

AJASN Newsletter

September – October 2019

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Contributors: Thanks to Dr Rhyll Vallis, Dr Stuart Pearson



The Public Sector

A [paper](#) in *Policy and Politics* examines what is new about design thinking and compares this to rational and participatory approaches to policymaking. Separate [brief](#) on the paper.

More countries have experienced coordinated social-media manipulation campaigns. It's now 70 in total, up from 48 in 2018 and 28 in 2017, according to [this report](#).

The UN has expressed concerns about the emergence of the 'digital welfare state,' saying that all too often the real motives behind such programs are to slash welfare spending, set up intrusive government surveillance systems and generate profits for private corporate interests. (See this advanced copy of the [report](#).)

The European Commission's Joint Research Centre published a report – [The future of government 2030+: Policy implications and recommendations](#).

Here is an [article](#) on forthcoming research: Why policy networks don't work (the way we think they do.) It relates to the UK response to the African Ebola crisis.

New Zealand's government has published a [draft](#) 'algorithm charter for government agencies' that promises citizens fairness, transparency and accountability around how the government uses data analytics. The Guardian [looks](#) into 'Digital dystopia: how algorithms punish the poor.'

Government bodies need to take a special approach to procurement when it comes to artificial intelligence - a white paper proposing a set of 10 AI-purchasing guidelines for public servants is being [piloted](#) by the UK government.

A [report](#) from the UK Institute for Government assesses where outsourcing has worked and recommends improvements to the way government contracts out services.

Australia's new 'Centre for Population' published its [website](#).

A new [paper](#) calls for re-conceptualising and even creating new human rights: the right to cognitive liberty, mental privacy, mental integrity, and psychological continuity.

This [study](#) suggests that the revolving door that sees people move between roles in the Australian Government and alcohol, food and gambling industries is commonplace, creating a range of ethical and moral problems, and posing a risk to public health.

A [report](#) from Canada's Public Policy Forum outlines the risks of not embracing digital technology for public services. It is based on interviews with senior Canadian public servants and the experience of 16 current and former government leaders from the United Kingdom, Scotland, New Zealand, Australia, Finland and the United States.

This [article](#) discusses a paper predicting the end of democracy (presented at a conference by a leading political psychologist.)

This article discusses [placebo policies](#) - driven by need to demonstrate that a policy is in place, but it isn't going to fix the problem. Political value exceeds policy value. (Paywall)

This [paper](#) says that Australian politicians' use of fake news discourse is rare, but it is amplified by news media. It is seldom contested. This has negative consequences for public debate and trust in media and political institutions.

Read



*Click on the image to be taken to the actual document or to access a related link

Quote from Optimist's Telescope: 'In place of blind denial and paralyzing pessimism, we need a radical strain of optimism. We need to balance urgency with agency to be armed with the tools to confidently look ahead.'

Agriculture (& food)

This article discusses the [use of designer viruses](#) (created in the laboratory) in the agricultural industry –whether they can help deal with pathogens and extreme weather and if they are controllable.

A [new analysis](#) published in PLOS ONE identifies the top global regions where shellfish and seaweed aquaculture stand to produce positive outcomes for both nature and people.

A [study](#) shows how the International Life Science Institute, a self-identified non-profit research organisation, has backing from major food and beverage corporations and aims to push industry-favourable positions to policymakers and international bodies under the guise of neutral scientific advice. The researchers say that

the International Life Sciences Institute should be regarded as an industry group – a private body – and regulated.

A [review](#) of the last 50 years of biological research and highlighted the major genetic mutations and modifications that have fuelled past agricultural revolutions. The paper suggests that most of them are rooted in two core hormonal systems: Florigen which controls flowering; and Gibberellin which influences stem height. Gene editing (& targeted breeding) these two systems will benefit agriculture.

This UK [article](#) explains how African swine fever is affecting the market today and could shape global protein production and consumption in the future.

AgFunder (venture capitalists) announced an ≈ \$20M (U.S.) new [alternative protein fund](#). This fund will invest in animal protein alternatives, including plant-based alternatives, cellular agriculture, and the picks and shovels technologies required to enable this emerging industry. They believe animal agriculture could become obsolete.

This [paper](#) looked into the self-regulation of children's breakfast cereals (advertising restrictions on high sugar products.)

