

CIVIC HACKING: A RETROSPECT AND AN ANALYSIS OF COLLABORATION PARTICIPATION IN G0V.TW

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g0v.tw

Occupy Wall Street, Arab Spring and the Sunflower movement all proved that citizens were unsatisfied with democratic deficit. With the aid from information communication technology, citizens can communicate and collaborate more easily than before. In this background, civic tech is rising all over the world and changing the way of citizens engaging in politics.

Since g0v is one of the biggest civic tech communities in the world, its impact of civic engagement is worthy of research.

What is g0v.tw?

The Core Value of g0v.tw

g0v has originated from an open source community in Taiwan since 2012. The name “g0v” came from substituting the “o” with “0” in gov. It stands for rethinking the role that government plays and represents the world value of 0 and 1 in the digital native’s generation.

Instead of asking or criticizing, g0v provides a “patchwork”, which means a possible solution. The government can adopt g0v projects anytime since every contribution is open sourced.

g0v is constituted by various contributors. These contributors gather together due to passion and identification of open source value. Since g0v.tw is a bottom-up community, every contributor has autonomy in g0v.tw. They can decide what kind of projects they want to propose or contribute, the extent they want to devote and the progress of collaboration. Thus, no one can represent the whole community. Neither can anyone be called members since it’s only a community, not an organization.



Picture by ETBlue on: <https://etblue.blogspot.com/2014/05/g0v.html>

Bottom-up Organized Hackathon Brings Diversity.

Bottom-up is a main feature in g0v.tw. It can be seen in the organization of hackathon, which brings diversity in the community.

g0v.tw organizes 1 hackathon every 2 months. There were about 130 participants each time. In g0v hackathon, no central leader can plan the agenda. Since everyone can choose what kind of project they want to propose and contribute, activism works in g0v. Together, participants decide the content of the hackathon collectively.



Photos taken in g0v hackath34n by g0v on [flickr](#)

This bottom-up concept / pattern is similar with occupy movements, which both break through top-down hierarchy. Since participants can do whatever they wish, it's easier to increase the number and the diversity of participants. In g0v.tw, anyone with different values, ideas, skills and backgrounds can all participate in hackathon. That's different from NGO and social movement. Diversity of g0v.tw is even special in the open source community since most open source communities don't organize hackathons that often. Instead of it, open source engineers tend to organize meetups with the ones using the same programming language rather than organize hackathons for crossfield participants.

The other proof of diversity in g0v.tw is the "skill sticker" used in hackathons. Skill sticker is a media g0vers use to identify "teammates" in hackathons. This concept is similar to teaming up in the online game "world of warcraft". To recruit members from various occupations to balance the team, we may broadcast in channels to look for death knights or druids for your team.

When registering in hackathon, everyone would receive a card from the staff to write down the name and choose the stickers matching self-skills. This institution helps hackathon proponents find the skill they need. In hackathons, proposers of projects need to find various contributors to collaborate with them. With cards hanging on participants' necks, it's easier to find the exact skill needed for each project. The composition of g0v thus becomes more and more diverse thus the skill stickers has been updated for many versions so far.



pictures downloaded on: <https://drive.google.com/file/d/0B4e2GnpJzb7gaDJBcktyQ3pMRDg/view>

Digital Tools Help Collaboration from Bottom to Up.

g0vers use digital tools a lot. These tools can be categorized into two types. The first one is “instant messages”. It includes IRC and slack. The other tool type is “collaboration tools”. It includes HackMD, Hackfoldr and Github. HackMD allows contributors to take notes collectively. It’s similar with Google doc, but more friendly for software engineers to make a systematic note. Hackfoldr is for contributors to collect all the files online together, so it won’t cost lots of time to search information. Github is for software engineers to code, to fork other’s code or to merge other’s patchwork.

Via these tools, contributors from different time zones and space don’t bother to arrange the meeting schedule. They can exchange information and leave a message anytime. These tools allow g0vers to communicate across multiple time zones and different spaces. Thus, it’s much easier to collaborate from bottom to up.

