Center for Humane Technology | Your Undivided Attention Podcast
Episode 22: Digital Democracy Is Within Reach

Tristan Harris: Imagine it's January, 2021, and the United States and western states around the world decided to become 21st century digital democracies. The United States hired its first digital minister, who went through sweeping reforms that entailed a modernization of congress, transparency of each member's votes, video of the all the conversations that congress members had with other lobbyists and guests. Imagine a world where conspiracy theories were all acted upon within two hours, and replaced by humorous videos that actually clarified what was true. Imagine that expressing outrage about your local political environment turned into a participatory process where you were invited to solve that problem, and even entered into a face-face group workshop. That pothole in the street that's been there for four years? Suddenly it's changed.

Tristan Harris: Does that sound impossible? Well, it's ambitious and optimistic, but that's everything that our guest, Audrey Tang, digital minister of Taiwan, has been working on for her own country over the last six years.

Audrey Tang: I'm putting into practice the ideas that I learned when I was 15 years old, and that's rough consensus, civic participation and radical transparency.

Tristan Harris: Audrey Tang's path into public service began shortly after student protestors in Taiwan stormed into the nation's parliamentary building in 2014, and refused to leave until the government heard their calls for greater transparency. There was just one problem, the protestors had no Wi-Fi. Enter Audrey, who walked in with a backpack full of ethernet cables and installed a system of communication that was radically open, transparent, and responsive to the public's demands.

Audrey Tang: I personally brought 350 meter of ethernet cables to make sure that the truth spreads faster than rumors, that we livestream what's happening in the Occupy Parliament to a large projector on the street where they can see, in real-time, what's being debated and what people said in the occupied parliament.

Tristan Harris: It was so successful, that Taiwan's government invited her to build a system of communication for the country that Audrey calls a listening society.

Audrey Tang: And surprisingly it's working pretty well. And it's transformed our society.

Tristan Harris: It's also important to recognize that this digital governance process had Taiwan be one of the most effective countries in dealing with the coronavirus. They never even had to shut down any of their restaurants. They never went on lockdown.

Tristan Harris: When it came to misinformation, they actually were able to combat rumors and conspiracy theories about the unavailability of masks with digital tools that provided transparency about exactly how many masks were available.

Tristan Harris: So when we look at an example like Taiwan, it's actually a model for democracies around the world. Maybe that's what the world could look like in the future. We can look at an example like this and say, "Oh, we could never do that here in the United States." And what if now is the time to change that? What if this was the moment when we actually showed that there actually is an alternative to the rising tide of Chinese digital authoritarianism?

Tristan Harris: What if there is a version of digital democracy that actually is listening to each citizen and that our news and technology feeds sort for unlikely consensus and agreement, instead of for outrage and division? What if we had an information environment that actually reflected truth? That world is possible, and Audrey's work shows that it is.

Tristan Harris: I'm Tristan Harris and this is Your Undivided Attention.

Tristan Harris: Audrey, thank you for coming on the podcast.

Audrey Tang: Hi, hello, everyone. Hello, world. Really happy to be here.

Tristan Harris: We have a slightly different format for this interview. I've invited Glen Weyl, who advises Microsoft's leadership on geopolitics and macroeconomics, and he's also the founder of the radical market's movement, RadicalxChange Foundation, to interview Audrey Tang.

Tristan Harris: Audrey, why don't you take us into your personal story because I'm trying to just even imagine what it was like to be there at the congress. Did you slam through the doors and kick it in and open your laptop and invite people into the discuss online-

Audrey Tang: We did both. I would stay there the night before they stormed into the parliament. At the time, the members of the parliament were refusing to deliberate substantially a Cross-Strait Service and Trade Agreement, or the CSSTA. And because of that, the students, along with around 20 different MPs, occupied the parliament a legitimacy theory. Simply that, the MPs were on strike, so to speak. And because of that, everybody needed to just take their seat and do their work because they refused to do their work.

Audrey Tang: For about three weeks, totally nonviolently, people just talk about all the different aspects of the CSSTA. Including, actually, the critical issue that other nations are grappling with now, of whether we will allow PRC, that's People's Republic of China government, components in the 4G infrastructure back then in 2014.

Audrey Tang: And so, 20 MPs talk about 20 different aspects and we make sure that we livestream all the meetings. I personally brought a lot of ethernet cables to make sure that we livestream what's happening in the occupied parliament to a large projector on the street. And even with the stenographers working in the occupied parliament, people who don't hear very well on the very crowded street can still look into their phone on an IRC chatroom, where they can see in real-time what's being debated and what people said.

