TW and is in accordance with internationally accepted Creative Commons (CC) licenses.

It ensures that copyright will not be reclaimed, no utilization is limited, and sublicense is allowed.

Currently, guidelines for open data and open government in Taiwan mostly come in the form of executive orders instead of laws and regulations that went through the legislative process. Therefore, current open data guidelines have some limitations and only apply to agencies under the Executive Yuan. There are also no detailed guidelines regarding the open data formats. Therefore, some members of open data communities support a separate open data act and the Ministry of Justice also attempted to amend the Information Law to manifest the spirit of open data. However, due to lack of consensus on open data between all stakeholders, the amendment never came through.

Up to today, government and society have still not reached an agreement on how open data should be included in laws and regulations. Those who are opposed to a separate act say that Taiwan's government structure is different from that of other countries and that legislation takes more time in Taiwan. Therefore, insisting on passing a separate act first may actually slow down open data while executive orders provide speed and flexibility. Supporters of a separate act argue that this legal basis should be part of the foundation of a more open and transparent government. The current legal basis consists of the Information Law and the Operating Principle. The former, on the one hand, requires government information to be made "public", but not "public online" (only needs to be published in the Government Gazette). Even if the information is made public online, the Law says nothing about data format and licensing. Therefore, the Law in itself is not enough to truly promote open data. The Operating Principle, on the other hand, only applies to agencies and units under the Executive Yuan and not to the other four Yuan's [2] of the government.

# 1 Laws, Regulations, and Policies

## Legislative History of Citizen Participation and Collaboration

While there have been relatively specified laws, regulations, and policies on open data in the past three years, there has been none on "citizen participation", another key element of open government. Since citizen participation is more of a principle and there are multiple operating models, the concept is incorporated into various administrative procedures. Some existing administrative procedures have already included citizen participation processes, but deliberative participation is not yet institutionalized.

The 1999 Administrative Procedure Law was the first law to clearly stipulate that people should have the opportunity to participate in administrative dispositions, regulations and orders, or administrative plans and express their opinions. Based on its purpose, the Law has promoted citizen participation in five aspects, which are transparency, participation, debate, generalization, and partnership. Transparency: opening the decision-making process to the people, enhancing accountability and monitoring mechanisms. Participation: embracing citizen participation in administrative decision making. Debate: replacing one-sided decision making with debates. Generalization: administrative procedures turned from case-by-case dispositions into a generalized institution. Partnership: administrative agencies working with parties intervening into administrative procedures (Yeh & Kuo, 1999).

The 1994 Environmental Impact Assessment Act is another piece of legislation incorporating citizen participation. This Act stipulates that an environmental impact assessment should include a stakeholder meeting, environmental impact assessment report, an on-site inspection and hold a public hearing. Although it seems that citizen participation is in every stage of environmental impact assessment according to the Act, it is not the case in practice. According to leading scholars of Taiwan's environmental impact assessment, citizen participation is, at best, preliminary and incomplete in the process. That is because that the over-reliance on experts and science in the narrow sense renders citizen participation a mere formality (Du, 2011/2012; Fan, 2007/2008; S. R. Xu & S. F. Xu 2001, as cited from Tai & Huang, 2014). Some researchers proposed to add formal and legal binding hearings to the process while others proposed introducing deliberative democracy to draw attention to the importance of discussion (Tai & Huang, 2014).

Laws and regulations on public-private collaboration are not yet comprehensive and the private sector usually participates in the collaboration by being a member of a committee, a consultant or a contractor. Neither citizen participation nor public-private collaboration is supported by institutionalized laws and regulations.

However, the online petition website, JOIN.GOV.TW, is worth mentioning because of its stronger administrative regulation basis.

Aspects	Implication	Contents of the Law
Transparency	opening decision-making process to the people, enhancing accountability and supervising mechanisms	making information public, opening documents of contact for a purpose other than that of administrative procedure, publishing information of administrative contracts, promulgating legal orders, releasing administrative rules published in the Government Gazette
Citizen Participation	embracing citizen participation in administrative decision making	inviting relevant parties to make a statement, promulgating legal orders and allowing comments as well as petitions regarding the orders
Debate	replacing one-sided decision making with debates	holding hearings, regulating the provisions incidental and effect of administrative disposition, and holding hearings on legal orders and finalizing decisions on administrative plans
Generalization	administrative procedures turned from case-by-case dispositions into a generalized institution	legal orders and administrative rules
Partnership	administrative agencies working with parties intervening into administrative procedures	involving the parties in incidental provisions of administrative dispositions, administrative contracts, and administrative guidance

Table 1.1 Five Aspects of Citizen Participation the Administrative Procedure Law Promotes

# 1-2 Structure of Agencies Working on Open Government in Taiwan

## Current Organizational Structure

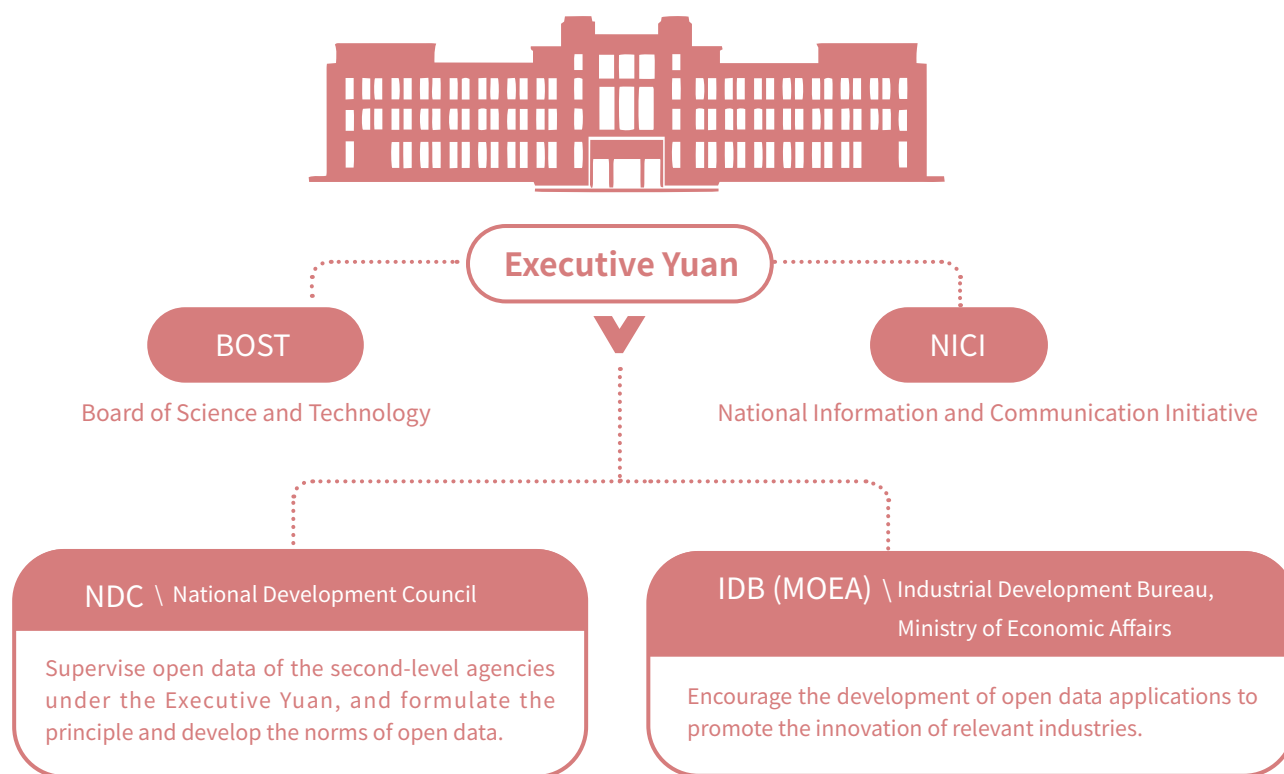


Figure 1.2 Organizational Structure

Currently, open data policy is mainly driven and implemented by the Executive Yuan. All second-level agencies under the Executive Yuan are required to set up an open government data advisory team and upload the data to DATA.GOV.TW pursuant to the Operating Principle. On the other hand, the Industrial Development Bureau (IDB) is responsible for encouraging the development of open data applications to create value-added, which includes promoting the innovation of relevant industries.

For local governments, open data is practiced based on the Information Law. However, due to a lack of comprehensive laws and regulations on "open government", each local government has different organizational structures and operation when it comes to open data. Most local governments actually assigned their department of information technology (ex. Taipei City), department of information (ex. New Taipei City), or other departments to handle this work. Since these departments are at the same administrative level as all other departments, open data can only be realized at the local level when there is strong support from the mayor or magistrate.

# 1 Laws, Regulations, and Policies

All second-level agencies under the Executive Yuan have an open data advisory team which regularly conducts inspections on the progress of open data in the agency. A subordinate agency must report its open data progress to the second-level agency which it is under. An open data advisory team of a second-level agency holds 2~4 review meetings annually to look into the agency's performance. The Executive Yuan itself holds 2 review meetings annually, announces its annual open data goals at the beginning of the year, and reviews the result at the end of the year. Second-level agencies must send information regarding their open data status to the Executive Yuan for future reference.

Under this two-level mechanism and the principle that "unless otherwise specified as an exception, all information shall be open", when a citizen requests a second-level agency to open a specific dataset and the agency refuses, it must provide a reason. If the citizen is not convinced by the reason, he or she can make an appeal to the Executive Yuan and it can overthrow the original decision and request the agency to open the data.



Figure 1.3 The Process of Requesting Open Data

## Challenges under Current Framework

In theory, the advisory team acts as a decision maker instead of a consultant. In reality, the team rarely performs actual decision-making. After the agency receives a person's request to open up data, if the case officer determines that the data cannot be opened under the law or the data is incomplete, of poor quality, the request will not be sent to the team at all. In addition, since only one-third of the team members are citizens and the members have different understanding of open data, their discussion sometimes fails to respond to what civic tech communities and the society expect. Many second-level agencies choose not to open the meeting minutes of their advisory team in full, which has limited the impact of the team as well.

Also, even though second-level agencies do send their open data status to the Executive Yuan for future reference, at least in formality, the advisory team in the Executive Yuan cannot, in fact, achieve due diligence. The government does not have enough manpower to conduct a preliminary review on the content and quality of information submitted or organize the information before the meeting for the team to have a meaningful discussion. This greatly hinders the function of the advisory team. However, the meetings at the Executive Yuan-level still play a role in terms of politically showing the importance of open data because the heads of second-level agencies are gathered in the meeting to re-confirm policy directions.

Apart from the advisory teams at both levels, open data is mainly conducted by the case officer in the agency, yet many of them do not truly understand the concept of open data. There is no standard format for data that all agencies generate that can serve as a reference for the executive units, nor is there a specific process for handling people's requests for data. Legally speaking, the case officer should follow the process of handling petitions stipulated in the Administrative Procedure Law, but many of the case officers do not think they need to do so. Therefore, the requests are not processed smoothly. Civic tech communities expect agencies to design a dedicated process to deal with open data requests.

Promoting open data requires proper legal and policy readiness yet sufficient dedicated personnel are also critical. The government did attempt to institutionalize dedicated open data coordinators within and between second-level agencies. Confined by government structure, however, the NDC is currently not able to coordinate the agencies and the case officers inside the agencies often have other tasks or inadequate authority, which has significantly limited the impact of policy implementation.

The Taiwanese government lacks high-level planning when it comes to open government. The result of open data policy highly relies on the political will of political appointees. Once the appointee is no longer in the position to support the policy, its implementation often loses steam. There is neither effort put into organizing and summarizing opinions nor mechanism for adjusting next stage policy. In terms of policy adjustment, the government fully depends on the feedback from the society and has therefore wasted much energy in meetings with various actors while little progress has been made on the overall policy.

In conclusion, perhaps the government's real issue is that it does not have a clear blueprint of open government. That is why the government has made many political valuable promises yet lacks concrete strategic planning for the framework, political culture, and legislation.



# 1-3 International Comparisons

This part of the chapter discusses three international cases of how open government has been developed in the context of three different countries. In the US, the political will of politicians has been the key drive. Their tool was executive orders, and after some progress, the effort went into institutionalization and legislation. This process is the most similar to that of Taiwan. In Taiwan, however, the bureaucracy has prevented open government from making institutions or legislation. Whenever there is a transfer of power between parties, the current open government framework is very likely to face big challenges.

South Korea took the opposite direction. When the government put forward its open government policy, the legislative process began immediately and the resulting laws and regulations are rather comprehensive. In comparison, there is no separate law or act on open government or open data in Taiwan. In Europe, the European Union proposed clear policy goals on open government while each country passed laws and regulations based on local conditions accordingly. In Taiwan, there is also a policy white paper on open government, yet it neither touches upon specific operational strategies nor leads to any legislation.

### | The US

When open government was first introduced to the US, the concept was implemented through Presidential executive orders and President Memorandums instead of a separate act. In 2009, when President Obama took office, he immediately signed a memorandum on "Transparency and Open Government". It stressed that the government should be a system of "transparency, participation, and collaboration". This memorandum directed the Office of Management and Budget (OMB) to issue the Open Government Directive, requesting all government agencies to open data pursuant to the Freedom of Information Act, Article 105 of the Copyright Law, and the OMB Circular A-130. In addition, the US government set up the DATA.GOV platform in 2009 (Dai & Gu, 2015).

The US's 2014 Digital Accountability and Transparency Act serves the purpose of making government budgets and expenses transparent. In early 2016, Senator Brian Schatz sponsored the OPEN Government Data Act, which will be the legal basis for opening all government data with narrow exceptions and codifying preceding executive orders. After the Committee markup in May 2017, the Act is now cleared for the Senate. Given that it has support from both parties, it is very likely to pass (Haggerty, 2017) [3].

### | The EU

The EU passed Directive 2003/98/EC on the re-use of public sector information which focuses on creating economic benefits from reusing public information (Lin, 2016). In 2013, the European Commission made an amendment to the Directive and there are a few key points worth mentioning:

1. The basis for pricing data reuse is changed from "Upper Ceiling for Charges" to "Marginal Costs".
2. The Directive now also applies public libraries, university libraries, and museums.
3. It now specifies that the government must release information in a machine-readable format.

The amended Directive now has more comprehensive development directions and goals and member countries then internalized the goals to develop their national laws and regulations.

Government	Development Model
Taiwan	By executive orders. No separate law or act.
The US	By President executive orders and memorandums at first and then by the Digital Accountability and Transparency Act (DATA Act). The OPEN Government Data Act is in the legislative process now and will turn preceding executive orders into laws once passed.
The EU	Passed the Directive 2003/98/EC on the re-use of public sector information, focusing on the economic benefits. It was amended in 2013 and the focus was shifted toward more comprehensive aspects and goals. Member countries then internalized the goals into their national laws and regulations.
South Korea	Became a member of the Open Government Partnership (OGP) in 2012, started promoting Government 3.0 in 2013 and open data after passing a separate open data act.

Table 1.4 Comparison of Open Data Development Models

## South Korea

South Korea became an OGP participant in 2012 and the government started to promote Government 3.0 in 2013 to change government agency culture with information technology. Also in 2013, the Promotion Availability and Use of Public Data Act was passed to safeguard citizen's right to access information based on the principle of equality. It also specifies what data should be open and what should not.

This Act also stipulates the establishment of the "Open Data Strategy Council" to deliberate open data policy and assess the result of data inventory. Apart from that, to avoid disputes over using data, the "Open Data Medication Committee" was established to find efficient solutions.

According to the Copyright Act of South Korea, open publications of national or local government agencies can be used without licensing. The enforcement rules of the Copyright Act also stipulate the establishment of a copyright licensing system for public agencies. The South Korean Government also built the DATA.GO.KR platform after developing the Government 3.0 policy (Industrial Development Bureau, 2015).

### Note

[1] As of May 2017, the NICI was reorganized as the "Digital Nation & Innovative Economy Taskforce, Executive Yuan" (DIGI+) and the NICI Guidelines are no longer applicable. [http://chuchi.cyhg.gov.tw/News\\_Content.aspx?n=AFDE5898784A405A&sms=4F8F3F800B36E0EF&s=CDDF9C9CC2973F57](http://chuchi.cyhg.gov.tw/News_Content.aspx?n=AFDE5898784A405A&sms=4F8F3F800B36E0EF&s=CDDF9C9CC2973F57)

[2] Refer to the discussion of the Information Law in the g0v community (Taiwan's biggest civic tech community): <https://g0v.hackpad.com/ep/pad/static/b6gTMfhXMY>.

[3] <http://www.rstreet.org/2017/05/18/open-government-data-act-moves-to-senate-floor-after-markup/>

# 2

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## Open Government Data





## Key Findings

### ▶ Too much focus on economic development and not enough on government accountability and social justice

There is no dedicated law on open government and open data in Taiwan. Promotion mostly relies on executive orders. Except for the Administrative Procedure Law, citizen participation process and deliberative participation is not yet institutionalized.

### ▶ Quantity over quality, many key datasets were scattered across multiple websites

Government agencies have tried to open more and more data but neglected data quality. As a result, the quality of datasets is jagged and many have to be manually processed to be used. Additionally, Taiwan's agencies release data on their websites according to the country's Information Law, yet the data is mostly not in open formats. If the data can be further structured and integrated into DATA.GOV.TW, it will be more searchable and easier to use.

### ▶ Not enough impact, policy should be driven by what citizens and civil servants need

Up to today, open data still has no significant impact on open government, citizen participation, and even the data economy. The government needs to rethink the value of open data, conduct surveys to find out the needs of potential users, and develop policy directions that make the data more "useful". The users can include civil society organizations that monitor the government, tech communities that use the data, entrepreneurs and businesses that elevate data value, and civil servants who are both producers and users.

