Citizens, Politics, and Civic Technology: A Conversation with g0v and EDGI

Fa-ti Fan, Shun-Ling Chen, Chia-Liang Kao, Michelle Murphy, Matt Price, and Liz Barry

Introduction: Citizens, Politics, and Civic Technology

We believe it’s important, in this special issue on citizen science, to hear the opinions, experiences, and voices of practitioners. After all, they are front and center in the movements discussed in these pages. For this reason, we invited several participants in two noted civic-tech communities—g0v and EDGI—to join a conversation about tech-based activism or civic hacking. They were Chia-liang Kao from g0v, Michelle Murphy and Matt Price from EDGI, and Liz Barry, who has been instrumental in both EDGI and Public Lab, another civic-tech group.

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Civic-tech activists are playing an increasingly important role in the general field of citizen science. They participate in technology development, data collecting, and infrastructure building. They design better platforms for public participation and policy discussion on science, technology, public health, and environmental issues. In the following pages, we’ll find out more about what they do and what their goals and concerns are. But first of all, a brief introduction to the civic-tech groups participating in this conversation:

g0v (pronounced “gov zero”) originated in Taiwan in 2012 from dissatisfaction with the state of government transparency and the process of policy making. The community has since inspired similar civic-tech groups in other countries and formed a network with them. The g0v manifesto announces that g0v is a collaborative community without a leader or spokesperson, and that it advocates transparency of information and builds technologies for citizens to easily access vital information and effectively participate in public affairs. Currently, g0v has more than four thousand participants. In its early days, g0v’s participants were predominantly coders. But now nontech participants, such as NGO workers, civil servants, and everyday citizens, together make up more than half the total.

EDGI, the Environmental Data and Governance Initiative, is a “North American network of academics and non-profits.” Its appearance was a direct result of the election of Donald Trump to the presidency of the United States in 2016. EDGI catalyzed a movement to archive government data, especially “vulnerable scientific data” about environmental research and policy from government agencies. EDGI also monitors government websites and builds platforms to support public engagement in both these activities. In addition to this, EDGI documents and responds to the undermining of research and regulation at environmental agencies such as the United States Environmental Protection Agency (EPA). According to its 2018 annual report, EDGI is currently “supported by over 160 members” and its “volunteer community numbers nearly 1,000.”

EDGI has a partnership with Public Lab. Founded in 2010, Public Lab (short for Public Laboratory for Open Technology and Science) is a “DIY environmental science community.” It is best known for its involvement with grassroots activism in environmental monitoring, including developing toolkits for volunteers to measure the effects of oil spills in the Gulf of Mexico.

We agreed to talk about the ideas, goals, and experiences of these civic-tech movements, but also the risks and limitations. We held two online conversations on 4 January and 11 January 2018, with participants dialing in from Taiwan, Canada, and the United States. The transcripts have been merged, condensed, and edited for clarity and readability.

—Fa-ti Fan and Shun-Ling Chen

A Conversation with g0v and EDGI
Shun-Ling Chen and Fa-ti Fan
(guest editor and collaborating editor of this special issue)
Chia-Liang Kao (g0v)
Michelle Murphy (EDGI)
Matt Price (EDGI)
Liz Barry (EDGI and Public Lab)
Fa-ti: Thank you all for agreeing to take part in this conversation. We’ll dive right into it. We’ll talk about four sets of issues. First, we hope to find out more about g0v and EDGI, the two civic-tech communities and their origins and current states. Second, we wish to know what you think more generally about civic-tech activism and its visions and practices. Third, well, I imagine that there are also risks, concerns, limits, and perhaps even danger about civic-tech activism. So I’ll ask you to comment on civic-tech activism from a more critical perspective. And, finally, let’s reflect on some big issues that underlie the ideas and visions of many civic-tech movements, particularly the relationships between citizenship, democracy, and technology.

Since this is a conversation, not an interview, we’ll keep the format flexible. You’re welcome to jump in at any moment. Let’s begin with g0v.

1 g0v

Chia-Liang (CL): Sure. The g0v community started in 2012, out of frustration with the Taiwanese government at the time. The Ma Ying-Jeou administration publicized a series of economic initiatives, but the inane promotion campaigns left out the actual contents of its policies. The government’s assumption was clear: it dismissed the ability of Taiwanese citizens to understand, engage with, and oversee government policies and functions. This attitude was not simply a leftover habit of technocracy that dated back to authoritarianism before the democratization of Taiwan in the late 1980s and 1990s. It was deeply entrenched, and it insisted on the exclusive claim of expertise by government officials.

A group of us from the open-source community were incensed by the arrogance of the administration, and we decided to put our knowledge and skills to use. So the g0v community started its first project and translated the government’s budget into interactive, easy-to-use diagrams. The diagrams turned dense and esoteric data into something open and intelligible to the public. Through this project, we wanted to demonstrate that, contrary to what the government had claimed, it is possible to make relevant government data transparent and accessible. Indeed, it is necessary—because only then can citizens have an informed and democratic conversation about public issues.

After that first success, we discovered that many civic-minded people would be interested in participating in similar activities. Therefore, we coined the term “g0v,” replacing the “o” in “gov” with a “0.” The name highlighted the effort to see things “from the 0 perspective” of digital natives. It was also a way of saying, “Hey, we are trying to help bring the government into the twenty-first century.” We have been building open-source tools and other civic-tech services to facilitate a public dialogue with government. Some of the tools, such as the programs for visualizing government budgets mentioned before, were later adopted by the government.