Audrey Tang: We make sure that we get the rough sense of the crowd every day, and everyday we push the consensus a little bit more so that, by the end of the three weeks, people have a very strong consensus about what to do. Including not allowing PRC components to 4G infrastructure. So I would say it's a technologically amplified occupy, instead of like many occupied places, there's essentially no coordination between the media people who talk to the online world and the activists who basically held the fort in the Sunflower Occupied. These two groups work very well together, very closely together.

Audrey Tang: And the many people who are online supported the very few people who were occupying the parliament. So when the police eventually came, they counter-surrounded the police, making sure that the police cannot just evacuate the students.

Glen Weyl: So, Audrey, one thing I see as essential to the approach you've taken is that the large-scale mass protest, the technology sector, there seems to have been a real integration of those very contrasting sensibilities in the way that you and the G0v movement approached things. A lot of people here in the United States, when I tell them your story, say that, "Well, Taiwan is just totally different society." But I'm really curious what you think changed in Taiwanese society, how that change was possible, and what lessons you see for that.

Audrey Tang: Yeah, and if you ask a random person I think, in 2010, on the street of Taiwan whether people who aren't social activists, people who are civic media, and people work on free software, would somehow unite under the banner of G0v, people will look at you like you're crazy. So this is definitely something that really takes a special moment in history. But just like the relationship between research and development, once the idea is there it spreads very quickly.

Audrey Tang: So the core idea of G0v, that's G-zero-V... The idea is that, back in 2012, a few friends of mine registered this domain name, G-zero-V dot TW. The core idea is essentially taking all the websites that they don't like in the government and make a fork, that's to say, an alternative based on civic technology. So all it takes is a letter change in your browser bar, G-zero-V, and you get into the shell of government, that works better and is more participatory. So it's a very interesting idea.

Tristan Harris: This is actually a critical point to contextualize for people. This would be almost like... There's whitehouse.gov. Because whitehouse.gov, let's say, hosts government documents or bills or executive orders. And here you are coming along with your civic hacker friends and saying, "You know what? We think we can build a better civic tech infrastructure than this existing domain." And so, you assembling those tools would be like building this white house dot... I don't know...

Audrey Tang: G-zero-V.

Tristan Harris: G-zero-V, yeah. Exactly.

Audrey Tang: And the idea that prompted this idea was a controversial government advertisement in 2012. That says, "Instead of wasting time deliberating policies, let's just get things done." Basically also authoritarian advertisement. I think it's one of the first YouTube advertisements that the government ever filmed and it was also flagged as spam, meaning that people don't really like it.

Audrey Tang: And so, these civic hackers built a citizen auditing system for Taiwan central government budget. Essentially saying that the reason why the Taiwanese people cannot make sense of the budget is not because we're dumb, it's because there's lack of visualization. There's like 500 page of pdf files, and of course nobody can make sense of that. And because they made the data from the accounting statistics of it accessible, easy to understand and interactive, the public could then rate and comment on every item in the budget.

Tristan Harris: What tools did you have to string together at that time? Because I think that helps at this stage for people's understanding.

Audrey Tang: Basically, the productivity software that we all are used to, including collaborative editing documents, collaborative editing spreadsheets, we have room chat, but they're all open-source and so that's some of the earlier infrastructure. Of course, it's now part of our basic participation platform, which has more than 10 million people out of 23 million people. But, at that time, it was just a very few people doing this kind of fork in the government work.

Tristan Harris: I mean, they could have tried to, say, start some Facebook groups online and created a governing system through Facebook and yet, obviously, you didn't do that. Sounds like you built your own tools for spreadsheets, your own up-down voting agreement consensus, "I like this. I don't like this. I agree, I want that policy passed." You could have used some of the existing corporate things, why and what was the nature of doing it publicly?

Audrey Tang: Well, first of all, of course we want to make sure that everybody can fork our own code. That is, the idea of open innovation, making sure that everybody who has a different idea can just fork their version of that civic tech service and then build their own re imagination of it. It's very powerful because then you get to merge the best, or at least the better, practices without getting into ideological conflicts.

Audrey Tang: Basically, proprietary software ensures a governance mechanism that is very arbitrary. Basically, the first mover, the first person who build that ecosystem gets to ultimately decide whether they're a benevolent or non-benevolent dictator. But if it's free software then the benevolent dictator is always put in the quotes because everybody knows that you can always fork it. And that kind of forces the project leader to be more inclusive and also allows for more diversity.

Glen Weyl: So you used all these technologies to form this coherent set of demands and then, what was the moment... What was the process by which the government... At the time it was the nationalist Kuomintang government, which was generally quite conservative, certainly not necessarily the most open of all possible governments. What was it that brought them around to recognizing these demands and not only recognizing these demands, but also recognizing the efficacy of the way that they had been presented.

