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# Democratising Digital Economies

Submission to the Senate Economics Committee  
inquiry into the influence of international digital  
platforms

14 March 2023



**DIGITAL  
RIGHTS  
WATCH**

## **Who we are**

Digital Rights Watch was founded in 2016 to fight for a digital world where all humanity can thrive, and where diversity and creativity flourishes.

Our digital world must be underpinned by equality, freedom and established human rights principles. Its evolution and future must be guided and driven by the interests of all people and the environments we live in.

Digital Rights Watch exists to defend and promote this vision – to ensure fairness, freedoms and fundamental rights for all people who engage in the digital world.

We seek to ensure that Australians are equipped, empowered and enabled to uphold their digital rights. We believe that digital rights are human rights which see their expression online.

We conduct research on best practices in protecting privacy and personal information, limiting surveillance overreach, improving digital security, monitoring government use of data and technology and new digital economies and governance systems.

We publish an annual State of Digital Rights report bringing together Australia's leading activists, writers and critical thinkers to reflect on digital rights, identify our weaknesses and failings and chart a new path forward for a freer, fairer digital ecosystem.

## **Acknowledgement of Country**

Digital Rights Watch acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land and community. We acknowledge the Aboriginal and Torres Strait Islander peoples as the true custodians of this land that was never ceded and pay our respects to their cultures, and to elders past and present.

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# EXECUTIVE SUMMARY

The influence of international digital platforms on Australia's democracy, economy and society extend far beyond disinformation and social media. The very foundations of the internet and our digital ecosystems are broken — and Australians suffer every day for it.

From the original sin of privatisation in the 1980s to the massive consolidation of digital technology in the hands of the “big five” multinational corporations today, our digital lives are controlled by a handful of corporate interests to boost profits and drive advertising revenues rather than being designed for and by the people who use them.

We want our digital ecosystems to be built for people, controlled by people and in service of people. Respecting and upholding human rights, especially the right to privacy, freedom of expression and freedom of peaceful assembly and association must be the foundation of our internet. To achieve that we need a more democratic internet — democratic in design, democratic in governance and democratic in its ownership.

We cannot afford to limit ourselves to tweaks and nudges. We need to use every lever we have, whether that's regulation, or expansive programmes exploring alternative modes of ownership, control and power over digital platforms and technology.

This paper is the start of a journey on which we hope to bring all of Australia along. A journey that starts by developing a holistic understanding of digital and technology policy. When we do that, we will be able to embark on the work of building a new, more democratic internet that acts more like a public library or a park than an online mall.

For these reasons, this paper focuses on the “**broader impacts of concentration of market power**” of Big Tech and responds to the issues paper's themes of market concentration, the cloud, algorithms and transparency, and data and privacy.

We focus on the often-unseen structures of power, ownership and control that underpin our digital world — and we assert that:

- that the foundations of an internet built on **surveillance**, either by governments and security services or by advertisers and data brokers, will never deliver a democratic, sustainable digital ecosystem for us to live in
- that we are facing a problem of **scarcity** — whether that scarcity comes in a physical form like rare earth minerals, semiconductors or cloud computing capacity or something more esoteric like our attention spans or curation that delivers information we need, and
- that when something that has become **universal** or even indispensable in our lives — like the digital infrastructure, platforms and services we use every day — become harder to access and less affordable, it is incumbent on the government to step up and ensure any transition away from plenty is just, fair and in everyone's best interest.

To illustrate our points, we discuss three issues in digital and technology policy —

- the impacts of digital platforms on **our arts ecosystem and cultural identity**
- what Australia's focus on FIRETECH — **finance, insurance and real estate technology** — means for the people who have to use those platforms, and
- the **future of work** and the impacts of surveillance, artificial intelligence and algorithmic management in our workplaces on workers.

Rather than try to diagnose every problem and offer specific solutions, this paper aims to explore the crisis we're facing by offering up other **questions** we could be asking, exploring **solutions** from around the world, and inviting everyone to read the diversity of **scholarship** from the world's best tech thinkers — many who call Australia home.

But we continue to treat digital and technology policy as an afterthought, weakening our capacity to respond to emerging threats and opportunities.

From tech ownership to online privacy, from cyber security to digital literacy, Australia can be a leader, not a follower, in the global race towards a better digital future.

To achieve this, we make just six concrete recommendations — aimed at building our capacity and coordination from Cabinet and Parliament, through the public service and industry bodies, to Australia's first digital-native national institution.

## Recommendations

1. Create an Australian Charter of Human Rights & Freedoms that enshrines fundamental human rights into Australian law
2. Appoint a Minister for Digital Capabilities
3. Establish a Joint Standing Committee on Digital Affairs
4. Adopt a new tech policy coordination framework across portfolios and between senior policymakers, regulators, industry, academia and civil society.
5. Develop a new public sector digital workforce strategy that aims to insource at least 80% of annual information technology spending by 2030 including infrastructure, design and development, and technical support — and pathways, pay, conditions and classifications structures that encourage long-term retention of talent and capability.
6. Establish an Australian Digital Corporation to deliver digital technology and services that promote Australian culture, community and industry.

# 01 / THE PROBLEM WITH TECH

*Futures are always arriving. They are never evenly distributed.*

*- Ben Tarnoff and Moira Weigel<sup>1</sup>*

The internet and digital platforms are critical social infrastructure.

Almost everything we do is now mediated through one of these platforms, from socialising with friends, connecting with our communities, accessing culture and working. It is nearly impossible to apply for a job, navigate to another city, talk to your family, access social security or pay your bills without using the internet — and more specifically, a handful of devices, pipelines and platforms owned and designed by a handful of multinational corporations.

The universality of platforms in our daily lives — even more so the inability to escape them — means our capacity to access them needs to be treated as a right and a public utility, not as a market subject to the vicissitudes of commercial entities and the speculative whims of tech CEOs.

The internet is woven through the fabric of modern life. There is no disconnection from technology without disconnecting from society altogether.

This has given companies who own and control this infrastructure an enormous amount of power to shape our society and democracy.

The growing power of big tech companies has been coming under increased scrutiny both in Australia and internationally. Internationally, there have been calls for regulation of big tech companies, with a focus on issues such as privacy, the spread of misinformation, and the need for greater transparency and accountability. The growing power of big tech has led to increased scrutiny and calls for regulation in an attempt to get these companies to operate in the public interest.

In Australia, introduction of the News Media Bargaining Code and its attempts to distribute a share of big-tech profits to support local journalism, the establishment of the eSafety Commissioner in response to concerns about safety online, and the recently announced local content quotas for streaming platforms demonstrate a willingness by the Commonwealth to take bold actions to regulate or reform big tech.

But these reforms alone will not succeed in addressing issues of privacy, disinformation and protecting local industries unless we address ownership and power in the digital economy.

Our democracy is too important to leave in the hands of far flung billionaires. But as long as we leave the internet in private hands, that's exactly what we are doing.

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<sup>1</sup> Ben Tarnoff and Moira Weigel. "[Power Curve](#)". *Logic Magazine*. Accessed February 28, 2023.

Democracy relies on the free exchange of ideas and information. It relies on our ability to make decisions about our lives, organise our communities and stay informed and involved in our government. All of these things are threatened by a privatised internet.

These companies are in the business of capturing our attention and selling it for a profit. Their algorithms favour outrage and misinformation because they know it keeps us online longer. They turn every interaction with a friend into a transaction to be analysed. They use unimaginable computing resources to train models that predict our behaviour because it's valuable to advertisers. Those same models are weaponised by politicians and scammers alike to spread misinformation and sell merchandise. The surveillance-based model is hugely inefficient and environmentally harmful because of the huge amounts of data upon which it relies. The storage and processing power devoted to the consumer data that feeds the targeted advertising model far outstrips that devoted to providing the actual service being used.

As long as the internet is constructed as a tool to make a profit, the people who use it will be treated like a product to be packed up and sold to investors and advertisers.

Unless we take a real ownership stake in the critical infrastructure of our times, we risk losing our democracy. We risk losing control of our culture as local institutions and creative scenes are squeezed out by multinational streaming and algorithmic curation. We risk losing control of our national story, as news and culture is produced to maximise clicks on social media. We even risk losing control of other critical infrastructure as more of our electricity, water and transport become controlled by hardware and software designed, built and owned by international companies.

People have been building community, sharing art and discussing ideas online since the very beginning of the internet. It's been our creativity, our desire for connection and community that has populated the internet and made social networks what they are.

But we deserve better spaces to exist in than virtual shopping malls.

We deserve online spaces that are built for us. Our communities deserve real connection in a space that encourages creativity and enables civic engagement. For-profit digital products are failing to deliver this, and only by taking ownership over online spaces can our communities truly connect.

Competition policy on its own will not achieve a more democratic, people-centric internet. The internet at every level is captured by corporate interests; from the physical infrastructure like deep sea cables and massive data warehouses to the applications and platforms that people interact with. As long as these parts of the internet continue to be dictated by the profit motive, it will remain incompatible with democracy.

This paper is designed to prompt conversation and encourage readers to think deeply about the complexities and intersections tech policy embodies by its expansive nature.

The private internet isn't working for our democracy and it's past time the Australian people took a proper stake in its future.

## 02 / WHAT GOOD IS DATA?

*Data has become a core form of capital, crucial for establishing and maintaining new methods of value extraction and market domination.*

*Just as we expect corporations to be profit-driven, we should now expect organisations to be data-driven; that is, the drive to accumulate data now propels new ways of doing business and governance.*

- Jathan Sadowski<sup>2</sup>

As we spend more time online and interacting with networked devices, tech companies make record profits through data creation, collection, analysis and disclosure.

