

DEMOS

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HOW TO UPGRADE DEMOCRACY IN THE AGE OF AI

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ABOUT THIS GUEST REPORT

This report is the result of a collaboration between **Sir Geoff Mulgan** at University College London and **Dr Alex Fischer**, a member of the Australian Resilient Democracy Network. It was written during Professor Mulgan's 2025–2026 Fellowship with the Australian Resilient Democracy Network (ARDN) and in collaboration with the European-based Institutional Architecture Lab (TIAL). The authors wish to thank Professor Nick Biddle at the Australian National University, Professor Sally Cripps at the Human Technology Institute at the University of Technology Sydney and the Australian Government's Office for Social Cohesion for supporting Professor Mulgan's ARDN Fellowship. We at Demos are proud to be publishing it.

Over 30 years ago Sir Geoff was the founding director of Demos and the work we do today is a result of the intention he set out with in that very different political era: to reconnect the people (the demos) with respublica (the state). Demos is now Britain's leading cross-party think tank. Our mission is an upgraded democracy, with a new deal to mend the broken relationships between the state, institutions, and citizens. We argue that in this era of political emergency, where so many citizens have lost faith in the political system, we need a new operating model for democracy to renew governance, deliver better and rebuild trust.

Our programmes set out to make the political case for this level of ambitious democratic renewal, and to deliver the practices and policies to rebuild the relationships between state and citizens. That might mean designing new civic tech for councils to engage the public, running deliberative policy work with the House of Commons, designing new ways for MPs to engage the public, or building the information ecosystems to support healthier democratic debate.

Sir Geoff's global collaboration with Dr Fischer makes a case that goes to the heart of our shared agenda: that we should not give up on liberal democracy, but make it better, fit for the changing times and technologies, and worthy of people's trust.

Polly Curtis

CEO, Demos

EXECUTIVE SUMMARY

Something isn't working across our democratic practices, but it isn't what most people think. The problem isn't that democracy has failed as an idea. It's that the version most of us are living with is anachronistic, shaped largely in the 19th century and not yet adapting to the 21st. Trust in elected officials is falling. Voter turnout is declining. Young people are disengaging. And yet the institutions meant to represent us have changed remarkably little, even as digital technology has transformed every other aspect of civic and social life.

Democracy is more than just voting, it is an assembly of connected parts, like a car from engine to dashboards. Democracy is made up of constituent parts, each performing a distinct function. There are authorisation functions (elections, candidate selection), decision-making functions (parliaments, budget processes), constraint functions (courts, regulators, independent media), implementation functions (public services), and the knowledge and participation systems that feed into all of them.

Beneath all six functions sit two foundational conditions. The first is relational health, or the quality of connection between people, communities and institutions that Demos has identified as democracy's essential but eroding substrate. The second is cognitive infrastructure or the collective capacity to hear diverse voices, synthesise them at scale, and connect citizen input visibly to decisions. Both are being reshaped by AI and digital technologies, for better and worse, and both must be deliberately cultivated rather than assumed.

This paper provides an analytical framework for doing exactly that, drawing on more than 50 examples of democratic innovation from over 25 countries. AI-powered platforms have amplified misinformation and accelerated polarisation. But AI also offers powerful tools for democratic renewal helping parliaments process thousands of public submissions, enabling citizens to query legislative archives in plain language, and mapping areas of consensus in large-scale deliberations.

This framework provides a road map so that we have fewer autopsies and spend more time on experiments. Rather than asking "why is democracy failing?" we can ask which functions are working, which are breaking down, and where adaptation is already happening that we haven't yet named or connected. Innovation should be understood less as isolated experiments to be replicated, but rather as continuous adaptation across multiple levels in line with a roadmap for evolution.

Without such roadmaps, debate will continue to polarise between increasingly exasperated defence of the status quo and increasingly angry arguments that democracy has failed. Both miss the point: that it is not the underlying idea of democracy that has failed, just the implementation of this idea at a particular moment. What Demos has called the "new operating system for democracy" is now visible in the innovations already underway, function by function, country by country. The innovations are being tested. What's missing is the political will to treat democracy as a work in progress, something to be upgraded, tested, and renewed rather than a finished achievement we simply defend.

