

## Special Interview with Audrey Tang

### (Taiwan “Digital Minister”) #1

As the world shock around the lack of "masks," the Taiwanese government surprised the world with vivid measures to realize a fair distribution by visualizing the inventory status of the entire country online. At the same time, the name of Audrey Tang (Tang Feng), the "Digital Minister" (more precisely, "Political Commissioner for Digital (Ministerial level)" in charge of Open Government, Social Innovation and Youth Affairs), who coordinate the project, has dramatically increased. And its name became widely known in Japan by participating in GitHub, a "new coronavirus infection control site" created by Tokyo. It is necessary to listen to her words once again, as corona countermeasures start to exceed the capacity of manpower and expectations for assistance with digital solutions are rising.

On March 27th, she answered the questions of AIS and Kei Wakabayashi for one and a half hours, including the historical and cultural background that supports digital innovation in Taiwan.

Report by Chikako Masuda (AIS senior researcher)

#### Speaker:

Audrey Tang (Taiwan)

Chikako Masuda (Institute of Administrative Information Systems)

Kei Wakabayashi (Interviewer / Black swan publishing)

*This article is an official transcript of the dialogue.*



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**Chika:** Hello, good morning, Audrey.

(Audrey uses the picture of the earth for virtual background.)

**Audrey:** I'm very well and happy to be here...on earth. And I'm happy that the internet connection apparently works better. Can you hear me fine?

**Kei:** Yeah, fine. Perfect.

**Chika:** Thank you. Let me introduce myself. My name is Chika from the Institute of Administrative Information Systems. And, today, Kei Wakabayashi will interview you. Thank you for sharing your time. Thank you so much.

**Audrey:** No problem at all. Yeah, let's just get started.

**Kei:** Okay. How's your day so far?

**Audrey:** It's just been three hours since I woke up. But this is my third video conference. I had already two conferences with people in the US also talking about, like mass distribution and coronavirus mitigation, so it seems to be a very popular topic.

**Kei:** Okay...and have you gotten some rest? I mean, are you constantly working? Or do you get some rest in the weekends?

**Audrey:** Yeah, of course I do, of course I do. I also use the Pomodoro method, so I get five minutes of rest every half an hour. So, I'm doing well, thank you. Yeah.

**Kei:** Really? Okay, cool. So, for this interview, I'd like to focus on how you could digitalize the government system. And first of all, it was quite a buzz surrounding what you did with the storage of the mass. And can you tell me about that project in detail, how it started and who were involved and what kind of, decisions making...

**Audrey:** Sure. So, there's actually two systems we're talking about. One is the mask on pharmacies, where you can just go to the pharmacy at any time and present your national health insurance card, and you can get three masks if you're an adult, or five if you're a child, and that's the...what we call it 1.0 version of the mask distribution system.

And we also have a concurrent system called e-mask or e-mask 2.0 which is, basically, you can order online to a convenience store near you. And just yesterday, I collected my pre order, it took me less than one minute, as opposed to pharmacies where you will take multiple minutes, and it's all prepaid and it opens 24 hours a day. So, much more convenient. The only drawback is that you have to wait for a week for your preorder to arrive to come into the store near you, but it's very popular. As of this morning, we already have over 1.5 million people using the e-mask system.

**Kei:** Really? And how did it get started? I mean, was it your idea or someone else's, or? How did it come about?

<https://youtu.be/9zWpQ-YkfsY>

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**Audrey:** Well, the pharmacy distribution, of course, the idea is from our Premier, Premier Su Tseng-chang, and also, he also got kind of famous in Japan because of the... his very humorous public service announcements and talking about tissue papers and things like that. But in any case, so, yeah, so it was the Premier's decision, and I was at a meeting, I think it was February 3, and my only contribution, really, was to show the premier something that the civil society has developed, someone called Howard Wu, Wu Chang Wei in Hainan, have, at that time already developed a prototype of a stock availability, interactive map for convenience stores.

So I showed the Prime Minister saying that, oh, if we're switching to pharmacies, distributing masks, certainly, the pharmacies would be willing to signal that they're already out of stock so people don't go over and over and check the pharmacy that are out of stock. And so, the Premier says, "It is a good idea," It's like a GPS that, you know, shows you that this road is congested, so take another road. So he caught the idea immediately, and so, the next day, I started talking with the G0v community about how we can best visualize the stock information. And then the rest is history. There's now more than 100 applications.

**Kei:** Okay, and how did you, sort of, like gather the stock data? I mean, was it already provided through some kind of network? Or did you have to build that kind of network from scratch or? How did it work?