Audrey Tang: Definitely, it's the election of 2014, which was a mayoral election. There is at least two mayors who explicitly run on an open government platform and there's many other mayoral candidates that didn't quite say, "Open government is my number one priority." But they, at least, supported open government and radical transparency and also the occupy movement. And so, the landscape changed because everybody who did not support the occupied efforts lost the election, sometime very surprising to themselves. And everybody who occupied the parliament, or at least helped occupying the parliament, won the seats in the mayor without preparing their inauguration speech, in at least one case.

Audrey Tang: That's basically a new political will expressed by the citizens.

Tristan Harris: And through that new election, you also became digital minister?

Audrey Tang: Not at that time. I was a reverse mentor. A young mentor to the then minister for law, also for cyberspace law, Jaclyn Tsai.

Tristan Harris: So you started, basically, teaching them how to use these different tools for building consensus...

Audrey Tang: That's right. Yeah, I personally trained more than one thousand career public servants.

Tristan Harris: I'm just imagining the parallels here, of what that would be like in the United States. It would be as if you came to the United States government and started hand training thousands of government representatives, et cetera. How to use different open-source tools to modernize congress, to host debates online, to be able to put up proposals in a system where people could comment and make suggestions about what policies that they wanted reform, or our most urgent problems.

Tristan Harris: It's very hard to envision that. And yet, that's, I think, what is also a lesson from your work. That, here you are doing this work on the outside of government, that was out-competing some of the inner coordination collaboration tools that existed. And then, you beginning to reverse mentor until you're ultimately brought in to lead, as digital minister of Taiwan.

Audrey Tang: Yeah, and there's always an outside theme. I must say that it's always important that... If, somehow, I waver from this direction, or the cabinet wavers from this direction, that there's always this implicit threat that the congress can get occupied again.

Glen Weyl: It's a remarkable story, Audrey. I'd now like to go into some of the specific tools that you talked about. Some of the ones I've been particularly impressed with, wiki survey tool, pol.is... Could you just talk a little bit about how that works and the role that it's played in helping to reach consensus in Taiwan.

Audrey Tang: The user interface is very simple. You look at one sentiment from your fellow citizens and you basically click on the upvote or downvote or pass. There's no reply button, so there's no place for troll to grow. And you also see your friends and family's... The various different sides so that they're still your friends and family. It shows both where you stand in relation of these ideas because each yes or no sentiment is an extra dimension. Just imagine a n-dimensional space where n is the number of sentiments shared by people and then the algorithm automatically do a principal component analysis and visualize that into dimensions. What's the most contentious points are.

Audrey Tang: And also, they did a k-means clustering, showing the people with shared sentiments and what unites them. At the beginning, people were on all the corners. But because we only give agenda setting power of our face-to-face consultation to anything that people can propose, that can convince a supermajority across all groups. And so, they converge on feelings that will resonate, not only with their like-minded people, but across the aisle. So, instead of distracting, the software automatically attracts consensus.

Audrey Tang: After we can settle feelings that resonate with practically everybody, then we get the stakeholders on the same table. Livestream that meeting and basically ask each then, "Here is the six consensus of the people, do you agree? If you do agree, how do we

translate that into the regulation?" And they're bound to the words that they said during the livestream consultations. That's how we ratify agreements a year or so later in August, 2016. And everybody knew it's coming, everybody anticipated it.

Tristan Harris: Do you have an example of a problem that ultimately found an unlikely consensus? Because what I love about the way that you talk about it and, having designed Polis, I guess you'd call it, is it sorts for unlikely consensus. So, unlike our current social media, which sorts for what's most outrageous, which is usually what's most divisive, you're sorting for the opposite. And I think an example to help people understand how that solved that problem.

Audrey Tang: Sure. For example, we just run a few Polis conversations around how to make contact tracing easier. For example, one of the consensus was a health information recorder on your phone, they solve the dilemma that most patients may not recall their whereabouts easily. And, when the medical officers come to them, they may actually accidentally divulge more information about their friends and families. More private details than the contact tracers need to work with. So instead, the app will generate a one-time use link and a dashboard that gives the minimally required information for the medical officer to do their work without compromising their friends' and family's privacy.

Audrey Tang: It doesn't use Bluetooth or, indeed, any transmitting technology. It's because of that, people would be much more willing to use that sort of tools.

Glen Weyl: One other thing I've been really fascinated with is the actual process that helps stimulate and create the initial proposals that go into this, which is this idea of data coalitions. I'd love to hear a little bit more about how those operate and how they contrast with other sort of data control regimes that exist in other places in the world. Because that's obviously a challenge that many societies have struggled with.