INTRODUCTION

The era of steady democratic expansion has ended and instead democracy is slipping backwards. Democracy expanded alongside economic growth in the later twentieth century, and many global indices improved thanks to improvements in electoral integrity, civil liberties and accountability, mirroring improvements in global measures of prosperity, health and wellbeing.

Now, however, many countries face mounting pressures from economic stagnation, wealth concentration, demographic shifts, rising public debt, geopolitical fragmentation, environmental disruptions, and accelerating technological disruption. Outcomes across social policy, economic opportunity, citizenship, human rights, and rule of law are under strain. Evidence shows declining understanding of democratic institutions, falling trust in governments, and uneven satisfaction, particularly among younger generations, at a time when democratic institutions face direct challenges from foreign adversaries and internal political interests. Surveys repeatedly find that many people in democratic countries do not feel that their voices are being heard but that they want to be meaningfully engaged.

One important factor is that the methods used by democracies, most of which crystallised in the 19th century, have changed relatively little despite revolutions in how cognition and collective decisions can be organised, from the internet and platforms to generative AI.

In some countries this stasis is seen as a virtue. The US is strongly shaped by 'originalist' thinking, according to which the constitution should be applied in line with its original public meaning at the time of its adoption. These should be treated as static and binding (and should override more recent concerns, a view which shaped the overturning of *Roe v Wade* in 2022). Other countries, too, often see democracy as a finished work: codified in constitutions (as in Germany or France), or embedded in unchanging practices. To the extent that innovation happens, it tends to involve new variants of 19th century forms: new representative assemblies or new voting systems.

However, these relatively unchanging forms of democracy have become increasingly inadequate. They constrain how much democracy can make use of evidence or science. They sharply limit public engagement, contrasting with the ways digital technologies have transformed everything from shopping and travel to relationships. And they contribute to a growing imbalance between politics and the many other systems that depend on politics, including commerce and science, which invest much more heavily in innovation.

This is particularly striking in relation to digital technologies. Democracy is bound to be influenced by anything that shapes how we think, from television and print to the internet and AI, and there are many new options that could be used to shape debate and decisions. Yet existing democratic institutions have made little use of new tools, whether to support parliamentary representation or devolved public consultation and local decision-making, or the work of regulatory agencies. This is a cognitive failure as well as a political one.

This paper addresses how to solve this failure. It starts by considering the current situation; then turns to historical contexts and evolution of democratic forms; shows how these forms are best understood as assemblies of multiple parts; how the formal aspects rest on often invisible relational foundations; and then turns to options for redesign, including the potential for artificial intelligence and other technologies to provide stronger shared cognitive infrastructures.

DEMOCRATIC STAGNATION: NOT HEARD, NOT FELT AND NOT CHANGING

Many of the mechanisms of democracy now look both antiquated and inefficient. From parliamentary question times to voting systems and party processes, democracies operate much as they did in earlier eras, even as societies have become more complex, interconnected, and technologically mediated.