### ▶ Civil service is short of "digital power", system reform is much needed

Due to rigid bureaucracy, an obsolete information system, and lack of coordination between government bodies, open data has been prevented from improving administrative efficiency and even become a heavy workload for civil servants. The government needs to go beyond promises, stop giving more and more policy instructions, and conduct a comprehensive review and reform of the civil service system, which includes hiring, training, laws and regulations, and information system.

### ▶ KPI driven, failed to picture what role open data should play in governance

The Taiwanese Government has worked on open data for many years and made various achievements, such as the DATA.GOV.TW website, the rising quantity of open datasets, and numerous hackathons. Yet these achievements were meant to create short-term, high performance marks that are measured by KPIs. The government does not yet have an overall plan covering key aspects of open data, including administrative procedures, digital governance, and data economy. Factors such as a lack of comprehensive legislation and policy, as well as outdated systems and personnel management mean that the success of open data initiatives rely heavily on the will of the political leader. Without implicit policy or orders from the top, open data brings little tangible change.

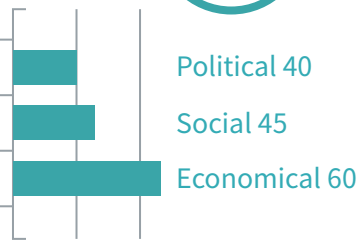
## ② Open Government Data

### Total Scores



#### Impact

48



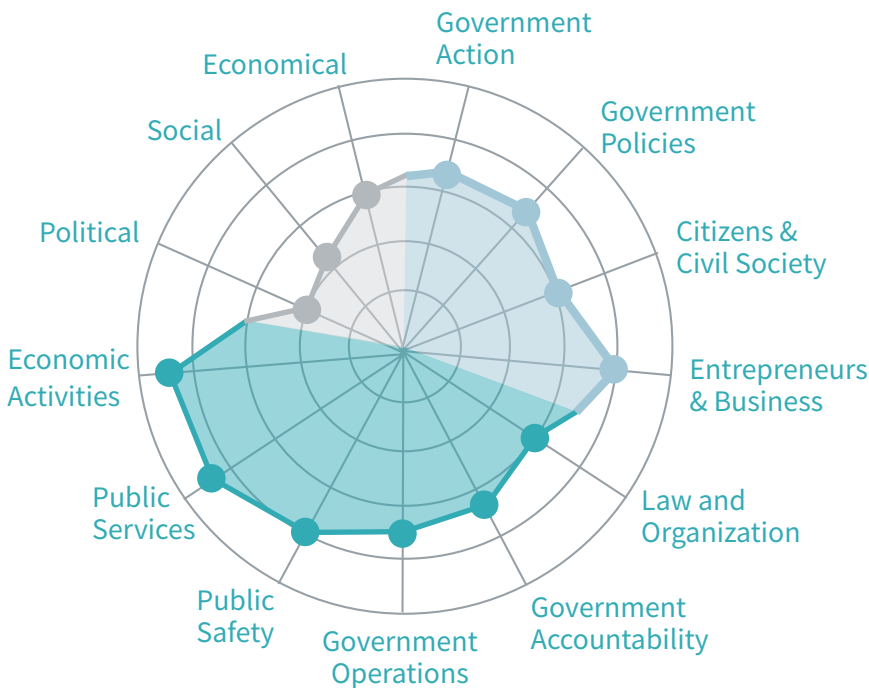
#### Readiness

71



#### Implementation

77



### Subcategories

#### Weightings

- Readiness 35.0%
- Implementation 35.0%
- Impact 30.0%

Figure 2.1 Results of Open Data Survey

# 2-1 Introduction

## Background

As "open government" became an important trend in national governance in the 21st century, "open government data" ("open data") also became a key means of promoting digital transformation and deepening democracy. The modern state is built on the census of people and territory. As a result, national governments collect a large amount of data and information on its people. Government data is not the property of the government or of any particular politician. Data collection is paid for by people's taxes and the data is about the people. Government agencies simply collect, preserve, and manage all the information on behalf of its people as this is their duty (Chen, Lin, & Chuang, 2013). Therefore, government data should be returned to the public domain through open licensing to demonstrate that democratic countries are open, transparent, and accountable.

The 2005 Information Law stipulates that apart from the restricted information defined (under Article 18), the government should "actively" make all government information open to the public. Opening government

information can increase government transparency to a certain extent. In terms of government operation, however, the information presented in statistics provided by executive units usually only reveals the tip of the iceberg. With the rapid development of ICT, the Taiwanese Government began to open data in 2012. The ultimate goal is to release raw data in structured formats on a unified data platform and to make the data "useful" instead of simply "for display" through big data computing. Through analysis and application, open data becomes a resource that "people, companies, and organizations can use to launch new business ventures, analyze patterns and trends, make data-driven decisions, and solve complex problems" (Joel Gurin, 2014, as cited by Chu & Tseng, 2016) and data governance goals can, therefore, be reached.

Based on this idea, open data not only makes the government more transparent and accountable but also improves the quality and efficacy of government services and creates economic value. We want to stress, however, that open data is not just about economic development. It is the foundation for government transparency and citizen participation. As the government promotes open data, it should also digitalize administrative processes and build a knowledge base for sharing information, which enables citizens and the government to collaboratively build a new governance model.

	Freedom of Information	Open Government Data
Legal Basis	the Freedom of Government Information Law (2005)	no legal basis, only administrative guidelines, the Open Government Data Operating Principle for Agencies of the Executive Yuan (2013)
Scope	any public data of the people or the government collected by government agencies for governance should be made public	public data should be structured and opened with a URL under an open license and in an open format
Purpose	making the government more open and transparent, encouraging citizen monitoring, and protecting people's basic rights	apart from the left column, facilitating public-private collaboration and developing data economy

Table 2.2 Freedom of Government Information vs Open Government Data

### Definition of Open Data

Open data is "data that can be freely used, reused and redistributed by anyone--subject only, at most, to the requirement to attribute and share-alike" (Open Data Handbook, n.d.) [1]. While conventional copyrights restrict the use, reproduction, and distribution of knowledge and data, "open" data puts emphasis on the free flow and the public nature of knowledge. This "openness" with respect to knowledge promotes a robust commons in which anyone may participate, and interoperability is maximized.

There are two internationally recognized definitions of open data, one by the Open Definition 2.1 [2] and the other by the 5-Star Open Data [3]. The Open Definition 2.1 is published by Open Knowledge International and defines that an open work must satisfy the following four requirements: open license or status, machine readable, easy access, and open format (Table 2.3).

Open License or Status	The work must be in the public domain or provided under an open license. Any additional terms accompanying the work must not contradict the work's public domain status or terms of the license.
Machine Readability	The work must be provided in a form readily processable by a computer and where the individual elements of the work can be easily accessed and modified.
Access	The work must be provided as a whole and at no more than a reasonable one-time reproduction cost, and should be downloadable via the Internet without charge.
Open Format	The work must be provided in an open format. An open format is one which places no restrictions, monetary or otherwise, upon its use and can be fully processed with at least one free/libre/open-source software tool.

Table 2.3 The Open Definition 2.1

Compared to this relatively strict definition, Tim Berners-Lee, one of the inventors of the Web, suggested a 5-star deployment scheme for Open Data (Table 2.4) to evaluate how open a dataset is. When the two definitions are put side by side, it is easy to see that the four requirements of the former also play key roles in the latter. To get four stars or more, however, apart from the requirements, the data also needs to be connected, put on the Web, and generate more benefits in terms of application.

★	available on the Web (whatever format) under an open license
★ ★	available as structured data (e.g. Excel instead of image scan of a table)
★ ★ ★	available in a non-proprietary open format (e.g. CSV instead of Excel)
★ ★ ★ ★	use URIs to denote things, so that people can point at your stuff
★ ★ ★ ★ ★	link your data to other data to provide context

Table 2.4 5-Star Open Data

## Research Method and Data Source

This research conducted both quantitative and qualitative analyses on the readiness, implementation, and impact of open data policies in Taiwan from 2014 to 2016. Our research method [4] is based on the third edition of Open Data Barometer (ODB), developed by the World Wide Web Foundation. The works of many open data researchers were also taken into account in the writing of this chapter.

In terms of readiness and impact, our researchers used the ODB questionnaire for survey and analysis. We, following the ODB method, also invited relevant agencies to fill out the questionnaire not only to use the answers as a reference but also to encourage the agencies to rethink open data policy directions. The draft document produced by the survey was finished in April 2017 and opened for civic tech and open data communities to review and comment from April 17th to May 7th. The researchers then took the comments and compiled the final document [5], which served as the key reference to this report.



## 2 Open Government Data

In terms of implementation, we did not adopt the 15 dataset categories used in the ODB, instead, we applied the "20 Dataset Categories of a Data-Centric Government" [6] (Table 2.5) written and edited by "g0v" (Taiwan's biggest civic tech community). These 20 categories touch upon important aspects of open data, including government transparency, rights of the public, the framework of economic applications, and so on. Compared to the ODB's 15 dataset categories, these 20 types better represent the context and implementation of open data in Taiwan and are easier to conduct structured

analysis on. Within each category, we picked the three to five most fundamental and significant datasets and assessed whether they met the 10 requirements in Table 2.6 to evaluate their openness. The datasets were collected, examined and reviewed by the g0v community. The list of the contributors and reviewers can be found on the github repository of this report [7]. The results of this assessment were then calculated based on the weighting of Table 2.7.

Tier	Category
0 Law and Organization	<ul style="list-style-type: none"> <li>0.1 Laws and Regulations</li> <li>0.2 Government Structure and Personnel</li> <li>0.3 Judiciary and Judgment</li> </ul>
1 Government Accountability	<ul style="list-style-type: none"> <li>1.1 Election and Recall</li> <li>1.2 Budgets and Fiscal Balance</li> <li>1.3 Civil Service Ethics and Accountability</li> </ul>
2 Government Operations	<ul style="list-style-type: none"> <li>2.1 Census Data</li> <li>2.2 Basic Information of Incorporated Foundations</li> <li>2.3 Procurement</li> <li>2.4 National Defense and Diplomacy</li> </ul>
3 Public Safety	<ul style="list-style-type: none"> <li>3.1 Public Inspection and Violation</li> <li>3.2 Crime and Incident</li> <li>3.3 Environment</li> </ul>
4 Public Services	<ul style="list-style-type: none"> <li>4.1 Infrastructure</li> <li>4.2 Healthcare</li> <li>4.3 Basic Education</li> </ul>
5 Economic Activities	<ul style="list-style-type: none"> <li>5.1 Production and Various Licenses</li> <li>5.2 Real Estate and Finance</li> <li>5.3 International Trade</li> <li>5.4 Labor</li> </ul>

Table 2.5 20 Dataset Categories of a Data-Centric Government

Question	Weight
1. Does the data exist?	5%
2. Is it available online from government in any form?	10%
3. Is the dataset provided in machine-readable formats?	15%
4. Is the machine-readable data available in bulk?	15%
5. Is the dataset available free of charge?	15%
6. Is the data openly licensed?	15%
7. Is the dataset up to date?	10%
8. Is the publication of the dataset sustainable?	5%
9. Was it easy to find information about this dataset?	5%
10. Are (linked) data URIs provided for key elements of the data?	5%

Table 2.6 Questions for Dataset Survey and the Weights

Readiness 35%	Implementation 35%	Impact 30%
1. Government Policies 2. Government Action 3. Entrepreneurs & Business 4. Citizens & Civil Society  Each Aspect 1/4	Each Category  1/20	Political Economical Social  Each Aspect 1/3

Table 2.7 Weightings

# 2-2 Readiness of Open Data

### Government Policies

- No legal basis, open data has been promoted by administrative guidelines and orders
- Platform and licensing ready but data quality jagged

There is no legal basis for open data in Taiwan. There are only the 2005 Information Law and the administrative guideline, the 2013 Operating Principle, for open data operations. Due to a lack of a separate act on open data, the will and policy instruction of the political leader has been critical. The Executive Yuan appointed 2015 as the "Starting Year of Deepening Open Data Applications", which led to a wave of open data with little regard to quality. After that, due to lack of legal and data governance basis, agencies and units that have data grew passive.

Although laws, regulations, and policies are yet to be ready, the National Development Council (NDC) setup DATA.GOV.TW in 2013 as the first open data platform in Taiwan, which was symbolic. The license terms of the platform, Open Data License Terms Edition One, were written collaboratively by the NDC and open data communities. The document was recognized by the Open Knowledge International as one of the few national license terms that are in accordance with Open Definition 2.1 [8]. After the platform was launched, datasets have grown in quantity, but there has been no systematic integration from the production ends, resulting in varied data quality. The Study of Dataset Quality Review Mechanism (UDN Digital, 2016) pointed out that on DATA.GOV.TW, 50% of data had poor machine readability, hindering data flow between agencies and value-adding data applications.

### Government Action

- No data governance procedure yet, cannot improve administrative efficiency
- Executive units lack knowledge and technical training
- Local governments do open data but with a wide urban-rural gap

Currently, there is not a coordinating government agency for open data. Instead, it is the IT personnel in each agency that coordinate the executive units to open their datasets. On the one hand, the IT departments support open data but do not manage the data while the executive units lack IT skills, knowledge of open data, and practical techniques. The government offers no systematic training, so open data is yet to be integrated into the government's decision-making process. On the other hand, before administrative procedures are completely digitalized, for civil servants in executive units, one more dataset to open means one more item to manage and update. This not only increases their workload but also drops data quality.

As for local governments, 13 out of 22 local governments have set up their own open data platforms while the other 9 use the NDC's DATA.GOV.TW platform to open their data. Most of the local governments that do not own an open data platform are of rural areas and they tend to open much less data [9], indicating a severe urban-rural divide.

## Citizens and Civil Rights

- There is the Information Law but it is very difficult to request for government information
- There is the Personal Information Protection Act but agencies tend to dodge the Act by de-identification
- The open data advisory teams do not operate in a unified manner and some meetings become mere formality

In terms of open data, citizens and civil rights, there are two issues that need attention. One, how to make sure that the government does not breach personal privacy while opening data, and two, how the government responds to civic society's requests for data.

In Taiwan, the 2012 Personal Information Protection Act (amended in 2016) covers issues such as required consent, the right to access and correct your own data, and penalties and compensation of violation. However, when the government opens some highly controversial data, it tends to avoid the restriction of the Act by de-identification. For example, in 2015, the Taiwan Area National Freeway Bureau opened the driving routes recorded by the ETC (Electronic Toll Collection) service, the Bureau was criticized by the Taiwan Association for Human Rights (TAHR). The TAHR pointed out that though the data was de-identified, it was highly possible that it could be re-identified and therefore should not be opened [10].

As for requesting for information, the Information Law stipulates that government information shall be made available to the public actively and that within 15 days of receiving the request for government information by any person, the government agency shall determine whether to approve such a request or not. On DATA.GOV.TW, people can also make a request for data. However, it is very difficult for citizens to acquire requested data in practice. This is especially true when it comes to controversial matters, for which people often have to rely on time-consuming administrative litigation to get data despite the Information Law. For example, in 2014, the TAHR requested the Ministry of Education (MOE) to open the records of the 12-year Basic Education Advisory Meeting but was refused. The TAHR then started administrative

litigation and it was not until 2016 that the MOE provided the documents requested. In addition, the government often uses the Personal Information Protection Act as an excuse not to open data. Take the Central Election Commission (CEC) for instance. The CEC originally refused to provide election bulletins in a digital and open format, saying that it involves candidates' personal information. After advocacy from civil society, election bulletins finally became open data in the 2016 election.

Apart from laws and regulations, open data advisory teams have been set up in the Executive Yuan and all second-level agencies under it since 2015. A team consists of representatives from the agency and the society and holds several meetings in a year, covering strategic planning, data inventory, communication and promotion, and data quality. In the meeting, the team also looks into the data that people requested to make sure the agency respond to people's needs. However, the teams are not always made up of experts and academics on open data and meet only once every few months, thus leaving the results unsatisfactory and the meeting a formality.

## Entrepreneur and Business

- Too much emphasis on short-term activities and hackathons
- Lack of industrial policy for the data economy

In terms of open data, the Taiwanese Government attaches much importance to the data economy. The Industrial Development Bureau (IDB) of the Ministry of Economic Affairs (MOEA), as the coordinator of such efforts, has organized numerous competitions and hackathons in the past three years to boost the open-data-based innovative economy. The hackathons were wonderful indeed but they were short-term events that lasted only a couple of days. Without the support of an industry supply chain and a robust data economy policy, the products of hackathons were rarely developed into marketable ones. Also, open data activities driven by hackathons usually ceased after the event. All in all, there has been no comprehensive industrial policy but mostly short-term activities and competitions.

# 2-3 Implementation of Open Data

77

## Implementation

Law and Organization (61)	Government Accountability (68)	Government Operations (70)	Public Safety (81)	Public Services (90)	Economic Activities (89)
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Table 2.8 Scores of the subcategory of implementation

### Law and Organization

Most Key Datasets Are Still not Released by Open Data Standards

Among all datasets under law and organization, we compared those released on DATA.GOV.TW and those released by the individual agency on its website. We found that the former to be relatively simple (ex. judiciary datasets) or not updated (ex. personnel datasets). Therefore, in our assessment, we chose the version released on the agency website. However, the data on agency websites is often published as public information instead of open data. For example, the Directorate-General of Personnel Administration of the Executive Yuan has extensive statistics regarding all local government agencies under the Executive Yuan, yet these statistics are not offered in an open format and contained merged cells which make machine reading very difficult. Also, the Judicial Yuan [11] has far more judiciary datasets than the Ministry of Justice (MOJ) but most of them are not machine-readable or available for batch download. In addition, the MOJ provides both Traditional Chinese and English versions of laws and regulations in XML format, but its licensing terms are not in accordance with the Open Definition 2.1.