Audrey Tang: Definitely. In Taiwan, back in 2014-ish, people were suffering quite a bit, especially in the mid and southern cities, PM 2.5, that's air pollution. And there's a lot of different theories, whether it comes from transportation or from coal-burning plant. Or maybe it comes from overseas, from across the Taiwan Strait. There's lack of precise data. The G0v air pollution observation network working with the AirBox community... AirBox is a very simple air quality sensor, which was becoming very popular. It's less than 100 U.S. dollars, so all interested people. Many of them primary school teachers teaching data competence can participate by providing real-time air quality information on their balcony, on their school, or in their office. Little by little and bit by bit, thousands of contributors.

Audrey Tang: Nowadays, hundreds of thousands have contributed. Accumulating a diverse network of, at least, tens of thousands of sensors. Which is closer to the people and provides real-time air quality in the actual places where people are active. That's an enormous amount of environmental data. We put it on the National Center for High Speed Computing. We make sure that air products, meteorology, water resource, earthquake, disaster relief and so on, are integrated into this in-place computing environment. All primary schoolers or high schoolers part of slant sphere maybe, can write some code that very quickly run on those on those outside data to discovered correlations between the socio-activities and environmental phenomenon.

Tristan Harris: Wow. It would be like starting a forked website in the United States for the EPA.gov and then starting to have civic sensors for climate change, floods, climate methane signals, et cetera, and then starting to let people actually contribute their own sensors. Just to contextualize it for people. It's fascinating.

Audrey Tang: And because of this infrastructure, massively lowered the cost of any future innovations. The data coalition of the AirBox community, for example, negotiated with the private sector and the public sector saying, "We would be happy to provide our data for evidence-based policy making. We will work with you to calibrate our sensors against the humidity. But in exchange we demand that in the industrial areas, which we cannot get to, like industrial parks, the lamps, which is owned by the public sector, need to also install those microsensors so we can complete the puzzle together." It also prompted new presidential hackers on teams, such as the water bugs, which does the same as I mentioned for the air…Where they put this water pollution sensor in the river ways.

Tristan Harris: I don't know if you want to go here yet, but you did something very similar for coronavirus, as I understand it, in terms of understanding mask supply. Because I think the theme throughout your work is... People always throw around that transparency creates trust. But, in both cases, you have this notion that having transparent numbers, as contributed by citizens of the air quality measures in their own city, where citizens actually are... Similarly for masks. Do you want to talk about that?

Audrey Tang: Sure thing. Mask in Taiwan is a social signal that remind people who are wearing them to not touch their own face with unwashed hands. So they need to wash their hands much more vigorously. That's an incentive design because that enable just a minority of people in the large audience to also remind other people to take care of themselves, essentially appealing to their self-interest by protecting themselves against their own hands. And based on water-usage data, we know that it has worked because people have washed their hands much more vigorously than before across all the urban and rural areas.

Audrey Tang: I think all this is communicated very clearly by our Central Epidemic Command Center, the CECC, which holds a daily press conference ever since January. For 140 days. Which is always live streamed, they answer all the questions for the journalist community. And there's a hotline, 1-9-2-2, where everybody can call them with new social innovations. For example, there was one day in April, where a young boy, who said he doesn't want to go to school because his school-mates may laugh at him because when you ration the masks you don't get to pick the color, and all he had is pink medical mask. The very next day, everybody in the CECC press conference start wearing pink medical mask, making sure that everybody learn about gender mainstreaming. Which is also a socio-innovation and is on the basis of this trust.

Audrey Tang: That the people who build, for example, an interactive map that show mask availability in the nearby convenience stores. Even though they only managed to pay for that website, on the G0v Slack channel, there's many people working on it. But because they forgot, on the Google Maps place API, they can cache the place ID, they end up owing Google a large sum of money. Because tens of thousands of people started using it.

Audrey Tang: I brought that map to the premier, who says, "Oh, we need to support this civic innovator because they have a better idea than our own." We'd work with our National

Health Insurance agency, who has an IC card that covers more than 99.90% of people in not just citizens but also residences. So that they can go to their nearby pharmacies, swipe their NHI card, get, nowadays, nine mask per two week if they're adult. And ten if they're a child. Medical mask. And we make sure that the stock level of all the pharmacy for adult and children mask are published every 30 seconds in the beginning. Now it's every three minutes.

Audrey Tang: It's almost like they distribute ledgers which enabled more than 130 tools. Not just masks but also voice-assistance for people with blindness, who can get the same inclusive access to information about which pharmacy near them still have medical mask. And because of that, people who have any symptom will be safely taking a medical mask, going to a local clinic knowing surely that the single-payer system will take of them. Whether they actually are hit with coronavirus or just some other disease.