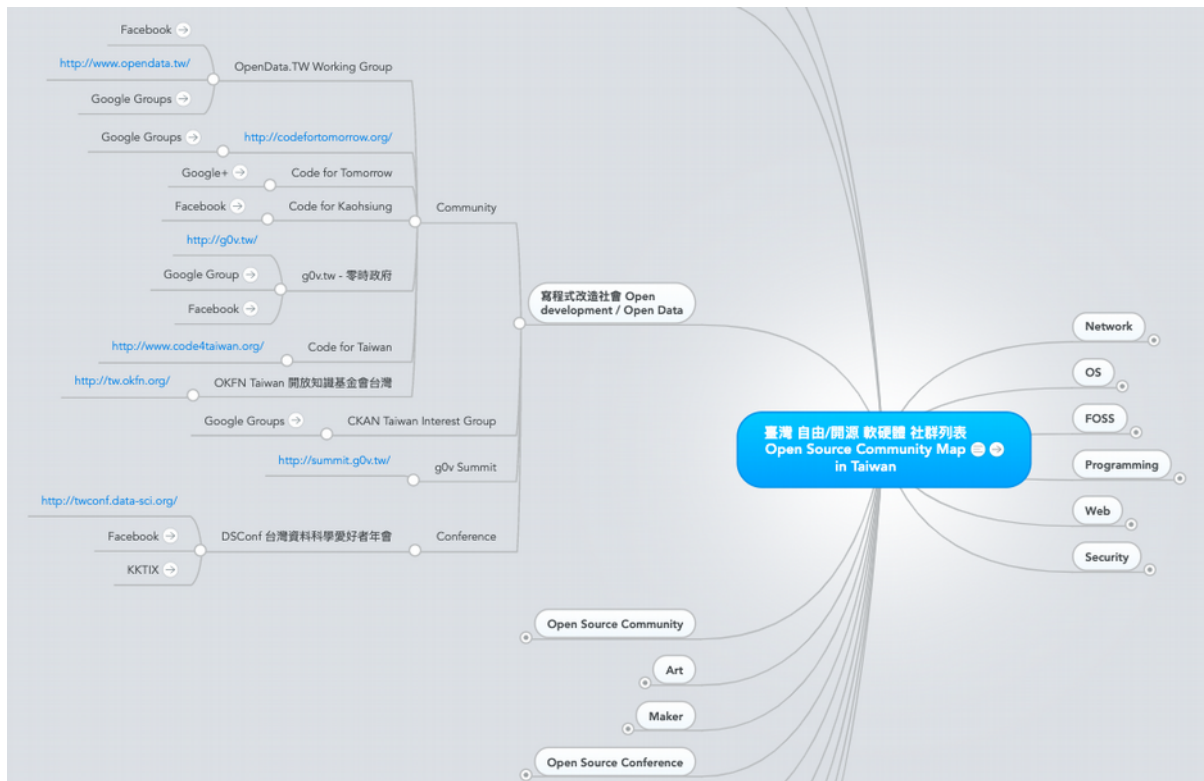
What has g0v.tw done?

g0v Was Born on Rich Open Source Culture

g0v is not the first and the only open source community in Taiwan. According to Mr.Ger (2004)’s research⁵⁷, the first open source community can be traced back to Linux user groups in 1994. Also, there are various open source communities in Taiwan, including hardware and software, not to mention the different communities of languages, user groups or intention. g0v is just one of them, but it’s the first one to combine multiple issues in public and societies.

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Huang-bin, G.(2004). Rebel Code or National Code? -- The Development and Challenge of the Free Software Movement in Taiwan (1991-2004). National Tsing Hua University.