Since then the community has grown from a group of open-source developers to a wide range of participants with different backgrounds. We share the idea of using technology to advance democracy and other civic issues. In a way, it has also been extending the reach of the open-source ideology and movement to people with different backgrounds, people who might not have thought of collaborating in an open-source, collaborative approach.

g0v holds bi-monthly onsite hackathons as well as collaborating via virtual channels. Currently, there are about thirty-six hundred participants or contributors in the
g0v community and they are working on hundreds of projects. It is a self-organizing community, and there isn’t one single model. However, there are many voluntary taskforces to make sure that the community is functioning, to attract new people, and to do fundraising and other projects. Yeah, it has been an exciting journey.

**Matt:** I wonder about the way you just narrated the rise of the g0v movement. Compared to the kinds of civic-tech movements in the United States and Canada, like Code for America, I’m struck by the role of oppositional politics in g0v, how different that is from the civic-tech movements that I know here. Civic-Tech movements here often quickly get government support. Code for America, for instance, had big government sponsorship under the Obama administration. So I just wonder if you have thoughts about that.

**CL:** Hmm . . . well, that’s very interesting. Didn’t the civic-tech movement in North America gather momentum during the Obama administration? I suppose that if it had started during the Trump administration, it would have looked very different. In the case of Taiwan, there was a crucial moment in 2013–14 when a couple of major social protests erupted. During the Sunflower Student Movement in 2014, university students occupied the parliament for twenty-three days, supported by a broad public discontent with government transparency and accountability. The g0v community was very active during that time.

However, despite all that, I wouldn’t say that g0v has primarily been an opposition force. We have invited government officials to our events, and many of us have worked with government officials on individual projects. Towards the end of the Ma administration, Minister Jaclyn Tsai challenged the g0v community at a hackathon to build a platform that would allow large-scale public deliberation that involved all stakeholders (including government and the public). This led to vTaiwan (virtual Taiwan), a public policy consultation process that draws on the ideas of open source and open government.

The relevant government offices must collect opinions and proposals from vTaiwan and incorporate them into their policy decisions. They must explain to the public what they will do in response to vTaiwan deliberations. If they are unable to take action according to public opinion or proposals, they are obligated to explain the reasons. Thus, vTaiwan aims to provide a model for open and broad participation in public and government affairs. Also notable is the appointment of Audrey Tang as the first Digital Minister by the Tsai Ing-wen administration in 2016 because of her previous involvement with g0v and other open-source communities. In fact, Audrey Tang’s appointment was major news for global civic-tech communities as well, not only in Taiwan.

So, overall, I would say that we don’t necessarily position ourselves as an opposition movement. Our general goal is to find ways to make technology work for stakeholders, to create meaningful conversations among NGOs, government, and the general public.

**Liz:** I am always excited to hear that other people in the Western world discovered the g0v community because you guys [g0v] are super rad. It’s not going like the way civic tech has gone for the past ten years, in North America at least. Civic tech in this part of the world has been very boring as they just tried to help government do certain things, delivering services over new channels, for example. It wasn’t really any movement that was more democratic. I know I’m taking a risk in saying this, and it might sound unfair.
and insulting toward the entire movement. But because I’m often identified as part of that movement, I’m just gonna say it.

Now groups like Public Lab, g0v, and EDGI have reconfigured this. I know that you guys in g0v don’t see yourself as oppositional, and I appreciate that. Perhaps we could say that your strategy is more idealistic. You’re actually dreaming of what and how the relationships between citizens, government, and technology ought to be.

2 EDGI

Fa-ti: What about EDGI? How did it start and what it is like?

Michelle: Well, EDGI was formed a few days after the election of Trump in 2016. And basically, we started with a group of people—some connected to Public Lab, some in science and technology studies, and some in environmental justice. We were trying to figure out how we could use our skills to deal with the Trump administration when one of its first acts was to appoint Myron Ebell, a well-known climate-change denier as the head of the transition team to handle environmental policy. It was clearly a bad sign.

One of our worries was that government environmental data would disappear or would become less accessible. For those of us in Toronto, this concern had grown out of our experience with the Stephen Harper administration, which dismantled environmental protection in Canada, made environmental data less accessible, and curtailed environmental scientific research and monitoring.

So one of our first ideas was to try to figure out ways to archive, or collect and copy, publicly available scientific environmental data. And to do that we worked with the Internet Archive, which already archived government webpages before presidential transitions, but its archiving practice didn’t go very deep. So what we did was really try to deepen that practice by doing public, crowd-sourced archiving of government data. To create the tools to do that, we connected with the civic-tech community here in Toronto, which Matt has a relationship with. He brought this challenge to the group and together they began to work up some tools and practices that EDGI could use to organize a crowd-sourced archiving event.

The people at civic tech had been following g0v’s practices in Taiwan and were inspired by what they did, as well as trying to draw from feminist geek, “femtechnet” kind of practices, which are concerned with how to have projects that are more equitable, more feminist, with greater diversity and not just a male culture of tech. So those are some of the origins of EDGI that connected up with g0v. That archiving work and toolkit we made helped us make links with other collaborators, including Data Refuge at the University of Pennsylvania, and ended up involving some forty-plus data archiving events around the United States.

In addition to data-archiving, EDGI has done a variety of projects. We do web-monitoring, which monitors language change on government websites, and then we share the findings with the media and thus try to build a kind of counter infrastructure to hold the state accountable. We interviewed government employees to document what was happening behind closed doors at the EPA, particularly during the transition—that was a major project involving many academics. All these projects drew together diverse skills and adopted a consensus and horizontal model of organization. EDGI
members include academics, community members, people from nonprofits, tech people, and others—all of whom are on an equal footing organizationally.

So I think we drew a lot from the practices of open-source and civic-tech communities, in idea and spirit. There is a strong sense of “do-ocracy,”—a community shaped by the labor of pitching in. Learning how to cooperate in ad hoc and respectful ways is a big part of all this.