Tristan Harris: Just curious how that works. In the United States there's private pharmacies like CVS or Walgreen's or things like that. I'm just thinking, CVS and Walgreen's don't have a data feed of how many masks are available. I'm assuming the pharmacies in Taiwan are private companies as well? How does that get to be made a hackable by the civic tech hackers who, again, develop a solution on the outside and was brought back to the inside of government?

Audrey Tang: We know from the post office vicars which pharmacy receive how many masks and supply early in the morning. And because of that, we have an accurate stock level information for the different medical masks. So when the person makes a purchase, everybody standing in the queue can check that actually it has decreased by nine after 30 seconds. This is participatory accountability. If they see, rather, the stock level at that pharmacy rises they will then call 1-9-2-2, reporting something is wrong. The fairness is guaranteed, not just by the words of the minister of health and welfare, but actually by everybody who can participate in this ledger in keeping each other accountable.

Glen Weyl: Audrey, there's something there that I think really speaks to our present moment that I'd love to hear from you about. You've described yourself often as a conservative anarchist, which is an idea that resonates with me quite a bit. One thing that's always struck me about Taiwan is both, the low number of police, and the low amount of crime. Obviously we're in a moment in the United States where there is a pushback against policing. It's always struck that what was critical to achieving that in Taiwan was precisely this overlapping community monitoring that constitutes for police presence. I wonder whether you see a connection between what you just described, in terms of economic allocations and law enforcement.

Audrey Tang: Yeah, definitely. I think in Taiwan the norm is pretty strong. In the sense that every person who see any unfairness on the street, even just as simple as a car parking out of its parking space, they will take a photo and basically do a social sanction stuff. Which may or may not have its drawbacks, especially if they complain about the wrong things. But, by and large, I think people correct themselves when they found out it's actually not what it seems. It's, in general, a positive thing that people will determine the norm regulation, basically, together. And investigate and resolve.

Audrey Tang: Essentially, civilian complaints around law enforcement, whether there's an overenforcement or underenforcement by, for example, the community public servants

in the district level. Who help with, for example, home quarantine people. People who are in a home quarantine for 14 days. They can choose to go to a hotel, of course, but if they prefer to stay at home they can put their phone, essentially, into the digital fence. And if their phone breaks out of the 50 meter radius... Which is determined not by GPS or an app, but rather by cell phone tower triangulation. Then the local public servant receive that SMS from the telecoms and will then go physically, within minutes, to check the whereabouts and check the health, and so on.

Audrey Tang: Instead of a very heavy handed penalty or criminal offense, they will often just take care of the mental health and mental needs of the person in home quarantine so they can stay the full 14 days. There's many examples but home quarantines that's a really good example.

Tristan Harris: Just to double underline something in your past work is just how responsive the systems are to problems. How quickly you're getting feedback. Just by contrast in so many other countries, you don't have that level of speed feedback loop between government implementing a solution, between people proposing and saying there's a problem here. Whether it's an Uber policy or air pollution. Do you want to speak briefly to-

Audrey Tang: Certainly, because when people talk about public-private partnership... Or sometimes public-private-people partnership, that's also a thing. I think that the order is quite wrong. In traditional public-private partnership, the public sector came up with an idea and the private sector implements the idea. And maybe the people, let's just say the social sector, work with making sure that it integrates well with the local norm and things like that. But that's by nature slow, just as with any procurement process.

Audrey Tang: But in Taiwan, this is the reverse. Essentially, the social sector builds a prototype, such as the mask map. Even though they may not have the resources to maintain it for very long, but they can work with activists and the media to make sure that everybody in Taiwan learns it's a good idea. Then the private sector can step in, saying... For example, Google said, "Okay, we waive all the API usage because it's for public good." And that also put pressure on the public sector for making the open data possible because now even Google promised to say that, "We will host the mask map for free."

Audrey Tang: The public sector, all we have to do is on the side of a vendor. The specification is already written by the social sector. There's already rough consensus. We already know that people want the mask map. So all we have to do is to shorten the interval on which we publish the pharmacy stock level information from one day to 30 seconds. That's literally the only thing we did. Because of that, that happened in 48 hours.

Tristan Harris: And part of that is having a digital minister and a team like yours to be able to implement something like that, is that correct?

Audrey Tang: Well, we work with skilled contractors and things like that. But basically because the blueprint is already provided by the G0v community. Essentially, the forked government is already there. And G0v always relinquished a copyright associated with that. We basically just took their code and ditched the maintenance part of the back-end infrastructure, which doesn't take a lot of lines of code.