If we consider data as a form of capital, it's clear that its collection — or more accurately, extraction — is driven by the perpetual impetus of growth and accumulation.<sup>3</sup>

Every aspect of our lives are increasingly subject to a process of 'datafication' in which our social actions, interactions and sentiments are transformed into data.<sup>4</sup>

In turn, this data fuels a shadowy data broker industry, in which data is bought and sold, for use in targeted advertising, personalisation, and as inputs to algorithmic systems such as machine learning models. Behavioural data combined with ongoing experimentation provide commercial platforms with unprecedented resources for learning how to manipulate consumers according to their imperatives – which often run counter to democratic goals. While the majority of this data is extracted from people, people receive little benefit while major corporations rake in astounding profit.

The way that data is harvested has evolved over time.

What once may feasibly have been considered in discrete, transactional terms of *collection* — in which a company asks for information and individuals actively provide it — has transformed into a persistent, pervasive and continuous *extraction*. Much of this happens without the active participation or even awareness of the people from whom the data is being extracted from.

The commodification of data, or 'spying for profit' has been described by Shoshana Zuboff as "surveillance capitalism", which she notes "*is not technology; it is a logic that imbues technology.*" Surveillance capitalism is a political and economic ideology, and *not*

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<sup>2</sup> Sadowski, Jathan. "[The political economy of data intermediaries](#)". *Ada Lovelace Institute*, 1 June 2022,

<sup>3</sup> Sadowski, Jathan. "[When data is capital: Datafication, accumulation, and extraction](#)". *Big Data & Society*. 6:1, 2019.

<sup>4</sup> van Dijck, Jose. "[Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology](#)". *Surveillance & Society*. 12:2, 2014.



an inevitable byproduct of digital technologies themselves, despite efforts made by tech companies to conflate commercial imperatives with technological necessity.<sup>5</sup>

By selling the idea that undermining privacy is the inevitable cost of technological progress, tech companies have succeeded in shrinking the window of political debate.

The public debate about technological futures has been constrained by the idea that technical progress is inherently invasive and exploitative, and helped foster an environment in which policymakers are willing to forego privacy protections in the interest of “innovation”.

Companies across virtually every sector are increasingly reconfiguring their business models to become “data intermediaries” — those who act as mediators between those producing data and those seeking to leverage it.<sup>6</sup> Even sectors that previously had no real interest in the digital economy are getting into the business of creating and selling data. These intermediaries — often major digital platforms, but increasingly other everyday products and services — position themselves as the necessary go-between, giving them the ability to maximise extraction of data from the information lifecycle.

This shift of focus away from the service or product itself and towards the commodification of data enables and encourages a data-gluttonous logic in which data is collected for the sake of it, rather than to meet a specific functional necessity.

In turn, this amplifies invasion of privacy, broadens the risks associated with compromised digital security, and, critically, creates a dynamic in which people are data subjects but never data agents.

By and large, people generate an immense amount of data to the benefit of a handful of corporations, which is in turn used to fuel further profits by way of targeted advertising and the manipulation of attention, as something to be bought and sold in the data broker industry, or used to build more products divorced from the underlying wants and needs of the people from whom the data was extracted.

In order to realise the potential public good of technology and data, it is necessary to disentangle the corporate imperative of data extraction for profit from the nature of digital technologies and the internet.

The current motivations for collection, use, storage, and disclosure of data are dominated by impetus for private financial growth and profit, or, in some cases, for the purpose of policing. While the underlying motivations behind data surveillance in the public and private sectors may diverge, they are functionally intertwined—they facilitate and support each other in a mutually beneficial relationship.<sup>7</sup>

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<sup>5</sup> Shoshana Zuboff, *The Age of Surveillance Capitalism*. London: Profile Books, 2019. 15.

<sup>6</sup> Janssen, Heleen and Singh, Jatinder. “[Data intermediary](#),” *Internet Policy Review* 11:1, 2022.

<sup>7</sup> Cory Doctorow, “[How to Destroy Surveillance Capitalism](#),” *Medium*, 26 August 2020,

Collection and use of data is not inherently bad, but the profit motive acts as a corrupting force that prevents the collection and use of data from being in the public interest.

The data that companies see as worth accumulating are those that are seen as valuable by immense, inscrutable and often invisible data brokers — data that feeds targeted advertising, attention capture, or risk management.

Researchers Jathan Sadowski, Salomé Vijoën and Meredith Whittaker emphasise that the current model of corporate data gatekeeping, *“in which the digital traces of our lives are monopolised by corporations, threatens the ability of society to produce the rigorous, independent research needed to tackle pressing issues. It also restricts what information can be accessed and the questions that can be asked.”*<sup>8</sup>

Big tech companies are not interested in data at an individual level. Its value lies in the aggregate — in the analysis of relations and patterns.

This is in part why our understanding of privacy regulation must go beyond a focus on individual rights of data protection, control, access and deletion. We must address the collective aspects of privacy related harms such as mass privacy invasion having a chilling effect on public discourse, political organising, and other democratic processes.<sup>9</sup>

Strong privacy protections are a key ingredient in combating many of the harms of surveillance capitalism and the more expansive these reforms are, the more effective they will be at protecting our individual and collective rights.

It is not enough to only respond to the ‘surveillance’ part of surveillance capitalism. Without addressing the underlying motives and business models that encourage mass invasion of privacy, technologies will continue to be designed for profit, not people.

Take for example the Digital Platforms Inquiry, conducted by the Australian Competition and Consumer Commission. While many useful recommendations emerged from this inquiry, the fundamental premise of it is that privacy is important because it enables market competition and consumer protection objectives.

As noted by privacy expert, Jordan Wilson-Otto, *“the idea goes that by empowering consumers to make informed choices about how their data is processed, we can correct bargaining power imbalances and information asymmetries and so increase competition and encourage innovation.”*<sup>10</sup>

Aside from this saying nothing of privacy’s innate value as a human right, it’s ineffective when it comes to tackling any challenge greater than that of individual choice.

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<sup>8</sup> Sadowski, Jathan. [“Everyone should decide how their digital data are used — not just tech companies,”](#) *Nature*. 1 July 2021.

<sup>9</sup> For more on the relational nature of privacy, see Molitorisz, Sascha. *Net Privacy*. Sydney: Newsouth Publishing, 2020.

<sup>10</sup> Wilson-Otto, Jordan. [“The blind spot in Australia’s approach to privacy reform,”](#) *InnovationAus*. 10 December 2022.

Digital Rights Watch has consistently called for stronger privacy protections firmly grounded in a human rights framework.<sup>11</sup> In order to dismantle the stranglehold that major companies have on Australians and our economy, strong privacy reform is necessary — but one of many regulatory interventions required for meaningful change.

While a significant amount of attention has focused on protecting individuals' privacy and addressing (or not) anti-competitive behaviour, less focus has been directed toward questions of ownership and control of data and digital assets. There is however, a growing scholarship in this space exploring the potential for public, collective or distributed ownership and control of data.<sup>12</sup>

## **Alternative models for collective data ownership and governance**

The current dominant motivations for data collection, use and sharing are not conducive to public good. So what alternative approach to data governance could ensure the social value of data is collectivised for public interest, rather than commodified for private profit? And what might large-scale interventions into infrastructure and institutions seeking to reign in 'data intermediaries' look like?

Scholars and researchers are beginning to explore possible alternative models for data governance, often referred to as a 'public data trust' or 'data commons'.<sup>13</sup>

Such a model could involve collective data stewardship, subject to democratic oversight and accountability, while also conferring additional requirements including anti-discrimination, due process, and public scrutiny by way of public transparency mechanisms. While it is possible to impose similar requirements upon private companies, these remain limited, and do not address the issues of purpose and motivation, as highlighted above.

A public governance model with a commitment to serving the public interest is crucial. There are already some proposals for privately managed data trusts<sup>14</sup> but such models do not disrupt the power of private interests.

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<sup>11</sup> See, for example "[Submission: Privacy Act Review - Discussion Paper](#)," *Digital Rights Watch*, January 2022; "[Getting privacy reform right](#)," *Digital Rights Watch*, October 2022; "[Submission: Privacy Legislation Amendment \(Enforcement and Other Measures\) Bill](#)," *Digital Rights Watch*, November 2022.

<sup>12</sup> See for example: Tarnoff, Ben. *Internet for the People*. London: Verso, 2022.

<sup>13</sup> See, for example: Sadowski, Jathan. "[The political economy of data intermediaries](#)," *Ada Lovelace Institute*, 1 June 2022; Shkabatour, Jennifer. "[The Global Commons of Data](#)," *Stanford Technology Law Review*. 22, 2019; Miller, Katharine. "[Data Cooperatives Could Give Us More Power Over Our Data](#)," *Stanford University Human-Centred Artificial Intelligence*, 20 October 2021.

<sup>14</sup> For example, the discontinued Sidewalk Toronto project was based on a partnership between the Canadian Government and Sidewalk Labs - a subsidiary of Google, Communities were not adequately involved, leading to backlash over privacy and data governance. For more details see Kariotis, Timothy, "[Civic Data Trusts: An opportunity for participatory data governance](#)," *The University of Melbourne School of Government*, 16 October 2020.

While current approaches to privacy regulation focus on the rights of individuals, public data trusts could go further — to also represent the interests and values of groups affected by the downstream use of their data.<sup>15</sup>

This is not to say that public stewardship of data is without its own challenges.

Governments have demonstrated the ability to use data to inflict serious harm, including targeting marginalised groups or misuse of algorithmic systems.<sup>16</sup>

Governments attempting to use such a public data trust for surveillance, policing, or military purposes must be prevented in order for it to serve the public interest.

This is why any public data trust must be designed for democratic governance from the outset—legal restrictions and protections are not enough on their own, there must be technical safeguards built into the very system to prevent misuse or abuse.

## Questions you could be asking

How can governments create democratic structures to empower people to actively participate in the governance of essential digital services?

What are the policy levers, regulatory frameworks, and legal and institutional interventions required to support the development of public data trusts?

How might public data trusts grapple with questions of who gets to determine how data is made, what it means, and when and why it is used or shared?