FIGURE 1

EDELMAN TRUST BAROMETER¹

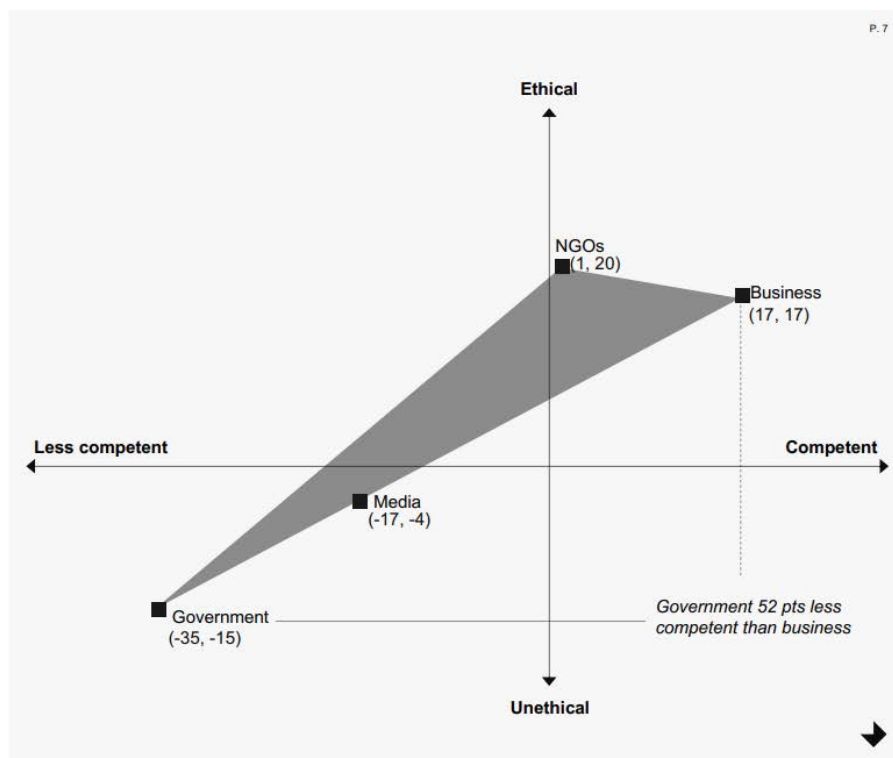
2024 Edelman Trust Barometer

Institutions Out of Balance: Government Seen as Far Less Competent and Ethical than Business

(Competence score, net ethical score)

GLOBAL 25 Excludes China, S. Korea, Thailand

2024 Edelman Trust Barometer. The ethical scores are averages of nets based on [INSI_PER_DIM/1-4]. Media and NGOs were only asked of half the sample. The competence score is a net based on TRU_3D [INSI/1]. Media and NGOs were only asked of half the sample. General population, 25-mkt avg. Data not collected in China and Thailand; Due to a translation inconsistency in S. Korea, it has been excluded from this analysis. For full details regarding how this data was calculated and plotted, please see the Technical Appendix.



Trust in governments and democratic institutions has declined across most established democracies.² The gap is sharpest not between political persuasions, but between those who feel that people like them have a say in government decisions and those who do not. Many types of participation, including voting, volunteering, and organisational membership, continue a long downward trajectory, even as informal digital engagement grows in ways that remain poorly understood and largely unmeasured.

As recently as 2025, 52% of populations in OECD surveys reported that they don't have a say in what government does, which undermines the very basis for representative democracy while only 30% think their political system lets them have a say.³ These figures have barely shifted across three survey waves since 2021, suggesting democratic disengagement is structural rather than cyclical.

In short many people don't feel that governments listen to or learn from what citizens tell them and they often see consultations as cosmetic⁴ and politicians as self-interested.

1 https://www.edelman.com/sites/g/files/aatuss191/files/2024-02/2024%20Edelman%20Trust%20Barometer%20Global%20Report_FINAL.pdf

2 OECD (2024). OECD Survey on Drivers of Trust in Public Institutions 2024 Results: Building Trust in a Complex Policy Environment. Paris: OECD Publishing. <https://doi.org/10.1787/9a20554b-en>

3 OECD (2026). OECD Survey on Drivers of Trust in Public Institutions 2026 Results: Navigating Rising Expectations and New Horizons. Paris: OECD Publishing. <https://doi.org/10.1787/9eb63fec-en>