Glen Weyl: I think what's really remarkable about this... And, again, this goes to the name conservative anarchism. Is that if you have effective tools for building and signaling consensus, a lot of the tools of formal power come to seem less important. And that sounds a bit strange, but historically, it's very consistent with the way that democracy evolved. The parliament in Britain arose out of the King's attempt to gain information about what was going on in the kingdom. And only as it became increasingly relied upon, did it then become a formal power structure. And I think we're seeing something similar where, on the one hand, it might seem like you just are inventing some tools to help people get more information. But on the other hand, it's becoming its own system of government.

Audrey Tang: Yeah. This is what we call listening at scale. To the MPs, I always say that in design-thinking terms, this solves the problem of how might we go forward. Which is about defining the issues. But of course the delivering of the issues and the development of the laws and regulations is still the MP's purview. It's just the MP can now drive with more visibility, where everybody can see where we're going as a polity. And people coming to a consensus can inform the driver much more easily.

Audrey Tang: Eventually, of course, the goal, for me personally, is make it instead of driving vehicle, that we did away with the entire political class altogether. But I realize that may or may not happen in my lifetime. For now, we coexist peacefully with represented democracy.

Tristan Harris: It's hard to drive a car if the two people in the backseat giving you directions keep disagreeing about where they want to go-

Audrey Tang: Exactly. Just give them a GPS, map software.

Tristan Harris: It reminds me of Larry Lessig's work. He has a book called They Don't Represent Us. But his second point is that we don't represent us. That we actually agree more than we think we do. But none of the attention and the ways that our speech are represented in the attention economy and the digital tools that we use show or select for where we actually have agreement. And like you said, "How can you, as a government official, argue with the majority of huge consensus about what needs to be done, as soon as that consensus is visible?"

Tristan Harris: So if we had tools that make superhuman consensus levels available, then that solves so many other problems down the street. And suddenly you don't have people arguing in the backseat, you have exact consensus about where you're wanting to go.

Audrey Tang: Yeah, exactly. That metaphor, by the way. Except for the self-driving car bit, is from Dr. Sun Yat-sen, founder of this country.

Tristan Harris: One of the other fascinating things about Taiwan, given that it relies on a similar open online environment for deliberative systems, and the fact that it's one of the biggest targets for China's disinformation and propaganda campaign. You would think that, whether it's in the coronavirus response or in any of the major policies that it's proposing or in the election, it would be even more bad disinformation flowing through the system. More so than, even, the United States. How has it, given that, seemingly weathered the storm? You have a bunch of powerful ideas about how you were able to mitigate some of that.

Audrey Tang: Yes. Essentially, we look at the infodemic like a epidemic. There is, roughly speaking, two sources. One is domestic, which often stems from outrage, which is one of the most potent emotions. If people can feel that they really need to share this outrageous situation with other people, they would not bother to fact-check the contents. And then it will very quickly go viral, quite literally, and inciting even more outrage and more divisiveness and polarization. That's one side.

Audrey Tang: And the other side, of course, is full-fledged propaganda from the CCP, which I'll get to later. For the first part, which is just outrage, I'll use one concrete example to illustrate our word of countering it. Which is called humor over rumor. There was a rumor that says, "The tissue paper material are being confiscated, nationalized by the state to make medical masks because we're ramping up production from two million medical mask a day to 20 million. We will soon run out of medical mask material. And because of that, tissue paper will run out even sooner than that. And because of that, you need to rush out and buy tissue papers."

Audrey Tang: It caused a lot of outrage and stress and panic, right? And conspiracy theories. We have this triple-two principle that says every time we detect such a rumor, maybe people call 1-9-2-2, asking whether if it's true, within two hours we need to respond with two pictures that each have 200 characters or less that are funny, that makes people laugh. Our premier, Su Tseng-chang, who wiggles his bottom in a meme, gets rolled out within a couple hours. And says, in very large print, that, "We only have one pair of buttocks each." Meaning that we don't need to panic-buy tissue papers.

Audrey Tang: And coupled with that a very clear table that says, "Facial masks aren't produced using domestic material and tissue paper using South American materials." And that went absolutely viral, not only because it was wiggling bottom, but because it's a brilliant pun because bottom and stockpiling is a homonym. It sounds the same in Mandarin. Anyway, it's very funny. Professional comedians. In any case, it went absolutely viral.

Audrey Tang: And because of that, everybody who loved the ballot is literally unable to feel outrage when they see the conspiracy theory later. Because the pathways in the brain, they cannot coexist. If you have watched the film Inside Out, you'll see what I'm talking about. So the panic-buying of tissue papers die down within a day or two. And we found out the person who spread the rumor in the first place was a tissue paper reseller. We make sure our humor have a higher r-value than the conspiracy theories. Naturally vaccinating the society about that. That's the fun part.