**Audrey:** Yeah, it was all done by the programmers and contractors at the National Health Insurance Agency. I didn't

program it myself. But the idea is actually very simple, because every day the pharmacies receive the supply of the mask of stocks, right? So, by the time that they receive it, they have it sorted into packages of three. And once they done that, they register how many packs they have packed, in terms of how many adult masks and how many children's masks, using a simple system, it's called a VPN connection back to the National Health Insurance Agency.

And once they do so, the stock level rises, and when people start picking up the masks, of course, they have to swipe your NHI card, and they have to pin back to the NHI anyway, with API that verifies whether that person is eligible, like, whether they have collected, like, from the nearby pharmacy already, because we don't want to, like, double collection. And so that is a real time, updated in the NHI system. Now, the NHI, what they have done brilliantly is to publish the data not as a statistics at the end of the day, which is what you expect a government agency would do, but actually they agreed to publish it every few minutes and that enables the interaction with the public civil sector.

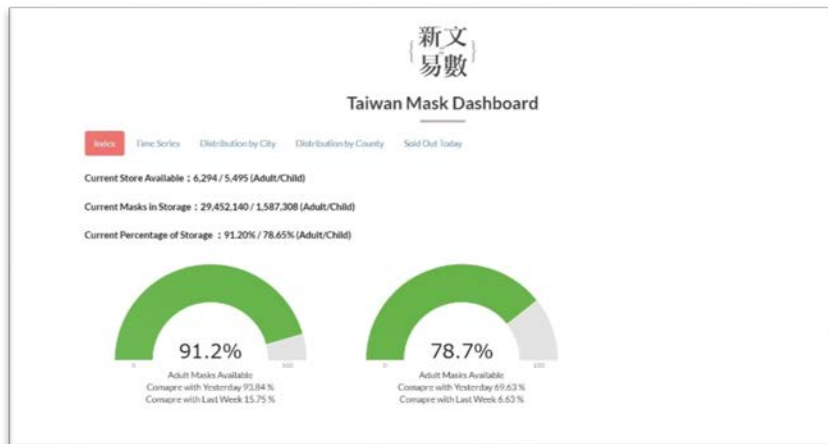
**Kei:** And how did you get the sort of pharmacies to be involved in that system. I mean, they have to do it voluntarily, right?

**Audrey:** Yeah, they're already contracted by the NHI, the pharmacy that joined our pharmacy that already has a contractual relationship with the NHI. But on the other hand, they don't have to join if they really are too small or something, can say, "opt-out mechanism," but most of them are willing to help, because it's also part of their job to educate the public about sanitation, about things like that. And now everybody knows that masks are only useful if

you wash your hands properly. It helps that the pharmacies are also do this pedagogy role to do public education.

**Kei:** How many pharmacies are on that system?

**Audrey:** Well, it depends day by day. So there is an interesting URL that I will just paste to you is called: [tag.analysis.tw/mask](http://tag.analysis.tw/mask). And so, it shows now, that, as of this moment, like this minute, there's 4,254 pharmacies with adult mask in stock. There's currently 6,069 pharmacies with children's mask in stock.



<http://tag.analysis.tw/mask/>

*I'm working "with" the government, I'm not working "for" the government.*

**Kei:** Okay. Interesting. And how many people were on your team? How many people were kind of involved?

**Audrey:** Well, this taskforce is huge, and I wouldn't really lead my team I'm mostly a channel through which the civic tech community can communicate with the gov-tech community within the government. So, on the g0v (gov-zero) channel, the covid-19 channel has at the moment 431 people. So that's the civic sector. A comparable amount of people are in the gov-tech team. But I don't lead either of these teams. I'm just a channel through which these teams collaborate.

**Kei:** So, the on the civic side, what kind of people are there? I mean, are they like programmers, or?

**Audrey:** Designers, and...also, people working on the Tokyo Dashboard...

**Kei:** I see. So, are they like similar sort of organizations like...Code for Taiwan?

**Audrey:** Yeah. So, the equivalent is just called "g0v (gov zero)". And you can join. It's literally, just by having [join.gov.tw](http://join.gov.tw)...

**Kei:** And how long have you been working with the movement?

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**Audrey:** So GOv started in late 2012. I started my first project there, the “Moet Dictionary” in early 2013, so it's being like more than seven years.