Matt: There seem to be two interesting parallels here, between g0v and EDGI. The first is a precipitating event that mobilized people to take what was fundamentally a political action, but also to find a technological solution as part of that political action. The assumption or recognition was that we were in a situation in which political problems could have, at least in part, technical solutions. And the second parallel was the way in which open-source practices served as a resource for reimagining politics.

But more generally, we probably have this important idea in common with g0v—that is, a sense that the technical environment we find ourselves in poses tremendous challenges to ideals that we may be critical of but still hold dear to, such as democratic governance, freedom, and responsibilities to truth. So we have been crafting these technical interventions, trying to chip away the edges of the threat to these ideals. The question is, how effective can such work be, and what exactly is the role of technical transformation in political transition?

3 Techno-Political Imaginaries

Fa-ti: From what has been said, I seem to see a techno-political imaginary here, a model or at least a vision based on such notions as justice, equality, openness, participation, and a sense of civic responsibility. If that is the case, then I have two sets of questions. First, is this an ideal microcosm of a much larger polity envisioned by the civic-tech movement you’re part of? Or is it simply (or realistically) a subcategory within a polity that includes other kinds of communities and organizations? What is the ultimate goal of such a techno-political movement? My second set of questions concerns the internal dynamics within civic-tech communities. There is this general impression of tech communities. They are often male-dominated and hierarchical (in part, perhaps, due to a competitive culture of expertise). The communities often have a high entry-threshold—socially, culturally, and economically. Could we say, therefore, that there are power relations and values therein that may not jibe with the envisioned broader socio-political ideas? To what extent are these issues fundamental to tech communities, including civic-tech communities?

Michelle: One of the most interesting things from within EDGI, I think, was all the work put in to make a horizontal, consensus-based project with publicly available practices and open-source coding, aimed at facilitating other local communities. How do you do it? How do you make good relations? How do you make it anti-oppressive? I would say that feminist care labor made EDGI possible, because it happened to be the work needed to make an organization horizontal and consensus-based, to bring in volunteers and take care of them, and to make sure that people treat each other with respect. We learned many of the practices from civic-tech people,
people from Public Lab, for example. This knowledge about how to work together is crucial to all of EDGI.

Matt: A lot of open-source communities are highly dysfunctional, right? I mean, the Linux community is notoriously hostile. In Toronto we are lucky that the kind of civic-tech group here is particularly attentive to inclusive processes. Many of the concerns and practices Michelle just talked about would be less emphasized in other places.

Liz: Another way to think about this is the question, What does an open-source community form around? We can use this question to understand the significant differences between earlier open-source communities (which were mostly “tech for tech’s sake” without questioning broader society and politics around technology) and the communities we’re talking about here.

That earlier open-source culture, or OSC, featured things like refusing censorship instead of, say, inclusiveness and gender equality. What has been going on in recent years is that people with an interest in real-world problems (rather than merely technological ones) and from diverse expertise and experiences are gathering together in open cultures. These kinds of communities—Public Lab, g0v, EDGI, and others—prefigure a more inclusive democracy. These new communities of practice have formed around extensive collaborations in person and also at scale. They are little seedbeds of democracy if we see government as a subset of collaboration.

Fa-ti: Let’s press this point a little further. Since the ideas of democracy and citizenship underpin much of what we are talking about here—namely, civic tech or citizen science broadly defined—is it possible to explore these ideas in your projects? Implicitly and explicitly, such civic ideas are based on assumptions about what democracy is, who are or can be members of the community (that is, citizens, and a definition of citizenship), and where and how boundaries around such a community are drawn.

Do you see the kind of civic-tech model we are discussing here, or some kind of open-source model, a useful or desirable model for democratic participation? Can they, as seedbeds of democracy, as you said, be applicable to large state-oriented democratic institutions? But of course one can also question the state to begin with; after all, some of these communities are trans-state.

Matt: Going back to the origin of EDGI, it was formed around a crisis in democracy in the United States, around a sense that the existing democratic forms were breaking down in a way that left limited democratic substance. EDGI didn’t try to address the central political problems directly; it just tried to address the fallout. But there’s a broader question, which is how can we conceivably organize a democratic process when the framework that has been made available to us was created in the 18th century? Now we’re in the 21st century. The traditional form of representative democracy did not anticipate the capacity of algorithms to, for example, forecast how people would vote. Take an American example: the kind of gerrymandering we can do today is so much better than what could be done in the 19th century, so much so that it can subvert democratic principles and practices. This situation is very serious and very difficult. I think the kinds of technical interventions that I have seen from g0v, including integrating online opinion-gathering tools such as Pol.is in vTaiwan, are an effort to get around some of those problems.
Liz: I’m reminded how in the US we use the term “machine” to describe parties, like the “Democratic Party machine” and the “political machine.” Large advocacy groups take individuals and turn them into a canon of opinion—quite a blunt machine. What we see in Pol.is is an application of artificial intelligence in carving out more space for the individual to safely step outside of “party machines” and express a granular and unique opinion. Unlike referendum questions that only allow people to answer yes or no, Pol.is facilitates the conversation by allowing people to submit their own statement or questions, which may be using different framing. Pol.is thus shows clusters of people who would agree and disagree together on a large number of questions. The process helps us to better recognize each other, better grasp the similarities and differences in how and what we think, as well as better identify previously unknown points of agreement. What Pol.is is doing, as being translated out to different audiences, is that it uses math to assist our humanity rather than to bludgeon it.