Audrey Tang: There's, of course, the less fun part which are just deliberate campaigns of narratives. For example, last November, right before our presidential election, there was a really viral message on the Taiwanese social media that says, "The rioters in Hong Kong are paying young people 20 million to murder police." What we did is not making fun of it, there's nothing funny about it. What we did is working with international fact-checking network, the IFC journalist, the Taiwanese Fact-Check Center, the TFCC... Did their attribution work to find out who was the original person who repurposed this neutral Reuters photo, which says nothing in its caption about paying to murder police, into such a weaponized information. They discovered that originator, the very first post, is from the social media of the propaganda units of the Chinese Communist Party.

Audrey Tang: And because of that, we work with platform economies. For example, Facebook. To make sure that everybody who see this part of mal-information, see a little note behind that photo that says, "The TFCC have checked and this mal-information is being sponsored by the Chinese Communist Party." We do not do take down the writer, we make sure that people learn that this is essentially political propaganda and Reuters, of course, says that the caption is not from them. I'm sure that people who see this, they still share this outrage, but outrage will be framed very differently than if they only see the misleading caption.

Tristan Harris: Just curious, did they back-notify everybody who had also previously seen that information? So not just future-looking.

Audrey Tang: That's right. It retroactively adds this fact-checking notice on the social media. Just as during the presidential election for the first time. Facebook agreed to publish according to our social norm. All the political advertisement and social advertisement during the campaign session, including who they micro-target, who they work with, for example, who sponsor it. And also, of course, it need to come only from domestic sources, just like our campaign financing. And, most importantly, how many people did they actually reach. And with this real-time information that the G0v people work on the voting guide, makes sure that anybody who would try the dark patterns of micro-targeting some people and fill them with conspiracy theories, will get named and shamed.

Audrey Tang: And because of that, that did not happen during our presidential election.

Tristan Harris: There's so many fascinating things that you brought up in that whole segment. On the first side of organic misinformation, when you take this sort of info epidemiology view that outrage has a higher R0 that spreads virally than non-outrage. The only way to combat that is with sweetening, on a different size, the R0 with humor and comedy. It reminds me of the work of Srdja Popovic, who's the... I don't know if you know his work. He's the founder of laughtivism, and using laughter to go against authoritarian dictators, who will otherwise clamp down on protestors.

Tristan Harris: The second thing I love about your humor strategy is... About misinformation or a rumor or a conspiracy... Is you mention that you don't have the humor make fun of the person who's spreading the conspiracy theory. Is that right?

Audrey Tang: That's right. The premier makes himself the butt of the joke, so to speak.

Tristan Harris: Quite literally the butt of that joke.

Audrey Tang: That's right. It's humor, it's not satire or parody, right? It's humor as it's originally meant.

Tristan Harris: But what struck me is that if you have to respond to rumors within two hours, you're so gated by, "Well, how fast can I generate bad viral rumors?" If you have a bad actor that can outcompete your team of comedy writers, what do you do in that circumstance?

Audrey Tang: Well, then, of course, if this is organic then we just send an invitation letter to the people who protest and say, "Why wouldn't you like to co-create our policy?" That

always work. For example, for people who complain that the tax-filing experience was explosively useful. They actually may have a point, and so their outrage have a point. So we don't mock them. We rather invite everybody who complained and say, "Let's co-create a tax-filing system for the next year." And that always work if it's from a domestic organic source.

Audrey Tang: What doesn't work, of course, is from people who refuse to participate in a democratic process. Sometimes from overseas. And for that, of course, laughter remains a strong strategy. And we make sure that the premier, many ministers, including myself, pre-clear their likes, their images of for memetic purposes. So that the comedians don't have to check our copyright, or whatever.

Tristan Harris: Wow. It's so fascinating what you're saying. Can you just imagine if, for every time there's genuine outrage, that you simply can't follow with humor, you say, "Hey, I'm actually going to invite you with that outrage..." Into saying, "How do we change the system to actually meet those needs?" And you actually... This is what you do, right? You invite them into group in which they start co-creating an actual policy that solves problem.

Audrey Tang: That's right.