What mechanisms would need to be established in order to prevent inappropriate use of data contained in a public data trust?

How might other regulatory avenues, such as ‘The Right to Repair’ assist in the transfer of data control away from companies and toward the public?

What role could established public institutions such as libraries, museums and archives play in developing and expanding public capacity for data governance and democratic information management?

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<sup>15</sup> Sadowski, Jathan. [“Everyone should decide how their digital data are used — not just tech companies”](#). *Nature*. 1 July 2021.

<sup>16</sup> The Australian Government’s Online Compliance Intervention, more commonly known as “Robodebt,” is a prime example of harms that can arise when algorithmic systems are implemented without appropriate laws, risk assessments, oversight and safeguards.

## Potential solutions to explore

Implement the Attorney-General's Department's review into the Privacy Act.

Better align Australia's privacy laws with the European Union's General Data Protection Regulation - and extend it by making devices, software, and online interactions subject to privacy by default and design, and banning data sharing and selling between companies and within the same company family without the explicit and informed consent of users.

Investigate the potential for 'public data trusts', including the requisite public infrastructure and participatory governance models.

Expand governance of public data by way of creating and supporting public institutions that have the capacity to steward data in the public interest.

Implement policy and regulatory tools that can constrain or dismantle the secondary market for data.

## Recommended readings

Greene, Daniel. "[Landlords of the Internet: Big data and big real estate](#)". *Social Studies of Science*. 52(6), December 2022: 904-27.

Jimenez, Aitor. "[The Silicon Doctrine](#)". *Triple C*. 18(1): 322-336, 2020.

Mazzucato, Mariana. "[Let's make private data a public good](#)". MIT Technology Review. June 27, 2018.

McCann, Duncan. [Power and accountability in the digital economy](#). London: New Economic Foundation, 2019.

Muldoon, James. "[Data-owning democracy or digital socialism?](#)". *Critical Review of International Social and Political Philosophy*. 1-22: 2022.

Sadowski, Jathan. "[When data is capital: Datafication, accumulation, and extraction](#)". *Big Data & Society*. 6(1): 2019.

Shkabatur, Jennifer. "[The Global Commons of Data](#)," *Stanford Technology Law Review*. 22, 2019

Srnicek, Nick. "[The Social Wealth of Data](#)". *Autonomy*. 3(1), 2018.

Viljoen, Salomé. "[Data Relations: What's wrong with our digital world and what would make it right?](#)" *Logic*. May 17, 2021.

## 03 / NATIONAL SOVEREIGNTY

The power of the tech giants rivals those of nation states.

The “*Big Five*” — Alphabet, Amazon, Apple, Meta and Microsoft — control more of our lives and shape more of our physical world than we imagine. Not only does their power rival that of nation states, they are behaving like governments. They set the rules on their networks, collect fees on transactions and decide who can and can't have access.

But instead of being democratically accountable to the people they supposedly serve, they only hold themselves accountable to their shareholders and their advertisers.

Big tech's influence reaches to everything from cloud computing, smart energy grids, and logistics relies on technology that is controlled by private companies.

Our national sovereignty is under threat as more critical functions are moved out of the public domain and into virtual spaces that the Australian people have no stake in.

### **Semiconductor Supply Chains**

Semiconductors are now used in everything from our phones to medical equipment. Despite the fact that critical national infrastructure relies on semiconductors, Australia is reliant on international supply chains to supply them.

Disruptions caused by the pandemic as well as other geopolitical developments have given us a glimpse into their fragility. Without a local semiconductor industry, Australia is at the whims of private companies and foreign governments and exposed to supply chain shocks. The Australian Strategic Policy Institute argues:

*Having unfettered access to microchips is a matter of economic and national security, and, more generally, of Australia's day-to-day wellbeing as a nation. In an increasingly digitised world, policymakers must treat semiconductors as a vital public good, almost on par with other basic necessities such as food and water supplies and reliable electricity—a reality that would become immediately apparent in a time of international crisis resulting from, for example, wars or natural disasters<sup>17</sup>.*

To go further, many of those already basic necessities like water and energy are reliant on supplies of cheap, low-grade semiconductors for things like smart grids and pipeline monitoring systems.

Developing and manufacturing semiconductors is a complex and expensive project. Building the capacity to manufacture semiconductors in Australia will require long term planning and investment.

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<sup>17</sup> Capri, Alex and Clark, Robert. [Australia's semiconductor national moonshot](#). Canberra: Australian Strategic Policy Institute, 2022.

The Commonwealth could adopt a “moonshot” industry strategy to build towards a domestic semiconductor industry, of the kind advocated by Mariana Mazzucato and domestically by the Australian Strategic Policy Institute and Dr Venkata Gutta.<sup>18</sup> A national moonshot agency could coordinate public and private investment across the entire supply chain, from minerals extraction and processing, and semiconductor design, fabrication and assembly, to developing advanced manufacturing sectors that domestically produced semiconductors could feed into.

Given the critical nature of this technology, this project should be led by the government and remain in public hands to ensure that all Australians benefit from this technological development.

## **Natural resources and sustainability**

Computing is a resource intensive industry. It is an industrial process that requires mineral extraction, manufacturing, construction and distribution. In a very physical sense, computing power is finite and decisions about how that computing power is used and to whose benefit are vital to our democracy.

The rise of cryptocurrency attracted particular scrutiny in recent years given the enormity of its energy consumption. Total global electricity usage for cryptocurrency is between 120 and 240 billion kilowatt-hours per year. This is more than many individual countries, including Australia.<sup>19</sup> The cryptocurrency boom of the last few years was also likely responsible for a shortage in Graphics Processing Units (GPU), as demand from cryptocurrency mining diverted GPUs away from other industries.

Artificial Intelligence (AI) and machine learning are also resource intensive activities. Not just power, but water, steel and other rare earth minerals. The public should have far more of a say over how such a large amount of resources are allocated and if we want to see such vast resources committed to a technology that benefits so few. Many economists have warned that AI will drive wages down, increase inequality and consolidate power in the hands of ever fewer corporations.<sup>20</sup> But this is only true of AI developed, owned and led by private companies in the pursuit of profit.

Machine learning and AI *could* prove to have many social and economic benefits, but only if the technology is governed democratically for the benefit of all. Decisions about how such finite computing resources are allocated is not something that can be left in the hands of a few private companies.

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<sup>18</sup> Capri, Alex and Clark, Robert. [Australia's semiconductor national moonshot](#). Canberra: Australian Strategic Policy Institute, 2022. and Gutta, Venkata. [“Australia's place in the semiconductor world.”](#) *Australian Manufacturing Forum*. November 24, 2022.

<sup>19</sup> [Fact sheet: Climate and energy implications of crypto-assets in the United States](#). (2022, September 8). The White House.

<sup>20</sup> Acemoglu, Daron and Restrepo, Pascual. [“Tasks, Automation, and the Rise in US Wage Inequality”](#). *National Bureau of Economic Research*. June 2021

Digital technology doesn't exist in a vacuum and there are real opportunity costs associated with its development and deployment. As Australia, and indeed the world, grapples with the urgent need to reduce greenhouse gas emissions, we need to be making rational choices about which technologies genuinely serve our society and which technologies only produce benefits for shareholders. Governments must act on behalf of their citizens and limit the power of multinational corporations, not just to protect national sovereignty, but to avert climate catastrophe.

## Cloud computing

*"There's no such thing as the cloud, just someone else's computer"*

- internet proverb

The Commonwealth as well as various state governments have entered into multimillion dollar contracts with Amazon Web Services to provide cloud computing services. Amazon has been aggressively pushing into the public sector, hiring former government officials to help them secure lucrative government contracts.<sup>21</sup> Global cloud computing is dominated by just a handful of companies with Amazon leading the market with 34% of market share ahead of Microsoft's Azure holding 21%<sup>22</sup>.

While many public sector cloud computing platforms are publicly owned, a lot of the backend capacity is becoming reliant on those handful of private cloud companies.<sup>23</sup>

As more of the services used or deployed by the public sector become cloud based, the sustainability of relying on those privately owned cloud facilities become called into question — particularly if there is a risk that those companies might exit the Australian market, if those services are hosted overseas and subject to different regulatory environments, or if those companies display poor workplace behaviours or corporate citizenship.

One potential solution to this is to reverse government programs that push the use of privately owned cloud infrastructure and mandating the use of modern, publicly-owned cloud capacity.<sup>24</sup>

Eventually such a scheme could grow to the Commonwealth owning and maintaining at-scale capacity to sell back onto the private market, with the additional selling point that their data and services would be locally hosted, meet regulatory guidelines and have reduced risk of intrusion by foreign actors.

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<sup>21</sup> Lippman, Daniel and Birnbaum, Emily. "[The secret behind Amazon's domination in cloud computing](#)". *Politico*. 4 June 2021.

<sup>22</sup> "[Amazon, Microsoft & Google dominate cloud market](#)". *Statista*. 23 December 2022.

<sup>23</sup> Graham, Jackson. "[Cloud computing grows but agencies lacking resources, auditor general hears](#)." *The Mandarin*. 3 November 2021.

<sup>24</sup> Jenkins, Shannon. "[NSW government agencies to be using public cloud for at least 25% of ICT services by 2023](#)". *The Mandarin*. 5 October 2020.



Such proposals have already found support in France and Germany<sup>25</sup> and with the European Commission.<sup>26</sup>

Professor Vass Bednar has gone so far as to argue that governments should partially nationalise cloud computing capacity:

*The ongoing pursuit of network sovereignty — a long-standing principle that in order to advance the public interest, citizens need to exercise effective control over the communication networks upon which the economic life of the nation depends — invites us to consider the prospect of significant investment in national cloud infrastructure that is publicly owned.*<sup>27</sup>

Alternatively, or perhaps complementary, the Commonwealth could consider mandating a “public lane” of cloud computing to prioritise and provide free or at-cost services to public sector agencies, not-for-profit organisations or digital cooperatives, in return for their social licence to operate.<sup>28</sup>

## Questions you could be asking

What does a democratic and mission-driven industry strategy for technology in Australia look like?