### Law and Organization (65)

Laws and Regulations (65)	Government Structure and Personnel (80)	Judiciary and Judgment (39)
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Table 2.9 Scores of law and organization datasets

### Government Accountability

Need to Accelerate the Opening of Government Spending Data and Data on the Sunshine Acts Website

This type of datasets shared the same issue as the last type. Key datasets, especially those opened on the Sunshine Acts website, such as political donations, property declaration, and administrative penalties, can only be accessed through system inquiry instead of being organized into open data available for batch download. This makes the data very difficult to be read by a machine or used in technological applications by citizens. Moreover, although government budgets are already open on DATA.GOV.TW, the actual spending is still released in an annual or monthly report not easy to access or search, making it almost impossible for the people to monitor the government through the data. The Central Election Commission (CEC) does offer comparatively complete election data but the recall statistics are yet to be opened on DATA.GOV.TW.

### Government Accountability (68)

Election and Recall (83)	Budgets and Fiscal Balance (76)	Civil Service Ethics and Accountability (45)
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Table 2.10 Scores of government accountability

## Government Operations

National Defense and Diplomacy a Black Box, Government-Endowed Incorporated Foundations not Monitor-able

In this type of datasets, the procurement and part of the census datasets were relatively open with room for improvement in mapping and cartographic census data. As for the dataset regarding basic information of incorporated foundations, little could be found regarding government-endowed incorporated foundations despite that fact that these foundations receive huge budgets from the government and should, therefore, be monitored by the people. This means that this type of foundation can easily be manipulated by fat cats and lead to serious corruption. The national defense and diplomacy datasets were the least open ones, second only to judiciary data. Various key data, such as treaties and agreements, and results of assistant diplomacy, is scattered across government websites and offered in a non-open manner with indistinct license indication, unclear update times, and more.

Government Operations (70)			
Census Data (76)	Basic Information of Incorporated Foundations (69)	Procurement (94)	National Defense and Diplomacy (41)

Table 2.11 Scores of government operations

## Public Services

Very Open, Traffic Data Could be Ranked as 4-Start Linked Data

These types of datasets were very open, proving that open data is the foundation for better public services. In the infrastructure datasets, traffic data was the most open and could be considered as linked data. Water and electricity data was also quite open thanks to the hard work of the Ministry of the Economic Affairs (MOEA), which has encouraged public service corporations to open their data since 2016. Healthcare data was rather open, too. The Ministry of Health and Healthcare setup an open data platform [12] to provide many open datasets on medical and healthcare. As for education datasets, part of the more complete data was published on the statistics and inquiry website of the Ministry of Education (MOE) [13]. The MOE offers a lot of machine-readable data but has no license terms that indicate the data is open.

Public Services (90)		
Infrastructure (96)	Healthcare (90)	Basic Education (83)

Table 2.13 Scores of public services

## Public Safety

Criminal and Environment Datasets were Relatively Open While Local Public Inspection Dataset was Barely Organized

The crime and the environment datasets were comparatively open but the public inspection dataset was scattered and fragmentary. Since public inspections are conducted by local governments, relevant datasets are scattered across local government websites. However, local governments open their data in varying degrees so the data needed to be manually processed before integrated analysis and application could be carried out. Environmental datasets were relatively open and there was real-time monitoring data of both water quality and air quality.

Public Safety (81)		
Public Inspection and Violation (67)	Crime and Incident (90)	Environment (85)

Table 2.12 Scores of public safety

## Economic Activities

Relatively Open Except for Land Value

This type of datasets was highly open, which reveals that economic development takes priority in the government's open data efforts. Multiple key datasets were already integrated on DATA.GOV.TW. Among the datasets, land value data can only be accessed through an inquiry and is offered as open data available for user download.

Economic Activities (89)			
Production and Various Licenses (86)	Real Estate and Finance (83)	International Trade (95)	Labor (93)

Table 2.14 Scores of economic activities

# 2-4 Impact of Open Data

### Political Impact

- **Transparency:** has facilitated government transparency to a degree but many key datasets are not open
- **Efficiency:** has not improved government efficiency and implementation

Open data has had some positive impact on transparency and public accountability and this can be seen in the application of election and budget data. After Taiwan's 2016 general elections, civic tech communities used the Central Election Commission (CEC)'s data and produced an Election Distribution Map to further analyze the results of the election. In 2015, the Taipei City Government also worked with experts in the communities and displayed the budgets of the second half of the year in an interactive and visualized way so that people could understand how the budgets would be used quickly and easily. This method was later adopted by other local governments. However, apart from elections and budgets, much key data regarding government transparency and accountability is not open or has not become 3-start data yet. For example, data about political donations, public officer property declarations, and government procurement and spending needs to be opened and organized on DATA.GOV.TW as quickly as possible to promote government transparency and public accountability.

The impact of open data on improving administrative efficiency has not been obvious. Open data did facilitate a few public-private collaborations, such as the Dengue Fever Map of Tainan City and the search system for the victims of Formosa Fun Coast explosion. These collaborations indicate that, through open data, working with crowdsourcing and civic tech communities can indeed help the government deal with emergencies. However, in terms of the overall administration system, due to differences in agency personnel, organization culture, and data format, open data has not improved cross-agency communication with tangible results. On the contrary, open data is often an additional burden for the agency. Because of complex research and evaluation procedures, conservative administrative culture, lack of knowledge and technical training, and lack of trust of government policy, open data has had very limited impact on improving government efficiency and implementation [14].

### Social Impact

- **The environment:** open data has empowered citizens and NGOs to advocate environmental policy reform
- **The disadvantaged:** no tangible improvements on public services offered to disadvantaged people

Open data has empowered citizens to take active roles in public issues. Open data helps raise people's awareness of environmental protection and is a tool that environmental protection groups use to monitor the government and enterprises. For example, local governments are working together with a maker community called Location Aware Sensor System (LASS) and the Institute of Information Science of Academia Sinica on the Airbox project. They offered handy air quality sensors to schools and the data collected is streamed to the cloud in an open format to make up for the lack of government survey stations and to provide practical education on environmental protection issues for the schools.

Moreover, in 2016, the Green Citizens' Action Alliance (GCAA) compared the real-time monitoring data of the No. 6 Naphtha Cracker Complex and the government's edited open data and found that more than 20,000 entries of emission that exceeded standards were missing in the latter and that only one NTD 100,000 penalty was issued, revealing the gap between the two sources of data. The GCAA then started the Transparency Footprint project [15] which attempts to promote more correct and refined open data (ex. the full list of penalized parties) to monitor the actual government action on factory pollution.

In Taiwan, open data is rarely employed to help disadvantaged people. There was still no known positive impact till the end of 2016. The Department of Social Welfare under the Taipei City Government and civic tech communities did work together and developed the Domestic Violence Map which displays de-identified domestic violence data on a map so that social workers better know which are the potential DV districts and that local neighbourhood watches can be more aware. However, scholars and social groups argued that displaying DV incidents on a map can oversimplify the issue, that it offers no tangible solution, and that it can cause the stigmatization of certain neighbourhoods.

## Economic Impact

- A few new business models but no data economy industrial chain
- As the data owner, the government seizes the market and is killing the data economy

The data economy has always been an important aspect of open data to the government. For the past three years, the Industrial Development Bureau (IDB) has invested in enterprise subsidies and incentives for innovation and held product launch events. There are already a few open-data-based new business models as the result, such as the site choosing system of the Mercuies & Associates Holding and the AGRI-GIS service developed by EMCT are good examples. However, the above-mentioned cases did not facilitate the forming of a data economy industrial chain. Moreover, in the past three years, the government has worked with long-term system vendors and built websites and apps. These apps have few users, create no profit for the government, increase public servants' workload, and are destroying many start-up business opportunities (Chen, 2016).

Impact on	Current Situation	Problems	Possible Solutions
Government Efficiency	cannot improve government efficiency and implementation	complex research and evaluation procedures, conservative culture, lack of training, and lack of trust of government policy	introduce administration digitalization and increase training on knowledge, laws and regulations, and technology
Government Transparency	some positive impact but much more data can be open	not enough open or complete data to monitor the government	conduct an inventory check on the datasets and release the results as completely and as fast as possible
Environmental Issues	people's awareness of environmental protection much preceded data-driven government reform	open data released by the government is edited	improve digital procedures and guidelines of data production to reduce human interference
The Disadvantaged	no tangible positive impact on the public services for the disadvantaged	lack applicable datasets	collaborate with relevant civic tech communities and think about how data can be employed to serve the people
Entrepreneur and Business	government incentives has led to a few new business models	no data economy industrial chain	stop developing apps and use the resources on open data infrastructure

Table 2.15 Possible solutions to increase the impact of open data



## 2-5 Global Open Data Evaluations

Open data has been an important area of study in government governance and there are many global evaluation mechanisms. The Global Open Data Index (GODI) was developed by Open Knowledge International. The GODI evaluates around 100 countries annually (number of participating countries varies every year) and has conducted 4 evaluations, from 2013 to 2016. The GODI collects information regarding the status of countries' open data from open data enthusiasts/communities, and then scores each country's openness level based on 16 key datasets through crowdsourcing. The GODI's reviewers then determine the final ranking. Taiwan became a participant in 2013 and for the past 4 years, we have moved upward in the ranking from no.36 to no.1 in 2015 and 2016. However, ranking top in the GODI does not reflect Taiwan's open data progress but the government's intentional efforts on improving those 15 datasets. In addition, the GODI has some limitations. First, it only focuses on the openness of datasets and cannot reveal the overall policy readiness or the following impact of open data in a country. Secondly, to provide a basis for comparison, it simplifies the politics and social context of each country, develops clear definitions for types of data to be evaluated, and chooses less than 20 datasets. This greatly limits its representativeness. Lastly, the GODI does not conduct any further research or investigation on the data and global development beyond ranking participating countries.

Another global evolution, the Open Data Barometer (ODB), adopts a methodology that is both qualitative and quantitative and produces in-depth investigation reports. The ODB was developed by the World Wide Web Foundation, also in 2013. Till 2016, there have been 115 participants in its four evaluations. However, Taiwan has never been included. This chapter already described how the ODB's methodology was utilized in our research. Taiwan would rank about no.16 in the 4th edition of the ODB (2016). This number is merely a

reference as Taiwan is not officially participating in the ODB. Still, Taiwan's performance exhibited a distinct pattern when compared to top countries in the ODB. While most top 10 countries performed best in readiness, Taiwan performed best in implementation and performed relatively poorly in terms of impact. This shows that although the amount of open data has increased rapidly in Taiwan, we should put more focus on the infrastructure, such as policy and properly trained personnel, and interaction with data users. Attaching equal emphasis on data quality and quantity, investing enough resources and personnel training, and putting data users, citizens and public servants at the center is the best way to turn open data into a firm foundation for open government.

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### Data and Documents

- <https://github.com/ocftw/OpenGovReport14-16/tree/master/data>
- <https://github.com/ocftw/OpenGovReport14-16/wiki/OGR14-16-Readiness-and-Impact>

**Note**

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[1] <http://opendatahandbook.org/guide/en/introduction/>

[2] <http://opendefinition.org/od/2.1/en/>

[3] <http://5stardata.info/zh-TW/>

[4] <http://opendatabarometer.org/doc/3rdEdition/ODB-3rdEdition-ResearchHandbook.pdf>

[5] <https://github.com/ocftw/OpenGovReport14-16/wiki/OGR14-16-Readiness-and-Impact>

[6] <https://g0v.hackpad.com/ep/pad/static/NoJ1mbwsqkQ>, accessed on 2017/5/15, CC BY-clkao & g0v contributors.

[7] Raw Data can be found here: <https://github.com/ocftw/OpenGovReport14-16/tree/master/data>

[8] <http://opendefinition.org/licenses/>

[9] <http://data.gov.tw/visual/1>

[10] <https://www.tahr.org.tw/node/1656>

[11] From 2017, the Judicial Yuan has started to speed up releasing open data on DATA.GOV.TW.

[12] <http://data.nhi.gov.tw/>

[13] <https://stats.moe.gov.tw/qframe.aspx?qno=MgA3AA2>

[14] Please see “The Anonymous Notes from Civil Servants,” [g0v.news](http://g0v.news), 2017/03/22.

[15] <https://thaubing.gcaa.org.tw>

# 3

## Citizen Participation





## Key Findings

► **Citizen participation has taken root in Taiwan and the goal has been to lower the threshold to broaden participation**

Citizen participation models built on deliberative democracy and open government have emerged. They mostly employ online tools and are designed to lower the threshold of participation through less rigorous forms of discussion. They are distinct from conventional forms of citizen participation (such as public hearings) and from deliberative democracy in the narrow sense which is small in scale and with strict forms.

► **The political will of political leaders plays a critical role in citizen participation**

Realization of citizen participation relies on the political will of politicians. The success of promoting participation lies in horizontal connections and the willingness of leaders to be integrated into this process, which then pushes the agencies and departments within the bureaucracy to get involved.

► **The stage of policy making at which citizen participation is introduced directly affects its significance**

The stage of policy making at which citizen participation is introduced has a decisive influence on the impact of participation. In addition, agenda setting, choice of issues, and the initiatives all play important roles. The method and process of participation also determine the quality of participation.

► **Citizen participation is still largely experimental while some models are being institutionalized**

Most cases of citizen participation in this chapter were experimental. A few were implemented through administrative orders and some are being normalized or institutionalized, such as participatory budgeting at the local level.

► **To improve the quality of participation, it is important to train civil servants in deliberative skills and invite intermediaries to help simplify the language and connect different parties**

Currently, empowering and training civil servants is the most urgent task. It is also important to invite intermediaries to help simplify the language used during discussion in order to lower the threshold of participation. These intermediaries can also help inform citizens, and at the same time, guarantee quality discussion.

# 3-1 Development of Citizen Participation in Taiwan

## Existing Participation Models

Citizen participation as a civil right is a crucial part of democracy. In Taiwan, citizen participation is safeguarded by article 17 of the Constitution of the Republic of China (Taiwan). However, when Taiwan was under the Martial Law (1949-1987), participating in politics or expressing opinions on public issues were prohibited. When the Order of Martial Law was lifted, there was a wave of democratization movements and citizen participation finally started to pick up.

The 1999 Administrative Procedure Law stipulates that people should have the opportunity to participate in administrative dispositions, regulations, orders, and administrative plans and express their opinions. Other pieces of legislation that address citizen participation are the 1994 Environmental Impact Assessment Act and the Act for Promotion of Private Participation in Infrastructure Projects. Both Acts require evaluation committees of relevant affairs to include citizens. Apart from the above two Acts, there are other institutionalized forms of citizen participation. Public hearings and explanatory meetings are good examples but since there is no law forcing the government to accept or consider people's input, citizens' voices may be easily disregarded.

## The Seeds of Open Citizen Participation

Since the beginning of the 21st century, democracies have met massive challenges around the world. Many so-called democratic governments merely keep the appearance of democracy with elections but have taken despotic actions that jeopardize human rights and democratic values (The Economist, 2014). People feel frustrated, disappointed, and unsatisfied by the performance of democracy (Lin, 2016) and initiated one street demonstration after another. The 2014

Sunflower Movement in Taiwan is an example of the people standing up to oppose a malfunctioning representative democracy.

In the face of weakening representative democracy, deliberative democracy became a highly anticipated possibility in Taiwan. It started during the second-generation National Health Insurance (2nd-gen NHI) reform process, in 2001. The reform was a three-year project. The Ministry of Health and Welfare (MOHW) invited scholars to establish a citizen participation team in its planning committee. The scholars brought consensus conferences and the idea of deliberative democracy into the reform. In 2003, some Taiwanese scholars visited the Danish Board of Technology (DBT). They brought back various practices of deliberative democracy (Chen, 2012) and began to experiment on consensus conferences and scenario workshops after 2004.



### Consensus Conference

Volunteers are selected from different backgrounds and take relevant classes before the conference. In the conference, volunteers consult invited experts about the issue at hand. Then, the volunteers start a discussion which leads to a final report. This process usually takes 5 days.

In the 2014 Sunflower Movement, participants occupied the legislative chamber for 24 days, during which the idea of "D-Street" (citizen deliberation on the street) was created. D-Street was proposed to balance the representative power among different parties participating in the Movement. The occupation was divided into groups of protesters "inside" and "outside" the legislative chamber. While the protesters inside won more attentions from the public and the media, protesters outside the chamber felt disregarded and alienated. To expand participation, and give those outside a chance to express their views, and eventually, form a consensus, protesters began to practice D-Street (Shi, 2014). The 10-day D-Street experiment was carried out simultaneously in various locations at the demonstration site, with over 100 participants per day. Although the power relations inside and outside the legislative chamber did not truly "flip," the practice drew public attention to deliberative democracy and the seeds of citizen participation were planted in civil society.

After the Movement, the energy of Taiwan's civil society became very strong, the strongest in decades. In that same year (2014), Ko Wen-je ran for Taipei City Mayor with the slogan of "open government, citizen participation" and won by a landslide. His promise was later realized in the forms of participatory budgeting projects and through "i-Voting" (an online voting system).

The above events made citizen participation not only known to the public but popular among local governments. Starting in 2014, there have been experiments with less rigid forms of citizen participation (such as the "World Café") to expand participation and lower costs. Also, with the advance of technology, online tools have become an important part of citizen participation.

This chapter explores several new models of citizen participation that were influenced by deliberative democracy and open government. These models involved online tools, and were designed to lower the threshold of participation through less rigorous forms of discussion. Such models are distinct from institutionalized channels of citizen participation and from rigid practices of deliberative democracy, like the consensus conference. Through examining various cases, we want to ask whether these efforts have successfully empowered citizens and influenced policies, and whether they were true citizen participation.

## Structure of Analysis

This chapter includes the analysis of six cases of citizen participation between 2014 and 2016. It examines how citizen participation was practiced in each case, and how "open" each practice was. These cases were analyzed in an attempt to take a closer look at the participation experiences and to demonstrate different types of participation experiments between 2014 and 2016.