This map was drawn by an open source hacker, Mr.Chen. It shows every soft and hardware open source community in Taiwan.

g0v.tw Was Born Out of Dissatisfaction of Government

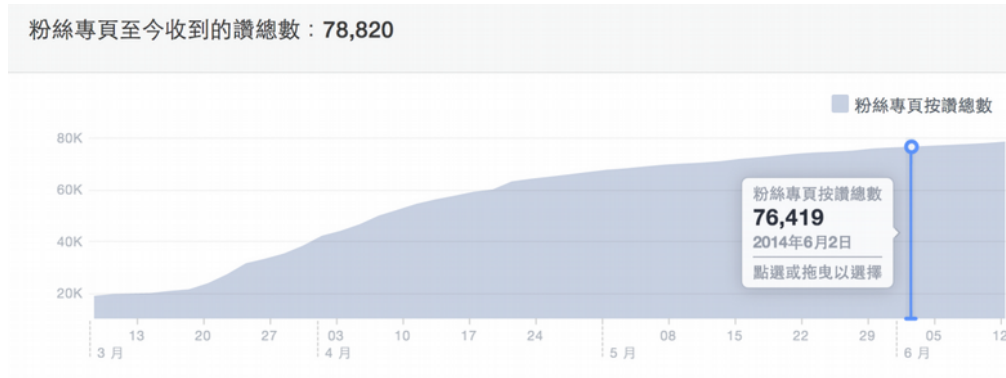
In 2012, a group of friends participated in “Yahoo Open Hack Day” as a team named “Hacker 15”. During the hackathon, they happened to see an advertisement of the government's economic power-up plan. The asymmetrical and non-transparency attitudes of the government angered them. Thus, they decided to develop a website which visualized the national budget to make it more understandable for citizens. This project won the prize. Those engineers decided to organize the first hackathon and start g0v.tw based on their prize.

g0v.tw Became Popular & Diverse since Sunflower Movement

However, not only the world, Taiwanese heard the name of g0v for the first time during the Sunflower movement. Thanks to live broadcasts inside and outside the Legislative Yuan, what happened during the movement can be sent to every corner of the world immediately. It helps improve information transparency and dissemination.

There were lots of g0v projects developed during the Sunflower movement. For example, “Call your legislator” taught citizens how to express concern of insufficient deliberation of the legislative process to the legislators from your electoral district. Project “g0v.today” used hackfoldr to collect all the information during movement. It helped activists to organize the distribution of human resources and goods.

The Sunflower movement made g0v become more popular. This picture shows that the thumb on g0v's FB fan page has raised a lot since March. That's the time when movement broke out. Beside the reputation, the number and the diversity of participants in g0v hackathon raised after the Sunflower movement.



Picture from: <https://g0v.hackpad.tw/-E-g0v--YWjtHcj7nn7>

g0v Develops Projects to Help Improve Data Transparency on Public Issues

Another impact on the Sunflower movement is that g0v got much more attention from citizens. g0v keeps developing projects which help citizens to engage in politics. Below projects are some popular cases:

1. Political contributions of politicians were retained in the Control Yuan and not allowed to be taken out in digital format by law. The Project “Open Political Contributions” is devoted to putting data of political contributions online publicly, which would be more convenient for citizens to supervise politicians they vote for.
2. Disinformation is a serious issue in many countries, and Taiwan is no exception. Various messages are sent and shared by line users everyday. Disinformation may impact cognition and even damages the trust between the citizens and the government. Project “Cofacts” helps to verify the authenticity of the message.
3. To help voters truly understand the candidates before they decide whom to vote. “Vote Taiwan” integrates the information of candidates on websites, such as voting attendance rate and voting bills.

How does g0vers Engage in Public Issues?

An Innovative Way of Advocacy

Although g0v projects, NGO and traditional social movements all advocate on public issues, the format of advocacy of them is different. NGO and traditional social movements usually advocate by proposing a bill or criticizing the problems. It's not easy to lobby citizens by this way, since it takes effort and profession to understand what they advocate.

