PLURALITY:
Technology and the Future of Democracy

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Audrey Tang, Taiwan's former Minister of Digital Affairs, and **Glen Weyl**, founder of Microsoft Research's Collaboratory for Plural Technologies, have recently been Brazil as a part of their Plurality book tour. During this short visit, ITS Rio, the Wilson Center for Brazil Studies, and RadicalxChange Foundation co-organized an intimate gathering with key technology and civic participation stakeholders in Brazil. The result was an insightful exchange on novel approaches for addressing some of Brazil's most perplexing technology-related challenges. This report shares the key policy recommendations that emerged from those exchanges.

Today's rapidly evolving digital landscape presents significant challenges for governments worldwide. Addressing questions of technological sovereignty, mis- and disinformation, increasing polarization, and more, requires innovative approaches and being able to take in lessons from successful case studies. Taiwan is widely recognized as a worldwide leader in its handling of technological affairs, and therefore it was a unique and enormously valuable opportunity to have Tang offering her wisdom in Brazil. Leveraging Audrey Tang's experience as Taiwan's former Minister of Digital Affairs and Glen Weyl's extensive research at Microsoft and beyond, the audience of Brazilian experts was able to ask targeted questions and received valuable strategies in response.

The policy recommendations compiled below are tried and tested. Moreover, they stand out by avoiding false tradeoffs and binary choices, such as censoring versus free speech. Instead, they offer empowering, practical paths for steering technology. The combination of community-driven tools like Co-facts and pre-bunking strategies offers a balanced approach to combating misinformation, without heavy-handed censorship. Taiwan's emphasis on digital civics education and promoting technological sovereignty through open standards and data localization, keeps the public both informed and empowered. Finally, by focusing on teaching digital competence rather than mere literacy and involving young people in democratic processes from an early age, these strategies collectively create a robust framework for a participatory and resilient digital democracy.

The policy recommendations were divided into three key areas: Misinformation, Technological Autonomy, and Participation. Each section addresses specific challenges raised by the audience, and provides actionable insights to foster a more resilient digital infrastructure. The full transcript of the discussions is included at the end of this report.

INSPIRATIONAL POLICIES

📣 MISINFORMATION

During the discussion, listeners pointed out that formal media groups, as well as the public sector in Brazil, already have numerous platforms to mitigate disinformation, such as "É Fato ou Fake?" (Fact or Fake?), but young people don't access these platforms. Instead, they receive information from WhatsApp groups and social media like Twitter, which are largely out of reach for these mitigation solutions. What would viable solutions look like in a scenario like ours?

> **Addressing Disinformation in Closed Chat Groups** | Audrey Tang shared that Taiwan faces a similar challenge because they use LINE, an app similar to WhatsApp, with end-to-end encryption – making it difficult to monitor information flow within closed groups. To combat this, they developed Cofacts, a collaborative fact-checking system that functions like a spam filter. Users can easily forward suspicious messages to a chatbot, which anonymizes the source and posts the most viral messages on a public dashboard for context and community fact-checking, similar to community notes on Twitter.
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> Meanwhile, antivirus companies like Trend Micro and Google Look integrated this system into **chatbots that can be invited into closed chat groups.** These chatbots automatically scan each message, providing immediate context and corrections. This system empowers people to verify information themselves without relying solely on the government or media.
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> The success of Cofacts has led to its adoption in Thailand, demonstrating its adaptability. Recently, the Cofacts team trained AI to automatically debunk disinformation based on semantic similarities, enhancing the tool's capability. By addressing disinformation within closed groups and making these tools accessible and community-driven, Taiwan provides a scalable solution to maintaining information integrity. This model, adaptable to platforms like WhatsApp, could help Brazil and other countries tackle disinformation more effectively by reaching young people and vulnerable groups where they are most active.

Digital Civics Education | Audrey argued that top-down sharing of "truth", or verified facts, is rarely effective. Instead it is the act of going through the fact-checking journey that strengthens a society's ability to resist misinformation. Those who engage in this journey become much more resilient against polarization.

In Taiwan, Audrey re-designed the public education curriculum (more on this under "From Literacy to Competence") to ensure these processes are taught as a part of the public education curriculum. For instance, in Taiwan students participate in fact-checking as part of their classroom activities. There are also many rewards that can be provided, such as getting to see their names on national TV for correcting presidential candidates during debates.