How do we secure domestic access to critical digital resources like semiconductors or cloud computing capacity during a time of international supply chain disruption?

What impact would those supply chain disruptions have on the capacity for governments to deliver public services and maintain critical infrastructure?

What are the climate and environmental impacts of Australia’s digital and technology industries and how does increased demand in a more technologically integrated world align with Australia’s net zero ambitions?

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<sup>25</sup> Leprince-Ringuet, Daphne. [“Europe’s cloud computing plan won’t do much to scare the US giants.”](#) ZDNet. 1 November 2019.

<sup>26</sup> European Commission. [European Open Science Cloud](#). December 20, 2022. and European Commission. [Shaping Europe’s Digital Future](#). 7 June 2022.

<sup>27</sup> Bednar, Vass. [“Why Canada needs a publicly owned cloud”](#). *Financial Post*. 17 January 2023.

<sup>28</sup> Tarnoff, Ben. *Internet for the People*. London: Verso, 2022, page 165.

## Potential solutions to explore

Establish a public fund to establish cooperatively-owned and open source tech services in Australia and amend public procurement guidelines to privilege open source and not-for-profit technological solutions.

Develop a “whole of supply chain” strategy for developing a sustainable domestic semiconductor industry.

Prepare a “worst case scenario” plan for what happens to Australia’s critical infrastructure and industries if private tech companies withdraw from the Australian market due to geopolitical issues, climate, pandemics or supply chain disruption.

Require a proportion of ownership of cloud computing infrastructure physically based in Australia to be transferred to public ownership.

Mandate a “public lane” for private cloud computing providers to provide low-cost, priority services to public services, not-for-profits and cooperatives.

## Recommended readings

Brett, Miriam, Buller, Adrienne, Hanna, Thomas and Lawrence, Mathew.

[\*Democratic Digital Infrastructure\*](#). London: Common Wealth, 2020.

Capri, Alex and Clark, Robert. [\*Australia’s semiconductor national moonshot\*](#). Canberra: Australian Strategic Policy Institute, 2022.

Gutta, Venkata. [“Australia’s place in the semiconductor world.”](#) *Australian Manufacturing Forum*. November 24, 2022.

## 04 / ARTS & CULTURE

*It's striking, when one pauses to think about it, how essential art and culture remain to the digital economy even as most of the money floating around goes to multibillion-dollar businesses that don't invest much in either.*

- Astra Taylor<sup>29</sup>

We all live in the digital economy. Or perhaps more accurately, all of our lives are shaped by the tech companies and investors who own, design, and shape the technology we use everyday.

In the cultural sector — by which we mean to include news, media, cultural products and arts, civic, political and community institutions — digital platforms and other internet infrastructure influence the ways that people interact and connect, the ideas they are exposed to, and the identities and discourses that develop. The flow on effects of such influence should not be understated.

As highlighted by Ben Tarnoff, these platforms don't just *facilitate* interactions, but rather, they *shape* them:

*They write the rules for how people can interact and design spaces where they do so. It is not an intermediary but a legislator and architect.*<sup>30</sup>

The Commonwealth's National Cultural Policy ambitiously sets out a five-year plan to revive the arts in Australia.<sup>31</sup> This commendable piece of work makes some reference to the role of the digital economy and proposes some steps to address the symptoms.

Much more could be done however to improve the state of the arts, and the cultural sector more broadly, by way of critical interventions in the Australian digital economy.

Even with increased connectivity and digital literacy, creative workers will still be subject to the whims of major digital platforms, including their recommender systems, engagement and amplification algorithms.

They will still be incentivized by social media platforms to create and share their work for free or a very small income, while the profits of platforms themselves soar.

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<sup>29</sup> Taylor, Astra. *The People's Platform*. London: Fourth Estate, 2014

<sup>30</sup> Tarnoff, Ben. *Internet for the People*. London: Verso, 2022, 82.

<sup>31</sup> Australian Government, "[National Cultural Policy — Revive: a place for every story, a story for every place.](#)" *Department of Infrastructure, Transport, Regional Development, Communications and the Arts*, 30 January 2023

Many of the challenges associated with the digital economy and the cultural sector come back to the question of ownership.

In order to nurture Australian political, economic and cultural democracy, the Australian people need to be able to claim a stake in the development of digital technology and begin to shape our own future through public institutions.

## Monopolies and competition

Over the past several decades, just a handful of companies have grown to control just about everything in the cultural sector: news, publishing, movies, music, streaming, games and radio are just a few examples.

This does present a competition issue. It is clear that the market has become unreasonably concentrated and that 'Big Tech' companies are prioritising business models and tactics that centre upon suppressing competition rather than encouraging it, ensuring they receive a disproportionate cut of the value of other people's work (the journalists writing the articles, the musicians creating music, etcetera).

Cory Doctorow and Dr Rebecca Giblin highlight how corporations burrow between audiences and culture producers to capture the value that flows between them.<sup>32</sup> For example, Amazon favours a strategy to *"lock in users and suppliers and make its markets hostile to new entrants...to create chokepoints that will force workers and suppliers to accept unsustainably low prices."*<sup>33</sup>

Spotify invests in playlist culture, with a goal to position itself as the necessary intermediary between musicians and listeners as a dictator of taste. In doing so, Spotify increases the power it has over artists by being able to determine which of them get heard, and is *"flexing that muscle to drive down royalties to desperate artists and labels."*<sup>34</sup>

A key factor in companies' ability to wield so much power and influence is their size and a lack of genuine competition. Some posit monopolistic practices as the central challenge of tackling Big Tech, and it is indeed true that many of the harms of surveillance capitalism, or the negative effects upon the cultural sector, are the result of a handful of companies becoming extremely *big*.

Cory Doctorow argues that *"competitive markets would weaken the companies' lobbying muscle by reducing their profits and pitting them against each other in regulatory forums"* as well as giving customers other places to go to get their online services.<sup>35</sup>

Others, such as Ben Tarnoff, suggest that even within a market that is more competitive as opposed to concentrated, with smaller companies rather than a handful

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<sup>32</sup> Doctorow, Cory and Giblin Rebecca. *Chokepoint Capitalism: How big tech and big content captured creative labor markets and how we'll win them back*. Boston: Beacon Press, 2022, 28.

<sup>33</sup> Doctorow, Cory and Giblin Rebecca. *Chokepoint Capitalism*, 21.

<sup>34</sup> Doctorow, Cory and Giblin Rebecca. *Chokepoint Capitalism*, 211.

<sup>35</sup> Doctorow, Cory. "[How to Destroy Surveillance Capitalism](#)," *Medium*, 26 August 2020,

of monopolistic ones, “*the pursuit of profit would remain the organising principle.*”<sup>36</sup> That is to say, it would still be an internet ruled by markets, rather than one ruled by people.

Nick Srnicek goes as far to suggest that more competition could possibly even make things worse by compelling companies to seek out even more advantages, noting that “*it’s competition, rather than size—that demands more data, more attention, more engagement, and more profits at all costs.*”<sup>37</sup>

Over the course of 2020 and 2021, Digital Rights Watch conducted a community-based research project, *Rebalancing the Internet Economy*, in which we spoke with a range of cultural, creative and knowledge workers to investigate the ways in which digital platforms are impacting their work.<sup>38</sup>

One of the recurring themes throughout these conversations was that large digital platforms are further entrenching power imbalances in our economy, and governments aren’t going far enough to regulate their power.

Many participants emphasised that the monopoly of a handful of companies created a hold over audiences which meant that creative workers had no real choice but to use them, and were unable to negotiate a fair share of income for their work. Many also expressed concerns regarding the cultural influence of these platforms. Writer Patrick Lenton noted that the dominance of Big-Tech forced publishers to “*choose between what was working on Facebook, versus what we actually valued and the kind of work that we wanted to create. It was like being beholden to the platform and having it control us, rather than being able to use it as a tool to support the work.*” Artist Roslyn Orlando Muir also noted that “*there can be a real narrowing of the field when we think about art in terms of its social media presence, and that can be really damaging—we’re seeing a lot of work become quite homogenous.*”

Many participants in the *Rebalancing The Internet Economy* project also raised concerns regarding invasive data collection, fears of being “de-platformed”<sup>39</sup> or losing access to online communities, and opaque platform functionality changes. These conversations with creatives, publishers and distributors confirmed that Big-Tech is having an outsized, though largely invisible, influence on the direction of our national culture which must be addressed.

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<sup>36</sup> Tarnoff, Ben. *Internet for the People*. London: Verso, 2022, 152.

<sup>37</sup> Srnicek, Nick. *Platform Capitalism*. London: Polity, 2016.

<sup>38</sup> Digital Rights Watch. [Rebalancing the Internet Economy Report](#). 9 November 2022,

<sup>39</sup> In this case, de-platforming refers to creators being removed from or deprioritised in recommender services on major platforms, either because of distributor decisions, changes in licensing, opaque deals to prioritise certain distributors’ products, or because their work poses a potential political risk to the platform.

## Australian media and the News Media Bargaining Code

The most significant challenge that the Commonwealth has posed to the dominance of Big Tech in the cultural sector in Australia to date has been the News Media Bargaining Code. This was the first major outcome of the Australian Competition and Consumer Commission's Digital Platforms Inquiry and attracted international attention as an exercise in regulating the market power of major digital platforms.

The policy documents and draft bills in the lead up to the passage of the Code and indeed the Digital Platforms Inquiry itself included consideration of not just financial remuneration, but also to introduce comprehensive regulation of digital platforms, including a focus on transparency.