As for g0v, contributors advocate public issues by providing a solution prototype since coding and technology are their advantages. For citizens, it's easier to understand issues if they can see alternative plans workable. Based on open source rules, g0v's solutions are open for anyone, including the government to adopt, which connects to the g0v's value of “suspended government”.

Since every g0v project decides the development institution and pace autonomously, g0v projects may have different collaboration ways and progress. The autonomy in g0v is related to the fact that only few projects can last until achieving its goal. Actually, it's the nature of the open source community -- contributors determine to which extent they want to devote autonomously.

To make the political engagement of g0v easier to comprehend, we choose g0v project “Open Political Contributions” to analyze the collaboration between different stakeholders since it's a classic project which involves g0vers, NGO and government to interact in different phases of the project.

Grassroot Collaboration between NGO, g0v and Citizens

“Open Political Contributions” is one of the rare g0v projects that lasted until appealing to the attention of people, and eventually advocated successfully. This project was the achievement of collaboration between NGO, g0v and government.

This project was originated from the data of 7 politicians' political contributions carried to g0v hackathon by NGO in 2014. The NGO wanted to analyze government-business relations of politicians but couldn't deal with huge amounts of the data. Thus, the NGO proposed its demand and looked for help in g0v hackathon.

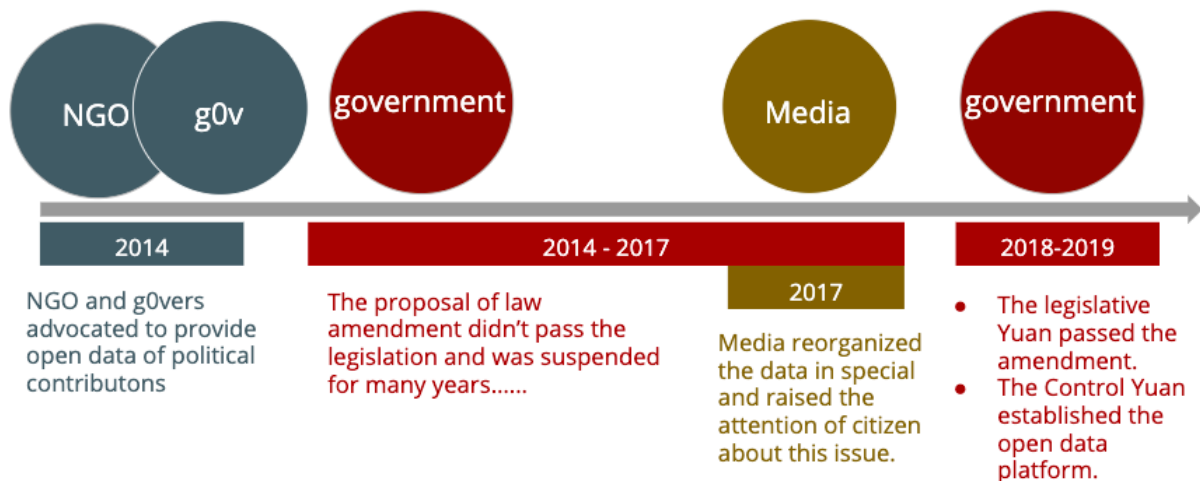
Some g0v contributors then launched the project “Open Political Contributions”. Since it was forbidden to make digital copies of political contributions from Control Yuan, they chose to resort to crowdsourcing. By

setting OCR infrastructure and writing instructions of collaboration, citizens can be involved in this project by spending a few seconds to identify the scan files of political contributions. OCR infrastructure helps integrate these piecemeal contributions into a complete file. Together, numerous citizens completed digital identification of 2,637 documents in seven special accounts within 24 hours.