Our first case, the "Grassroots Forums of Civic Constitutional Convention" during the 2014 Sunflower Movement, is significant because of its bottom-up approach and its impacts on the following cases. We will then turn to two practices initiated by the government—the "Youth World Café" and the "Feiyan New Village" cases. The comparison of these two cases shows how agenda setting plays a key role in facilitating citizen participation. The next two cases are experiments on digital platforms. They are the electronic voting system in Taipei City, i-Voting, and the first online policy participation platform in Taiwan, JOIN.GOV.TW. Last but not least, participatory budgeting (PB) has become popular in many cities in Taiwan. Local governments have adopted various strategies and procedures to practice PB, so a handful of cases were chosen to represent different types of PB in Taiwan.

### The Blulu Metrics

We adopted the Blulu Metrics [1] created by Lu Chia-hua and ET Blue to analyze the level and the quality of participation. The analysis looks into both the composition of participants and the impacts of citizen participation on the overall policy-making process. We made some adjustments to the Metrics to make it more suitable for our analysis. Also, to help readers quickly grasp the results of the analysis, the results will be communicated in both commentary and visualized scales. The purpose of Blulu Metrics is to help more people understand the structure of deliberation, the citizen participation process, and its challenges. The following paragraphs will explain how we used the Metrics.

We selected four tools from Blulu Metrics Family—Blulu Train A & B, Blulu Pizza, and Blulu Meter—to answer the following four questions in each case:

1. At which stage of the policy lifecycle was citizen participation involved?
2. What was the quality of deliberation?
3. Who were the participants?
4. What was the level of openness?

#### I. Blulu Train A: At Which Stage of Policy Lifecycle Was Citizen Participation Involved?

The Blulu Train A was used to determine the stage of the policy-making process at which citizen participation was involved. Generally speaking, the earlier it is involved, the less likely there will be a controversy at later stages.



Figure 3.1 Blulu Train A (Policy Life Cycle)

#### II. Blulu Train B: What Was the Quality of Deliberation?

Blulu Train B divides the deliberation process into eight stages and each corresponds to one of the following eight questions:

1. Were opinions from civil society taken into account in agenda setting? Could citizens set the agenda?
2. Was there any research or survey conducted on the issue? Were the views of all stakeholders and civil society taken into consideration in the research?
3. Were the participants fully informed? Was relevant information open and transparent?
4. Was the form of discussion designed appropriately? Were the discussion led by experienced moderators?
5. Was there voting and in what form?
6. Did the process result in meaningful decisions? Did the conclusions of deliberation have an impact on decision making?
7. Did the government respond to the conclusions in meaningful ways? Did the government make any concrete promise or use the conclusions as the basis for decision-making and judgment?
8. Could the government be held accountable for the results of deliberation? Was there an appointed executive unit in the government? Was there any feedback mechanism that could be used for evaluation?

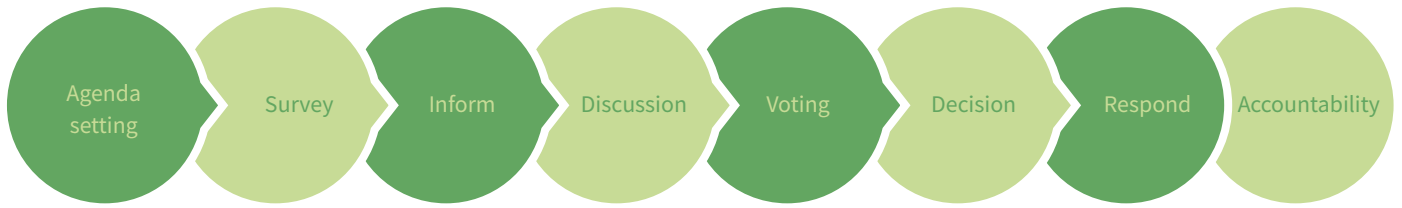


Figure 3.2 Blulu Train B (Public Deliberation Process)

### III. Blulu Pizza: Who Were the Participants?

Blulu Pizza was used to evaluate the participants. Generally speaking, citizens are welcomed to participate and civil servants are often invited as well to show their political will. Quality citizen participation usually includes civil servants and stakeholders.

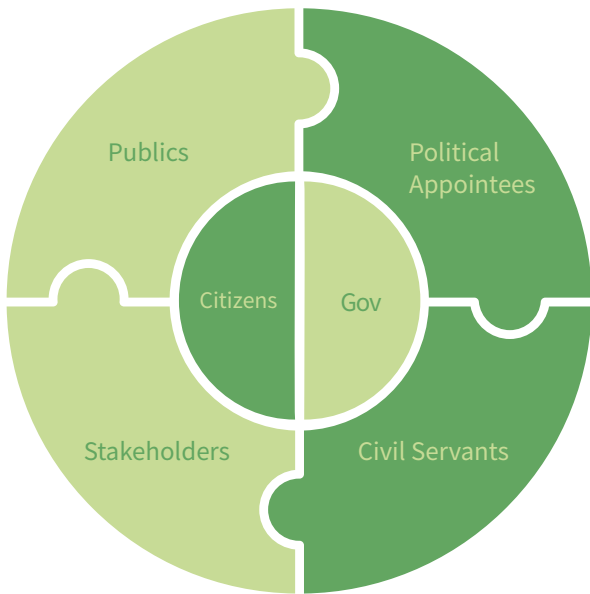


Figure 3.3 Blulu Pizza (Participant Analysis)

### IV. Blulu Meter: What Was the Level of Openness?

Blulu Meter evaluates the level of openness in the policy-making process in the long run from three perspectives. The first is the healthiness of the procedure, the second is the openness of participation, and the third is policy continuity.

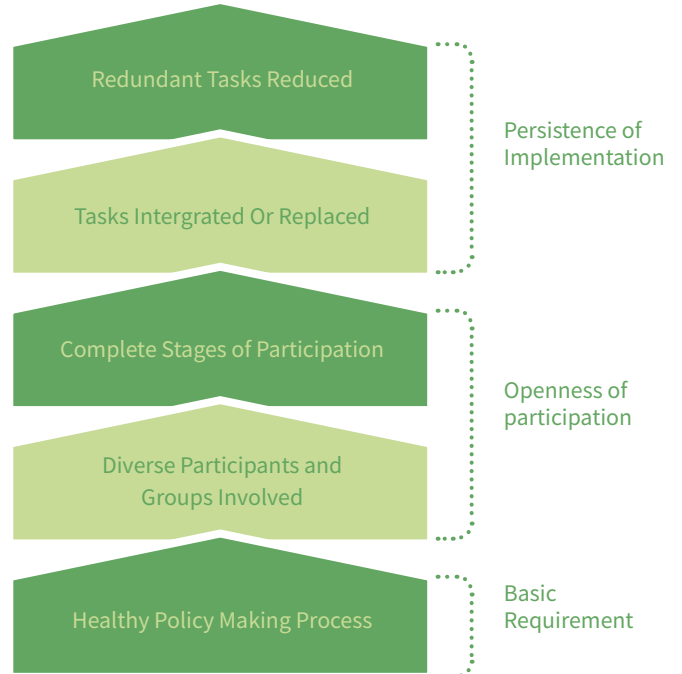


Figure 3.4 Blulu Meter (Levels of Openness)



# 3-2 Case Study: The Grassroots Forums of Civic Constitutional Convention

- **Feature: bottom-up citizen participation**
- **Method: Occupy movement hand signals and group discussion**
- **Digital utilization: meeting manuals and minutes were published on a website**

### Bottom-up Constitutional Reform

Constitutional reform has been discussed for many years. Issues such as voting age and number of seats in the Legislative Yuan often spark discussion on constitutional reform. However, after article 12 of the Additional Articles of the Constitution of the Republic of China was passed by the last ad hoc National Assembly in 2005, it became significantly more difficult to make an amendment to the Constitution [2]. In 2014, some civic groups established an alliance called the "Civil Movement for Constitutional Reform" to stimulate reform within government institutions, through grassroots meetings outside.

The alliance planned to achieve the goal of "Citizen Participation x Constitutional Reform" in three stages. First, hold "Grassroots Forums" around the island to invite people to deliberate relevant issues and propose possible approaches to political reform. Second, organize "Promotion Forums" to summarize the discussion at the first stage and put forward a concrete motion. At the third stage, the "Civic Constitutional Conventions" should be convened to deliberate the goals of reform and feasible solutions. The results are then sent to the Constitution Amendment Committee of the Legislative Yuan and a referendum would be held in 2018.

Starting from 2014, the Civil Movement for Constitutional Reform held many Grassroots Forums all over Taiwan. There were 25 forums held by July 2015. The alliance encouraged local civil society organizations (CSOs) to arrange forums on topics of interest and worked closely with them to raise the level of deliberation from specific topics to constitutional reform. Since many forums were organized by CSOs themselves, many

participants were the stakeholders of the discussed topics and familiar with the relevant issues. In addition to the Grassroots Forums, the alliance also held training workshops for the moderators of deliberation.

The forum started with experts introducing the issues so that participants had a basic understanding. Then the discussion went in two rounds with Occupy movement hand signals. In round one, participants were invited to present their arguments and, in round two, they were asked to draw conclusions, sometimes in groups. The meeting minutes and videos are all open online [3].

However, sometimes it was difficult to draw conclusions in round two. In addition, though the events were called Grassroots Forums, the issues and form of discussion were not really grassroots. Therefore, the challenge was how to translate complex and abstract concepts into something simpler so as to lower the threshold of participation.

### Rapid Changes in the Society

In 2015, the drive for change in the society quickly died down. The Civil Movement for Constitutional Reform became a lobby group for constitution amendment. It also proposed a new procedure of constitutional reform, which incorporates the "bottom-up," deliberative approach [4]. The original goal, "Citizen Participation x Constitutional Reform," was not achieved, but a group of moderators supporting deliberation was cultivated thanks to the hard work of the Civil Movement for Constitutional Reform. This makes future experiments of citizen participation possible. While the Grassroots Forums were highly experimental, they have empowered civil society and encouraged the following experiments on citizen participation.

## Blulu Analysis

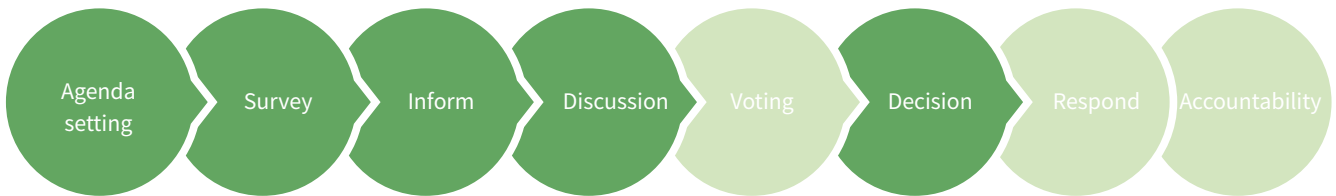
### I. Stage of Policy-making → Problem Analysis

The Civil Movement for Constitutional Reform planned to use the Grassroots Forums as a platform to collect and organize issues regarding constitutional reform. According to Blulu Train A, the forums were held at the problem analysis stage of constitutional reform.



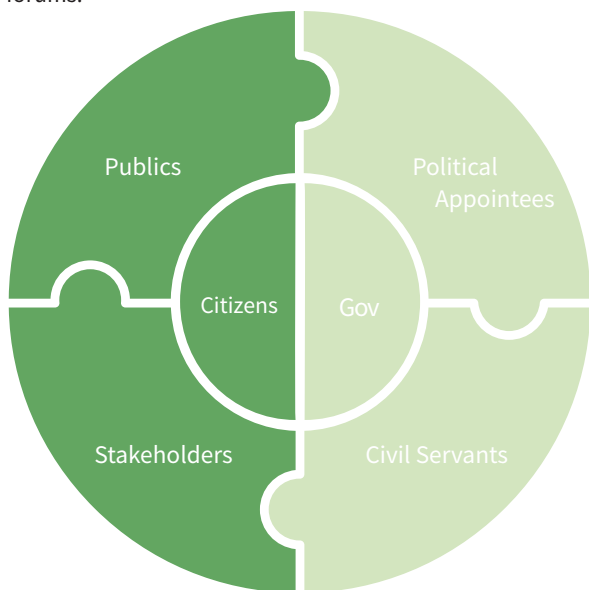
### II. Quality of Deliberation

The agendas of Grassroots Forums were set by CSOs with the help of the Civil Movement for Constitutional Reform. The CSOs' views were taken into account during research and survey and participants were informed by experts' introduction on the issues. However, since the forums were initiated by civil society and not institutionalized, the organizers could not move to government response and accountability.



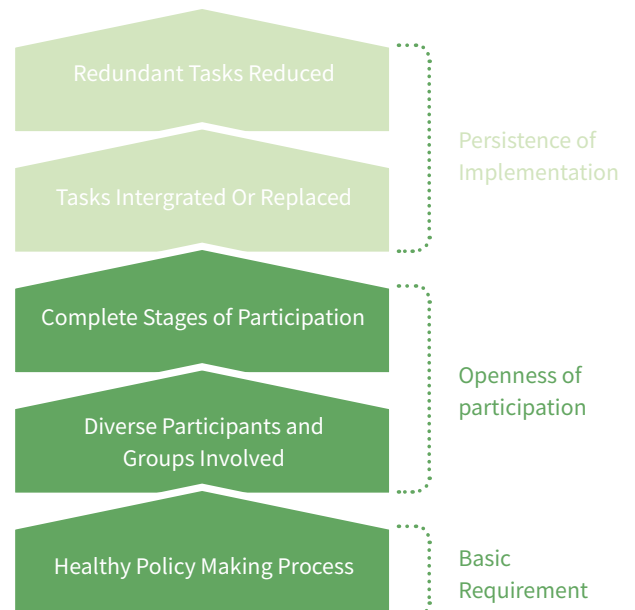
### III. Participants → No Civil Servants

The Grassroots Forums were organized by CSOs and were open to citizens and, when on specific issues, private stakeholders, but no civil servants participated in the forums.



### IV. Level of Openness → High, but It Was not a Legal Procedure

The Civil Movement for Constitutional Reform was relatively open as it was initiated by CSOs and various stakeholders were invited. However, since it was not legalized, the results were not implemented and thus impossible to be evaluated.



# 3-3 Case Study: Youth World Café

- Feature: failure of citizen participation on specific issues
- Method: World Café
- Digital utilization: open meeting minutes online

### Broaden Participation in the National Conference on Trade and Economic Affairs

After the 2014 Sunflower Movement, the Executive Yuan convened the National Conference on Trade and Economic Affairs. However, the agenda setting of the conference failed to meet society's expectations, and it was criticized for not being open enough to citizen participation. As a response to the criticism, the Executive Yuan organized a Youth World Café to diversify channels of participation.

The World Café lasted a full day. Forty young people, who were selected by the organizer, discussed two main topics, "Taiwan's Economic Development Strategy under Globalization" and "Strategy for Taiwan to Participate in Regional Economic & Trade Integration and for Cross-Strait Economic & Trade Affairs." They were divided into 8 groups. Four groups focused on the first topic and the other four focused on the second. The moderator at each group guided the participants to discuss the chosen topic and then came to conclusions. During the process, participants "switched tables" four times to mix with other participants. At the end, the participants voted on the proposals and the top three of each topic were the conclusions of the World Café. Two participants were then elected as the representatives to speak at the National Conference (National Development Council, 2014).

### Is Divided Participation Real Participation?

The biggest problem with this World Café is the fact that these young participants were separated from those attending the National Conference. Since the purpose was to increase youth participation in the National Conference, why didn't the organizer just invite more young people to the National Conference? In addition, the World Café could not meet the goal of facilitating dialogue between young citizens and the government since no government officials attended the discussion.

The participants' representativeness was also called into question. The National Conference originated from the controversy over the cross-strait trade and economic affairs aroused by the Sunflower Movement, yet no protesters of the movement was invited to attend the World Café. The World Café was therefore criticized to be an act of patronization (Tseng, 2014).

However, one of the proposals from the World Café was later turned into an online petition and citizen participation website, the Join platform, in 2015.

**Blulu Analysis**

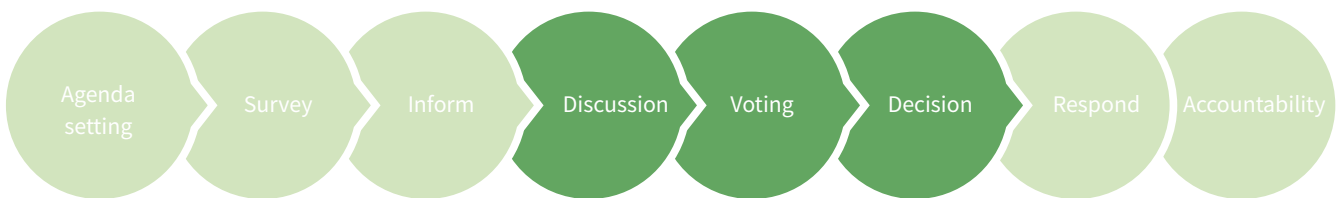
**I. Stage of Policy-making → Legislation**

The National Conference on Trade and Economic Affairs was convened because of the Sunflower Movement, which occurred during the legalization process of the Cross-Strait Service Trade Agreement (CSSTA).