However, through concerted pressure from Industry, these goals were almost entirely removed from the Code. Jake Goldenfein notes that the Code *"represents platforms leveraging cash payments into a regulatory outcome that stabilises their market power and protects their business models...the platforms were able to maintain opacity over their algorithmic ranking systems, their pools of user data, and the control over the relationship between content, user data and economic value."*<sup>40</sup>

While the Code did result in financial remuneration for some Australian news media corporations, it has occurred on terms that entrench platform control over data collection, content curation, and the mechanisms of advertising revenue.

The Code *"cemented platforms' curatorial and infrastructural centrality"* and *"while it may have ameliorated some forms of market power, it fortified platforms' 'gatekeeper power' and centrality to the digital lives of Australians."*<sup>41</sup>

Given that 'success' on most digital platforms is measured by engagement metrics, the Code pushes media outlets even further toward creating and circulating content that gets the most engagement, regardless of its social consequences, which raises significant concerns regarding the spread of misinformation.

Scholar Mark Andrejevic and Lawyer Lizzie O'Shea note that *"in tying revenues to performance on platforms like Google and Facebook, the Bargaining Code makes the domestic media system increasingly reliant on commercial entities with no particular commitment to Australian concerns or democratic values."*<sup>42</sup>

Reflecting on the Code, it is clear that Australia is in need of more bold and imaginative policymaking. A focus on public ownership and public interest is essential.

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<sup>40</sup> Goldenfein, Jake. "[News Media Bargaining Code entrenches platform power](#)". *State of Digital Rights Report: A 2021 Retrospective*. Melbourne: Digital Rights Watch, 3 March 2022

<sup>41</sup> Goldenfein, Jake. "[News Media Bargaining Code entrenches platform power](#)". *State of Digital Rights Report: A 2021 Retrospective*. Melbourne: Digital Rights Watch, 3 March 2022

<sup>42</sup> Lizzie O'Shea and Mark Andrejevic, "The misinformation engine," *Overland Literary Journal*, 1 September 2021, <https://overland.org.au/2021/09/the-misinformation-engine/>

## Automating culture: content moderation and recommender systems

For platforms — particularly social media platforms — to be able to service billions of people globally, it is necessary for them to have some form of automated content moderation in order to be able to limit the spread of content deemed to be harmful, as well as mis- and dis- information.

Given that the majority of the dominant internet companies are based in the United States, this results in a kind of exportation of US cultural values onto a global scale, by way of ‘community guidelines’.

In practice, these platforms are able to design and implement a set of globally homogenous moral standards, in turn impacting creative, cultural, and educational online expression in places whose norms may not align with those of the United States. For example, artistic expression that includes nudity, as well as sexual education and activism have all been caught up in strict conservative content moderation policies regarding nudity.<sup>43</sup> In 2018, Zuckerberg said it’s “*easier to detect a nipple than hate speech with AI.*”<sup>44</sup>

Setting aside the impossible challenge of defining a global set of agreeable ‘community standards’, automated content moderation itself cannot technically function at a global scale — it simply is not possible to accurately identify and remove content en masse, without resulting in the over- or under- capture of particular forms of content.<sup>45</sup> Automated content moderation on popular social media sites has caused harm to users by disproportionately removing some content over others, penalising Black, Indigenous, fat, and LGBTQ+ people.<sup>46</sup>

In addition to the question of what *not* to show people, is the question of how content is curated. There is an exorbitant amount of information and cultural content being produced and shared online every day. In theory, more information should be more useful. In practice, it’s bewildering. Indeed the birth of Google — as a search engine in 1996 and before it transformed into an ad business — was in response to the overwhelming flux of information on the then-budding internet.

All the information and media in the world means nothing if there is no meaningful way to sort through it and access the parts that are relevant, accurate, and useful. As such, automated systems “*have an increasingly central role to play in the production,*

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<sup>43</sup> Gillett, Rosalie. Stardust, Zahra. Burgess, Jean. “[Safety for Whom? Investigating How Platforms Frame and Perform Safety and Harm Interventions](#)”. *Sage Journals*, 15 December, 2022.

<sup>44</sup> Johnson, Khari. “[Zuckerberg: It’s easier to detect a nipple than hate speech with AI](#)”. *Venture Beat*, 25 April 2018.

<sup>45</sup> For an in-depth look at the limitations of content moderation at scale, and its negative impacts upon cultural expression and socio-political movements, see: York, Jillian. *Silicon Values*. London: Verso, 2021.

<sup>46</sup> For example: Ghaffary, Shirin. “[The algorithms that detect hate speech online are biased against black people](#)”. *Vox*, 15 August 2019; and Christie, Lacey-Jade. “[Instagram censored one of these photos but not the other. We must ask why](#)”. *The Guardian*. 20 October 2020.

*circulation, and reception of mediated cultural artefacts. Without automation and machine learning systems, social media would look very different, and search engines would be non-functional.”*<sup>47</sup>

However, while automated systems may be necessary, decisions need to be made about who defines and designs the systems that curate content, and for what purpose. Those decisions have been made by private companies making curation decisions driven exclusively by the desire for profit and growth.

Recommender systems “*significantly shape people’s online (and even offline) experiences in highly automated ways, be it on social media, video streaming, or dating apps.*”<sup>48</sup>

One of the key negative outcomes associated with recommender systems include algorithmic rabbit holes in which users are shown increasingly extreme content and the spread of mis- or dis-information.<sup>49</sup> In some instances, such as on Tiktok, intense niche-ification and hyper-personalisation of content may lead to further atomisation of communities and the polarisation of political discourse. In others, such as on popular streaming services like Spotify and Netflix or when buying books on Amazon or Audible, can have the effect of flattening out the diversity of content, instead promoting and recommending the most popular, dominant content, often at the detriment of smaller, independent creatives and artists.

Automated systems aren’t just challenging workers in creative industries, they are also having broader impacts upon the cultural sector by way of impacting news media and civic participation.

For example, Mark Andrejevic et al highlight how “*the runaway circulation of false information on an unprecedented scale*” is an effect of the automated systems that shape our information environment.<sup>50</sup> This includes bots that deliberately amplify information online, platform algorithms that determine which kind of information is most likely to create engagement or trigger a response, and increasingly, the algorithms that generate some forms of news content.<sup>51</sup>

In early 2023, controversy arose regarding the use of OpenAI’s large language model chat bot, ChatGPT, to write articles. Microsoft’s expanded partnership with OpenAI has seen ChatGPT technology already rolled out in their search engine Bing<sup>52</sup>, and Google

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<sup>47</sup> Mark Andrejevic, Robbie Fordyce, Luzhou Li and Verity Trott, “[Automated Culture: Introduction](#),” *Cultural Studies* 37, no.1, page 2.

<sup>48</sup> Gahntz, Maximilian. “[Towards Responsible Recommending](#),” *Mozilla Foundation*, 7 December 2022,

<sup>49</sup> Tiktok is generally considered to be the more extreme case of algorithmic recommendation in which users are quickly led away from the mainstream videos and into the “content trenches”. For an explanation on how this works in practice, see: “[Investigation: How TikTok’s Algorithm Figures Out Your Deepest Desires](#),” *Wall Street Journal*, 21 July 2021

<sup>50</sup> Andrejevic, Mark et al, “Automated Culture,” page 2.

<sup>51</sup> Andrejevic, Mark et al, “Automated Culture,” page 2.

<sup>52</sup> [Microsoft and OpenAI extend partnership](#), 23 January 2023.



has since announced that it will be rolling out a chatbot named Bard to provide responses to some Google search queries.<sup>53</sup> This announcement comes despite concerns about factual inaccuracy, the lack of source references for large language model generated material, and the potential to spread misinformation.<sup>54</sup>

## **Responsible recommender systems in the public interest**

Recommender systems are not intrinsically negative but the threats to personal autonomy and privacy, the consequences of user profiling, a lack of transparency and explainability, and the polarising effects of hyper-personalised news, media and current events raise serious ethical concerns.

Increasingly, public media is beginning to adopt private sector approaches to curation and recommendations. For example, in 2022 ABC iView announced that users would be required to make a profile and log in to watch ABC content, in order to enable digital content personalisation.<sup>55</sup>

Recommender systems in the public interest should operate under a different set of values and objectives, including accountability, transparency, diversity, and independence. For example, *“rather than maximising engagement with recommendation systems...public service media providers want to broaden their reach to a more diverse set of audiences. Rather than maximising time on product...ensuring the product is useful for all members of society, in line with public interest values.”*<sup>56</sup>

Recommendation systems that operate in the public interest are not a given just by grace of being used by public institutions. Unless public institutions implementing recommender systems are clear about their values, purpose and objectives, it is likely they will default to the dominant approach of engagement and profit maximisation favoured by the private sector.

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<sup>53</sup> Knight, Will. [“Meet Bard, Google’s Answer to ChatGPT,”](#) *Wired*, 6 February 2023,

<sup>54</sup> See, for example, Sparkes, Matthew. [“Google Bard advert shows new AI search tool making a factual error,”](#) *NewScientist*, 8 February 2023,

<sup>55</sup> Brookes, Joseph. [“ABC may lock out iView users for ‘personalisation’,”](#) *InnovationAus*, 21 May 2021,

<sup>56</sup> Jones, Elliot. [“Inform, educate, entertain... and recommend? Exploring the use and ethics of recommendation systems in public service media,”](#) *Ada Lovelace Institute*, 24 November 2022, page 5,

## Questions you could be asking

What regulatory tools, other than competition law, could assist in the dismantling of anti-competitive cultural practices?

How might the Commonwealth foster and support smaller, collectively owned and run digital projects?

What regulatory levers can the Commonwealth use to influence private recommender systems to encourage greater human curation or operate under clearer, more transparent objectives?

What should content curation look like for public recommender services?

## Potential solutions to explore

Investigate regulatory and policy levers to encourage or require increased interoperability to prevent or ameliorate negative consequences of lock-in tactics such as the use of digital rights management software

Fund research into responsible recommendation systems designed to work in the public interest, for use by public institutions like the ABC and SBS.