Defence (Geopolitics, National Security, Emergency Management & Defence)

Climate change is poised to alter the face of global conflict according to this [article](#). A new study analysed the relationship between armed conflict and deforestation in Colombia between 2000 and 2015. One of the study's main conclusions was that 'deforestation was positively associated with armed conflict intensity and proximity to illegal coca plantations.' Higher amounts of deforestation were also associated with proximity to mining concessions, oil wells, and road networks.

About half of the world's militaries are now flying drones, according to a (large) [new study](#). The study focuses on training and R&D programs in addition to drone arsenals all gleaned from public information and it reveals some militaries' deeper preparations for drone warfare.

The Australian Security and Intelligence Organisation issued a warning in its latest [annual report](#) that 'extreme right-wing groups in Australia are more cohesive and organised than they have been in previous years.' People whose identity is 'fused' with that of a political leader are more likely to take extreme positions or commit violence on behalf of the leader, new [studies](#) show.

A new RAND [report](#) discusses 'The Emerging Risk of Virtual Societal Warfare.' This involves efforts to manipulate or disrupt the information foundations of the effective functioning of economic and social systems.

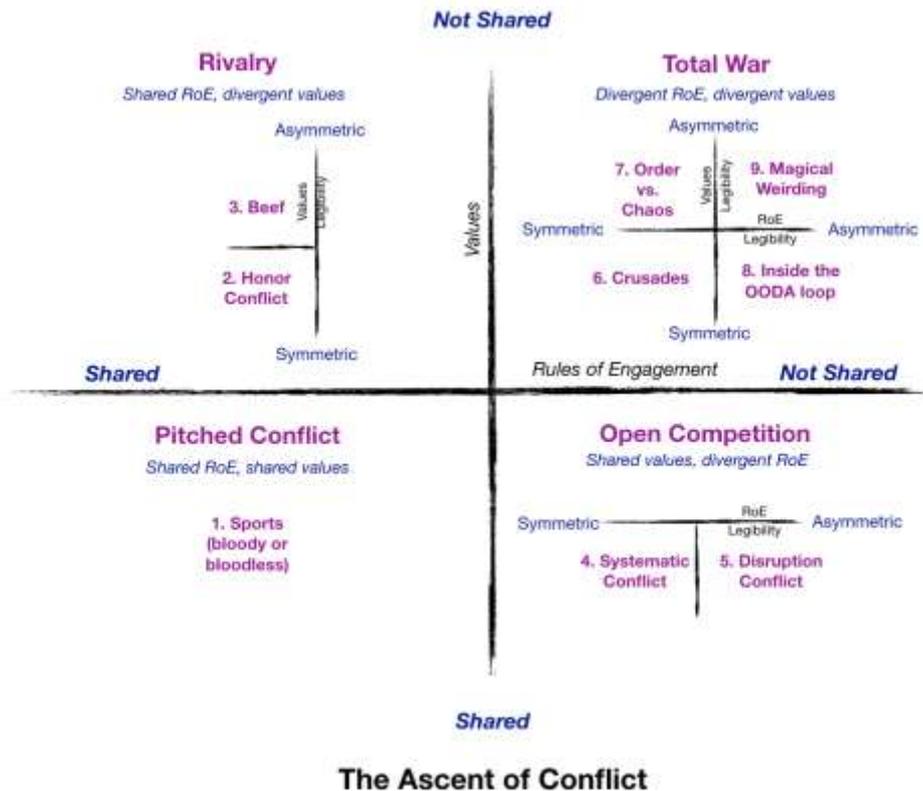
The US government plans to build radiation-proof CRISPR soldiers. ([OneZero](#))

A first look at the Women, Peace, and Security [Index](#) (New Zealand s 14th, Australia is 22nd.) It measures things like women's inclusion in society, sense of security, and exposure to discrimination.

The American Society of Landscape Architects (ASLA) has published [new universal design guidelines](#) for safer streets.

[This research](#) in the *Journal of Health Economics* reveals something unexpected about allergies: U.S. cities experiencing unusually high pollen counts also experience lower rates of reported violent crime.

This (see image) 'work in progress' set of matrices within a matrix has been developed to show how variations in rules of engagement, values and combatant awareness/capabilities play out in [conflict](#).