CL: Regarding what Matt said about technical interventions in a democratic crisis, I think it is inevitable because a lot of crises today are created by technology. To address those problems, there’ve got to be technical interventions and people need to work together to imagine a new way to collaborate. This is something that a democracy should recognize and incorporate. We’ve talked about vTaiwan. It has become an established platform of internet democracy, and the [Taiwan] government agreed to respond to public opinions expressed there.

The reason g0v and EDGI have emphasized technology is because we need to tackle political problems with technology. And of course the way we build the technology has to be democratic as well. As such communities grow, they will be able to sustain a tech-based democratic development.

Matt: Can I respond quickly to both Liz and CL? A problem with the accessibility of the algorithm and the netization of politics is that both of them treat the citizenry, or the voting population, fundamentally as pure economic actors, or as just bundles of interests and desires that can then be manipulated by using techniques that are grabbed from market research and other similar places.

So what Liz was talking about is “How can we bring back some other ways of imagining the citizen?”—right? It seems to me that one of the things that happened in the United States in the last twenty or thirty years is the separation of technology and science. We have dramatic enthusiasm about technological development and at the same time have stopped funding science education. And part of the reason EGDI was formed is that we saw the likelihood that the Trump administration would, on the one hand, play off the techniques of misdirection that had been used during the campaign, many of which were highly technological, and, on the other hand, completely undermine the use of reason in its governing strategies.

Well, I think almost everybody involved in EDGI is critical of the ways in which reason has often been employed to justify political authority or the Establishment. However, we also see that it’s certainly better than what we’ve got in this strange era. So there is something to the notion that we are looking for ways to recover reason, I think, as part of the democratic process and of the process of governance. Hopefully, our attempt will not replicate the same kinds of oppressive sub-strategies that have been associated with reason in the past.
4 Community, State, and Data Politics

Michelle: I would say this in a slightly different way, with an emphasis not so much on reason as on a commitment to evidence. Coming out of science studies, we know that evidence is full of values, histories, and practices. So how can we be committed to evidence, but simultaneously have a critical sense about it?

In the case of EDGI, many of the people involved have already spent years of their life critiquing the inadequacy of state-produced environmental data. And we know very well that the existing infrastructures for taking care of the environment haven’t been working.

Otherwise why would we have global climate change? Why would we have intensive hot-spots of pollution all across North America? It’s clear that state infrastructures were not set up to care for land and people but in fact to support industry.

So, on the one hand, we can say that EDGI is working to support certain state obligations, including the EPA, that take care of the environment. But on the other hand, we’re also at the same time having a conversation about “What would a counter infrastructure look like?” “What would we want the stewardship of environmental data to look like?” “Who would be involved?” and “How would that be arranged?” Or in terms of web monitoring—thinking about how to hold the state accountable. How do we build infrastructures that are not just a handmaiden to the state? It’s important to think about these conversations, imagining things that make people and data work together in a different way.

Liz: Just to agree with Michelle, about her point that many of us spent a lot of previous years fighting against government-produced data because of its willful blindness to the local and to justice. That’s really the story of Public Lab. Sometimes the organizations we worked with had to sue the EPA. So it is a funny feeling now that we are watchdogs for the same data.

Now following up on the point about building a counter-infrastructure, I’d like to hear what you all think about the principle and approach of decentralization, as in our civic-tech communities. What are the limits, compared to what a functioning state can do?

Michelle: If I understand your concerns correctly, Liz, one reaction to a state that doesn’t care about or take care of the environment is that communities get organized to do their own citizen science and collect data. They work to document what happened to the community. But a world in which all communities are left on their own to organize their own data collection and document the harms, this is a nightmare world. That is so because not all communities can mobilize to do this research. And to lay this burden on communities already living with hostile conditions is to make the people who most have to deal with injustice do all the work.

So this raises questions about how to build an infrastructure that makes what might be called “community science” possible and how to build relationships across local places—very important tasks for Public Lab and EDGI. How can we facilitate the participation of communities in knowledge-making without letting it devolve into an excuse for the state to withhold resources and shirk its responsibility, like, “OK, communities, you can just do it alone, and good luck to you!”?
Liz: This is certainly a concern for Public Lab and for many community-based citizen science projects. Public Lab advocates by collecting data and submitting it through channels that the government had opened for citizens to contribute data. I think our best advocacy strategy might be to improve democracy itself, sort of like g0v is trying to do, rather than simply making citizens better able to play the game that government has already set up. But, yes, what is going on in the context of decentralization can be worrisome.

Matt: Concerning the environment, we can consider how most communities don’t have the resources, whether monetary or in terms of time and labor, to monitor effectively the toxin levels and other vital indices. Even if they manage to do that, it is still difficult to mandate action on the part of the polluter when the state is not on board the process.

So, we can perhaps think broadly about the consequences of trying to replace centralized state actions with decentralized citizen actions. The state is ugly and dangerous in many ways, but it can also be efficacious in carrying out actions on a large scale. Institutionally, a democratic state has a fairly decent claim to a kind of legitimacy that’s hard for a local group to command. I think that that’s an interesting problem for decentralized actions to contend with.

Fa-ti: This seems to suggest certain constraints or challenges that civic-tech movements are confronting. I suppose that there are also risks, concerns, and tensions in the triangulation of civic tech, local communities, and the state. Right?

Michelle: Let me use an example I’m familiar with to highlight the complexity of data politics. I mentioned before that we are very concerned about the status of state environmental data and its openness and accessibility. So, in one aspect, we want more, and more reliable, state environmental data. In another aspect, the capacity of the state to surveil people and their activities has greatly increased because of new data technology, and many states are taking advantage of this new ability. One can think of things like policing surveillance, racial profiling, or the immigrant criminal database (called the “Victims of Immigration Crime Engagement”) that the Trump administration has invested in.