## Recommended readings

Andrejevic, Mark, Fordyce, Robbie, Li, Luzhoou and Trott, Verity. "[Automated Culture](#)". *Cultural Studies*. 2022. 37:1, 2

Doctorow, Cory and Giblin, Rebecca. *Chokepoint Capitalism*. New York: Penguin, 2022.

Gahntz, Maximilian. "[Towards Responsible Recommending: Recommendations for policymakers and large online platforms on how to move towards a more responsible recommending ecosystem](#)". *Mozilla Foundation*. 7 December 2022.

Gingerich, Johnathan. "[Is Spotify Bad for Democracy? Artificial Intelligence, Cultural Democracy, and Law](#)". *Yale Journal of Law and Technology*. 2022. 24:1, 227.

Jones, Eliot. "[Inform, educate... and recommend? Exploring the use and ethics of recommendation systems in public service media](#)". *Ada Lovelace Institute*. 24 November 2022.

# 05 / FINANCE, INSURANCE & REAL ESTATE

The impact and influence of digital platforms and other technology intermediaries — and their underlying ideology and business models — is not merely occurring as a result of large ‘big tech’ companies, nor is it limited to social media platforms.

It is also not limited to companies based overseas, as there are a growing number of Australian tech platforms that are also negatively impacting people in Australia.

It is not enough to only turn our attention to major international corporations. We need to look in our own backyard.

Digital technologies and automated systems are increasingly being integrated into essential services like housing, finances, and insurance, having material impacts on people’s ability to access services and opportunities.

The promise of predictive technologies in ‘InsurTech’, for example, is to be able to personalise insurance policies premiums on the basis of individual behaviour and risk. They promise the ability to pay the ‘right price’ for insurance based on an individualised prediction of risk, but these calculations “*do not change the future uncertainty into certainty. Instead, they provide insurance companies with a sort of ‘substitute for certainty’ that can be bought and sold.*”<sup>57</sup>

Financial, insurance and property service providers have long made decisions based on an assessment of creditworthiness and risk. While the integration of digital intermediaries, often including automated decision making, is often framed as a “disruption,” or comes with a promise of social change for the better, more often than not they result in an *intensification* and *amplification* of pre-existing issues, problems and inequalities, rather than meaningfully changing them.

For example:

- ‘FinTech’ startups such as ‘Buy Now, Pay Later’ schemes, insert themselves as micro credit loan brokers between individuals, banks and retailers. These apps often do not perform the same level of credit check to meet the standard of responsible lending laws, which can result in trapping people in cycles of debt as they use ‘Buy Now, Pay Later’ for essentials like food and fuel.<sup>58</sup>

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<sup>57</sup> Cevolini, Alberto and Esposito, Elena. “[From pool to profile: Social consequences of algorithmic prediction in insurance.](#)” *Big Data & Society*, 7:2, 2020

<sup>58</sup> Beazley, Jordyn. “[Australians turning to buy now, pay later schemes for groceries’ stuck in a ‘revolving door’ of debt.](#)” *The Guardian*, 8 November 2022,

- ‘PropTech’ startups are facilitating the accumulation of capital through property investment, in turn undermining housing affordability amidst a housing crisis. For example, some promote fractional property investment in which users can buy a portion of a property and receive a portion of rental income.<sup>59</sup> Others use machine learning and analytics to automate property and development valuations in order to extract the most financial value.<sup>60</sup> These companies exacerbate the problems created by treating housing as an asset, rather than an essential service and human right.
- Other uses of ‘PropTech’ in the rental industry use machine learning, data scraping and analytics in order to automate the process of assessing risk or suitability of tenants, operating in ways and making decisions that are opaque to those impacted by the system.<sup>61</sup>
- Automated decision making systems used in recruitment can exacerbate pre-existing biases, in turn hindering people’s economic opportunities. For example, research has shown that recruitment algorithms favour male applicants.<sup>62</sup>
- Overseas there is already evidence of how the use of AI-assisted decision-making in assessing credit scores or predicting an individuals’ suitability for a loan results in biased outcomes, further locking historically marginalised groups out of opportunities.<sup>63</sup>

Many of the uses and outcomes of algorithmic systems in these areas are speculative, however the economic and regulatory incentive to experiment exists, despite the risk of exacerbating social problems, which is propelling an increasing number of companies toward digital “disruption” under the guise of “innovation.”

Australia has positioned itself as a ‘testbed’ for companies to experiment with technology in a low risk, low regulation environment. For example, the Australian Securities and Investments Commission has established an “Enhanced Regulatory Sandbox” that allows persons and businesses to test certain “innovative financial services” without first obtaining relevant licensing requirements.<sup>64</sup>

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<sup>59</sup> See, for example, [BrickX](#)

<sup>60</sup> See, for example, [PointData](#)

<sup>61</sup> See, for example, [Snug](#)

<sup>62</sup> Hanrahan, Catherine. “[Job recruitment algorithms can amplify unconscious bias favouring men, new research finds](#),” ABC News, 2 December 2020.

<sup>63</sup> For example, mortgage approval algorithms rejecting Black applicants at higher rates. See: Martinez, Emmanuel and Kirchner, Lauren. “[The Secret Bias Hidden in Mortgage Approval Algorithms](#),” *The Markup*, 25 August 2021.

<sup>64</sup> Australian Securities and Investment Commission. [Enhanced Regulatory Sandbox \(Information Sheet 248\)](#). August 2020.

There are very few requirements placed on these businesses to consider human rights or the possible impacts upon social or economic inequality.<sup>65</sup> Entities do have to meet a ‘net public benefit test’ which require them to explain why the exempted activity will be likely to result in a benefit to the public, however the examples of benefits provided include “increases consumer choice”, “reduces cost”, “better user experience” or “enhanced efficiency.”<sup>66</sup>

In their 2021 Report on Human Rights and Technology, the Australian Human Rights Commission suggested that regulatory sandboxes could possibly be used not just to encourage technical innovation, but also to encourage better governance, accountability, transparency, and to test models of regulation. In particular, they present recommendations for developing a “regulatory sandbox for responsible AI,” including “the development of one or more regulatory sandboxes focused on upholding human rights in the use of AI-informed decision making.”<sup>67</sup>

Regulatory sandboxes can be a dangerous experiment, even those for good reasons. A better approach might be pre-emptive regulation or co-governance frameworks, like those suggested by Fairwork in their model standards for the fair implementation of artificial intelligence.<sup>68</sup>

The technology and data companies operating and emerging in the fields of insurance, housing and finance rely upon and incentivise the ever-increasing collection, use, storage, analysis and sharing (or selling) of data.

In this sense, they have both a surveillance function—predatory and invasive collection of data, allowing profiling and policing of individuals and communities—as well as a speculative function—facilitating capital accumulation in ways that undermine fairness and equality in the longer term.

For too long tech companies have been able to operate under the green light of “innovation”.

Politicians, policymakers and regulators appear to be reluctant to intervene out of fear of being perceived as anti-innovation, anti-tech, and anti-progress. There needs to be significantly more scrutiny into these platforms, services and products, and for them to be regulated accordingly.

There is a huge opportunity for Australia to be a world leader in proactive regulatory approaches to technology that operate not just on for economic gain, but also for the public good.

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<sup>65</sup> Entities must meet a ‘net public benefit test’ which requires them to explain why the exempted activity will be likely to result in a benefit to the public.

<sup>66</sup> Australian Securities and Investment Commission. [Enhanced Regulatory Sandbox \(Information Sheet 248\)](#). August 2020.

<sup>67</sup> Australian Human Rights Commission. [Human Rights and Technology Final Paper](#). 2021, 97.

<sup>68</sup> Fairwork. [AI Principles](#). 2022.

## Questions you could be asking

How might we prevent the logic of extraction and accumulation that is currently persistent in private tech companies from seeping into essential government services and public administration functions?

How might publicly-funded technology projects be designed to better facilitate innovation in the public good in the realm of finance, insurance, and housing?

What alternatives to regulatory sandboxes might be used to safely pilot technologies with wide-ranging social implications?

How can people's privacy and human rights be better protected on commercial third party application platforms, for example in recruitment, tenancy and finance?

## Potential solutions to explore

Develop and mandate the use of a fairer and privacy preserving replacement for invasive tenancy application and property management platforms through a public-commons partnership with state governments and tenants unions.

Establishing a clear legal standard for algorithms — including an individual right to know when someone is interacting with an algorithm, secure, verifiable and transparent audit trails which would record the queries submitted and data used to process the query, and a right to an explanation.

## Recommended readings

Cevolini, Alberto and Esposito, Elena. "[From pool to profile: Social consequences of algorithmic prediction in insurance](#)". *Big Data & Society*. 7(2), July 2020.

Fields, Desiree. "[Automated landlord: Digital technologies and post-crisis financial accumulation](#)". *Economy and Space*. 54(1), May 2019: 160-181.

Sadowski, Jathan. "[The Internet of Landlords: Digital Platforms and New Mechanisms of Rentier Capitalism](#)". *Antipode*. 52(2), March 2020: 562-580.

## 06 / WORK & WORKERS

*Issues of work speed-up, monitoring and surveillance are closely associated with workplace automation. That is, rather than replace human workers with robots, many are being forced to work like robots.*

- Lauren Kate Kelly<sup>69</sup>

Digital tools have long been a part of the workplace. Increasingly, digital products are being used as intermediaries between management and workers. Sometimes this materialises as additional software upon established traditional systems to monitor employee activities and productivity, and in other instances may be closer to full algorithmic management.