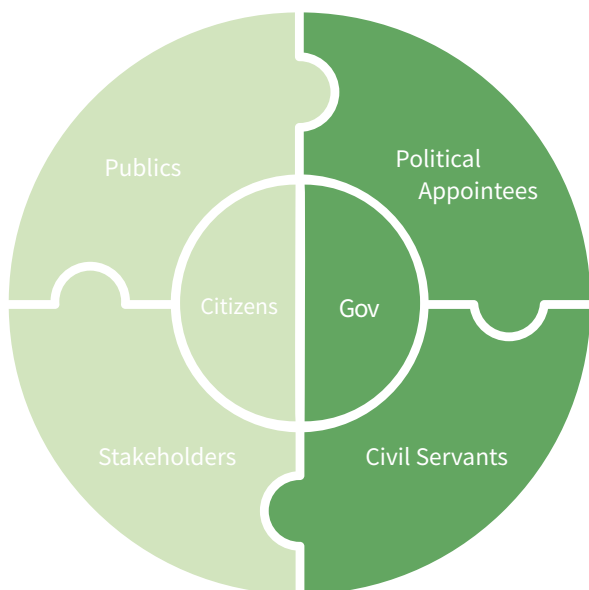
**II. Quality of Deliberation**

The agenda setting, research, and survey of the Word Café were all conducted by the Executive Yuan. There were project reports and presentations during the process, but they failed to achieve open participation and make participants fully informed. There were discussion and voting during the process and the Executive Yuan promised to make modifications accordingly and follow up on the progress of the modifications [5].



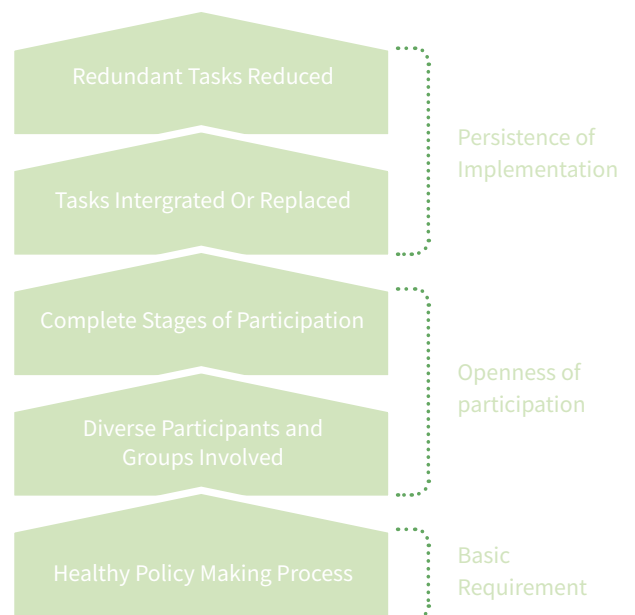
**III. Participants → Not All Stakeholders Were Invited**

Both political appointees and civil servants attended the National Conference. However, since the entry was on invitation basis, the conference was not open to citizens, and the topics were too big to invite all stakeholders.



**VI. Level of Openness → Low**

The National Conference can be thought of as a crisis management mechanism that only occurs when there is a major policy to be made. It is not a normal procedure for decision-making. The quality of participation is rather low due to the fact that participants are limited and that the stages of participation are far from comprehensive.



# 3-4 Case Study: Feiyan New Village

- **Feature:** citizen participation on a specific issue with a relatively complete procedure
- **Method:** scenario workshop and Rural-Urban Forum
- **Digital utilization:** meeting minutes, relevant information and live streaming of meetings were all released on one website

### Feiyan New Village Urban Renewal Project

In 2010, Feiyan New Village, which covers 3.52 hectares in Tainan City, was selected to conduct urban renewal. In 2013, Farglory Land Development Co. won the bid to execute the project in Feiyan New Village and planned to build eleven skyscrapers. However, the development plan was protested by the locals because it would destroy large pieces of greenland and the Lioujiading Archeological Site, which was unearthed during the land survey.

Generally, before an urban renewal project is carried out, it has to go through reviews of several committees, which include the "Urban Renewal Committee," the "Transportation Impact Committee," the "Urban Design Committee," and the "Cultural Asset Committee." However, the plan evoked strong protests from local citizens and the Tainan City Government was promoting open government at the time. Therefore, in 2015, the City Government decided to put the development plan to open decision-making through "Scenario Workshops" and the "Rural-Urban Forum."

### Scenario Workshop—Stakeholders and the City Government Clarified the Issue, Collected and Organized Information

The scenario workshops were organized by a task force formed by different bureaus of Tainan City Government, experts and scholars, representatives from CSOs, Farglory and local residents. There were three workshops focused on "protection for trees within the development area," "impact of development volume on the region," and "reuse of archeological site and monuments" separately. The purpose of the scenario workshops was to have stakeholders talk about the issue and develop future scenarios through dialogue and to propose corresponding action plans. Through this process, scenarios were turned into work principles that would eventually become guidelines of the City Government.

### Rural-Urban Forum—Citizen Group Discussion

The 108 participants of the Rural-Urban Forum were randomly selected from Tainan residents. In the forum, they were divided into 12 groups. Their discussion was led by the trained moderator at each table. After three rounds of discussion, the participants were asked to fill out a questionnaire, which served as a reference for the City Government. At the end of the forum, there was also an open discussion for all participants to share their views freely.

However, the scenario workshops and the Rural-Urban Forum could not replace the original legal process. The development plan still had to pass the review of all committees to be finalized. Considering the opinions collected in the forum, over half of the committee members held the view that the cultural heritage in Feiyan New Village should be "kept in full." As a result, the project proposed by Farglory was suspended.

### Which Issues Can Be Opened?

In the case of Feiyan New Village, the strong support and effort from Tseng Shu-cheng, then the Deputy Mayor, accelerated cross-bureau integration. His participation in social movements helped him gain the trust of the CSOs and made the dialogue among the City Government, the developer, and the CSOs possible.

It can be observed that the practice is a new model of citizen participation which still highly relies on the political will of the political leader. This deliberation had a complete procedure and actual political impact, and therefore, is a significant case of citizen participation in Taiwan.

However, this case also reveals the importance of agenda setting. Unlike the case of Feiyan New Village, another controversial development project in Tainan City, the underground railway construction project, was not opened for citizen participation. This shows that the City Government still places a tight grip on which issues can be "opened."

How to include citizen participation into existing institutions is another key issue. In this case, citizens' views were brought into the legal framework through the committees. Therefore, the final decision was in fact still made by committees with more than half of its members coming from the government.

### I. Stage of Policy-making → Planning

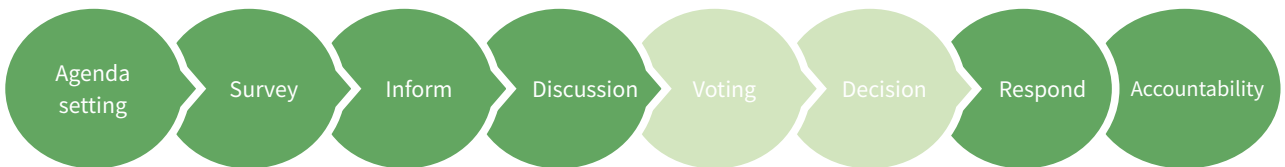
In the Feiyan New Village urban renewal project, citizen participation was initiated before the development plan went into the legal process, so it was carried out during the policy planning phase.



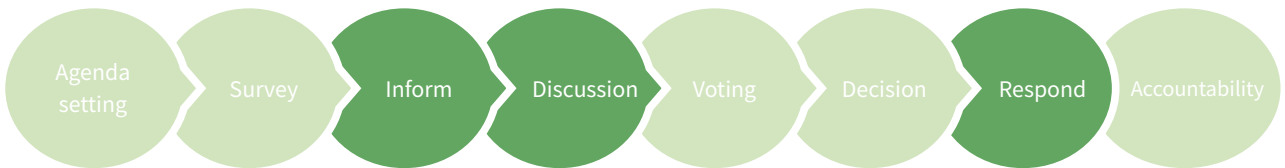
### II. Quality of Deliberation

The agendas of scenario workshops and the Rural-Urban Forum were confirmed by the workshop team and the participants conducted research and surveys on the issue at hand. The City Government also provided sufficient information and officials were on site to respond quickly and to appoint relevant units to take up responsibility, achieving accountability. In the Rural-Urban Forum, the discussion and research materials from the scenario workshops were presented in the forum manual to make participants informed and the discussion in the forum served as a reference for the City Government in decision-making.

#### ► The agendas of scenario workshops

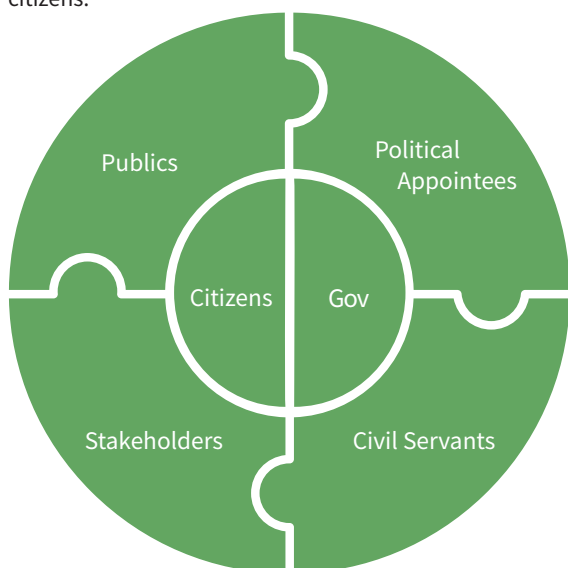


#### ► Rural-Urban Forum



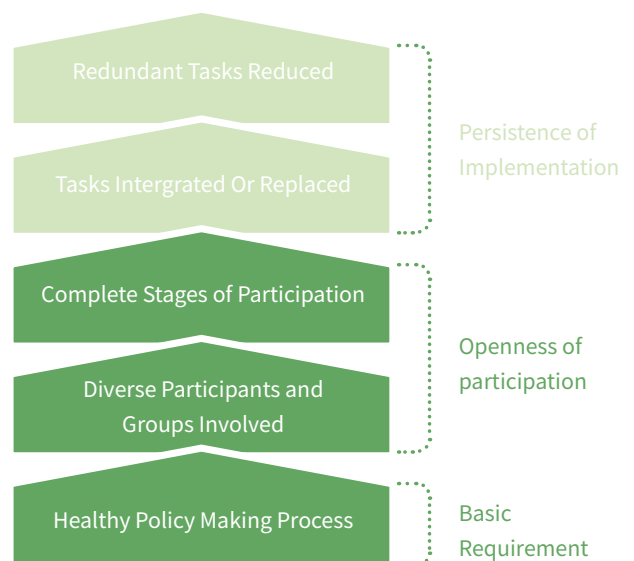
### III. Participants → Citizens and Government Representatives

The participants of the scenario workshops included appointed officials, civil servants, and stakeholders while in the Rural-Urban Forum, in addition to the three types of participants mentioned, there were also the chosen citizens.



### IV. Level of Openness → Lack Policy Continuity as It Was Only on One Issue

From the above analysis, it can be observed that the participation in the Feiyan New Village case had a rather good procedure and high level of openness. However, this case was specially chosen by the City Government to practice citizen participation and did not kick off an overall mechanism.



# 3-5 Case Study: Taipei City's i-Voting

- Feature: the first electronic voting system in Taiwan
- Method: local referendum in electronic and physical forms
- Digital utilization: electronic voting system, meetings were recorded on one platform

## Directions for Developing Shezidao

Open government and the i-Voting system were political promises made by Ko Wen-je during his campaign for Taipei City Mayor. After he took office, he immediately had the i-Voting website built. Among the proposals on i-Voting, we chose the most controversial and influential Shezidao case to have a closer look at the system.

Shezidao is situated in Shilin District, Taipei City. In 1970, Shezidao was classified as a flood area, and therefore, a "restricted development area". Construction was either prohibited or limited and so was the development of Shezidao. The buildings and infrastructure later became obsolete and development lagged behind. Past Taipei City Mayors tried to solve the issue, but no attempt was successful due to environmental protection reasons. After Ko took office, he proposed to let citizens make the decision through the i-Voting platform in order to fix this longstanding problem.

Three solutions were proposed by Taipei City Government: "Canal Shezidao," "Eco-Shezidao," and "Our Shezidao." There were two votes: one was for Shezidao residents to choose their favorite solution; the other was open to all Taipei City residents. In addition to online voting, there were also ballot boxes set up in Shezidao.

## Does Voting Represent Democracy

This case was highly controversial because all three solutions were proposed by the City Government and local citizens were not invited to express opinions on possible solutions. Moreover, there was no clear plan addressing citizens' main concerns, the compensation for relocation and the support for resettling. Therefore, people were worried they would become homeless when the development begins. After Shezidao citizens protested and even threatened not to vote, the City Government added a "No Development" option, which only created even bigger conflict. Many residents felt cheated and, in the end, the voting rate was only 35%. "Eco-Shezidao" won the vote and the development project was sent to the Urban Design Review Committee.

The Shezidao case revealed the flaws of the i-Voting system. This online voting system does not support deliberation or discussion. Citizen participation is not included in the stages of proposing solutions and final policy-making. It merely happens in voting. An urban planning project like the Shezidao case has to go through a number of different committees and procedures. All these procedures will affect how the project is revised, so it is significant to have citizens participate in all stages [6].

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### i-Voting System

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The i-Voting is an electronic voting system for deciding public issues in Taipei. The proposals on the i-Voting platform can be either from administrative departments or from citizens. However, the procedure to propose a vote is comparatively difficult for citizens than for departments. As a result, until the end to 2016, there were only 10 proposals and all were put forward by administrative departments.

## Blulu Analysis

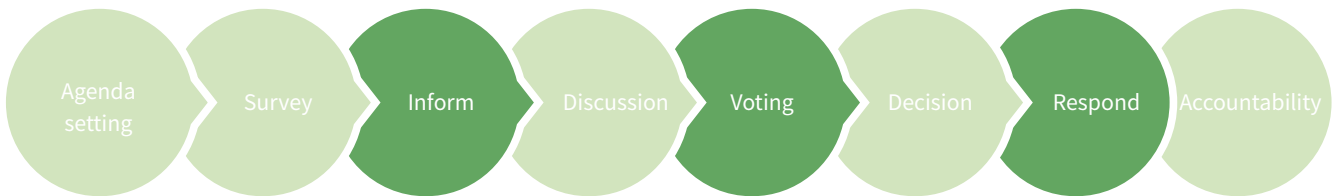
### I. Stage of Policy-making → Planning

Citizens participated at the planning stage before the urban planning project went into legal procedures.



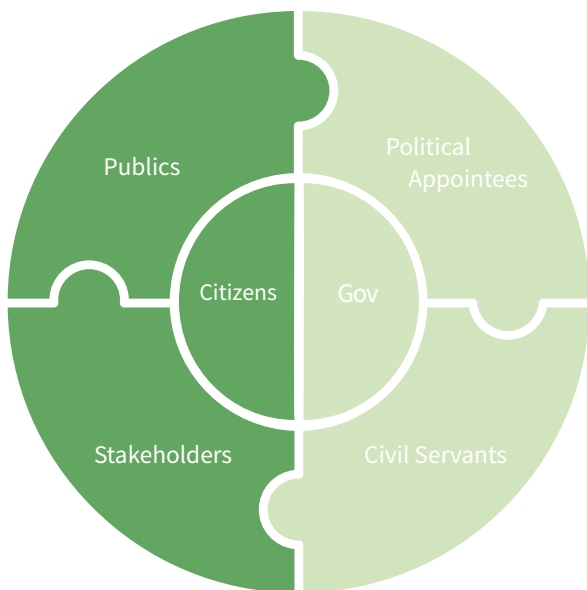
### II. Quality of Deliberation

The agenda setting, research and survey of the solutions on the i-Voting in the Shezidao case were conducted by the City Government. Although participants were informed, there was no discussion in the process. Also, the project that won the vote was not the final decision because of the possible revisions by various committees.



### III. Participants → Lacked Dialogue

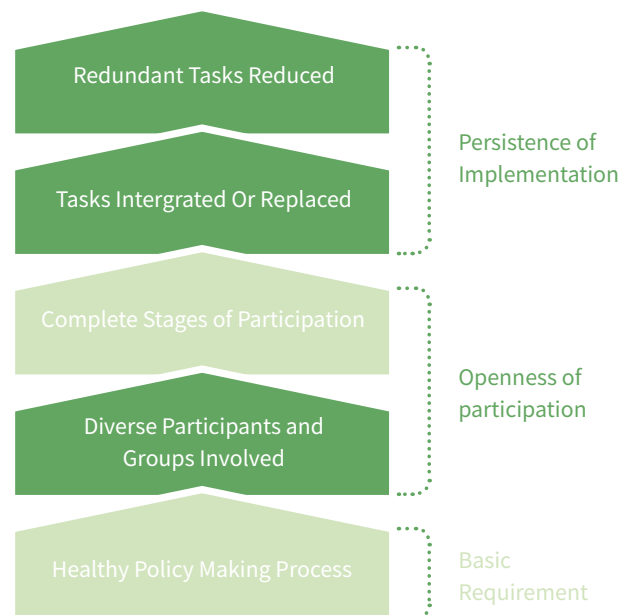
Even though local residents and Taipei citizens both can vote, there was no dialogue between citizens and the government.



### IV. Level of Openness →

#### Not a Healthy Process but It Has Policy Continuity

The i-Voting system is not a very healthy process of citizen participation. Its design lacks room for public discussion and its agenda setting is not truly open, which can be seen in the Shezidao case. However, as the system is backed by an administrative order, it is expected that it will have policy continuity.





# 3-6 Case Study: The Join Platform

- **Feature:** the first public policy discussion platform in Taiwan
- **Method:** provide policy suggestion on an online platform
- **Digital utilization:** online platform

## The Join Platform

As one of the conclusions of the National Conference on Trade and Economic Affairs, the Join Platform was set up by the National Development Council (NDC) in 2015 to encourage online citizen participation. It took reference from the White House website, We the People [7]. The platform serves as a channel of revealing policy information and enhancing citizen participation in public affairs on a regular basis.