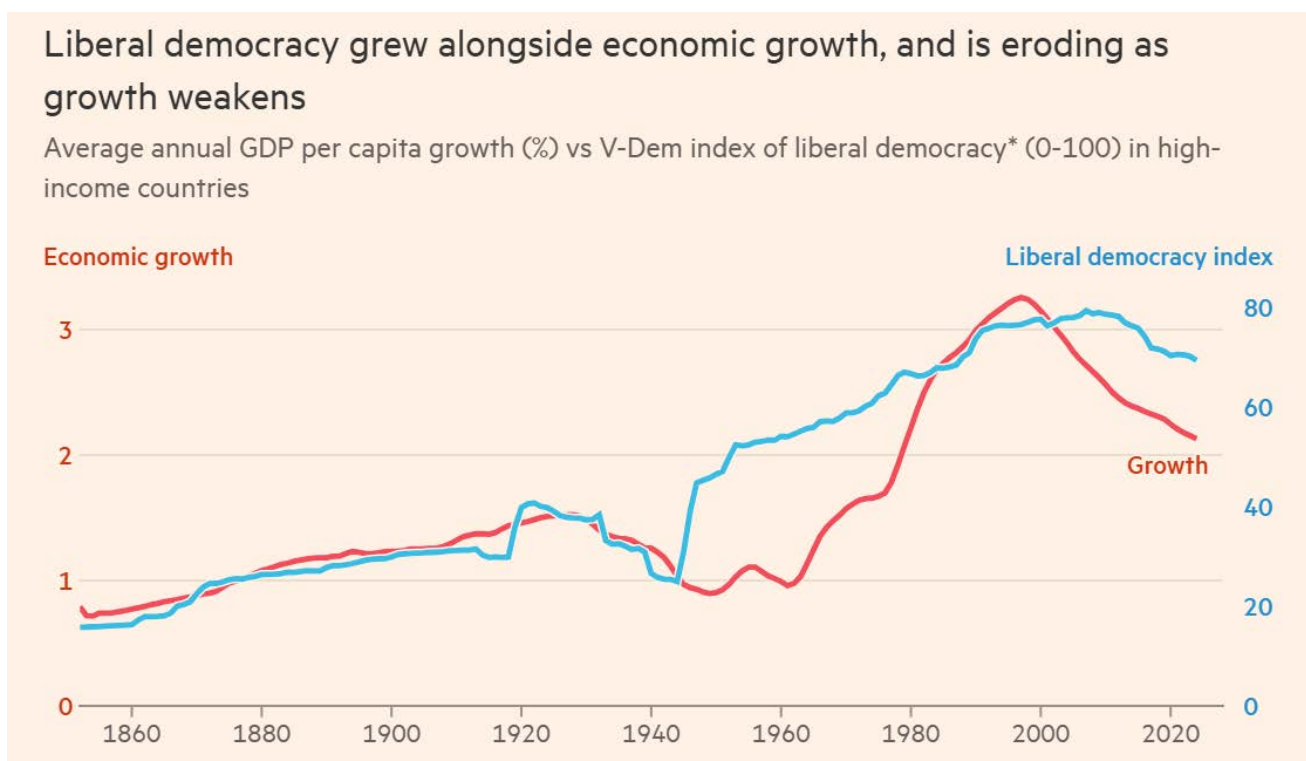
4 Lewis, P., Fischer, A., Webb, A., Snow, T., Biddle, N., Cripps, S., & Mulgan, G. (2025). Civic infrastructure in the age of digital engagement. Australian Resilient Democracy Research and Data Network Discussion Paper No. 10. Australian National University.

Yet in the long-run democracy still delivers.⁵ People living in democracies are more likely to live longer, have higher educational attainment, and experience sustained economic growth.⁶

However, the ability for countries to deliver high-quality services and continually rising incomes has fallen. As the chart below shows, democracy spread and strengthened during a period when economic growth was also delivering better outcomes for many. As that growth slowed, so has the decline in liberal democracy. The causal relationship between these trends is contested. As economists such as Robert Gordon have shown,⁷ it becomes structurally harder to sustain previous rates of growth once countries reach high-income status and the technological frontier, suggesting the slowdown reflects economic maturation as much as political system failure. Yet the political consequences remain real: where generations came to associate democracy with rising living standards, the experience of stagnation is eroding the legitimacy of democratic institutions regardless of whether democracy is the cause.

FIGURE 2

FINANCIAL TIMES, JOHN BURN MURDOCH



These are not simply failures of specific democratic countries or parties. They are signals of a systemic mismatch between what citizens expect democratic systems to do and what those systems are currently capable of doing.

Material grievances about inequality, housing, and economic insecurity amplify cultural anxieties about identity and belonging, institutional frustrations with unresponsive bureaucracies, and a deepening distrust of how information, and increasingly artificial intelligence, shape public life. Underneath these varied grievances runs a common thread: the sense that the system is not listening, not learning, and not changing in response to what it hears.

5 Gerring, J., Apfield, B., Wig, T., & Tollefsen, A. F. (2022). *The deep roots of modern democracy: Geography and the diffusion of political institutions*. Cambridge University Press.

6 Tudor, M. (2025). "What democracy does and does not do." *Journal of Democracy*. V 36. Issue 4, (pp 5-19) <https://www.journalofdemocracy.org/articles/what-democracy-does-and-does-not-do/>

7 Gordon, R. J.. (2016). "Perspectives on The Rise and Fall of American Growth." *American Economic Review*, 106 (5): 72-76.