Economy

Researchers conducted a systematic review of every study to date on artificial intelligence and the self-employed. Independent sales people, drivers, and agriculture and construction workers face the greatest danger of having their jobs computerised, because the work is routine and low in technical expertise. ([Paper](#)) Robots aren't going to take everyone's jobs, but technology has already reshaped the world of work in ways that are creating clear winners and losers. And it will continue to do so without intervention says the [first report](#) of MIT's Task Force on the Work of the Future. This [report](#) outlines how former car manufacturing workers are taking up new opportunities in the workforce and examines the best practices to support workers into new jobs. An [article](#) on 'The Passion Economy and the Future of Work' identifies a number of new platforms that allow individuals to sell their unique skills. For example, Podia, Teachable, and Thinkific are all platforms that allow creators to make and sell video courses and digital memberships. The U.S. National Association of State Workforce Agencies (NASWA) has released its first [State of the Workforce Report](#), which reports on efforts in all 50 states, including key labour market information and workforce agency profile, along with workforce innovations the state may have chosen to highlight. Also in the U.S., the Education Commission of the States (ECS) has released its first of three 50-state comparisons on state policy models for connecting education to work. The first [report](#) in the series explores workforce investment boards, career pathway systems and financial aid programs that are designed to help ensure students' educational experience prepares them for success in the workplace. The NZ Productivity Commission released two draft reports: [Employment, labour markets and income](#), and [New Zealand, technology and productivity](#).

Harvard data exposes the [paradox](#) of the Australian economy: the eighth-richest nation in the study has the export profile of Angola. (Harvard Kennedy School's Center for International Development [launched an online database of 133 economies](#).) The New Zealand government launched a [plan](#) to transition the economy to be more productive, sustainable and inclusive and tackle New Zealand's long-term challenges.

A [report](#) by Claudia Sahm, an economist at the US Federal Reserve, explains a new method for predicting economic downturns. The report argues that when the three-month average unemployment rate is at least 0.5 percentage points above its minimum from the previous 12 months, the economy is in a recession.

A [recent study](#) provides clear evidence that ideological bias strongly influences the ideas and judgements of economists (i.e. changing source attributions from mainstream to less-/non-mainstream figures significantly

reduces the respondents' reported agreement with statements. JPMorgan has a new [index](#) — called the *Volfefe Index* — that measures Trump's tweets and their impact on bond volatility.

[New research](#) says the evidence of the need to increase Newstart and Rent Allowance is compelling. [KPMG](#) called for Newstart to increase by \$100 a week. A [working paper](#) from the Life Course Centre provides an overview of the Australian evidence on the extent to which socioeconomic disadvantage is transmitted from one generation to the next.

To keep up with California's unrelenting [wildfire threat](#), some insurers are now turning to AI to predict fire risk with unprecedented, structure-by-structure detail. Uber's [insurer cancelled](#) out of its contracts because claims are coming higher than anticipated.

Education

More than 2/3 of people in China, Brazil and India have been looking to re-skill in the past 2 years, largely due to technology or automation. That compares to only 1/3 of Americans looking to get more job training. [Get the details](#) from this first-of-its-kind survey.

California will become the first state in the United States to [mandate](#) later start times at most middle schools and high schools; a proposal designed to improve educational outcomes by giving students more sleep.

Environment

Researchers can now link weather events to emissions – and to the companies responsible. Several lawsuits is about to give [attribution science](#) a real-life test.

The [Mandarin](#) says that Australia's environment department is unlawfully withholding more than 10,000 pages of freedom of information documents from the public, including internal records on Adani and the Angus Taylor grasslands affair.

This Guardian report looks into land-[clearing](#) in NSW.

A group of researchers have found that millions of these [tiny glass beads](#) spread in a layer across swaths of Arctic ice reflects sunlight and helps keep the ice frozen.

Here is a [meta](#)-analysis to assess the direction and magnitude of defaunation impacts on forests. (Vertebrate defaunation is of growing policy concern but the effects of vertebrate loss on natural forest regeneration have yet to be quantified globally.) Los Angeles has appointed its [first ever](#) forest officer to 'oversee the growth of Los Angeles' urban forest.'

Researchers [studied](#) the pesticide imidacloprid, in the nicotine-linked class of chemicals called neonicotinoids, or neonics, and found that the pesticide had effects on migrating birds' health and ability to reproduce (i.e. colony collapse for birds not just bees.)