There are four functions on the Join platform: "Propose an Idea" (by citizens), "Have a Discussion" (consultation before a policy is formed), "Let's Oversee" (key policies), and "Talk to the Ministers" (links to mailboxes of Ministers for citizens to express their views). Through the Join platform, citizens can make policy proposals online and the responsible agency is bound to respond openly and in detail on the platform within two months.

## Fast and Convenient but Difficult to Have a Discussion

The Join platform is a convenient and easy-to-use platform with a very low threshold of participation. A citizen can easily make a proposal after passing mobile phone or email validation. As a result, the platform is widely used. Proposals on the platforms have real political impact, especially on the cases that draw public attention. Till now, 71 proposals have become official cases. Since the platform is backed by an administrative order, people can hold relevant agencies accountable and are guaranteed a concrete response.

However, the current design makes it difficult to have a meaningful "discussion." A seconder can enter his or her opinion, but the opinion is merely for reference and there is no discussion area on the proposal page. Also, even though the responsible agency has to respond within the timeline, there is no mechanism for follow-up oversight or discussion on the platform. Whether a proposal comes to a conclusion or not, the case seems to be closed and participation stops after a response is given.



### Proposals on the Join Platform

All proposals on the Join Platform have to go through two stages of petition. There has to be 250 signatures in 15 days at the first stage and 5000 signatures in 30 days at the second stage for a proposal to become a case. After that, the responsible agency has to give a response in two months. The agency can hold consultation meetings and invite the proposer to attend. All of the meeting materials has to be open on the platform.

## Blulu Analysis

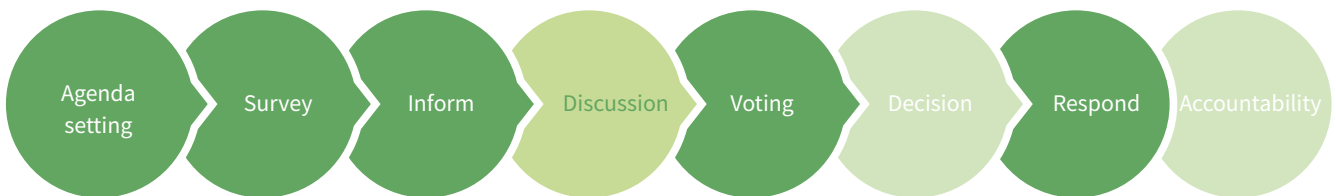
### I. Stage of Policy-making → Problem Analysis

The Join platform enables citizens to have a voice on policy directions, so they participated at the problem analysis stage



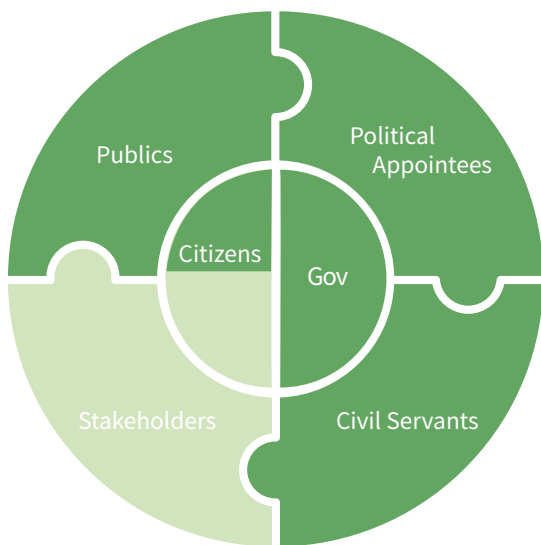
### II. Quality of Deliberation

The agenda setting, research, and survey of proposals on the Join platform are all conducted by the person proposing the policy. Since they only need to provide the reason for proposing the item, it cannot be certain whether they are well informed. The petition process is practically an open, lax, single-option vote. As the responsible agency is only required to give a response, it is difficult to achieve accountability.



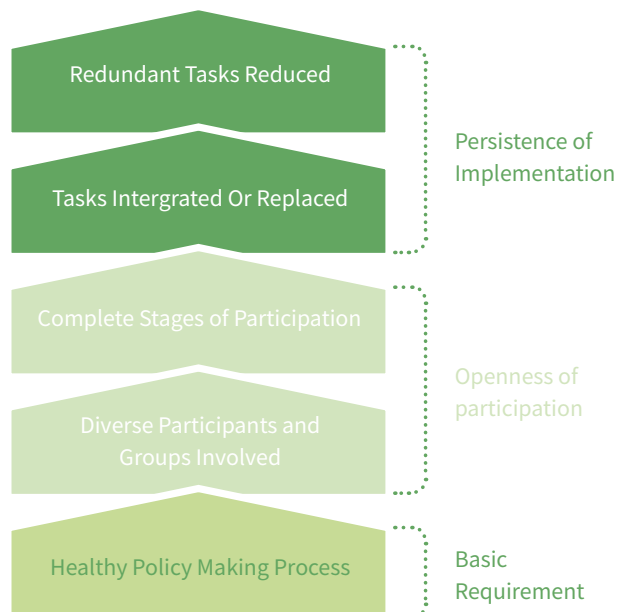
### III. Participants → Hard to Tell

The Join platform is open to all citizens. It does not put any special weight on stakeholders.



### IV. Level of Openness → Not All Stages Are Open for Participation, Good Prospect of Policy Continuity

The Join platform is simply a petition platform. While it can stimulate public attention on the issue at hand, whether later stages of policy-making are open depends on the responsible agency. Still, since the platform is supported by an administrative order, its prospect of policy continuity is comparatively good.



# 3-7 Case Study: Participatory Budgeting

Compared to other forms of citizen participation, PB is a relatively complex and highly experimental process. PB has become an international trend. In Taiwan, PB was one of Ko Wen-je's key political promises in the 2014 election for the Taipei City Mayor. Since then, many city mayors and county magistrates have seen PB as an important political promise. Currently, PB is mostly practiced at the local government level.



## Participatory Budgeting

Participatory Budgeting (PB) started in Porto Alegre, Brazil in 1988. The elected Workers' Party Mayor wanted to reprioritize City Government Budgets so he invited local communities to decide the priority of part of the public spending. Generally speaking, PB is a process in which representatives of the local communities and residents discuss and make proposals, which are later put to vote. PB has spread across the world. More than 1,500 cities and communities have practiced or are practicing PB.

### Taipei City: Administration Driven

- Feature: administration driven
- Method: five stages, which are promotion, proposal & review, budget evaluation, budget review, city council oversight
- Digital utilization: using an internet platform to organize proposals and information on workshops [8]

### PB Driven by Administrative Units

Taipei City is the pioneer of PB in Taiwan. After Mayor Ko made the promise in 2014, Taipei started to hold training workshops and set up a series of procedures before implementing PB in 2016. PB was implemented by administrative units in the Taipei City Government. There were five stages in the process—promotion, proposal & review, budget evaluation, budget review, and city council oversight.

The Department of Civil Affairs under the City Government is responsible for PB projects. The Department partnered up with nine universities and three community colleges, each taking on an administrative district to facilitate PB collaboration. If the winning proposal can be included in the year's annual budget, it is reported to the Citizen Participation Committee, implemented by the department concerned, and overseen as well as evaluated by the Research, Development and Evaluation Commission to achieve accountability. Otherwise, the proposal will be included in next year's budget and reported to the City Council by the Mayor.

### High Administrative Costs

The first round of PB projects in Taipei took massive administrative costs and government manpower. The roles the Citizen Participation Committee and the university partners played were rather burdensome. In these first attempts, because the partners practiced PB in different ways, the forms of proposal and review in each district were different as well.

Many winning proposals were later rejected by the responsible departments due to compliance or feasibility issues. This had led to doubts on the "openness" of Taipei's PB. The root cause of the problem was that the departments did not participate in the early stage of proposal making. Also, since PB was driven by the City Government, the Taipei City Council felt much pressure from budgeting and oversight. Some city councillors argued that they should have the power to "reject, cancel, or cut" budgets of PB proposals that passed citizen deliberation and even said that PB "made representative democracy immoral." [9]

## ■ New Taipei City: Councillor Discretionary Fund and Themed PB

- Feature: councillor discretionary fund allocation
- Method: a village chief was tasked by the councillor to conduct PB
- Digital utilization: one unified platform recording all PB projects in New Taipei City

### ■ Councillor Discretionary Fund Allocation

The first attempt of PB in New Taipei City was initiated by councillor Chen Yi-chun. She took the example of the "Chicago Model" from the US and utilized her discretionary fund to conduct PB in Dagan Village with the assistance of the village chief. Through proposal making, committee review, and voting, there were three winning proposals at the end.

The Dagan Village case was small scale and was pushed forward by a councillor, so the coordination with administrative departments went rather smoothly. However, there was no oversight in the process and one of the three proposals has not been implemented. Also, since it was the village chief that mobilized residents to participate, some suspected that the chief was using PB to solidify his own position.



#### The Chicago Model

The first PB practice in the US was in Chicago City. An alderman of Chicago City has about USD 1.32 million of discretionary fund per year which can only be used on infrastructure. The allocation of the fund is completely at the alderman's discretion. In 2007, Alderman Joe Moore practiced PB in his ward to allocate his discretionary fund for the first time. Now, there are also PB projects in New York City initiated by aldermen working with local communities and NPOs. There are currently 24 aldermen supporting PB in New York City.

### ■ Themed PB Conducted by Commissioned Community College

- **Feature:** PB on a designated fund
- **Method:** the government commissioned a community college to conduct PB
- **Digital utilization:** one unified platform recording all PB projects in New Taipei City

Apart from the case of the city councillor initiating PB in 2015, the Economic Development Department of New Taipei City Government also commissioned Ludi Community College to implement PB on an energy conservation fund in Ludi.

The process was rather comprehensive. It included seminars, a proposal workshop, a deliberation workshop, a finalization workshop and a voting fair. There were six seminars targeting six groups of people who potentially had a stake in energy conservation. Knowing the possibility that existing organizations might mobilize supporters to take over PB, the College had multiple small-scale promotions on the street to invite more people to attend the seminars. There were different energy conservation lessons in each seminar and proposal sheets were handed out to collect ideas. After the seminars, counsellors contacted the attendees and encouraged them to continue participation.

The counsellors then invited those who handed in the sheet to participate in the proposal workshop to develop more detailed plans, empowering and supporting the citizens or teams to make a proposal. The proposal plans were presented by its proposer to citizens in the deliberation workshop, in which the plans were deliberated in small groups and then revised.

Officials from relevant departments then provided budgeting and feasibility suggestions to the revised plans in the finalization workshop. Negotiation and text revision between the two parties were done on site. The final proposals were voted in the voting fair and there was the option to vote down on the ballots.

#### Focus on Empowerment

Compared to other PB cases, the process of the energy conservation PB focused on the "empowerment" of the local community. It was designed to lower the threshold of participation as much as possible. Ludi Community College also put efforts into reaching people who were not frequently mobilized by local political powers. Moreover, the process was designed to increase local proposers' confidence and competence.

The intermediary or the organizer played a very important role. PB not only empowered the citizens but stimulated the development of the local community. However, the task of the College was finished after the proposals were selected and sent to the government. It was a shame that citizens participation stopped after the government department took over.

## ■ Taichung City: Outsourcing PB

- **Feature:** outsource PB through bidding
- **Method:** the Taichung City Government commissioned a CSO to implement PB
- **Digital utilization:** Taichung digital platform and an online proposal map

PB began in Taichung City after its announcement by Mayor Lin Chia-lung in 2015. The Taichung City Government outsourced PB to a local CSO. A project office ran by the CSO was then set up and the Department of Civic Affairs was its staff unit. Therefore, the relationship between the executor of PB and the City Government was vendor to client.

Taichung's PB included four stages, "Brainstorming," "Deliberation & Project Development," "i-Voting," and "Implementation & Monitoring." PB was first promoted in public spaces in district offices, then in public info sessions as well as living room info sessions. There were five main target groups: individual citizens, community building organizations, schools and community colleges, social welfare groups, and village chiefs & neighbourhood wardens. These five groups were invited to come in groups while interested individuals were given a living room info session. A neighbourhood assembly was held next, in which participants discussed proposals through deliberation and form action plans with the ladder method. In the assembly, there was an innovative session called Lottery Marketplace for each team to further discuss the action plans. After the plans were formed, the City Government invited relevant departments and experts to each district to meet with proposers and provide suggestions on laws and regulations, feasibility, and reasonable budgeting.

### ▮ PB by a Vendor

Taichung citizens voted in the PB project with physical ballots. On the voting day, citizens participated in deliberation in small groups on the street and gave their votes, similar to the D-Street in the Sunflower Movement. However, since the PB was carried out by a "vendor," the vendor could not fully cover the following oversight & evaluation and the communication between departments and proposing citizens.

In Taiwan, the implementation of PB highly relies on the political will of mayors or magistrates. This is especially true when there is a need for cross-department coordination. In this case, it was a big challenge for the CSO "vendor" to coordinate between departments without the political support from a high-ranking official. Also, Taichung's PB was outsourced and the operation office was not a regular unit. The corresponding civil servants were not well trained and a PB mechanism inside the bureaucracy was not created.

In addition, the Taichung City Government did not allocate a dedicated budget for implementing PB proposals, and the budgets came from the departments. Worried that PB would limit the funds for other projects, the departments were conservative and hesitant to implement PB. This stretched the vendor's operational fund as well.

PB in Taichung heavily relied on local powers, such as village chiefs and councillors, for promotion. Some of these leaders stepped outside their original roles and helped with explanation, oversight, and coordination, some mobilized supporters to pass proposals that met their interests, and still others were opposed to PB.

### 3-8 Difficulties and Challenges

From the above cases, it is obvious that citizen participation in Taiwan has been practiced mostly in experimental, individual cases. A few of them were implemented with administrative orders, such as the Join platform and i-Voting. Some citizen participation models are being normalized or institutionalized, such as PB in Taipei City and in Taichung City. However, is institutionalization the answer to current challenges of citizen participation?

Successful citizen participation usually lies in the political will of the political leader in Taiwan. Also, agenda setting, choice of issues, citizen's right of initiative play critical roles. That is to say, the political leader cannot only open the issues he or she considers "suitable to be handled through open citizen participation," but should also give citizens the power to decide "which issues should be opened for participation."

The mechanism and process of citizen participation is a significant factor of quality participation. The government should really put more focus on empowering civil servants, including stakeholders in the discussion, deciding who the stakeholders are, the interaction among agencies, ministers, and stakeholders, and most importantly, decision-making methods as well as true accountability. To achieve all these, political leaders must first understand the value of citizen participation to the administrative system.

Also, to expand participation, complex concepts need to be simplified, but this may lower the quality of discussion. Therefore, practitioners have to strike a balance between lowering the threshold of participation and processing complex but important issues. Intermediaries play an important role in simplifying complicated topics. In some of the cases, it was done by a CSO or by a community college. However, mutual understanding and close cooperation between these intermediaries and the government is still a challenge for both sides.

In the cases discussed so far, digital utilization did not play a big role. In most PB projects, websites were simply used as platforms to collect and organize information and live streaming was used to expand participation. However, we also saw many attempts of active digital utilization. For example, the Taipei City Government attempts to include electronic voting in its PB and the Taichung City Government is trying to visualize PB with a proposal map.

**Note**

[1] Blulu Metrics were co-authored by Lu Chia-hua and ET Blue and licensed under a Creative Commons — Attribution-NonCommercial 4.0 International License (refer to <https://Blulu.tw>).

[2] Article 12 of Additional Articles of the Constitution of the Republic of China: Amendment of the Constitution or alteration of the national territory shall be initiated upon the proposal of one-fourth of the total members of the Legislative Yuan, passed by at least three-fourths of the members present at a meeting attended by at least three-fourths of the total members of the Legislative Yuan, and sanctioned by electors in the free area of the Republic of China at a referendum held upon expiration of a six-month period of public announcement of the proposal, wherein the number of valid votes in favor exceeds one-half of the total number of electors.

[3] For the meeting minutes of Grassroots Forums, refer to: [http://www.new-tw.org/p/blog-page\\_20.html](http://www.new-tw.org/p/blog-page_20.html)

[4] After intensive study sessions and discussion, the Civil Movement for Constitutional Reform finally finished drafting the "Procedure Law of Citizen Participation and Constitutional Reform." It proposes to replace the Constitution Amendment Committee of the Legislative Yuan with the Civic Constitutional Convention to give citizen participation a larger role. After it was sponsored by young legislators in multiple parties in 2016, it has been stuck at first reading.

[5] "Effect of the NDC's Implementation of the Conclusions of the National Conference on Trade and Economic Affairs": [http://www.ndc.gov.tw/Content\\_NoList.aspx?n=F3C4CDB291314363](http://www.ndc.gov.tw/Content_NoList.aspx?n=F3C4CDB291314363)

[6] Regarding the controversy, the Taipei City Government proposed a new process in April 2017. (<https://ivoting.taipei/i-voting>)

[7] <https://petitions.whitehouse.gov/>

[8] An electronic voting system will be used to vote on proposals in 2017

[9] Taipei City Councillor Said Participatory Budgeting Cannot Reflect Public Opinion, Budgets Suspended": <http://news.ltn.com.tw/news/life/breakingnews/1902083>



# 4

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## Collaborative Relationships in Civic Tech





## Key Findings

▶ **People are the key factor in the current development of civic tech**

In the face of inadequate systems, civic tech collaboration requires effort from people in a variety of roles: leaders must contribute political support, mediators must engage in communication and coordination, and the collaborating parties must share goals and values and be willing to learn each other's language and culture.

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▶ **Civic tech emphasizes equality, mutual benefit, and an open approach to power and relationships**

The goal of civic tech is to establish equal and mutually beneficial collaborative relationships, not to provide IT services for free. As the collaborating parties identify problems and streamline processes together, civic tech provides not only open tools and mechanisms, but also an open approach to power and relationships in the interaction process.