So there is a real tension between the desire of wanting more environmental data and the kinds of surveillance politics I just referred to. There is, on the one hand, environmental justice that calls for more data, better data and, on the other hand, data justice that calls for less surveillance and for ways to hack surveillance and ward it off.

Environmental justice doesn’t want a total surveillance state. The question of how to bring environmental justice and data justice concerns together has been something we have been wrestling with. I feel like we’re working in a set of irresolvable tensions. Perhaps we can foster a critical conversation where we are trying to visibilize the contradictions in data politics, emphasizing the dimensions of how data work and not just celebrating data.

CL: Hmm . . . risks and concerns. Well, civic-tech communities in Taiwan have produced some successes: they both challenged and helped the government to revamp its policy transparency and public services. However, the government responded selectively and cherry-picked projects to its advantage. Much of what it did might also be
little more than hand waving. When push comes to shove, the government often reverted to traditional political manipulation and power politics.

Therefore, the open-data and open-government movement has to be vigilant and persistent. It cannot be complacent about its limited successes, nor can it be co-opted by the government. In fact, we need to keep the government on its toes.

5 Technology, Political Activism, and Social Change

**Fa-ti:** How do different forms of technology-enabled social movements and political activism intersect or interact with traditional ones? When Twitter revolutions happened in the Middle East and North Africa, new technology played a significant role. This and other new forms of political activism—largely decentralized and spontaneous, and therefore hard to control and suppress—emerged with new technology. On the other hand, they also require traditional forms of demonstration, though possibly less organized and less predictable. These might be extreme examples, but they probably highlight the interface or relationship between new and traditional forms of political actions and processes in relation to technology. How and where does civic tech fit in?

**Matt:** This makes me think of the classic critique of the notion of Twitter-based revolutions: that to form a substantial movement for really significant social change, you need different kinds of social ties than those formed on social media. On social media, we have what are called weak bonds, and if we look at groups of people who put their bodies on the line, we see that many of them have strong ties because they have often come together through traditional communities, be they families, neighborhoods, churches, universities, or sports teams.

So, one question is, does all technical innovation share this same problem? Or could it be the case that there are social media that in fact form different kinds of social bonds and solidarities? The second question is whether social media is actually a general model for the kinds of technology that are going to be involved when it comes to social change.

Technologies like Pol.is are tools for listening en masse, and the kind of technology might have a different kind of framework, a different kind of technical possibility, and a different kind of social impact. For many kinds of social decision-making, it might not be the case that we need bodies on the street. First, there are changes to political systems that don’t require sacrifice or commitment on a massive scale. And second, maybe those kinds of commitments can actually be fostered by some other mechanism or medium than “social medium.”

**Liz:** vTaiwan is probably an example of what Matt just talked about. But back to open-source communities for now: based on the notion of “adhocracy,” people come together in an open-source manner to build what they want to see in the real world, to build things that are not market incentivized. Driven by diverse and, usually, non-monetary motivations, these open-source communities must count on other things—ideas, social bonds, passions—and they foster a kind of passion politics. To continue to fulfill their potential and vision, open-source communities need more participants. So, we can observe that in the past couple of years many collaborative projects have been lowering entry barriers for newcomers, taking diversity and inclusion seriously, emphasizing transparency, and, in fits and starts, formalizing some decision-making
processes. In that way, our collaborations have started to look like experiments with governance in miniature.

Now all of this is arguable, but, in any case, I think it’s worth considering this question: How does this model of participation relate to the traditional modes of participation between citizens and their government? On this, my perspective is probably quite different from traditional views and approaches in politics or governance. A Twitter revolution gets people on the street, but it is not happening simply because we have social media or other new forms of communication. Social media is great at amplifying the sense of individual voices, but fundamentally it is not so different from old-fashioned political platforms. Why? Well, because although social media has gotten us the granularity of speaking, we still get clustered into simply yes or no, support or opposition. I believe that the opportunity in transparent communication for government is to actually break out the binaries, so that we can surprise ourselves on surprising points of consensus that might actually get us past political deadlocks.

Michelle: I think there are different theories or scenarios of social change swirling in our conversation. Traditional political activism—street demonstrations, for example—is not necessarily in tension with or a replacement for civic-tech practices that try to leverage technology to build other kinds of communities or that build counter-infrastructures to the state and capitalist infrastructures that are growing up around us—things like the biometric demonetization scheme in India, or the social scores system in China, or here in Toronto the plans to make it into a smart city. When the state launches the giant biometric program, I think civic tech becomes one of the things you can do to resist or check its power.

For example, when it comes to our data rescue work at EDGI, whatever the archiving of the data actually accomplishes, perhaps one important effect was the very fact that people came together and said: we’re watching what the state is doing and we really care about environmental science and we’re willing to come out on snowy days, spend long days, learn new skills, all because we care about environmental data and what the state may do to them. This conviction and action made the state more reluctant to tear down environmental governance that took a long time to build and a lot of struggle to create—such as the struggle to get environmental data online. So, in that example, the people together and civic tech really fed each other in a way. I’d love to hear more how this connects with thinking about g0v.

CL: I think it resembles the sentiment we have. In g0v we’ve had so many projects, and maybe only 10 percent of the projects came to fruition or turned out to be useful. But organizing this community or actually the self-organizing of this community is in itself something worthwhile. It is building social capital by highlighting the fact that people care and people can apply their knowledge and skills in technology to help solve socio-political problems. So, the most important impact of g0v might not be the products and projects it produces. Rather, it is the community itself and the extension of the community to other NGOs. The activism of g0v has helped bring them together and encouraged them to work together in a new way.