Algorithmic management includes a “diverse set of technological tools and techniques to remotely manage workforces, relying on data collection and surveillance of workers to enable automated or semi-automated decision making.”<sup>70</sup> Algorithmic management typically includes data collection, monitoring and surveillance of workers, real-time data to inform management decisions, automated or semi-automated decision making, rating systems in place of performance evaluations, and the use of gamification techniques such as ‘nudges’ or penalties to incentivise and influence worker behaviours.

Many of the characteristics of algorithmic management have been developed by, or risen in popularity, as a result of the “gig” economy. The gig economy in Australia — characterised by on-demand services, the worker being classified as an independent contractor, and mediated by a digital platform — is estimated to be as large as 250,000 workers and has increased almost tenfold since 2015.<sup>71</sup> There are over 100 digital platforms facilitating this kind of work in Australia including companies such as Uber, UpWork and AirTasker.<sup>72</sup> Workers in the gig economy often experience financial, mental, and emotional stress<sup>73</sup> and exploitation.<sup>74</sup>

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<sup>69</sup> Kelly, Lauren Kate. “[Automation is changing work—not erasing it](#)”. *State of Digital Rights Report: A 2021 Retrospective*. Melbourne: Digital Rights Watch.

<sup>70</sup> Mateescu, Alexandra and Nguyen, Aiha. “[Algorithmic Management in the Workplace](#)”. *Data & Society*. 6 February 2019. and Mateescu, Alexandra and Nguyen, Aiha. “[Workplace Monitoring and Surveillance](#)”. *Data & Society*. 6 February 2019.

<sup>71</sup> Freudenstein, Donald and Duane, Becca. “[The Rise of the Gig Economy and its Impact on the Australian Workforce](#)”. *Actuaries Institute of Australia*. December 2020.

<sup>72</sup> Safe Work Australia. [The gig economy is a growing part of Australia’s workforce with over 100 platforms operating within Australia](#). 2 November 2021.

<sup>73</sup> Sprajcer, Madeline and Gupta, Charlotte. “[Uncertainty, money worries and stress – gig workers need support and effective ways to cope](#).” *The Conversation*. 11 March 2022.

<sup>74</sup> Rawling, Michael and Kaine, Sarah. “[How to stop workers being exploited in the gig economy](#).” *The Conversation*. 5 October 2018.

Algorithmic management and other use of digital intermediaries at work is not limited to the gig economy.

The rise in remote working as a result of the pandemic led to an increase in the use of employee monitoring software, many of which log keystrokes, track location, capture screenshots, and even activate webcams and microphones in the homes of workers.<sup>75</sup> The use of these technologies does not appear to be reducing despite many workers returning to traditional office environments. Automation and algorithmic decision making is also increasingly prominent in recruitment and human resources processes, including scheduling, hiring and firing decisions. This is occurring in a range of industries including care work, warehousing, call centres, gig economy, and office work.<sup>76</sup>

While many companies and digital platforms may claim automated processes, the reality of the labour required for them to function is often downplayed. Automation itself can lead to the creation of “hidden labour” in order for them to function. As a recent example, many celebrated the release of OpenAI’s ChatGPT large language model for its potential to automate tasks and change the way many people work. This obscured the realities of the unseen and underpaid labour required to make ChatGPT function.<sup>77</sup> Amazon has made an entire business off the management and outsourcing of unseen labour of tasks that are still more effectively performed by humans rather than computers.<sup>78</sup> The work is often repetitive, such as data labelling (required in order for machine learning to function), and at times actively harmful, such as content moderation (in which workers are repetitively exposed to violent and abhorrent content).

This labour is essential to platforms’ functionality, yet goes unrecognised and underpaid.

## **Machines taking jobs: imaginary versus reality**

For centuries the prospect of automation technologies has given rise to both fantasies and anxieties regarding the future of work.

Despite some optimism that technologies will liberate workers from “dark, dirty and dangerous” manual labour, instead allowing them to move to more intellectual, creative, or enjoyable work,<sup>79</sup> many of the current uses of digital intermediaries and automation technologies do not eliminate, reduce or improve the quality of work.

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<sup>75</sup> Purtill, James. “[Employee monitoring software became the new normal during COVID-19. It seems workers are stuck with it.](#)” ABC News. 6 May 2022.

<sup>76</sup> Kelly, Lauren Kate. *Technology and power: Understanding issues of insecure work and technological change in Australian workplaces*. Melbourne: United Workers Union, 2020.

<sup>77</sup> Perrigo, Billy. “[OpenAI Used Kenyan Workers on Less Than \\$2 Per Hour to Make ChatGPT Less Toxic](#)”. *Time Magazine*. 18 January 2023.

<sup>78</sup> Amazon. *Mechanical Turk*. 2018

<sup>79</sup> Srnicek, Nick and Williams, Alex. *Inventing the Future: Postcapitalism and a World Without Work*. London: Verso, 2015.



Lauren Kelly, a researcher on workplace automation, has highlighted that “Across digital labour platforms as well as conventional employment settings...automation often functions as a tool of work intensification, not elimination.”<sup>80</sup> Many advancements in automation do not reduce or supplement work, but rather augment the role of management.<sup>81</sup> They also often result in the increase of pervasive surveillance and monitoring of workers under the guise of productivity.

While automation will not eliminate work, it certainly will transform it and lead to the re-deployment of labour over a period of decades. The particular content and tasks of jobs may evolve, in turn changing the nature of work, however there is no guarantee that these future tasks will be more creative, enjoyable or fulfilling than current forms of work. As some tasks become automated, human work is likely to focus increasingly on tasks that are not well performed by machines.

## The right to disconnect

As digital technologies become further intertwined into labour, the boundaries between ‘work’ and ‘home’ are eroding.

Research shows Australian workers are on average working 6 weeks unpaid overtime per year “costing over \$92 billion dollars in unpaid wages across the economy.”<sup>82</sup> While there are many factors contributing to this, the expectation to be “always on” has led to rise in “hidden overtime” in which people continue to work throughout the evening and weekend by means of digital technology and constant connectivity.

Countries around the world including France, Ireland, Canada, Italy and Germany<sup>83</sup> are beginning to pursue the ‘right to disconnect’, establishing a right for workers to switch off from communications with their workplace outside of working hours, with a particular focus on digital methods of communication such as mobile phones, emails and virtual meetings.<sup>84</sup>

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<sup>80</sup> Kelly, Lauren Kate. “[Automation is changing work—not erasing it](#)”. *State of Digital Rights Report: A 2021 Retrospective*. Melbourne: Digital Rights Watch.

<sup>81</sup> See, for example: Mateescu, Alexandra and Nguyen, Aiha. “[Algorithmic Management in the Workplace](#)”. *Data & Society*. 6 February 2019, 1-15; Moore, Phoebe, Upchurch, Martin and Whittaker, Xanthe. [Humans and Machines at Work: Monitoring, Surveillance and Automation in Contemporary Capitalism](#). London: Palgrave Macmillan, 2018; Banks, David. “[Automatic for the Bosses: Workers may be more affected by robots taking their bosses’ jobs than their own](#).” *Real Life*. July 9, 2020; and Kelly, Lauren Kate. [Technology and power: Understanding issues of insecure work and technological change in Australian workplaces](#). Melbourne: United Workers Union, 2020.

<sup>82</sup> Littleton, Eliza and Raynes, Lily. [Australians Working 6 Weeks Unpaid Overtime, Costing Economy Over \\$92 Billion](#). Canberra: The Australia Institute’s Centre for Future Work. 22 November 2022.

<sup>83</sup> For further detail in the varying approaches to establishing a right to disconnect and case studies of other countries, Littleton, Eliza and Raynes, Lily. [Call Me Maybe \(Not\): Working Overtime and A Right To Disconnect in Australia](#). Canberra: The Australia Institute’s Centre for Future Work. 22 November 2022, 19-23.

<sup>84</sup> Littleton, Eliza and Raynes, Lily. [Call Me Maybe \(Not\): Working Overtime and A Right To Disconnect in Australia](#). Canberra: The Australia Institute’s Centre for Future Work. 22 November 2022.

In Australia, there have been some movements towards the right to disconnect, including a codified right established by the Police Association of Victoria, and recommendations made by the Senate Select Committee on Work and Care in 2022 for the Department of Employment and Workplace Relations to investigate inclusion of a right to disconnect in the *Fair Work Act 2009*.<sup>85</sup>

Recent polling showed that the right to disconnect is supported by 84% of workers.<sup>86</sup>

## Questions you could be asking

What changes to our industrial relations framework are necessary to protect workers in non-standard and precarious employment relationships caused by technological disruption without undermining workers' conditions and standards elsewhere?

What impacts could the emerging risks of digital surveillance, algorithmic management, machine learning and large language models have on human rights, workers' rights, quality of work and job security?

How best could decisions signal to their recipient they have been made either wholly or in part by algorithmic decision-making tools?

What potential mechanisms could grant workers greater control over the introduction and implementation of disruptive technology in their workplace?

How might public support programmes (such as grants, loans or preferential tax treatment) and a regulatory environment be created to develop worker-owned digital cooperatives such that app-based worker-owners earn a fair wage and have control over the conditions of their work?

## Potential solutions to explore

Add to the National Employment Standards an enforceable 'right to disconnect' from work and place a positive duty on employers to make reasonable accommodations for this right.

Adopt a quadripartite ethical framework for workplace technology where workers can collectively negotiate the use of technologies with their employer.

Establish an investment vehicle for public-commons partnerships in tech.

<sup>85</sup> Commonwealth of Australia. [Interim Report of the Senate Select Committee on Work and Care](#). October 2022.

<sup>86</sup> Littleton, Eliza and Raynes, Lily. [Australians Working 6 Weeks Unpaid Overtime, Costing Economy Over \\$92 Billion](#). Canberra: The Australia Institute's Centre for Future Work. 22 November 2022.

Adopt legislative principles of decent work in the platform economy and ensure coverage of geographically tethered “gig work”, remote “cloudwork”, and “artificial intelligence” and algorithmic decision-making in the workplace.