A [study](#) found a robust positive effect of increased air pollution on violent crimes, and specifically assaults, but no relationship between increases in air pollution and property crimes. Similar studies are highlighted in this related [article](#).

The EU has published [two new guidance documents](#) implementing their action plan for nature, people and the economy. The EU Guidance document on ecosystems and their services in decision-making ([part 1](#), [part 2](#), [part 3](#)) highlights the wide range of benefits that flow from nature, and possible ways to take better account of these benefits in policy, planning and business investment decisions. The [EU Guidance document](#) on strategic EU level green and blue infrastructure defines criteria, and available technical and financial support instruments that can help planners integrate natural landscape features into strategic 'green and blue infrastructure'.

As many as five billion people will face hunger and a lack of clean water by 2050 as the warming climate disrupts pollination, freshwater, and coastal habitats, according to [new research](#). The UN's [climate science committee](#) has concluded that sea levels could be around a meter (3.3 feet) higher and the Arctic could be ice-free in the summer by 2100. Extreme sea level events that used to occur once a century will strike every year on many coasts by 2050, no matter whether climate heating emissions are curbed or not, according to this [IPCC special report](#). **Note:** 'In spite of more than 35 years of research, and over 70 individual studies, the

upper bound of future global- mean sea level rise (SLR) remains deeply uncertain.' This [paper](#) covers the history of the science behind projected SLR, and presents the first comprehensive database of 21st century global mean SLR projections.

[Mountain-sourced water supplies](#), which provide about half of all drinking water worldwide, are becoming more unpredictable as warmer temperatures melt glaciers and change precipitation patterns and river levels (causing infrastructure expenses.) Climate change could turn parts of England into parched grassland that is unable to support crops, according to a new study. Without significant irrigation, large swathes of the south and east of the country could become too dry for crops and, instead, be better suited to low-density livestock farming, according to new [research](#).

Conventional wisdom says when taxing carbon pollution the price should start low and rise over time. However, a [new economic analysis](#) from NYU says the price should fall rather than rise in the decades ahead. It says it should also start far higher than many policy proposals suggested. The Climate [Action Tracker](#) is an independent scientific analysis produced by two research organisations tracking climate action since 2009. It monitors 32 countries, accounting for more than 80% of global emissions. [Australia](#) sits firmly in the group of governments labelled as actually delaying global climate action. New Zealand is introducing new [procurement rules](#) to better link government spending with climate change policy. The first target is to reduce emissions profile of the government's vehicle fleet.

Coca-Cola was found for the second year in a row to be the most polluting brand in a [global audit](#) of plastic trash.

Foresight

The [Future of Asian and Pacific Cities Report](#) makes a case for four priorities and four approaches to realise a sustainable urban future in Asia and the Pacific.

In a [Future Curious](#) episode, NESTA introduce you to a swarm of robots - the technology of the next decade.

Here is an Aeon magazine [story](#) on 'Scorched Earth, 2200AD. Climate change has done its worst, and now just 500 million humans remain on lifeboats in the north. How do they survive?'

We have a copy of Kedge LLC's 'The [Guide](#) to the Natural Foresight® Framework' if anyone wants one.

The BBC has issued a timeline of the far future [infographic](#). Here is a quirky 2 min [video](#) 'Natural History Museum' that depicts perspectives on far-flung future histories.

[2219: Futures Imagined](#) is an exhibition about how our world might change over the next 200 years in a major exhibition developed by ArtScience Museum, as part of the Singapore Bicentennial commemoration.

This [article](#) presents a case study of futures studies in Hungary.

PEW [research](#) says that when Americans peer 30 years into the future, they see a country in decline economically, politically and on the world stage.