Matt: Actually, we can probably say something similar about social movements in general, that their early successes are often capacity-building as much as anything else. This happened during the Civil Rights movement in the US. Think about the
Montgomery Bus Boycott in Alabama in the 1950s, which produced a set of substantive effects, but in retrospect now, what seems the strongest outcome was the building of an infrastructure that went on to have way more radical and extensive effects than what one saw in Montgomery alone.

People come together, they work on projects, and in the process of collaborating, they think about what collective action ought to look like. By engaging in a collective project, they enter a long tradition that has various tendrils extending back for hundreds of years.

6 Pandora’s Box and Recursive Publics

Fa-ti: Let’s explore further how new technology has challenged and potentially destabilized traditional political frameworks and what that may entail. This is not an idle speculation, but a palpable issue. Many of us welcome tech-enabled activism. However, there is a wide range of these kinds of activisms, with very different socio-political purposes. Isn’t it likely, therefore, that there can be real risks and uncertainties involved, whether one accepts or rejects the existing political order? For example, how do we think about activist groups that have made news headlines in recent years? Anonymous, WikiLeaks, organizations that harvest big data for political manipulation, troll farms, and, not to be taken lightly, right-wing radical groups thriving on tech-media platforms. Many of them are trans-state in outlook and reach. I am not equating these groups politically. I’m simply describing a techno-political phenomenon and wondering what it means to our political world.

Traditional liberal democracy, with all its pluses and minuses, is based on the idea of state and citizenship. That is, a liberal democratic state needs well-defined concepts of citizenship, rights, duties, and responsibilities—as well as accountability, which goes both ways if we take the view of social contract. But new technology may have introduced a new era. So in what ways do the combination of technology and political action mark a new, different political situation and process, broadly speaking?

Liz: On this, I find Christopher Kelty’s notion about “recursive publics” very helpful. A recursive public is concerned with the material and practical maintenance of its own existence as a public, and is capable of speaking to existing forms of power by presenting and practicing an actual alternative. Kelty goes back to the fact that some communications technology actually helps the public imagine itself as a public. Then he tracks up to the twenty-first century and says that, you know, the online publics are quite self-aware—as we are saying here, we’re collaborating, and we collaborate and because of that we think about collaboration. That is an important frame for us when we talk about transparency, self-organization, and so on. I think that being a recursive public means paying closer attention to feedback loops among this body politic than we’ve traditionally seen in a government-citizen relationship.

We open-source communities are experimenting. It is necessary for us to keep tuning the feedback loops and there are these small spaces where experiments are running.

This framework has implications for good leadership and for how to build a collaboration system that can continue to adapt—so that you don’t just get to one static point and congeal into a bureaucracy. The key question is how do we develop an
adaptive system? I am kind of taking the point of view of the recently re-trending cybernetics, where tuning feedback loops is at the heart of the process.

I guess what I’m trying to say is a response to your reference to traditional liberal democracy. I’m juxtaposing the models of how the public was imagining itself then and how it is imagining itself now (at least in certain communities). I guess I come down on the optimistic side.

Fa-ti: Hmm . . . I wonder if that perspective overprivileges a particular culture and community (e.g., OSC) over many other, very different cultures and communities that are always present in a given society and polity. So, there remains the question, how can the different publics or commons negotiate their differences? Do they share the same feedback loops? In any case, could we say that new technology may cut both ways, or may be unpredictable, in creating new political realities? I mean, we don’t want to fall into the pitfall of technological determinism in asserting that new technology must lead to new forms of politics, and I think that by noting the unpredictabilities we are being careful here. But still we should take the impact of new technology seriously.

Matt: Probably not all democracies can adjust themselves quickly and effectively. It isn’t clear in the United States, for instance, how some of the broad changes in those governance structures established two hundred years ago could be brought about. It would require a level of consensus and will that is hard to imagine in today’s United States. So, I’m interested in thinking about how to look at newer democracies like Taiwan. There have been broad, sweeping political changes in a lifetime of the people there.

CL: Well, because of Taiwan’s uncertain status as a nation-state, I don’t know if it can be seen as representative of many new democracies. Nevertheless, Taiwan might be working through things that some other new democracies are also experiencing. Because it is a new democracy, there might be more room for adopting or trying new things. But the process can also be difficult because the rules and parameters are new and unstable.

Regardless, from what we’re saying about recursive commons or recursive publics, I think technology does extend the imagination of what such commons can be and what they can be built on. In the same vein, so do the rights and responsibilities, as well as the accountabilities. We are witnessing new changes, I think. With whistleblowers, WikiLeaks, and other tech-enabled ways of intervening in states and other traditional political entities, the accountability also emerges from within the commons. However, I don’t want to say where the boundaries are or should be. Yeah, that is tricky, I think. I’ll stop here for now.

7 Human-Centered Technologies for Citizenzing

Shun-Ling: Let me jump in. We have been talking about different ways of bringing people together. We talked about traditional body politics, including the most basic form—that is, putting bodies on the street. If we define technology broadly, including techniques of organizing socio-political communities and actions, civic-tech
communities involve both technologies that bring people physically together as well as making or creating new technologies that are meant to build larger communities. There must be internal and external tensions. Some communities you’re trying to connect might not be used to new ways of doing things such as open-source adhocracy. Or when you’re trying to build new technologies for them, for various reasons, some may not be willing to have their conversations archived and be that transparent. Do they have to adjust to those technologies, in order to participate in this process and use these tools, or will you try to adjust technologies to their needs? How do you deal with these tensions?