DEMOCRACY AND THE LONG HISTORY OF COLLECTIVE INTELLIGENCE

Democracy is often presented as a Western invention, a product of Athenian experiment and Enlightenment philosophy. This genealogy is real but only partial. A broader historical lens reveals much longer and more geographically diverse traditions of collective decision-making.

Buddha recommended regular and frequent assemblies to the Vrijji confederacy of northern India. The city of Susa in southwest Iran maintained an elected council and popular assembly in the first millennium BCE. Japan's seventh-century Seventeen Article Constitution, introduced by Prince Shotoku, stated that decisions should not be made by one person alone but discussed with many. Pre-Columbian Mesoamerica, medieval German towns, and Swiss rural cantons each developed distinct traditions of collective deliberation and shared governance. In each case, the intuition was the same: power should be debated, constrained, and shared.

Before European settlement in Australia, Aboriginal Australians practised complex forms of collective governance rooted in deep relationships with land, community, and law. These were not only gatherings but embedded systems of consultative authority, distributed across networks of elders, clan groups, and ceremonial structures, guided by deeply held norms about kinship, responsibility to Country, and obligations to others.⁸ These were sophisticated governance systems, and their marginalisation under colonial institutions represents not only a historical injustice but an intellectual loss that is slowly being addressed.

This history is a reminder that the capacity for collective decision-making is not a recent Western achievement alone. It is a recurring human attempt to solve the same fundamental problem: how do groups of people, with different knowledge, interests, and beliefs, make decisions that are better than any of them could make alone?

THE ERAS OF DEMOCRATIC CHANGE

John Keane's classic account of democracy evolution identifies three broad phases in democracy's evolution which are helpful for understanding the choices ahead of us:⁹

First, assembly democracy, the earliest form, centred on face-to-face deliberation among a defined community of participants. It was cognitively direct, the group knew each other and gathered to make decisions, but it was limited in scale.

Second, representative democracy, extended collective decision-making across much larger populations through elections, parliaments, and constitutional rights, gaining scale at the cost of directness.

Third, what Keane calls 'monitory democracy' in the late twentieth century, added a proliferating architecture of oversight: regulatory agencies, judicial review, investigative journalism, ombudsmen, transnational advocacy networks, and multilateral institutions.

Each phase, in Keane's account, extended democracy's reach and accountability and each phase can also be understood as an expansion of cognitive capacity. Assembly democracy aggregated local knowledge directly. Representative democracy extended the reach of that aggregation across geography and population and connected it to the capabilities of increasingly large states, drawing on statistics and expert knowledge of all kinds to deliver welfare, social services and industrial policies. Monitory democracy added error-correction, mechanisms for ensuring shared values detecting when power was being misused and constraining it. The progression was not just institutional. It was also a progression in the sophistication of collective reasoning.

8 Behrendt, L. (2011). Aboriginal Australia and democracy: Old traditions, new challenges. In B. Isakhan & S. Stockwell (Eds.), *The secret history of democracy* (pp.148-161). Palgrave Macmillan. https://doi.org/10.1057/9780230299467_11

9 Keane, J. (2009). 'The Life and Death of Democracy' <https://www.johnkeane.net/books/the-life-and-death-of-democracy/>

However, each also brought new tensions. The tension that emerged in the monitory phase was that while oversight mechanisms improve accountability, they do not automatically enhance problem-solving capacity. They can slow decision-making to ensure voices are heard and information considered but can also generate perceptions of bureaucratic unresponsiveness.

The frustration driving current democratic discontent is partly a frustration with a system that is often good at watching power but slow at using it to solve shared problems, such as housing supply or affordability. Oversight inhibiting capacity to act is accountability without agency. And citizens, increasingly, can tell the difference.

DEMOCRACY FOUNDED ON RELATIONAL HEALTH

There is something else the monitory phase did not adequately address: the invisible foundations on which democratic functions depend. Formal institutions require, beneath them, a substrate of relational connectivity and skills to navigate understanding and difference, the sense that fellow citizens are legitimate participants in a shared project, that opponents generally share the same values and seek similar outcomes, that disagreement can be navigated without fracture.

Community cohesion, and relational health makes collective reasoning possible.¹⁰ When relational health erodes, formal institutions struggle to perform their cognitive functions. Consultations become rituals. Deliberation becomes performance. Elections become expressions of tribal identity rather than collective choice.