Tristan Harris: And that works in a country of 23 million people. So you have scales of outrage and number of topics that somehow manage to fit within the scale with which-

Audrey Tang: Definitely. And the more outrage there was in the first place, the more people participate. Our tax filing system, which was a case that we invited to co-creation around three years ago, eventually built the new tax filing experience two years ago. That have 94% of approval rating, which is unheard of in digital services rolled out by the government. Precisely because thousands of people can say, "Hey, I contributed to that. At least one post it note was from our co-creation workshop, or from my Slido comments, or from my livestream comments. And that's my idea." And because of that, they voluntarily taught their friends and families of how to make the use of the tax filing system that they co-designed.

Tristan Harris: That's amazing. So you have both built yourself as a hacker and as a political advocate and as a movement leader. How would you... Seeing everything that's going on in the west with private technology companies, social media, amplifying disinformation, and in the way that governments are not really structured to do the things that you're doing, what lessons would you be applying to both our private technology companies and to the way that we might be thinking about fixing our government, right now?

Audrey Tang: I helped recording a series of lectures, a set of strategies for 21st century lawmaking. And the basic idea is that technologies can engage the public to improve the quality and legitimacy of lawmaking. Even as simple as just troll control, right? Dealing with the astroturfers and things like that. Simply take away the reply button. Very simple mechanisms that, once applied, just remove this whole set of issues that makes the lawmaker think that public engagement is such a chore, it's time-consuming, and so on. So my main lesson to teach on that is just that there are always time-saving mechanisms.

Audrey Tang: The other thing is that it's more legitimacy. So if you work with the populism, which I think the problem is not that it's popular, it's that they tend to exclude people from population. But populism, like including people under 18, which are very active in our participation platforms. People even who are not born yet and people who advocate for them, people who are people but traditionally seen as mountains and rivers because we have indigenous tradition. That look at the salvia the highest mountain, they see them as essentially people. Natural personhood and so on.

Audrey Tang: If you include these into more inclusive populism, then you can get a much higher legitimacy. Because there's, by definition, just as Glen mentioned, a supermajority of trust that supports you in your decision-making. And this has been shown to work in the U.S. In Bowling Green, Kentucky, they run a civic town hall. A virtual town hall using the same Polis technology. And they revealed, for example, no matter people identify as republican or democrat, everybody agree that you should include the arts in the science, technology, engineering, and math education.

Audrey Tang: No, you don't see that on the headlines, but that's something that actually both sides care a lot about. So if the mayor just do that, they can automatically gains more trust and there's less political risk. So more trust, less risk, save more time. These three are the three pillars of the Pareto improvement. Making that improvement are one of the three axes without sacrificing the other two, and it can always be done in a piece-meal way. Just as with it post-occupied.

Tristan Harris: And how would governments... Imagine there were cities and states that wanted to start implementing this. I mean, how would they actually implement something like-

Audrey Tang: Yeah, you can read the crowd law handbook.

Glen Weyl: And RadicalxChange as well. So GovLab is one organization, and RadicalxChange is another. We've been working with the government in Colorado at many different levels. There are several groups in the United States that are working to build consensus around-

Audrey Tang: Yes, and I think they complement each other very well. I mean, if you're from a parliament restructuring viewpoint, like you want to improve the structure of how representative democracies function, the set of tools is basically tried and true. If you are on a smaller scale, like if you are a township, then the RadicalxChange ideas are much more economically efficient but have not been as rigorously tested. But will be great because you will be making academic contributions.

Tristan Harris: Wonderful. Audrey, thank you so much for joining us on the podcast. It was wonderful to have you. Thank you, Glen, so much for assisting and being here.

Audrey Tang: Okay, bye.

Tristan Harris: Okay.

Glen Weyl: Okay, bye.

Tristan Harris: Okay bye.

Tristan Harris: Imagine that civic hackers actually took the tools that Audrey's talking about and built parallel websites to our existing city and government websites here in the United States. Civic tools that were actually built for the public interest. That's what Audrey's work is about. Showing that it's actually possible to have technology and democracy coexist in a way that does not lead to the kind of dystopia that we tend to talk about here on Your Undivided Attention. There is so much to learn from her example. And one of my biggest hopes for this episode is that people really take it to heart and imagine what it would look like for every city council building and every state building and every mayor and every senator and every state senator to start using and applying these tools, to actually show that democratic governments can actually work in the 21st century, in a digital context.

Tristan Harris: And if you'd like to learn more, we really highly recommend that you check out Audrey's work. Audrey has the white papers online on her website, talking exactly about how they implemented each of the tools and how it worked.

Aza Raskin: Your Undivided Attention is produced by the Center for Humane Technology. Our executive producer is Dan Kedmey and our associate producer is Natalie Jones. Noor Al-Samarrai and Mara Kardas-Nelson helped with the fact-checking. Original music and sound designed by Ryan and Hays Holladay, and a special thanks to the whole Center for Humane Technology team for making this podcast possible.

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