Pre-bunking information | Instead of relying on debunking strategies, Audrey recommends *pre-bunking* disinformation. Countering disinformation after it has already spread can foster conflicts and give conspiracy theories a foothold. This proactive approach aims to build resilience against conspiracy theories before they gain traction, thereby avoiding the escalation of polarization within communities.

This approach is largely possible because disinformation is oftentimes predictable, following familiar themes such as "democracy leads to chaos" or "democracy never delivers."

Example #1: Two years ago, when deep fakes were still a novelty, Audrey created a deep fake of herself and demonstrated it on national television, explaining how it was made. She warned, "In two years, this is coming." This pre-bunked the potential impact of deep fakes by raising awareness early on.

Example #2: During the last election, they anticipated claims that the election would be rigged, the counting process would fail, and the results would be disputed (challenges all-too-familiar in Brazil). To pre-bunk this, they invited representatives from all parties, as well as non-partisan observers such as Youtube influencers, equipped with high-definition cameras, to witness the counting of paper-only ballots.

TECHNOLOGICAL AUTONOMY

Since 2016, the Brazilian government has seen a decline in free software usage. Public servants are concerned about this trend and the reduction in government R&D investment in AI and social platforms. How can we deal with this better and promote a more balanced approach? Audrey and Glen brought some examples and insights that illustrate successful strategies and initiatives from other countries.

Sovereign AI | For AI, Taiwan has developed the TIDE (Trustworthy AI Dialogue Engine) as their sovereign model. TIDE is based on the Llama 3 model, yet, crucially, it has been aligned with citizens' needs and preferences through a process they call "constitutional AI alignment". Taiwan uses Pol.is (see more under "Navigating Polarization"), an open-source AI, to gather public input on how the local Taiwanese AI should behave. This input, along with face-to-face discussions, creates a code of conduct for AI that fits Taiwanese norms. The alignment process involves regular feedback loops, allowing the AI to be steered democratically over time, and corrected for biases. This technique, pioneered with Anthropic and the Collective Intelligence Project, and now used by Hugging Face and other vendors, ensures that AI aligns with public values and enhances democracy.

Ensuring Data Sovereignty | Taiwan requires tech companies like Google and Microsoft to have their data centers physically located within the country, ensuring continuity even if submarine cables are cut. Amazon is set to follow suit next quarter. This strategy ensures that Taiwan's digital infrastructure remains secure and resilient.

Embracing Interoperability | Taiwan has used Open Document Format (ODF) and open APIs for more than a decade, making them standard. The government maintains its own LibreOffice fork through the Ministry of Digital Affairs. While some ministries use solutions like Google Docs, these are considered acceptable as long as they can export and import ODF and interoperate with the rest of the technical stack. In areas without free software solutions, Taiwan insists on open interoperable standards among proprietary vendors, allowing for an eventual switch to free software.

Preventing Vendor Lock-in | Taiwan avoids relying on a single vendor for adjacent cybersecurity layers to maintain flexibility and prevent lock-ins. For example, if one software manages devices, another handles biometrics (adhering to a zero trust architecture). Proprietary solutions are acceptable, but they must never control adjacent layers, which would otherwise lock them into proprietary protocols and limit future flexibility.

🗣️ PARTICIPATION

Taiwanese digital democracy practices point to radically participatory possibilities for 21st century institutions. However, the audience wanted to know how they would respond to critics who say: "What you're proposing is inspiring, but it wouldn't work in my country due to reasons like our *political system is too corrupt* or our *illiteracy rates are too high*?"

Start Small | Finland offers a compelling example of the power of iterated participation efforts; they recently conducted one of the largest Pol.is consultations in the world (read more about pol.is under "Navigating Polarization"), gathering nearly a million votes. Initially, they implemented the technology on a smaller scale at the county level with simple, non-binding polls. These polls familiarized people with the technology without significant commitment, making it easy for councilors to support.