During this project, NGO proposed the unsatisfied demand of civil society, g0v contributors provided the solution and citizens collaborated to fulfill its goal together. What they achieved made citizens easier to engage in politics by transforming the following three types of data:

- Offline to Online: Before, it's difficult for citizens to browse politician's data since it took huge effort to apply, to find the exact data stored in Control Yuan and to share printed data to others. This project turned offline data into online data, so everyone can browse and share the data by just one click. It's easier to supervise politicians.
- Profession to Understandable: Before, it's difficult to analyze the politician's government-business relationship since it took lots of professional knowledge to analyze every data. Some g0v contributors have translated boring raw data into infographic, which made data more understandable.
- Scatter to Integration: When citizens want to engage in public issues, they are usually desperate by spending lots of time searching for data from different websites or government agencies. This project helps to integrate data into one platform. It's more convenient for citizens to browse the complete information.

Despite all the effort, this project didn't succeed at first time, just like what happened in most g0v projects. Some legislative members have proposed amendments in 2014 due to this project. However, the legislative Yuan didn't pass the bill. The discussion of this issue was suspended for several years, until one media reorganized the data of this g0v project into their special report. It awoke the attention of citizens about this issue again. Finally, This amendment was passed in 2018. The Control Yuan agreed to set an open data platform in 2019.



Pictured by Ting-Yu Cheng

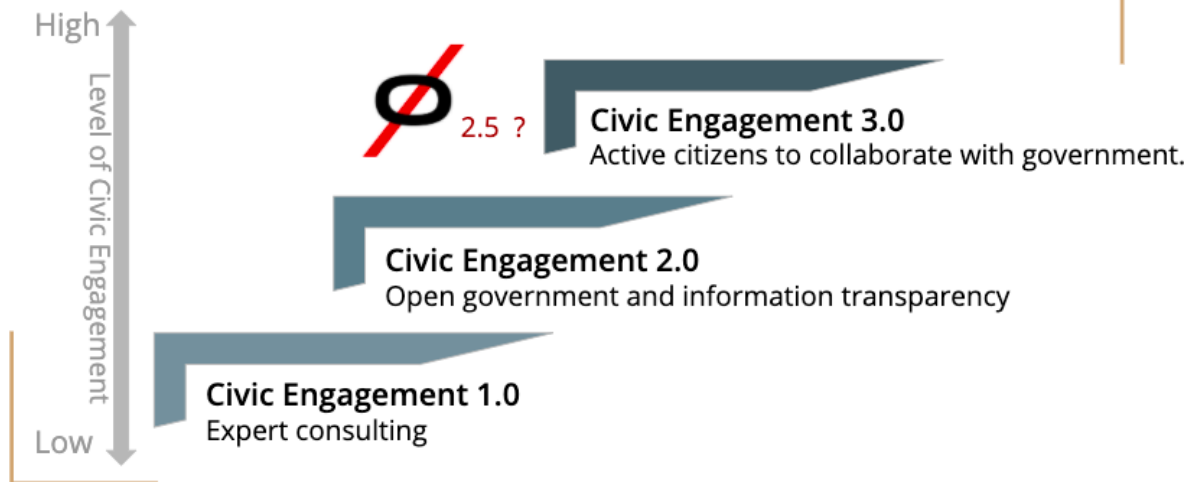
Although the advocacy wasn't accepted by the government at the beginning, open data remains an important basis during the advocacy. Since the g0v project is open source, the media can retrieve the achievement of g0v freely and reproduce it into a report, which helped to appeal for amendment again.

What's the impact of g0v brings?

A Potential New Form of Civic Engagement

As professor Tze-Luen Lin said, according to the interaction between citizens and government, the progress of civic engagement can be divided into 3 steps. The first stage is conducted mainly by consulting experts. It means the possibility for citizens to express their opinion is the least. The second stage focuses on open government and information transparency. Since more data is open, citizens have more opportunity to engage in politics. The third stage means citizens can collaborate with the government, thus citizens have more power to engage in politics. Citizens are mainly informed but not entitled to interact with the government for stage 1 and 2.

Three Steps of Civic Engagement



Theory from prof. Tze-Luen Lin

Theory from Dr. Tze-Luen Lin. Pictured by Ting-Yu Cheng.