Michelle: Well, in the year that I have been involved in EDGI, one thing that really stood out is that it’s both highly utopian and ambitious, and fragile. So there is a tremendous amount of work that goes into trying to make EDGI work. It requires real effort to make collaboration go well. But there is a sense of urgency. We are deeply concerned not only about problems of environmental governance in the US, but also about the situation where we have an algorithm coming down on us and where we have big companies like Google inserting themselves between people and the state in terms of information gathering.

We might think about the larger picture, where there are transnational entities all around the world extracting data in the name of good governance, where there is a kind of patchwork world of many different data collection practices, and a thick archive of non-consensual data collections. So, when we think about what we’re doing, there are a lot of points of reference. We are motivated that we get to imagine these other possibilities and sometimes actually do something, but what has come together can be really fragile at the same time. I think SL’s questions help to bring this tension out. I don’t know if that feeling resonates with g0v and Taiwan.

CL: Yeah, definitely. That is why from the very beginning, we wanted g0v to be a network or gathering of multiple open-source projects with a common goal; the idea was that together it would become a movement that other people could freely join. Indeed, anyone can organize a g0v hackathon; it is not trademarked and there isn’t a structured authority. In practice, however, there is always the shift or tension between decentralization and centralization. Somebody has to host the hackathon, to serve and cultivate the community, to be active and responsive to new issues and circumstances, and to get things done.

If this is done well, we can enlarge the community and widen its reach. And the result may be that it becomes ever more decentralized. But I think there isn’t really a simple path or model to follow. In different phases or circumstances, it might require different approaches and actions so that the community can stay healthy, decentralized, and be flexible enough to deal with new issues that come about.

Liz: I’m going to jump in on that. You know the Oscar Wide quote, “The trouble with socialism is that it takes up too many evenings”? Well, we can replace that “-ism” and put in any of our utopian projects of choice. In fact, for many people, even just regular “citizening” is already hard to manage. As someone currently living in the United States, it’s surely taking a lot of time from me just to keep up on the standard way of “citizening,” which is like reading the news, tuning to what one of my elected officials
is doing, figuring out who’s gonna run next or who may be a better representative for me, and so on. It is a challenge.

Talking about open-source communities, I think it is fragile and resilient at the same time. It is both. The idea of decentralizing leadership, of convening in the same conversation, and of collaborating among diverse expertise and lived experiences—these are things that I feel are not optional for a more just future. Yes, it will take work, a lot of work, to achieve that, but it’s already underway.

CL: What Liz said about “citizening” resonates with me. To be a good, informed citizen takes much time. Now a conscientious citizen like Liz may be spending 10–20 percent of her time on “citizening.” Most people, though, may spend only 5 percent or less of their time, and that very limited amount of attention is overwhelmed by political soundbites, random information circulated on social media, fake news, etc. Hardly any time is left for responsible “citizening.” So one serious challenge is to make people expand the 5 percent of their time or to make the 5 percent of their time really count by providing better information through better use of technology. I believe that it is a fundamental challenge that many modern societies must address.

Matt: Agreed. At the end of the day, though, no technology will ever replace the requirement for human engagement. And in fact, what we need is to build technologies that don’t seek to replace this passion that is required for political transformation but rather to help those kinds of passion to thrive. In my own work, sometimes instead of talking about “free software” like some people do, I’m instead talking about “emancipatory technologies.” We need to think about technologies not in terms of whether the source code is available online to share, but in terms of how they transform the possibilities that are open to us, whether it’s citizens or just more generally human beings. So, I think just keeping that kind of humanizing imperative will help to guide us in the right direction.

Fa-ti: Well said. Thank you all so much for taking part in this fruitful conversation. Happy hacking to you all.

Postscript: Two Stories of Inclusion: A Field Report from g0v Summit 2018
Shun-Ling Chen

Since 2014, the g0v community organizes a biennial summit. The g0v Summit is an act of “commoning”—community members gather physically to discuss issues, reflect on problems, and celebrate achievements. It is also an occasion to reach out to the wider public, as well as to bring in civic tech activists and scholars from other countries to exchange experiences and ideas. This postscript documents some of my observations of the g0v Summit 2018, which was a three-day event in Taipei held between 5 and 7 October. I am particularly interested in the g0v community’s efforts in broadening participation. I will focus on two stories of inclusion as examples of how the g0v Summit strives to accommodate the needs and concerns of different groups of people. (Disclosure: I served on the program committee of this summit but this postscript does not represent the opinions of that committee or the summit staff.)
The g0v Summit 2018 took about ten months to prepare. The event was funded by donations and registration fees. During the summit, there were more than 600 participants on each day, including 125 volunteer staff. About 60 percent of the attendees had not participated in any g0v events.

The summit program mostly came from open submissions. Aside from the usual topics of civic-tech practices, new media, politics and election, one of the themes in the open call was “Bridging Divides, Healing the World, Envisioning the Future,” which welcomed proposals from civil society—in fact, organizers also made efforts to solicit proposals from NGOs. One proposal in this category came from Prosigner, a China-based advocacy organization for deaf rights, titled Can Technology Come from Deafness. The workshop proposes to change the audience’s usual perception of the deaf and asks how can technology help to improve the issues faced by the deaf, such as education and difficulties in public participation. This submission was among the ones that were accepted immediately as it fit into the goal of reaching out, and in this case, it would help to bridge the disability communities with the civic-tech community.

More than half of the submissions of the 2018 Summit were international, even though it did not intend to be an international conference. The summit provided need-based travel grants (airfare) for international speakers. One tough job for the program committee was to maximize the number of proposals it could accept with the limited budget. Hence, the program committee decided to fund one person per proposal. But the Prosigner team soon reminded the committee that for Jing Cui, the Chinese sign language speaker, to effectively convey her ideas, she needed her colleague Yuan-Jen Chen to serve as her sign-language-to-Mandarin interpreter/copresenter. A local sign language speaker would not be as helpful, as Cui is not so fluent in Taiwanese sign language. Cui’s response brought two revelations to the program committee: 1) We set a rule that applied to all international speakers but it was not substantially fair. 2) We were ignorant of the issue and were unaware that Chinese sign language is different from Taiwanese sign language. We immediately approved a travel grant for Chen, but that was just the beginning of our revelations on how little we knew about the accessibility issues faced by the deaf community.

