唐鳳

(Táng Fèng)

Audrey Tang

The non-binary taiwanese technocrat shaping the landscape of digital democracy.

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Audrey Tang was child prodigy. She grew up as the son of two journalists in the 80s in Taiwan, reading classical literature in multiple languages, solving simultaneous equations by first grade, and learning the Perl programming language at the age of twelve. But school didn't suit the prodigious boy. Tang (at that time still going by Autrijus) refused to continue schooling because she couldn't adapt to school life. This would not be her last word about education in Taiwan. Her social life took place primarily on a blooming technology called the internet. In her 2005 blogpost about her gender change (with the witty title of *Runtime Typecasting*.) she reflected on why she might have had difficulties

conducting business, and generally interacting with others, 'in real life.'

"About the gender change: I've been shutting Reality off and lived almost exclusively on the net for many years, because my brain knows for sure that I'm a woman, but the social expectation demanded otherwise -- a classic transgender situation that caused high background anxiety, making it difficult for me to meet and relate to other people." [RT]

On top of this Audrey had a heart condition which curbed the enthusiasm she might have had for outdoor activities as a child. She had to be careful not only around strenuous activities but also things that might provoke overly excitatory emotions. Audrey learned Daoist breathing exercises to help her cope with the heart condition, which she claims she still keeps with her today like "a survival instinct." [CT]

Audrey's LinkedIn profile is impressive to say the least. Without formal education since the age of fourteen she has led software engineering teams at multinational corporations, sometimes reporting directly to the CEO (Inforian, BenQ, Apple) and pioneered the development of various innovative, technical projects, including the first working implementation of Perl 6. She has also worked on social media platforms with a social conscience.

Audrey's abilities as an engineer and team leader are not in question, but the reason I have chosen Audrey as the subject of this assignment is that she brings a fascinatingly empathetic, sensitive, humanistic touch to the software engineering trade. Something I had not come across before. It feels as if for every raging Torvalds tirade to be found on youtube Audrey has balanced it with a gentle, compassionate, but principled placation. Before researching and reading about Audrey Tang I honestly had the feeling that Torvalds-like repudiation of all things that smell was *the* path to successful software engineering.

Audrey believes that being transgender has allowed her to expand her capacities for empathy. She has, after all, been through both male and female puberties. She says everyone can afford to be a little more transgender [CT]. Nor is she dogmatic about whether others conform to her preferred pronouns. I am sticking with 'she/her' for this biography in an attempt to be polite but Audrey has stated that the pronouns people use to refer to them aren't what's important. *Runtime typecasting* indeed.

"I'm not just non-binary. I'm really whatever, so do whatever." [MH]

In 2016 she made waves when she became probably the first transgender (or postgender) government minister anywhere (Remarking upon which is possibly less than postgender, but I excuse myself as I am still transitioning to the new mindset). She is still Taiwan's Digital Minister, and is using this position to promote the use of software in developing a more open, more just, more accepting, more democratic society. She is adapting the principles and values of free and open-source software development and is recasting them

into something that can be practical and useful for non technical people and computer nerds alike in society at large.

In 2013 she got involved in a project called 'g0v'. That's the number zero, not a capital O. Audrey described 'g0v' as an attempt to "fork the government" [MH]. The g0v framework allows anyone who doesn't like some aspect of what their government is doing to create a 'branch' in the version control sense. Let's say there were a particularly egregious piece of legislation published at 'some-legislation.gov.ie'. The idea would be to simply fix it as you see fit and publish it as 'some-legislation.g0v.ie'. If government sees and likes your branch they can merge it into effective law.

I think Audrey's sense for the poetic is particularly well exemplified by this perspective on g0v¹, the 'zero hour government'. She also uses programming languages (Perl) as a medium for writing poetry. Some of her poetry draws to our attention the need to integrate the digital reality that has developed over the past decades into a humanistic vision for the future.

When we see "Internet of Things," let's make it an Internet of Beings. When we see "Virtual Reality," let's make it a Shared Reality. When we see "Machine Learning," let's make it Collaborative Learning. When we see "User Experience," let's make it about Human Experience. When we hear "the Singularity is Near," let us remember: the Plurality is here.

¹ g0v is more than I have explained above, as a community they also try to provide services that empower citizens to engage with national governance, for example with visualisation tools that let citizens 'supervise' national budgets more easily and effectively.

She played no small role in facilitating one of the best responses to Covid-19 on the planet. By June 3rd 2020 there had been 440 cases and seven deaths due to the disease in Taiwan [TdB]. Software and social media were important in this success, yes, but perhaps more important was the attitude to transparency. It wasn't the government that kept case numbers low, and it wasn't the people themselves, it was the vital responsiveness of government to people and people to government. Thanks to Tang's work as Digital Minister the infrastructure was already there to allow fast, up-to-the minute feedback between government and citizens.

Audrey Tang, as a competent software engineer, and someone who has been interested in artificial intelligence since her childhood in the 90s is presumably well aware of the malevolent possibilities and threats, to privacy in particular, posed by applications of artificial intelligence, especially in the hands of non-transparent governments (e.g. all governments) and multinational corporations. In her conversation with Tyler Cowen [TC] she suggests that "quantum-resistant cryptographic" channels of communication, with a feature that alerts you if anyone tries to intercept your message, would be the killer anti-authoritarian app. That's a technological route to solving the privacy problem, but Tang has also employed guerilla tactics in this fight. Tactics of a counterintuitive nature...

As Digital Minister Tang employs a policy of "radical transparency" for instance by live-streaming her entire workday one day a week. This is a bid to improve trust between government and citizens.

"If the government trusts civil society then the citizens will eventually trust back, but the government has to make the first moves." [MTZ]

These moves have saved countless lives in the fight against Covid. In Audrey Tang's story I believe we are witnessing some of the best ideas to come out of software – and software engineering – breaking out of their corporate shackles and beginning to become tools of democratic empowerment. It's exciting, if a little frightening. Audrey Tang reminds me that computer programmes are an expression of our humanity. As computer code progresses more and more to becoming synonymous with civil code, code of law, and ethical code, I am inspired to craft the code I might write in the future and to choose the projects I might choose in the future with compassion as much as with precision.

We must not confine ourselves to expectations imposed by binary labels. We must allow ourselves to be superpositions.

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