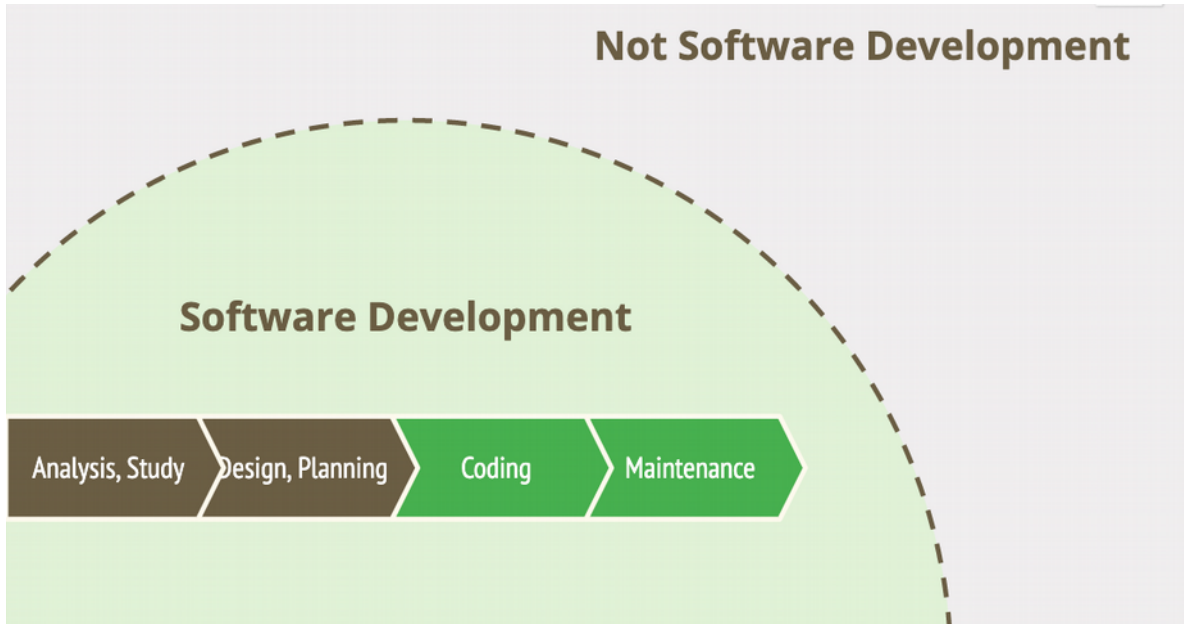
g0v seems to be stage 2.5 since g0v provides a prototype waiting for the government to adopt. Sometimes, g0v provides an immediate solution, such as a system for searching for patients, hospitals and medical resources. Sometimes, although the g0v project can't advocate successfully at first, the achievement of open data set up a basis of advocacy in the future, such as the above project "Open Political Contributions". In collusion, g0v brings new approach of civic engagement such as:

- Application of ICTs reduces the cost of disseminating information. Thus, it helps the government open more data than before.
- Three types of open data: transforming offline data to online; translating difficult data to easy-understandable data; integrating scattered data into a complete file. Open data makes citizens easier to get the data, understand the data and thus engage in public issues.
- Collaboration makes bottom-up more feasible and empowers the citizens with autonomy during political engagement.

The Limit of Open Source Collaboration

The autonomy, flexible and decentralized features are related to the nature of open source, which gave the collaboration in g0v an innovative approach to engage in politics. However, open source collaboration also has some limits.

To figure out the reason, we can trace back to the origin of open source collaboration. It's workable especially during the coding and maintenance stage. The cost of "try and error" during software development is much lower than during policy making. After all, it only takes a few buttons to copy or to try another patchwork. As for the government, it can't jump back for another policy that easy. Thus, it's easier for the government to collaborate with citizens when it comes for the policy not contradicting the original system. If the advocacy is contradicted to the power structure in the government, it would go through political wrestling, which open source collaboration has problems to be adopted in the current policy making system.



Pictured by ETBlue