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▶ **Governments must re-think their approach to governance and shift first toward "small government" and finally toward "open government"**

Civic tech goes beyond the traditional top-down model of bureaucratic governance, emphasizing a network of horizontal connections that transforms the government from a ruler to an open collaborator. This transformation enables a shift from big government toward small government, and finally toward open government.

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▶ **Future challenges: How can both old and new mechanisms and systems be integrated?**

Thus far, civic tech collaboration in Taiwan has been limited to single ad-hoc cases. With no institutionalized model for co-operation, the scale of influence remains limited. There are also no clear rules on where the responsibility for operational maintenance lies, and who is ultimately accountable. How systems and processes created by civic tech can be integrated into existing mechanisms is currently a major challenge.

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▶ **Future challenges: How can a mature civic tech ecosystem be established?**

Taiwan urgently needs a civic tech ecosystem that incorporates governments, communities, and corporations, instead of relying on the efforts and networks of a few, in order to expand the scale and influence of civic tech.

# 4-1 Civic tech: A New Possibility for Public-Private Collaboration

This chapter will explore civic tech collaboration as a new approach through a variety of case studies. We define civic tech as the use of digital technology on the basis of open data and citizen participation to transform government services, optimize administrative processes, and enable participation in government operations. Civic tech represents a break from the idea of "social contract", in which the people vest power in the government to rule and manage society unilaterally; it is a rethinking of the interaction of power between the government and the people, and a practical exploration of new possibilities in public-private collaboration.

Public-private collaboration is not something new to our time. The idea of public-private partnerships (PPP) emerged in the 1990s, though even today academics are still divided over its precise definition. Broadly, the term PPP refers to cooperative relationships between organizations in the public and private sector, whether codified in formal contracts or spontaneously arising from shared values. Chen and Zhang (2010) pointed out that PPP participants create a high level of trust through frequent interaction, and share resources, goals, and values, thereby establishing "collaborative networks." In this chapter, our conception of public-private collaboration emphasizes civic tech collaboration created through collaborative networks between government agencies and communities or individuals. Unlike traditional PPPs, which usually refer to large-scale cooperation between governments and corporations (e.g. through the Build-Operate-Transfer model), civic tech introduces new models and cultural ideas and practices through small-scale and diverse interactions with governments.

This chapter provides four case studies using in-depth interviews as the main source. We explore their respective backgrounds, problems to be solved, collaboration models, challenges faced, and possible future effects. We focus on three important facets of each case in particular (see Chen and Zhang, 2010): (1) Whether the parties are equals in the power relationship, and whether they share resources, information, goals, and values; (2) Whether the collaboration process maintains an appropriate balance between collective goals and individual interests; and (3) How the participants use their social capital to create a network and build relationships of mutual trust.

We have seen impressive examples of civic tech in action over the past three years. Civic tech has provided aid during emergencies,

improved administrative processes across organizations, opened up new channels for deliberation on important issues for the digital age, and promoting participation in environmental causes through citizen science initiatives. In Taiwan, however, civic tech collaboration remains experimental. Civic tech has mitigated the administrative inefficiencies brought on by inflexible IT procurement rules, while avoiding the problems of collusion and corruption that traditional PPP models risk.

And yet, large-scale influence remains elusive for civic tech in Taiwan due to a lack of mature business models and systemic integration into existing government operations. Our intent in discussing civic tech in this final chapter is to invite the reader to join us in thinking to the future, in addition to looking back on the developments of the past three years. What is the potential of civic tech in comparison to other possible approaches for a future governance model? What are the challenges that must be faced before civic tech can become truly influential?

## 4-2

### Donation Maps and Victim Identification: Civic Tech in Emergencies

- Case: Patient search systems, maps of donated goods, and digital identification of victims
- Problem statement: In an emergency, needs cannot be filled through traditional procurement processes.
- Government collaborator(s): Taipei City Department of Information Technology and Department of Social Welfare
- Civil society collaborator(s): Online volunteers and g0v participants

## An Explosion Results in Taipei's First Civic Tech Collaboration

A dust explosion at the Formosa Fun Coast Amusement Park during a "color party" event on June 27, 2015 shocked Taiwanese society, and sparked the first example of public-private collaboration between the government of Taipei City and its tech communities. Taipei City Hall was overwhelmed with phone calls as staff attention was focused on disaster relief work, and an online platform for searching for victim information was proposed. However, the city's Department of Information Technology had no open-ended contract in place to acquire temporary workers or equipment in emergencies, and regular procurement processes could not work quickly enough for this need. The City Government therefore requested aid from the communities.

With this request for aid, City Hall and the community began to work together. Tech community member TonyQ first converted the list of casualties into a structured dataset and published it online. Two hours after the data was made public, volunteers across the internet had programmed ten different systems for searching the data that Taipei City Hall linked to its official website, allowing anxious friends and family to look up the status of injured loved ones.

## Open Source Programs in Disaster Prevention and Relief

After the Formosa Fun Coast explosion, Saul Peng twice [1] invited city government agencies and civic tech communities to meetings discussing how to establish relief mechanisms to improve crisis management during a disaster. These two meetings were an opportunity for City Hall staff to forge connections with civic tech communities. Tseng I-hsin and Yu Ting-ting of the Department of Social Welfare even submitted a proposal at a g0v hackathon in December 2015, and began two collaborative projects with the g0v community to help improve disaster relief—donation maps and a digital system to identify victims.

The donation map project created a dynamic management platform for donated goods after a disaster. The idea for the

project was inspired by an in-kind donation collection system designed by Ju Yu-ren and Shih Chia-lin for an effort to recall legislators from the then-ruling KMT party; the project was eventually developed into a submission for a disaster relief application contest. The victim identification system was proposed and developed by Liu Yu-tin in a hackathon. The system is in essence a digital registration system that allows shelters to keep track of victims' movements in a chaotic scene after a disaster, and provides information for family members to find their loved ones.

Ju Yu-ren and Liu Yu-tin, the developers of these two systems, are both members of the g0v community. They are passionate about applying open source technology to public services, not only participating in the development of information search systems for Formosa Fun Coast victims, but also in the discussions convened by Saul Peng. They then volunteered to contribute their IT expertise to Taipei City, helping the city government improve its administrative services.

Throughout the process, from the hackathon to the meetings in City Hall, no contract was signed between the Department of Social Welfare and Ju and Liu, nor was any money exchanged. The Department of Social Welfare provided information and resources, while the community provided the technology. The two parties complemented and trusted each other, and collaborated on accomplishing their common goal. For Ju and Liu, making the system open source was an essential requirement of the collaboration. Only when the system is open source can it be modified and reused by others, making it a long-lasting public good. Open source was an unfamiliar idea for the Department of Social Welfare, but the agency saw that the open source system could help digitalize administrative work, and that such open-source sharing of public services could reduce the workload of government agencies and save on resources that would be expended for developing similar systems from scratch. The agency was therefore happy to accept the open source requirement.

### Bridge Builders Are the Key to Civic Tech Collaboration

Taipei City is uniquely well-suited for developing civic tech collaborations compared to other counties and cities in Taiwan. The political will of its leaders and support of mid-level management ensured that Taipei City's experience in promoting open data and civic participation has been relatively smooth. Taipei is also home to an important cluster of technology communities. Crucially, Taipei City Hall also had staffers who were willing to serve as contact points for community cooperation. Saul Peng and Tseng I-hsin served as important bridge builders within City Hall, skilled at both seeking external assistance as well as internal communication and coordination. Faced with the very different cultures and languages of the government and civic society, these bridge builders are both a buffer between the two sides and an engine for action.

Civic tech collaboration is not just about outsourcing technology. The political will of leaders and the social capital of these bridge builders are essential for integrating civic tech into government operations. However, an over-reliance on a few bridge builders, and the lack of institutionalized procedures and mature collaborative networks, has become a predicament for civic technology collaboration in Taiwan. Once a bridge builder departs from their position, the relationships and trust that have been built up may vanish in the blink of an eye.

# 4-3

## Document Delivery Management System: Using Digital Tools to Improve Administrative Processes

- Case: Official document delivery management system
- Problem statement: Administrative processes are unnecessarily convoluted
- Government collaborator(s): Taipei City Department of Social Welfare
- Civil society collaborator(s): TonyQ

### Reforming Administrative Processes with the Power of Digital Technology

In the previous case, applying civic tech to disaster relief opened up new possibilities beyond traditional IT procurement for governments. However, donation maps and disaster victim identification systems are not IT systems that see everyday use. Reforming overall administrative processes using digital tools and data governance is the next challenge for civic tech.

The previous case mentioned meetings convened by Saul Peng after the Formosa Fun Coast explosion in 2015 that formed connections between Department of Social Welfare (DOSW) staffers and tech communities. Soon after the meetings, Tseng I-hsin of the DOSW shared her troubles with tracking the delivery of official documents on her personal Facebook page. TonyQ, a community member, volunteered to help the DOSW solve this problem with digital technology.

The DOSW is the Taipei City government's largest agency, and is responsible for administering the city's various social welfare systems. After an application for a subsidy is received, the DOSW will mail a physical copy of an official document notifying the applicant of whether the application was

granted. The delivery of the document is tracked using the post office's registered mail system. However, the process is completely non-digital. Staffers must keep track of thousands of physical mail receipts, and identify the receipt involved whenever an appeal is filed regarding a decision. Though this problem seems extremely minor, it nonetheless creates a heavy workload for the department.

TonyQ proposed a simple solution: tracking the delivered documents using a QR code. However, simple solutions often require complicated communication when the government is involved. TonyQ and the collaborating staffers had to visit several offices in the DOSW as well as the Department of Information Technology and Chunghwa Post (Taiwan's official post office) in order to gain an in-depth understanding of how a document is produced, delivered, and the receipt obtained. After understanding the entire process, he had to tackle the problems of incorporating the new tool into existing systems. For TonyQ, civic tech collaboration is "especially for those solutions that are too small to receive the resources to open a formal bid, but have the potential to solve critical problems." This case created an example for digitalizing administrative processes, allowing the collaboration model and culture to take root in the government. Although the specifics of the case cannot be copied directly, the idea and spirit of collaboration is something that can spread [2].

### Long-term Partnership: Start by Identifying the Right Problems

Government is an enormous and complex machine. Over the past few decades, the civil service has exchanged information and communicated through meetings, official documents, and files, creating a unique information flow in every department. It is therefore impossible to digitalize the entire government using a single system, and civic tech has no such ambitions. Its goal is to solve small but concrete problems and introduce digitalization to administrative processes.

However, identifying these small but concrete problems is precisely the challenge.

Government agencies must first identify their needs through reviewing their processes. However, civil service training does not include process management skills. In addition, government staffers are usually too overworked to even find the time to articulate problems and clarify processes. Agencies with no IT background are usually unable to

clearly describe their needs, while contractors are unable to understand the complicated inner workings of government. The enormous rift in language and culture between the two parties, the misunderstandings that arise as communication passes through level after level of the bureaucracy, coupled with complex webs of interest between bid reviewers and contractors, all contribute to the frequently absurd outcomes of IT tenders. Such tenders often result in systems that are difficult for staffers to use, or e-government services that draw waves of complaints.

Civic tech provides more than a single system or website; it allows external collaborators to interact directly with the agency, clearly identifying problems through long-term partnership. The system that TonyQ created is not difficult, but few are willing to spend as much time as he did as an external collaborator in low-level government offices, listening and communicating. Such external players also require the trust of the civil service system and the approval of mid- and high-level leaders. Under these conditions, TonyQ was able to continue working with the DOWS after developing the mail tracking system and began more collaboration projects.

### Difficulties Faced by Civic Tech in Government

Civic tech currently faces many difficulties regarding its use in government. First, volunteers who participate in collaboration cannot receive adequate compensation for their time and energy. Most collaborators receive only a small stipend when they attend meetings in person at government agencies. In the long run, how to give collaborators the respect and remuneration they deserve, so that collaborative relationships can be sustained and more collaborators encouraged to join, is a question that will require more thought.

Second, civic tech development almost always uses agile development to create a minimum feasible product that immediately goes online to solve a specific task-based problem. It can become impossible to maintain operations of a system once a collaborative relationship ends. Government often requires more stable and long-term systems, giving contractors with stable funding and concrete agreements an advantage over civic tech. Whether civic tech can integrate systems created through agile development into existing government platforms through feedback and optimization, will become another key to bringing civic tech into government.

# 4-4 AirBox: Building a Civic Tech Ecosystem

- Case: AirBox
- Problem statement: Environmental issues
- Government collaborator(s): 8 county and city governments[3]
- Civil society collaborator(s): LASS community, Academia Sinica Institute of Information Science, and IT companies

### A Civic Tech Ecosystem of Governments, Companies, and Communities

In the previous case, we identified two major difficulties currently faced by civic tech: First, that unpaid collaborators may be treated as free contractors; and second, that maintaining long-term operation of civic tech is often filled with uncertainty. Taiwan urgently needs governments, companies, and communities to form an ecosystem that can act as a foundation for developing civic tech. The case of AirBox may point to one way forward.

AirBox is a real-time sensor, that can be installed in homes to conduct monitoring of temperature, humidity, and PM2.5 concentration. It is a compact mechanism, about the size of a hand. The data collected is synced to a cloud platform and open to the public. Through visualization of the data, the platform then provides information on local air pollution to the general public. The system fills in the gaps left by the low number [4] of official Environmental Protection Administration air quality monitoring systems.

Thanks to AirBox, Taiwan has the highest density of air quality monitoring micro-stations in the world, with over 2000 monitoring locations across the country [5]. As a matter of fact, development of air quality sensing systems had long been under way separately in the LASS (Location Aware Sensing System) community, as well as within Academia Sinica's Institute of Information Science, and IT companies like Realtek. Taipei's smart city initiative in 2016 became the catalyst for the community, academia, and companies to work together on air quality sensing. Their joint efforts eventually took AirBox from an experiment to a product and brought it from the community to the general public.

### Small Government Is the Starting Point for Public-Private Collaboration

Taking Amsterdam as a role model, Taipei City's Department of Information Technology (DOIT) formulated a smart city policy that positioned City Hall as a matchmaker, providing incentives to encourage connections between companies and communities and building a smart city in a bottom-up way. Realtek was a company that actively reached out to become part of the initiative. The DOIT connected Realtek with the LASS maker community. The two parties began working together to improve the technology, and Academia Sinica provided assistance with data calibration. The result of their efforts was AirBox.

AirBox is more than just a PM2.5 sensor. It is part of the Maker Movement, encouraging users to modify it and use their creativity to come up with new uses. Users become part of its production chain. Taipei City went one step further, making AirBox part of environmental and IT education programs. Companies were commissioned to donate AirBoxes to elementary schools and junior high schools, allowing maker culture to take root in education. After the success of AirBox in Taipei City, eight counties and cities joined the project in 2016. Companies like Realtek, Edimax, Asus Cloud, and Aaeon helped AirBox expand across all of Taiwan.

The success of AirBox relied on several factors. In terms of technology, the sensor technologies it employs are not new, but the various facets of the system were made open source only recently, allowing the maker movement to adopt the technology. In terms of environmental awareness, the public is now increasingly familiar with the issues of air pollution and PM2.5, and AirBox provides citizens with a way to participate in environmental monitoring. In terms of politics, the paradigm set by Taipei City made other local governments more willing to participate.

This case displayed a successful private-public collaboration by building an ecosystem of civic tech. Each collaborative party benefited from this project. The government implemented its smart city policy by matching companies and communities and providing them with a place to show the results of their work—the city's schools. Companies that donated AirBoxes were not only granted a public relations boon, they were also given an opportunity to expand beyond the Taiwan market with the city's good will. Communities that provided technical assistance were rewarded with rapid growth as the AirBox project expanded throughout Taiwan. Academic institutions that assisted with calibration were given the opportunity to promote citizen science education and obtained more data for analysis. Government, companies, communities, and academia all shared resources and information, and each was rewarded for it. The AirBox case shows that governments should go beyond its traditional self-conception as a ruler over society and become a matchmaker for multi-stakeholders. Only when big government becomes small government can public-private collaboration begin to develop.

## 4-5

### vTaiwan: Civic Tech Collaboration to Create an Open Space for Deliberation

- Case: vTaiwan
- Problem statement: How old and outdated laws and regulations can be adapted for the digital age
- Government collaborator(s): Executive Yuan, Institute for Information Industry
- Civil society collaborator(s): g0v participants

#### Building an Online Deliberation Platform in a Hackathon

On December 20, 2014, then-Minister without Portfolio Jaclyn Tsai went to a g0v hackathon [6] with one question: "Is it possible for companies not to headquarter in the Cayman Islands?" After a whole day of discussion in the hackathon, the participants concluded that, instead of having them answer the question of how to convince start-ups to stay in Taiwan, the question should be opened up to the general public by building a digital public participation platform. Minister Tsai and these civic hackers, bringing together Tsai's legal background and their familiarity with the digital world, began to build the vTaiwan Virtual World Laws and Regulations Adaptation Exchange Platform. The platform particularly focuses on digital policies and allows discussion of how old and outdated laws and regulations can be amended for the digital age.

Standardizing and digitalizing the deliberation process is vTaiwan's biggest contribution. To bring in more online participants, vTaiwan used technologies such as Discourse, Pol.is, and Sli.do to build online discussion spaces, and integrated them with physical offline meetings. As of the end of 2016, vTaiwan has been used to deliberate 18 issues. Amendments to laws and regulations have been enacted for half of the issues, while amendments for the remaining half are still in the drafting stage or awaiting legislative approval.