As people grew comfortable with the technology, it was used for increasingly more critical decisions like healthcare in small counties. After gaining national familiarity, Finland launched a large-scale consultation, "What Do You Think Finland," before their election. This helped identify potential future polarization points and challenges, particularly across generations. A small-scale, iterative approach builds confidence and demonstrates that digital democracy can foster meaningful societal improvements, countering pessimism with tangible results. Small-scale democracy is an effective antidote to skepticism, as starting with manageable groups makes the process seem feasible and impactful.

Use Technology to Reduce Costs | Lower participation costs have been highly effective in convincing bureaucrats and career public servants to implement citizen engagement initiatives, as it reduces the risk of

policy reversals later on. If participation is costly, time-consuming and noisy, the trade-off might not seem worth it. Instead of forcing more risk reduction, the focus should be on decreasing costs.

For instance, here's an example of low-cost and effective participation facilitated by technology: Taiwan recently sent 200,000 SMS messages to random numbers, asking a broad question about information integrity online. Advanced AI models and mini-publics then selected a representative microcosm of 450 people to discuss the issue in 45 rooms with automated facilitation. This process produced a nuanced report at low cost, making it easy for public servants to support the initiative. The crowdsourced input was ratified into law, demonstrating how low-cost, efficient participation can enhance policy-making. This method shows that even small risk reductions for bureaucrats are valuable when participation is inexpensive and effective.

From Literacy to Competence | Audrey Tang worked to revamp Taiwan's public education curriculum, replacing "literacy" with "competence" (e.g., data competence, media competence). **Literacy implies passive consumption, while competence emphasizes active production, being co-creators of our shared digital lives.** In this new system, students are evaluated not by how well they receive information but by their contributions to communal projects. For example, primary school students can measure air quality using Raspberry Pi and Arduino, and upload data to a distributed ledger, helping their parents make informed decisions about outdoor activities.

Meanwhile, high school students can and often do channel their sense of justice into productive actions. Instead of striking, they can use e-democracy platforms such as JOIN to initiate citizen projects. Successful student-led initiatives include banning plastic straws and making school start later in the morning, both of which have garnered thousands of signatures from young people. Civics teachers encourage students to start such initiatives, helping them engage with stakeholders and learn about democracy.

By involving students in meaningful activities and decision-making processes from a young age, they grow up viewing democracy as a system where they have agency. This proactive approach ensures that

by the time they turn 18, **they feel empowered rather than cynical about their role in democracy.** Education between ages 12 and 17 is especially critical for developing this sense of competency and involvement.

Navigating Polarization | While social media often emphasizes the most divisive posts, algorithms can be coded to do the exact opposite. Pol.is is an open source AI designed to facilitate open-ended, large-scale conversations among diverse groups of people. It allows participants to submit statements and vote on others' statements, creating a dynamic map of public opinion that highlights areas of consensus and contention. In Taiwan, Pol.is has been effectively used to navigate polarization and foster collaborative decision-making. For example, during consultations on Uber regulations and online alcohol sales, Pol.is helped identify common ground among stakeholders with differing views. This process revealed shared values and priorities, enabling policymakers to craft solutions that addressed the concerns of all parties involved. By using Pol.is, Taiwan has managed to transform polarized debates into constructive dialogues, promoting a more inclusive and participatory form of democracy.

Overcoming tech pessimism with agency | Participation is the key through which we can move away from the optimism-pessimism binary: Pessimism says, "You're not going to like what's coming," and optimism says, "You're going to like what you're going to get." Both perspectives are authoritarian and exclusionary, because they place people as passive receivers of a future that is beyond their ability to influence or shape. It denies people their agency. The press, in particular, is responsible for perpetuating these narratives, often highlighting stories of atheist white men in Silicon Valley as the primary drivers of positive tech developments. This portrayal excludes the diverse voices and contributions of others, such as Maria Ressa, Audrey, and many others doing significant work.

We must resist the narrative of "white hero dude in Silicon Valley creates tech" while "black woman complains about it." This stereotypical storytelling undermines the efforts of various individuals contributing to the future. Our goal should be to highlight and tell the stories of diverse people making a difference.

When people see individuals like themselves involved in shaping the future, they feel more included and empowered. The focus shifts the conversation: it's no longer about optimism or pessimism— both of which are disempowering – it's about steering the course, taking responsibility, and playing an active role. Feeling empowered comes from knowing that you can influence the direction of progress and that people like you are part of the process.

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