Since the first summit, the g0v Summit has gradually built a team of volunteer Mandarin-English interpreters. For the Prosigner workshop, however, neither the Mandarin nor English interpreter would be helpful for the deaf people in the audience. The cheaper solution was to have someone simultaneously transcribe the Mandarin interpretation and project it on the screen. However, reading the transcription might be a bit strenuous for the deaf audience and might not be as direct a form of communication. Also, in case they have questions for the speaker in the workshop, it would be better to have a Taiwanese sign language interpreter. After deliberation, in addition to the transcription, the program committee and the summit chair decided to squeeze money out from somewhere to hire a Taiwanese sign language interpreter. Since this was the first time for the summit to host a sign language workshop, the programming team even drew a flowchart to ensure the messages could be delivered in different languages in both directions.

In fact, Prosigner indicated in the proposal that, if accepted, Taiwanese sign language assistance and simultaneous dictation would be needed, but we were too unfamiliar with the topic to grasp the meaning of those words. The workshop eventually went smoothly and was successful. I witnessed how lively the Mandarin interpretation
was. One could really tell the duo had been working together for a long time. It would have been a disaster if the program committee took Cui’s voice away from her by insisting on any formalistic equality rule.

But there was still one glitch. The local sign language interpreter was unhappy that she was unaware of the filming and streaming arrangement, as some sign language interpreters would not take on a case if the event would be filmed. She eventually graciously agreed to be filmed. It is quite common for civic-tech conferences to accommodate people who are privacy conscious. At the summit, those who do not wish to be filmed or photographed can opt for a red badge lanyard. Mandarin-English interpreters usually do not need any special arrangement as they usually work in a place that would not be filmed, but sign language interpreters are different. Privacy-conscious speakers can also opt for wearing a mask if they wanted the session to be filmed, but sign language includes facial expressions so a mask would not be a privacy-friendly option either. It would seem the only way to respect privacy-conscious sign language speakers is to communicate in advance, which was not adequately done this time.

The Prosigner workshop was a story about how some of the organizers tried to make the summit inclusive and accommodating when reaching out to people with special needs. It is easy to set inclusiveness as a principle, but it is not as easy to dance the dance. As the summit chair Ipa Chiu notes in a reflection, the actual practices, the technical details and logistics in the planning, and the challenges felt by the organizers in the process are all simply reminders of what it really means to be an inclusive community.

The second story is about a mother who appeared with her two young daughters with no prior knowledge of the civic-tech community. She was there simply because she goes to any event with a large number of attendees that may serve as an opportunity to raise awareness of the problems faced by people with single-sided deafness (SSD), including her elder daughter. Like many tech conferences, g0v events always have a table at the entrance with many cutesy skill stickers. Attendees begin their participation at the event by putting one or several stickers on their lanyards or laptops, so that others can easily see what skills and contribution they are bringing to the table. Typically, these stickers include a variety of programming languages, different aspects of software development (e.g., user experience design, user interface design), and a variety of professional fields (e.g., law, science, agriculture). Upon their arrival, the mother and her two young daughters were immediately attracted to the colorful stickers on that table. But after going through the stickers the mother was unsure which one to take — her knowledge on SSD was not among them, neither was her experience negotiating with government officials as a preschool parent. Finally, she picked up the “Go” sticker and urged herself to dive in, without knowing it is a programming language.

She talked to random attendees in the hallway. Someone spent an hour explaining to her what this weird thing of “open community” is, and connected her with participants who may be interested in discussing the challenges faced by SSD. She also learned that there is something called “unconference,” or unconf, on the morning of the third day. Unconferences are not uncommon for tech conferences and have been a part of the summit program since 2014. Instead of having a fully designed program, organizers intentionally designated a half-day of openness for any participant to propose a topic of their choice and lead a discussion. The summit organizers also encouraged all those proposals not accepted as part of the formal program to consider doing an unconf. For
better allocation of resources, for example, venue assignment, unconf proposals are usually determined by popular votes. The mother proposed an unconf program on how to make an SSD-friendly society. To gain enough votes for her unconf, she spent the whole day in the hallway and explained to passersby the predicament faced by people with SSD, and received enough votes to be on the unconf program. She also signed up for a five-minute lightning talk to address the whole crowd right before the closing ceremony. At the lightning talk, she and her elder daughter began with a children’s song to express how she felt a little intimidated yet welcomed in this unfamiliar environment, how she learned about the opportunities to insert her own program in the summit’s semi-open format, and how other attendees tried to understand the issues she brought up and brainstormed with her on how to address them. She and her elder daughter became one of the most covered stories in this three-day event.

The second story is about an encounter not as planned as the Prosigner workshop, but it showed how the summit served as an opportunity for the g0v community to reach out. In fact, even more than the planned inclusiveness by a few people on the summit organization team, all the good will and friendly gestures of the random attendees at the summit are more instrumental to make the newbies feel welcome and included. Although it is not without entry barrier, from this mother’s testimony, the g0v community has managed to lower its threshold by listening and translating or helping to translate between different fields, expertise, and life experiences. Unconf also symbolizes the openness of the conference’s structural design. It intentionally leaves room for all participants, including newcomers, to have their own summit agenda and to initiate their own projects at this gathering.

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