**Kei:** Okay. Do you have any projects other than the masks storage that you're working on right now?

**Audrey:** Right. So, the mask online ordering system, as I said, is a brand-new system. So I've been focusing on that system for the past couple of weeks. It's been quite successful. And at the same time, we're also working on counter disinformation that also got a lot of interest from the Japanese media, how we can get what we call, “Humor over Rumor.” Right.

So, for example, I was invited to the US-Taiwan Tech Challenge that compares teams from, say, Israel, Australia, Taiwan, and so on how to best counter this information. And the top winner, the Doctrine Message Tool, which I just pasted you at warwick.tr.com is from the Taiwan antivirus company, you may have heard of it, it's called Trend Micro.

And a few Trend Micro employees wrote this Bot on the LINE system, which is also used in Japan. And you can invite this robotic dog to your online chatroom. So if your chatroom has like 10 people, just like an antivirus tool, it will scan each incoming picture and text you will not store it, they will compare it against a database prepared by independent fact-trackers, as well as from our Centers of Disease Control and so on, and rumor, they just respond immediately within a second or two with a humor. And so, people don't feel as outraged by the conspiracy theory or the

rumor, but rather they do funny because of a cute dog share a cute picture, and this is very useful. That's also what I'm focusing on to get more government agencies to participate with independent fact-checks.



<https://www.taiwannews.com.tw/en/news/3878942>

**Kei:** Okay. In Japan, it's kind of like, there are medical people from medical profession, and they divided into two sides. And one is saying that PCR testing is essential, but on the other hand, some doctors say you have to sort of like, regulate the numbers of the PCR and..., when it comes to like, doing fact checks, who actually does that?

**Audrey:** Independent journalists.

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**Kei:** I see. So they're, kind of, like, balancing what the doctors are saying, and they try to figure out.

**Audrey:** Yeah, definitely. I think one of the core components of the Taiwan Center of Epidemic Control is that the daily livestreamed and also translate to a hand, sign language in real time. Most conferences are like, they ask the commander anything. So, journalists are given full access, there's no question that you're not allowed to ask. The press conference only ends when nobody has any more questions they ask just whatever. And as the collaboration with journalists I think is really key.

And the answers then gets made into cute cards for the rumor, a counter idea, and so "Humor over Rumor" only works if the journalists get the whole context of policymaking, not just the result of the policies. Otherwise, the humor will be built on in the air and may actually contribute to rumors.

**Kei:** And what's happening in Japan is that the bureaucrats and the people from the cabinet, they deny to answer. Are there some kind of regulation or restriction to avoid?

**Audrey:** Well I think it's mostly cultural, right? In Taiwan, we know that the civic sector, the social sector, has higher legitimacy than the government, even though that the government at the moment is enjoying a very high approval rate. Still people choose to believe in their social sector, like charities and social sector, and then journalists and things like that. And so, Taiwan has a long tradition of community-building even before we had presidential election. So, it's the culture for the cabinet to work with those social-sector

people and the civic technology who are, of course, one part of this social sector, instead of trying to fight against them.

**Kei:** And how is the civic tech sector is considered among the citizens? Are they really well-trusted? In Japan, it's..., they're not really familiar with... most of the people. So, most people don't know what is civic tech sector is. How is the situation in Taiwan? Is it well-known?

**Audrey:** Well, yeah, because G0v is quite well known. That is because G0v was the, kind of, granting that people who are technologies that supplied the infrastructure for communication during the Occupy Parliament's in 2014. So, before March 2014, nobody have heard of "gov zero." Then afterwards, people probably have heard of it.

**Kei:** So, when you join the cabinet and you become a minister and...were there like any oppositions that you've become the member with...from like elder people?

**Audrey:** No, not really, because I already said ***I'm working "with" the government, I'm not working "for" the government.*** So, as I said, I'm just a channel through which intergenerational, cross-sectoral, transcultural solidarities can be built. I wouldn't say anybody is against that.

**Kei:** So that was not a big thing for the country. Because, you know, in Japan someone like your age, it's hard to imagine to become a minister.

**Audrey:** It helps that I was already, kind of, understudy for two years working with a previous minister and a previous cabinet. And I think it gradually shows the career public service that I'm here to help them to assist them to reduce their risk to save their time to spread credit to them, instead of something truly, you know, sabotaging the career public service from using external forces. So, I made that very clear during the two years of, kind of, understudy internship, and so, I think the career public service feels safer with me being the minister.

**Kei:** And can you give us a background of Taiwanese government? What was the motivation behind the digital transformation? And how did they started? Can you give us a bit of history of how it developed?