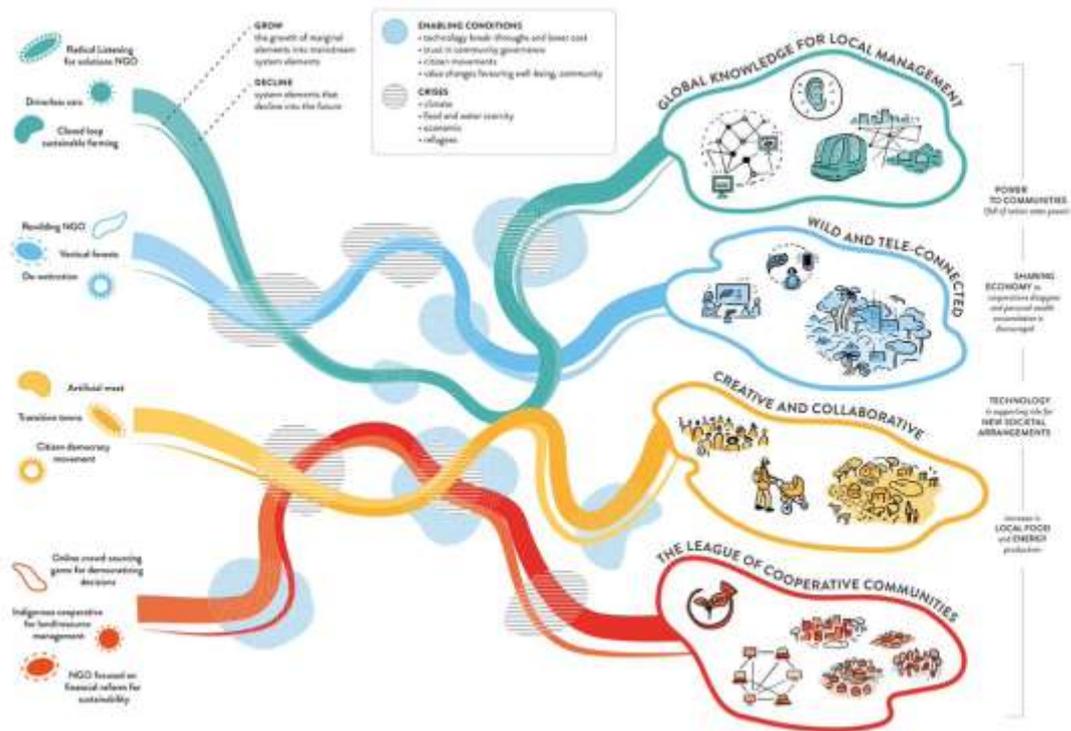
Here is an original series on the [future of gaming](#).

A new report from the World Economic Forum's Global Future Council on Energy, [The Speed of the Energy Transition](#), examines a key question: will the energy transition be gradual or rapid? There is a really interesting [infographic](#) on the rapid vs gradual transition narrative in an opinion column about the report.

The OECD published a short paper on '[Strategic Foresight for Better Policies](#)', in October 2019.

A new paper '[Seeds of good anthropocenes](#): developing sustainability scenarios for Northern Europe' was published. The following image comes from a [paper](#) that describes using positive developments to create scenarios.

You might want to read Japanese futurist Prof Yuichi Washida's book [A Thinking Method to Prepare for Unforeseen Futures](#). (Use translation engine <https://miraitranslate.com/trial/>)



'Resilience asks us 'how do we keep what we really want to keep?' Relinquishment asks us 'what do we need to let go of in order to not make matters worse?' Restoration asks us 'what can we bring back to help us with the coming difficulties and tragedies?' ([Source](#))

Health

In development: [off-the-shelf stem cells](#) and looking at their potential as universal donors. This promises to make regenerative medicine more broadly practical.

A new [Global Health Security Index](#), the first comprehensive assessment and benchmarking of health security and related capabilities across 195 countries, suggests that not a single country in the world is fully prepared to handle an epidemic or pandemic. (Ranking for Australia is 4/195, for NZ 35/195 and a related [NZ story](#).)

Australians can expect to live one less year in good health, in a worrying trend seeing healthy life expectancy decline in the last year according to a new [report](#) from the World Economic Forum (in the 'The Global Competitiveness Report 2019'.)

A new UNICEF report highlights dietary challenges facing children around the world. Industrial agriculture and climate change are compounding [malnutrition](#). And, by 2025, 43 million children under the age of five will be overweight.

This systematic review found limited evidence on *the outcomes* of electronic consultations (e-consults) on the effect of e-consults on access, cost, quality, and patient and clinician experience. These are clinician-to-clinician communications that may obviate face-to-face specialist visits. (Right now they are not sure what benefits are and this advice is needed for policy-makers.)

In 2017–18, an estimated \$185.4 billion was spent on health goods and services in Australia. This equates to an average of approximately \$7,485 per person and represents 10% of overall economic activity for this period. (See link to AIHW report on page 2 of this newsletter.)