### Power and Relationships Should Be Opened Up

After the g0v community built vTaiwan, they did not hand over the operation of the platform to the government. Instead, the collaboration between the government and civic society has continued. Three parties are now in charge of operating the platform. (1) Issue sponsors: the government agencies which submit drafts of laws and regulations that they are proposing. (2) Editors: affiliated with the Institute for Information Industry, a government-sponsored NGO, which collect and organize the drafts into a format more conducive to discussion. (3) Administrators: g0v's vTaiwan task force, which works together to maintain the online system and update the content. In addition, the administrators will invite active participants of each proposal to form working groups, which hold online and offline meetings to clarify points of disagreement, keep the issue focused, and suggest modifications. All working group meetings are recorded in text or video and made public online.

vTaiwan not only built an open platform for civic participation in digital-related law amendments, it also maintained an open approach during its system's development and operation. There are no requirements or qualifications needed to participate in vTaiwan's operation. Anyone interested can join their weekly meetings. The meetings are held outside of any government agency, with no chairperson or set agenda, to avoid the restrictive culture of the bureaucracy. This spirit of openness allows vTaiwan's collaboration network to maintain equal and non-hierarchical relationships.

vTaiwan is an influential case since it is much more difficult to introduce civic tech to central government than to local governments. The social capital and political position held by vTaiwan proponents have been the key to its success. vTaiwan was first spearheaded by Jaclyn Tsai, with community participants helping to build the platform. Its later operations were mostly headed by Audrey Tang, who was then still a g0v participant. When Tang became Minister without Portfolio in October 2016, Tsai took over the running of vTaiwan as a member of civic society. These developments show that vTaiwan very much relied on the support of Ministers Tsai and Tang.

### How Can vTaiwan Deepen Its Impact?

Although vTaiwan has become an institutionalized mechanism for adapting laws and regulations, there have been several cases (such as the issues of Uber and online liquor sales [7]), in which draft legislations were eventually stalled in the legislature due to societal backlash. vTaiwan faces the following challenges in deepening its impact:

First, how can vTaiwan gain more active participants from the stakeholders of each issue? As vTaiwan aims at adapting laws and regulations for the virtual world, a rather difficult and obscure mission, it is hard to raise interests even among stakeholders. So far, the number and diversity of participants has been limited. vTaiwan needs to move beyond a mere online platform and be more active in connecting with communities to include more representative participants. Also, it is important to train more mediators to conduct communication and facilitation, in order to lower the platform's barrier to entry and expand participation.

Second, how can vTaiwan avoid being caught up in divisive party politics, and give the voice of the people political influence through the deliberative process? In the online liquor sales controversy, vTaiwan had submitted an amendment bill to the legislature, which was identified as one of the session's priority bills; however, the Executive Yuan withdrew the bill after the DPP took office in 2016, and no action has been taken on the issue since. This shows that party politics maintains primacy over deliberative democracy.

Third, how can this new mechanism for participation be integrated with existing mechanisms (such as public hearings); and how can legislators be brought into the process from the beginning, so that the deliberative democracy does not become cut off from representative democracy?

Fourth, are there enough staffers in various government agencies who are empowered and flexible enough to act as a contact between the government and civic society, ensuring clear communication and thus the political authority and influence of vTaiwan?

## 4-6 How to Facilitate Civic Tech Collaboration

### Civic Tech vs IT Procurement

Earlier in this chapter, a contrast was drawn between civic tech and IT procurement. Though both approaches attempt to provide governments with solutions through digital means, they are in fact appropriate for different types of problems. Civic tech is well suited to emergencies or situations in which problems and processes have not been clearly identified; collaborators can directly interact and communicate with the agency in need, using agile development to flexibly develop systems to solve the problem. IT procurement is well suited to systems with clear needs and long operational life cycles; government IT agencies can act as a mediator between the contractor and the agency in need, using the waterfall model to develop systems that are contracted out for operation and maintenance. However, we have also identified many difficulties with IT procurement in practice [8] (Table 4.1).

The biggest difficulty faced in IT procurement is identifying user needs. This difficulty means that many systems are incompatible with needs from the planning stage. In contrast to IT procurement, civic tech emphasizes interaction and communication in real practice. The collaborating parties work closely together to identify problems and ways to improve processes, instead of simply providing new tools. Civic tech is still unable to solve large-scale structural problems, but it has introduced new ways of thinking and culture, in the hopes of spurring governments to keep pace with the industry and listen to users' needs. Civic tech can also provide more flexible solutions when existing IT procurement processes remain unimproved.

Civic tech is not necessarily mutually exclusive with IT procurement. For example, in the senior welfare center case with Taipei City, needs were first identified through a civic tech collaborative process, then the system was built through procurement and integrated into government operations. This case revealed the possibility for institutionalizing civic tech. However, as we have emphasized, civic tech does not only provide systems. Without reforming current IT procurement systems, purchasing civic tech may lead to reasonable compensation for collaborators, but it is not the best long-term way to institutionalize civic tech collaboration. How the influence of civic tech can be scaled up remains an unsolved problem.

## 4 Collaborative Relationships in Civic Tech

IT Procurement Phase	Problem Encountered in Practice
1. Budgeting in previous fiscal year	Overworked staffers begin planning out the budget days before the proposal is submitted, or the budget is written by contractors they know.
2. Legislative reviews and passes budget	Budget goes through changes by legislators.
3. Procurement planning	Higher-ups have new ideas and planning must begin from scratch.
4. RFP and specification documents are written	Agencies without necessary IT expertise outsource the RFP writing to contractors.
5. The tender is approved and published	Months pass.
6. Bid reviewers are invited	Many bid reviewers are retired and unfamiliar with current industry trends. Some even have inappropriate connections to contractors, leading to collusion between industry, government, and academia.
7. Bid reviews are conducted	Under the above processes, winning bidders are often system contractors that have worked with the agency for years.
8. The winning bidder is chosen	Official discussions of the agency's needs are conducted only after the bidder is chosen. Sometimes due to time constraints development goes ahead based on the unmodified RFP.
9. Bid implementation management	In agencies without the necessary IT expertise, the contractor is often in charge of managing the implementation.
10. Final acceptance	The agency is unfamiliar with how to test the system, and lack the project management know-how to implement and operate the system. The agency therefore must again rely on the contractor.

Table 4.1 Problems faced with IT procurement

## Four Models for Civic Tech

From the above cases, we identify four models for civic tech collaboration based on the interactive models and how closely the parties work together:

Model (least in-depth interaction to most)	Examples
<b>A</b> Government provides open data; civil society develops applications	Formosa Fun Coast victim search platform, Drug certification search system, The Mosquito Man, budget visualization
<b>B</b> Government connects different parties in civil society to develop systems	AirBox
<b>C</b> Government and civil society collaborate to develop systems	Donation map, victim identification system, vTaiwan
<b>D</b> Civil society collaborators enter government agencies to assist in improving administrative processes	Official document delivery management system

Table 4.2 Four models for civic tech collaboration

In models A and B, the government plays only an auxiliary role and the focus is on the needs of citizens. The government provides open data or experimental spaces, and encourages the autonomous development of civic communities. In these two models, the government should not see itself as the sole provider of public services. On the contrary, models A and B require small government. With good policy as a foundation and solid infrastructure as a backbone, the government then encourages civil society and companies to provide public services and build a civic tech ecosystem.

Models C and D are more focused on government operations, and involve more in-depth interaction between the government and civil society. Civic tech under these two models may require integration with internal government systems and processes, so the collaborating parties must spend more time communicating and assessing possible political influences. These models require an open government, one of many stakeholders collaborating with civil society on an equal basis.

For all of the above models, we have identified five key points for facilitating government connection and collaboration with civil society in the public sphere:

1. The political will and support of leaders are important.
2. Good mediators make the collaborative relationship smooth and efficient.
3. Collaborating parties must learn together to identify the right problems.
4. The collaboration process requires an opening up of power and relationships.
5. The approach to governance must be re-thought, from small government to open government.

### Turning Difficulties Into Challenges

Civic tech collaboration remains rare in Taiwan. Every case discussed in this chapter relied on good timing, favorable conditions, and dedicated people. It is difficult to copy any of them, and each has its limitations. In Taiwan, civic tech collaboration still faces difficulty in four major aspects:

1. The institutional aspect: How can new and existing mechanisms or systems be integrated?
2. The management aspect: How can civic tech developed through informal relationships be managed, maintained, and even held accountable?
3. The talent aspect: How can the reliance on a few bridge builders be broken, so that civic tech collaboration can be beyond single unique cases?
4. The societal aspect: How can a mature civic tech ecosystem be built to support collaborative relationships?

As experimental civic tech collaborations begin to bear fruit, we must ask: Can they be scaled up and institutionalized in order to solve the aforementioned difficulties?

While civic tech collaboration in Taiwan is still limited to ad-hoc single cases, systemic collaboration programs have been put into practice in other countries. Code for American and Code for Pakistan have started fellowship programs in their respective countries, using funds raised by civic groups to place engineers and designers into local governments for six months to a year. The engineers and designers then collaborate with government staffers to improve IT services. In Japan, governments work with companies to provide corporate fellowships, offering three-month grants for digital talent in companies to offer consultancy services at government agencies twice a week.

Similar programs have been discussed in Taiwan. After the Formosa Fun Coast explosion, Taipei City had consulted the community regarding the possibility of a fellowship program [9]. However, the limitations of government personnel and procurement laws meant that such a program was never put into place. In addition, a funding model of civic tech has not been established. Where the investment comes from is a practical problem faced by civic tech advocates. Even today, government IT procurement treats IT services the same as hardware. This has hindered the development of the software industry in public services. It will be difficult for civic tech to receive stable investment funding like in the US, when no civic tech industry has formed.

Government is an enormous and intricate machine. How can government take in different voices and approaches from the outside? How can it build a foundation of trust with another party, so that they can collaborate in an equal and mutually beneficial manner? How can laws and regulations open the door for interaction? What is the market and commercial value for civic tech? In the face of these big questions, civic tech cannot be content to remain an ideal or an experiment. We must face the political and economic questions behind civic tech, just as civic tech hopes to solve political and economic problems in society.

**Note**

[1] The two meetings were held in July and October 2015.

[2] From Tseng I-hsin's lecture "Experiences on Digitalization of Government Operations" in June 2017.

[3] Local governments that joined in the AirBox project before the end of 2016 were: Taipei City, New Taipei City, Taichung City, Tainan City, Kaohsiung City, Chiayi City, Chiayi County, and Yunlin County. In 2017 Taoyuan County also joined.

[4] There are only 76 EPA monitoring stations across Taiwan.

[5] See the AirBox status report <https://pm25.lass-net.org/AirBox/>

[6] Please see g0v's 11th hackathon event page: <https://g0v-tw.kktix.cc/events/g0v-hackath11n>

[7] See Business Next report on the issue: <https://www.bnext.com.tw/article/40741/BN-2016-08-27-201942-44>

[8] The problems with IT procurement are not the focus of this paper, so only a simple table is presented for comparison. For a deeper understanding of current problems with IT procurement, see "What Are the Problems with Government IT Procurement?" (Lin, 2017).

[9] See "g0v.taipei fellowship" <https://g0v.hackpad.com/g0v.taipei-fellowship-LJZw6OzdO9g>

# 5

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## Conclusions



## Laws, Regulations, and Policies

Following the changes in Taiwan's socio-political atmosphere in 2014, the concept of open government has become an unmistakable trend in the country. Open government puts information transparency, citizen participation, and public-private collaboration in the same context. In practice, however, open government is manifested in individual laws and policies. Currently, information transparency is regulated by the Freedom of Government Information Law, and the spirit of participation is revealed in the Administrative Procedure Law. There is no relevant laws or regulations on public-private collaboration.

In addition to laws, administrative orders and policies are the Taiwanese government's most important tools to promote open government. Unfortunately, in the past three years, the government has yet to come up with an overall plan to practice open government. Most of the government's efforts have been put into reaching superficial KPIs instead of building a firm foundation of open government. There is no long-term policy continuity on most open government policies so far. Policies often die when the few political leaders who back them leave office. The concept and practices of open government have yet to take root in the hearts of most political leaders. Open government is viewed only as a popular slogan and its concrete planning as well as execution are lacking.

A possible solution for Taiwan is to take the experience of the Open Government Partnership (OGP)—make a National Action Plan every two years and review the impact of its implementation on a rolling basis. An action plan will provide civil servants with a clear policy direction and enable citizens to understand government policies better. It can also help increase the chances for Taiwan to become a member of the OGP and to raise visibility in the international arena.

## Open Data

Open data has become an important topic in government studies in the past decade. It takes information transparency a step further and emphasizes the use of data analysis to examine government operations and to provide better public services. Ideally, open data empowers citizens to take the initiative to oversee the government and facilitates public-private collaboration through civic tech.

Open data in Taiwan has several key problems. First, there is no solid data infrastructure in the government. Government administration has not yet been digitalized and the information of individual departments is not connected. Second, data quantity has been put before quality. Implementing open data only increases civil servants' workload and data quality is not good enough to create value-adding applications. That is why open data has had no tangible impact on Taiwan so far. Third, the government has been trying to develop the data economy in the past three years, but there is no guiding industrial policy. Instead, the government competes with startups for business opportunities to reach their KPIs. Last but not least, the focus on the data economy has led to negligence on other important aspects of open data, such as government accountability and social equality.

Open data is still a heated topic for debate in Taiwan, but after three years of practice, we are still far from our ultimate goals and its impact is still limited. In reviewing open data practices, we came to realize that the real issue is no longer with how open the data is, but with whether the government can effectively distribute, manage, and utilize the data it produces in governance. In the past, the bureaucracy has produced all sorts of paper-based information flows and strictly controlled their access for management and anti-corruption reasons, for instance. Now, to make open data useful and to create impact, it is necessary to open the machine bureaucracy, reconnect information, and reform the governance model.



### Citizen Participation

In Taiwan, deliberative democracy has been practiced since the second-generation National Health Insurance reforms in 2001, in which many consensus conferences and scenario workshops were held. The street deliberation that developed during the 2014 Sunflower Movement and the "Grassroots Forums of Civic Constitutional Convention" that was held following the Movement further promoted deliberative democracy. We conducted case analysis on several participation models between 2014 and 2016. They mostly employed online tools and were designed to lower the threshold of participation through less rigorous forms of discussion. They are distinct from conventional practices of citizen participation and of deliberative democracy, which is small in scale and strict in form.

Most of the practices discussed were experimental and relied on the political will of the political leader for implementation and horizontal communication. Among the practices, local participatory budgeting (PB) is being institutionalized and normalized. The PB projects tell us that the positioning of the executive unit, the city government, and citizens is of great importance, and it is necessary for civil servants to feel empowered.

Digital tools have not played a big role in these citizen participation models. Digital tools are only actively used as a medium through Taiwan's "i-Voting" and "JOIN" platforms. Intermediaries play a key role in communication and translation, and must strike a balance between lowering the threshold of participation and fostering informed, quality discussion in citizen participation.

### Collaborative Relationships In Civic Tech

In this chapter, we focused on civic tech collaboration and analyzed four cases in which skilled members of civil society were organically connected with government staffers, so that they could analyze problems of governance and formulate solutions together. Civic tech attempts to reverse the conception of government as a ruler, advocating for a re-thinking of power relations between government and people. Through civic tech practices, the two parties are reconnected in a collaborative relationship.

Without an adequate institutional system for working with government, civic tech has relied on people as bridge builders. Various roles inside and outside the government have put efforts in civic tech collaboration: leaders contribute political support, mediators facilitate communication and coordination, and, most importantly, the collaborating parties share goals and values and show a willingness to learn each other's language and culture. Unfortunately, civic tech practices have not been systematically integrated into existing government operations, nor has a mature business model or ecosystem been developed. This prevents civic tech from scaling up its influence.

The government can facilitate civic tech collaboration in two ways. The first is the "small government" approach: the government should no longer think of itself as the sole provider of public services. With good policy as a foundation and solid infrastructure as a backbone, it should encourage civil society and companies to provide public services and build a civic tech ecosystem. The second is the "open government" approach: The government, as one of many stakeholders collaborating with civil society on an equal basis, should open up governance processes and collaborate with civil society on an equal basis to reform them, allowing new and old mechanisms to be brought together.

## Final Note

When President Obama proposed putting open government into practice, the technology communities were full of excitement, which drove the government technology boom. Two years later, the US led the establishment of the OGP, promoting the idea to countries around the world. However, looking back at this time in 2017, international politics has gone through dramatic changes. Trump's disregard for open government policies, successful dis-information campaign that led to Brexit, and fake news campaigns affecting elections in many countries seem like a slap in the face to those who are passionate about open government.

What about Taiwan? After the 2014 Sunflower Movement, the then-KMT government started to make small changes. However, after the change in government and the DPP came to power in 2016, the development of open government seems to have cooled down. There is no high-level plan on open data, citizen participation has lost steam, civic tech has stagnated at the experimental stage, and there is no tangible impact of open government to be seen. "Open government," apart from being the pet phrase of all politicians, is but an unfamiliar and empty term to the public.

In this process of accumulating expectation and disappointment, we cannot help but wonder: are we in the right direction? Do the tiny and grassroots attempts of political "disturbances" have any meaning?

Even though we walk in anxiety and uncertainty, there are a few things we are still sure of.

We know that open government should not be old wine in a new bottle. It is neither an upgraded version of e-government nor is it a new package for deliberative democracy. In the previous chapters, we discussed the core elements of open government: transparency, participation, and collaboration, and analyzed the complex issues involved in each of them. There is no one solution for all. The issues cannot be simplified and every stage has to be handled with care.

We also know that open government is not simply a technological reform. Digitalization is not the only answer. Open government has to do with politics, with participation, and with the relationship between people and power. Technology can be a tool but how the tool is used and what impact it will have depends on human operation, thinking, and judgment.

Finally, we know that open government cannot be a fight outside the institution and we cannot wait for institutional reform to happen internally. Open government requires collaboration inside and out, and all parties need to make an effort. Open government does not have a big enemy to defeat on its way. What it needs is for every individual in the government, in corporations, or in communities to see themselves as citizens and use their skills to seek out future directions and answers, together.

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