**Audrey:** Yes, certainly. So, I think one of the most important development in Taiwan, when it comes to digital democracy, is, of course, the Occupy Movement, where we cannot talk about this idea of "open government" and things like that makes it possible for people to see that it really takes half a million people on the street, that through rights designed through the interaction with the NGOs, and so on. They can actually agree on a rough consensus instead of fighting each other, as many other occupiers, that goes nowhere, right? And I mean, what I'm trying to say is that without a proof of concept, without a demonstration, in a sense of a demo, it's hard for people to imagine that people who have never met before can somehow collaborate, but that is the core of civic technology, and cross-sectoral trust. And I think the previous events before the Sunflower Movement was the large earthquake around the turn of the century, or the September 21 Earthquake.

Again, people volunteer to do communication to do logistics to do regional revitalization, and things like that. And, I mean, it's either typhoon or earthquake that unifies people, and I'm sure you know something about it.

**Kei:** I see. So, it's really interesting to hear that. It's kind of like extension of a demo. Is that what you're saying?

**Audrey:** Yes. So, demo as a demonstration, not as a protest, right? Yes. And the demo is now also to the world. Because there are many people looking at the coronavirus situation now, and think that you need to, like, absolutely go to "state control" like pure authoritarianism and...or, that people feel like they see this as completely useless, and it says it should just help themselves and distrust the government's instructions and power and kind of show a middle path that those sectors are very strong, but they reinforce each other.

**Kei:** And in order to get people on the satellite digital platform in Taiwan, do you have a digital ID for each citizen?

**Audrey:** Yes, we do. It's the National Health card. Because it's a single payer universal access. It has the authentication part, but it cannot digitally sign documents. The digital signature card, the citizens certificate, is another card that maybe one quarter of people have as like "My Number Card" in Japan, but the National Health Insurance card, everybody has one.

**Kei:** And that was that's the kind of like a basis for the selected digital...



**Audrey:** For the mask distribution, because the mask distribution system relies on we categorizing surgical masks as medical supplies so that you can get access to them either online or offline using your NHI card.

**Kei:** How did this, sort of like, government...has the government...has been always interested and always eager to transform their system to digital-base system? Or do they suddenly kind of like...

**Audrey:** We don't...Yeah, we don't see it as “transforming” into digital. We're more like “amplifying” the analog processes so that it reaches more people. So, we're not saying digital transformation is taking anything away. For example, when we introduced the digital signature act, we didn't say that wooden seals are broken and you cannot use wooden seals, you can still use you wooden seals. Electronic signature is as good as wooden seals. And, there are innovators that produce this multi-touch wooden seal, but you can apply it to your phone screen that seal appearing...that's what I mean by “amplifying” the existing culture not replacing.

**Kei:** Okay, I see. So, when it talks about like, digitalization, you know, it's always about like, we considered like, you know, more efficiency, which means like, you know, more layoffs, but it's not bad.

**Audrey:** No, no, it's about more inclusion. And it's also about making people feel more creative and more interactive in their job so that they can delegate the chore to the robots. And that's actually the society 5.0 vision as well.

## *My work is a channel*

**Kei:** Okay, yeah. So, can you tell me about how your...if you have a team workbook, how many people you have and, you know, how did the most of your work, you know, the sort of like a normal procedure on when you start a project, how did it sort of like, start and finish? Can you give me, sort of like, the procedure?

**Audrey:** Well, I never started the project. It is always innovations from the social sector, from the civic tech people, or innovations from the gov-tech from people of work, career public service.

**My role is just to make sure that they work out loud.** Meaning that instead of innovating in a silo in a small area, my office is half-delegates from each ministry and half-civic technologists. And how's my..., by having lunch every week, and we're going out loud and inviting people to join and visit me every Wednesday in my office hour, we'll make sure that any small innovation any corner in Taiwan with the public sector or the civic sector get amplified, so everybody learns about it.

**Kei:** So basically, you are, kind of like, a facilitator or like a moderator that, you know, there comes an idea from this side and you, sort of, bridge it to whatever ministry that's involved, or...is that your...is that what you're doing?

**Audrey:** So, yeah, *so my work, as I said, is a channel.* And so, I have three working principles if that's what you're asking. We

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already talked about one, right? Voluntary association, people come to me with ideas, I never give mine, I never go. And then the second is radical transparency, meaning that everything, all the meetings that I chair or the interviews that I host, including this one, so I'm going to ask you for zoom record later, I record and I publish using Creative Commons. So that ensures that everybody who logged in me lobbied only by public interest, they can only make public interest arguments, because I'm just going to be public, and that also enables cross sectoral collaboration. So I'm like a cultural translator.