This study shows the first [promising evidence](#) in humans, albeit imperfect and early, that a cocktail of three drugs is enough to reverse the epigenetic clock – a measure of someone's biological age and health.

This is a systematic review and meta-[analysis](#) on 'Home-Based Interventions to Treat and Prevent Childhood Obesity.'

A [study](#) published in the British Medical Journal found that people in Scotland are buying less booze after it became the first country in the world to introduce minimum alcohol pricing (May 2018.)

'The health impacts of waste incineration: a systematic review'- a [paper](#) found 'older incinerator technology and infrequent maintenance schedules have been strongly linked with adverse health effects. More recent incinerators have fewer reported ill effects, perhaps because of inadequate time for adverse effects to emerge. A precautionary approach is required. Waste minimisation is essential.' (Several new incinerators are proposed for Australia.)

This [overview](#) looks at the MMR (measles) vaccine and its spurious link to autism.

Health warning labels that use [strong causal language deter consumers more than labels with weaker language](#), a new study in the *American Journal of Public Health* finds (e.g. 'Causes' vs. 'contributes to'.)

Innovation

This [article](#) was published based on APSC (Australian) data: 'The effects of organizational and demographic context for innovation implementation in public organizations.' It found: 'In particular, employees working in larger organizations and policy agencies tends to be less innovative whereas men, more educated employees, more experienced employees, and organizational managers are more innovative.'

The [Benchmarking Innovation Impact 2020 report](#), sponsored by KPMG, outlines the best innovation strategies, investments, and approaches to drive growth for the future. There is an article on the 'Benchmarking Innovation Impact' Report – [here](#).

This [study](#) examines the role of patents and patent policy in Canadian innovators' decisions to sell their IP rather than continue to develop it in Canada, and the incentives driving this decision.

Nesta's new report [Testing Innovation in the Real World](#) shows that developing real-world testbeds can help people and places in a variety of ways.

Nudges

Dr David Gruen gave a [lecture](#) to the Canada-Australia Public Policy Initiative last month on the art of nudging.

A meta-[analysis](#) of field experiments on 'Which Healthy Eating Nudges Work Best?'

This [systematic scoping review](#) is the first overview of nudging healthcare professionals in relation to evidence-based medicine.

References, guides and key readings (courtesy of NZ PM&C [site](#)):

- [BI Toolkit and Ethical Guidelines for Policy Makers](#) - OECD has developed a draft BI toolkit for policy makers.
- [Behavioural Government: Using behavioural science to improve how governments make decisions](#) - UK Behavioural Insights Team, 2018.
- [Behavioural Insights and the Rise of Empirical Government](#) - Roundtable with Dr David Halpern, 2017.
- [Behavioural Insights and Public Policy: Lessons from Around the World](#) - OECD, 2017 – includes case study examples of applications for behavioural insights to public policy and service delivery initiatives from around the world.
- [Behavioural Insights Applied to Policy](#) - European Commission report. Includes a focus on the organisational structures and resources required for improving the uptake of behavioural insights.
- [Mind, Society and Behaviour](#) - World Bank report into applying behavioural insights in policy, including case studies.

Rural

This [paper](#) showed that urban and rural children had similar low knowledge and unfavorable attitudes toward local species. (Schuttler et al. 'Children's attitudes towards animals are similar across suburban, exurban, and rural areas.' PeerJ, 2019)

Science & Technology

Human rights charity Amnesty International called for reform of surveillance capitalism — blasting the business models of 'surveillance giants' Facebook and Google in a [report](#) which warns the pair's market dominating platforms are enabling human rights harm at a population scale.

Apparently, a clever gel could help protect forests against [wildfires](#). It contains components which are chemically identical to sand.

A two-person company (Solmove) has a plan to [pave Germany's roads](#) with small, durable, slip-resistant solar panels.

The Emerging Technology team in the NZ Department of Internal Affairs' Service Innovation Lab has created a [20-year Emerging Technology Landscape](#) to help government agencies.

[Yahoo! has announced](#) that Yahoo Groups will be permanently closing, and deleting all previously posted material on December 14, 2019. The shuttering of online platforms (e.g. also Geocities) means a huge amount of lost content.

The [CSIRO](#) has been 'forced to tell Australia's next generation of scientists to get an ABN, as it tries to skirt around the public service staffing cap by hiring new talent as external contractors.'