Ensure artificial intelligence deployed in the workplace is fair, equal, socially just and does not come at the cost of workers’ job security, tenure, intensity or quality of work by creating a public authority to authorise the introduction of automating technologies before they are implemented in workplaces.

## Recommended readings

Avila, Renata et al. [\*Platforming Equality: Policy Challenges for the Digital Economy\*](#). London: Autonomy, 2020.

Fairwork. [\*Principles of Fairwork and decent work standards in the platform economy\*](#). 2022

Ferrari, Fabian and Graham, Mark (eds). [\*Digital Work in the Planetary Market\*](#). Boston: MIT Press, 2022.

Littleton, Eliza and Raynes, Lily. [\*Call Me Maybe \(Not\): Working Overtime and A Right To Disconnect in Australia\*](#). Canberra: The Australia Institute, 2022.

Kelly, Lauren Kate. [\*Technology and power: Understanding issues of insecure work and technological change in Australian workplaces\*](#). Melbourne: UWU, 2020.

King, Loren, Lawrence, Mathew and Roberts, Carys. [\*Managing automation: Employment, inequality and ethics in the digital age\*](#). London: IPPR, 2017.

Nguyen, Aiha. [\*The Constant Boss: Work under digital surveillance\*](#). New York: Data & Society Research Institute, 2021.

Scholz, Trebor. [\*Platform Cooperativism: Challenging the Corporate Sharing Economy\*](#). New York: Rosa Luxemburg Stiftung, 2020.

Warin, Robbie. [\*Who watches the workers: Take back technology\*](#). London: New Economics Foundation, 2018.

## 07 / **NEXT STEPS**

Digital platforms reach into every part of modern life and so no single intervention will rein in the power of big tech and expand Australian democracy.

Digital Rights Watch doesn't propose that this Committee necessarily recommend any of the varied policies we have discussed in this submission. Rather, we sought to underline the breadth of the problem we collectively face, and the many possible futures that lay ahead for us.

To begin to get ahead of those futures, what we do propose is for Australia to work towards a new national institution that embeds tech for good at its heart — and a pathway to build the capacity we need to get there.

### **Protecting and expanding human rights online**

Our digital world must be underpinned by equality, freedom and established human rights principles. The future of digital technology must be guided and driven by the interests of all people and the environments we live in.

The right to privacy, freedom of expression, freedom of peaceful assembly and association are foundational rights online. For the internet to become a public square that serves our democracy it must be a place in which our fundamental human rights are respected.

Article 27 of the Universal Declaration on Human Rights is also of particular interest to the themes covered in this paper. It states that *“everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.”* For everyone to truly benefit from advancements in communications technology, the people must have a real stake in this technology. We all have a right to participate in cultural life, something that is threatened by the growing power of Big-Tech and can only be rebalanced with greater public influence.

Despite the importance of rights online, Australia has not enshrined human rights into law. A Charter of Human Rights will ensure the decisions and actions of our governments are guided by the values of freedom, equality, compassion and dignity and it will provide legal protections to our human rights online.

#### **Recommendation 1**

Create an Australian Charter of Human Rights & Freedoms that enshrines fundamental human rights into Australian law.

## **Improving political coordination on digital and technology policy**

The government's capacity to coordinate on digital and technology policy is built on its capacity to make strategic decisions on it.

Too many reports on digital capacity ignore the problem at the very top end of that hierarchy. Our political leaders, in Cabinet and in Parliament, need to develop those capabilities just as much as the public sector.

The easiest path to this is to reintroduce and entrench two tools we've used before.

The Turnbull Government appointed an Assistant Minister for Digital Transformation in 2016. While this role only lasted a few years, the role drove reform and embedded digital and technology policy in elite government thinking.

Likewise, in 2021, the Morrison Government established the Select Committee on Australia as a Technology and Financial Centre to report broadly on Australia's technology industry and its future.

These appointments signalled to industry, academics and campaigners that the government was taking tech seriously.

By establishing a new standing committee on digital and technology policy and appointing a Minister for Digital Capabilities, we can start the work of building expertise within Parliament.

### **Recommendation 2 and 3**

Appoint a Minister for Digital Capabilities

Establish a Joint Standing Committee on Digital Affairs

## **Invest in public sector capacity**

To address the challenges presented by the current state of digital technologies, the public sector needs greater technical capacity too.

We need to develop the technical knowledge and capacity of the public sector not just to understand and regulate technology being built by the private sector, but to take a leading role in developing technology that serves public interests.

This is a process that begins with creating new public sector coordination between key portfolios, departments, agencies and regulators. New forums open up channels between the public service, state governments, industry, academia and civil society.

ANU's Tech Policy Design Centre has developed a best practice framework that could be implemented by the Commonwealth now.<sup>87</sup>

More coordination is not enough on its own. We need to accelerate the process of returning technical capacities back to the public service.

The *APS Inc: Undermining Public Sector Capability and Performance* report stated:

*The hollowing out of APS capability through privatisation and externalisation must stop.*

This is true for technical skills as much as it is for the rest of the public service. Instead of developing the technical capacity of private consultancy companies at the expense of long-term investment in public service capacity and expertise.

We should set a strategic objective for the entire Australian Public Service to reinvest its spending on information technology back into its own capacity. A new public sector digital workforce strategy explicitly aimed at insourcing all information technology functions, along with tackling the wicket problems of recruiting and retaining talent, would send a signal across the industry.

## Recommendations 4 and 5

Adopt a new tech policy coordination framework across portfolios and between senior policymakers, regulators, industry, academia and civil society.

Develop a new public sector digital workforce strategy that aims to insource at least 80% of annual information technology spending by 2030 including infrastructure, design and development, and technical support — and pathways, pay, conditions and classifications structures that encourage long-term retention of talent and capability.

## Australian Digital Corporation

Australia has a long and proud history of building and supporting public institutions that work towards the benefit of all Australians.

When private enterprise failed to deliver adequate broadcasting services we supported the development of the ABC to ensure that all Australians could benefit from the technology.

The ABC played a vital role in bringing news and culture to all Australians. Through the ABC we invested in local talent, told our own stories and developed our national identity.

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<sup>87</sup> Weaver, Johanna and O'Connor, Sarah. [Cultivating Coordination](#). Canberra: ANU Tech Policy Design Centre, 2022

When Australia lacked sufficient scientific and research capacity, the establishment of the CSIRO turned us from a laggard to a leader. The CSIRO has already played a major role in the development of the internet with wifi, and could play a greater role in ensuring that Australia has ownership over critical digital technologies.

Governments funded and built the telegraph that connected Australians to each other and the world and created the logistical networks required to deliver mail anywhere in Australia. Sadly, the telecommunications infrastructure was privatised, but Australia Post remains a vital service to all Australians and a logistical backbone to our economy.

In the digital age, when privately controlled digital technology is failing the Australian people, our culture and our democracy, we need a new public institution that can drive digital services in the public interest. In order to nurture Australian political, economic and cultural democracy, the Australian people need to take a stake in the development of digital technology and begin to shape our own future through a public institution.

Take cloud computing as an example. The federal government, as well as a number of state governments and departments have contracts with Amazon Web Services. These contracts are worth hundreds of millions and amount to little more than a transfer of public wealth into private hands. Not only are critical functions of the government running on infrastructure owned and controlled by Amazon, Australians' personal information, population level insights and other highly sensitive information are passing through Amazon's servers. ADC could start by building and administering a public cloud. This would be an investment in the long term technical capacity of the public sector. Both in terms of people and skills, and in computing capacity.

The ADC could play a role incubating new technologies which serve the public good or intervene into the digital economy anywhere from cloud computing, to payment processing, streaming and social media. The ADC could empower local communities by prioritising worker owned and cooperative digital platforms which put economic and technical power directly in the hands of the community.

The exact scope of an ADC would need to be canvassed and debated. Similarly, the models for governance should be carefully considered to maximise democratic accountability and ensure that the ADC does not become a surveillance tool.

Privately owned digital platforms are pushing into more of our lives. Unless we act now to develop publicly owned alternatives, we risk a future where unaccountable, private and often foreign companies alone set the rules that govern our lives.

## **Recommendation 6**

Establish an Australian Digital Corporation to deliver digital technology and services that promote Australian culture, community and industry.

These recommendations do not discount the importance of nudges and tweaks — or for big picture reforms like the Commonwealth’s reforms to the Privacy Act.

Democracy demands that the people have the power to make decisions about their own lives, and we must act soon to ensure that the people have a say about the future.

## Questions you could be asking

What capacities and capabilities does Australia need to make sure our digital economies and societies continue to flourish?

How do we ensure the continuity of our digital ecosystem in the face of major crises that might result in major international tech companies withdrawing from Australia?

What does a more people-centric, democratic internet look like and what role does the Australian Government have in delivering that?

## Recommended readings

Ghosh, Dipayan and Simons, Josh. “[Utilities for Democracy: Why and how the algorithmic infrastructure of Facebook and Google must be regulated.](#)” *Foreign Policy at the Brookings Institution*. August 2020.

Guiao, Jordan. [Tech-Xit: Can Australia survive without Google and Facebook?](#) Canberra: The Australia Institute’s Centre for Responsible Technology, 2020.

Hanna, Thomas, Lawrence, Mathew and Peters, Nils. [A Common Platform: Reimagining Data and Platforms.](#) London: Common Wealth, 2020.

Hind, Dan. [The British Digital Cooperative: A New Model Public Sector Institution.](#) London: Common Wealth, 2019.

Lawrence, Mathew and Laybourn-Langton, Laurie. [The Digital Commonwealth: From private enclosure to collective benefit.](#) London: IPPR, 2018.

Meadway, James. [Creating a digital commons.](#) London: Institute of Public Policy Research, 2020.

Srnicek, Nick. “[The only way to rein in big tech is to treat them as a public service](#)”. *The Guardian*. April 23, 2019.