And finally, in addition to radical transparency and voluntary association, I also work on location independence, meaning that people anywhere in the world can summon me. And I can appear as a robot as hologram and things like that and do my work anywhere in the world. And this is important, because Taiwan has many islands, just like Japan, and for people who have to travel all the way to the capital city is a lot of time during traveling, but all the decisions are made in the capital city. So that creates "information asymmetry". But in my social innovation tours, I go to the most rural indigenous offshore island places by myself. And I operate my office there in my office hour and make sure that people in Taipei and larger municipalities like Taichung or Taoyuan or Kaohsiung, they all connect through telepresence to this local townhall meeting that I facilitate, so that local people can speak their mind and raise their ideas and with the municipal people listening to them and responding in real time across ministries, across levels of the government. So, they become the protagonist, they get the full back two hours, three hours, instead of having to make a one day trip to Taipei only to make it...

**Kei:** Yeah. Interesting. How often do you do that kind of, like, town meeting and stuff?

**Audrey:** So, before the coronavirus situation, it was likely every week. So we do a tour promoted by the ministries and agencies every other Tuesday, but also the civic sector with the use of devices and so on, can also petition and run such meeting and I'm always visiting there also, every other week, so altogether is about once a week.

**Kei:** Interesting, and who are the, sort of like, participant? So are they, like, social sector people from...

**Audrey:** Of course, of course. So, the local co-ops, the local social entrepreneurs, the local, like, if it's an indigenous place, then of course, the local leaders of the indigenous nation and things like that.

**Kei:** And, how long have you been doing that?

**Audrey:** For three years now. Yeah.

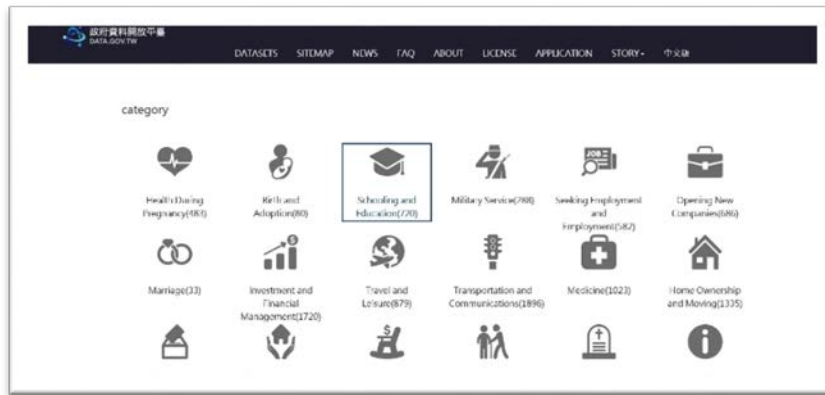
**Kei:** Okay. And is it mainly because you wanted to, sort of like, collect what the, sort of, what the problem is? Is it kind of like a problem-finding?

**Audrey:** Yes. So...yes, so I pasted two links. One is about all the tour that I made and all the Q&A, because it's all regular transparent. You can see all 32 ministries are in, onboard. And a

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second one is the social innovation organizations that we managed to discover and meet along the way. And you can see which county and city focuses on which sustainable development goals.



<https://data.gov.tw/en>

**Kei:** Hmm, I see, I see. And how is it, kind of like, responded? Is it like really...

**Audrey:** it's very well-received when I began this tour, less than one fifth in Taiwan knew about social entrepreneurship but now it's more than one in three, and very soon we will have a mainstream adoption, meaning that more than half of people will consider social entrepreneurship as a possibility to tackle the global goals.

**Kei:** I see. Can you tell me about the social sector organization? Is it like not-for-profit but it is...?

**Audrey:** It is *“with” profit*.

**Kei:** *“with” profit*, I see. And are there young people who would want to work in social sector?

**Audrey:** Yeah, very, very much so. And old people, too. The most active participants in our participation platform are people who are around 15 years old and 65 years old. And I think...

**Kei:** Interesting. 15 years old?

**Audrey:** Yeah, they have more time on their hands. And also, they care more about the next generation, right? People who are retired care about their grandchildren and, 15 years old, they are the future climate change, they are the stakeholders. And so, it makes sense for them to work together in regional revitalization, social innovation and advocating for the SDGs. And of course, people who are of working age can also support them, by procuring from the enterprises with social impact, as well as by investing in them.

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