The rise of killer robots is [now unstoppable](#) and a new digital Geneva Convention is essential to protect the world from the growing threat they pose, according to Brad Smith, president of Microsoft. He said the use of 'lethal autonomous weapon systems' poses a host of new ethical questions which need to be considered by governments as a matter of urgency.

Dessa, the AI company behind the convincing fake Joe Rogan voice from earlier in 2019, published a tool for [detecting deepfake audio](#). Services that will place seemingly legitimate articles on websites then spread them through inauthentic social media accounts have sprung up on criminal forums, according to a [report](#) (and, related coverage [here](#).)

IBM published a paper [disputing Google's quantum supremacy claim](#).

Society

An IPSOS [report](#) tests the prevailing narrative about trust in crisis to see if it matches the data.

Lawmakers in Argentina, Paraguay and Panama are proposing legislation that would allow the [adoption of foetuses](#) before birth (i.e. abortion can be avoided in many cases without the mother having to raise the child.)

An investigation into [Australia's private rental market](#) by the Productivity Commission found that while affordability has been steady in recent years, there has been a rapid rise in the number of low-income people renting. The number of low-income households in rental stress had doubled in the past two decades.

New South Wales became the [last state](#) in the country to decriminalise abortion. NSW will now allow terminations up to 22 weeks, and later with medical consent from two doctors.

A new [Ipsos poll](#) reveals that scientists are considered the most trustworthy profession in the world, followed closely by doctors. Six in ten of the global public rate scientists as trustworthy and just one in ten consider them untrustworthy. The next most-trustworthy profession is doctors (56% trustworthy), followed by teachers (52%). Politicians are the least trusted group globally.

Think Tank Per Capita explored co-housing and [aged care solutions for older women](#). A related piece looks at the [death of the care home](#) and alternatives like share housing and care robots.

In [three MIT studies](#) didn't shift their beliefs. Even when presented with evidence that automation was by far the more salient risk to jobs, people continued to hold anti-immigration, anti-trade views. These findings

suggest that support for populist policies (Trump) may not be as closely linked to economic anxiety as is often argued.

The Chinese government is set to begin testing about 10,000 [editors and reporters](#) on their knowledge of president Xi Jinping's political thinking. The program will go nationwide at some point, and press cards (essential for journalists in China) will be issued only to those who pass the exam.

The Global Disinformation Index [published a study](#) based on a sample of about 20,000 websites that have been found by PolitiFact and others to publish misinformation. It found that ad technology companies spend about \$235 million annually by running ads on such sites.

Learning resources (& professional development)

The first issue of the [New Economics Zine](#) (New Economics Foundation) was published.

This is a thoughtful 2019 research [paper](#) highlighting what is new about design thinking and the challenges of implementing design thinking for policymaking in practice. This [article](#) summarises policy entrepreneurship research and offers insights for those who aspire to be policy entrepreneurs. The work of policy entrepreneurs involves various strategies, including (1) problem framing, (2) using and expanding networks, (3) working with advocacy coalitions, (4) leading by example, and (5) scaling up change processes. The [Critical Thinking Roadmap](#) is a framework that breaks critical thinking down into four measurable phases: the ability to execute, synthesise, recommend, and generate.

This pay-walled [article](#) reporting on several meta-analytic reviews cognitive training has at best a minimal effect on domain-general cognitive skills i.e. 'The cognitive-training program of research has showed no appreciable benefits, and other more plausible practices to enhance cognitive performance should be pursued.'

Here is a [take a stand activity](#) (based on doughnut economics) – a facilitation exercise/activity to start a workshop or a conversation. Using a 2x2 matrix to ask four questions: How does it feel to hold this opinion? What would it take to change your mind and where would you move to? How would you try to convince others to change their view? Do you think the views that we hold affect the outcomes we achieve?

Here is a [link](#) to Plurality University Network's 'Interview Project' platform. There is a new free [course](#) on coursera on Futures Thinking Specialization

Horizon scanning is the upfront process of finding, collecting, and analysing the signals of change in a domain. By monitoring, we mean the identification of signals relating to previously identified emerging issues or scenarios to see if the emerging future is moving toward them – or not. Here is a chart to help you think about monitoring ([developed](#) by Andy Hines):



Next meeting: 28 November 2019 in Canberra