The decline in relational health is not incidental to the current democratic strain. It is one of its primary drivers, and it is one that no amount of institutional redesign alone can address. Any account of democracy as a cognitive system must treat relational health not as a soft add-on but as a structural prerequisite. The cognitive architecture cannot function without the social infrastructure.

But despite its importance, relational health has largely been assumed to take care of itself. In some countries this assumption is clearly wrong: deepening polarisation and mutual distrust have reached a point where a majority of Americans believe their fellow citizens are not morally good, a condition which makes cooperation much harder.¹¹ In many other countries experiences of crime and corruption have corroded mutual trust and created fertile ground for populist authoritarianism.¹²

The dominant policy logic focus on productivity, 'delivery' and cost-efficiency has placed relationships outside the scope of government responsibilities and goals, treating them as inputs it can assume, rather than capabilities it must cultivate.¹³ Further, many democratic processes embed a confrontational approach, not solution-driven ones. Elections and parliaments structure many debates as winner-takes all.

New evidence clarifies what is at stake¹⁴ emphasising how essential the quality of relationships is from the earliest stages of life, shaping emotional, cognitive and behavioural capacities that produce, in turn, the skills and capacity for cooperation, compromise and trust on which democratic life depends.

10 Olsson, C.A., Macdonald, J.A., Evans-Whipp, T. et al. (2026). "Population Perspectives on Nurturing Relational Health from Early Life: A Systematic Review Series." *Clin Child Fam Psychol Rev*. <https://doi.org/10.1007/s10567-026-00565-7>

11 Evans, J., Lesage, K., Corichi, M., et al. (2026). "In 25-Country Survey, Americans Especially Likely to View Fellow Citizens as Morally Bad." *Pew Research Report*. <https://www.pewresearch.org/religion/2026/03/05/in-25-country-survey-americans-especially-likely-to-view-fellow-citizens-as-morally-bad>

12 Verweij M. (2026). A cultural theory of support for populism: fatalism and polyrational governance. *Front. Polit. Sci.* 8:1781561. doi: 10.3389/fpos.2026.1781561

13 (a) Plunkett, J. (2024). "The Other Special Relationships." *End State Substack*. <https://endstate.substack.com/p/the-other-special-relationship>. (b) Mulgan, G. 2012. *The Relational State*. London: Institute for Public Policy Research. https://ippr-org.files.svdcn.com/production/Downloads/relational-state_Nov2012_9888.pdf.

14 (2026) A living evidence initiative on early relational health | Advancing evidence-informed policy and practice in early relational health. Accessed 14 September 2026. <https://relationalhealth.com.au/>

Yet much of Western public policy has addressed relational health almost exclusively at the level of the microsystem: the parent-child relationship or the individual family.¹⁵ The broader relational ecology has received less attention. We have not consistently standardized or integrated national monitoring approaches of how non-kin networks form in schools, workplaces, sports clubs, and public spaces; how government services either build or erode their relationships and responsibility for care for citizens. There is useful research to draw on in relation to social capital¹⁶ and institutional design¹⁷ but policymakers have paid little attention to these issues as core inputs and outputs of democratic processes.

The consequences are visible. Symptoms range from increased loneliness¹⁸ to civic apathy and disengagement, to the erosion of trust in institutions and neighbours.¹⁹ These are closely associated with a worldview that is fatalistic, seeing the world as unpredictable and impossible to influence. It is suspicious of collective action and institutions and sees others as likely to be immoral, untrustworthy and dangerous. One influential description of this worldview suggested that its standpoint 'is not that all humans are bad, but there are enough bad ones around so that no one can be trusted except, possibly, within the family.... [leading people to be] pessimistic about social action, but not necessarily about individual action. Strangers are seen as a potential threat; since people cannot be trusted-they could help but just as likely would put a knife into you-and one cannot outguess Mother Nature, there is no rationale for long-term cooperation, only for local short-term action....and so fatalists consider all institutions oppressive."²⁰

Most global measures of democratic health treat trust in institutions as a leading indicator, and the literature is clear that trust emerges through the quality and plurality of interactions over time.²¹ But trust as a measure captures only part of the picture. It can miss the texture of relational life that precedes and sustains it; the basic sense of connection with neighbours and strangers, the habits of dialogue and compromise, and capacity to disagree without fracturing, and also a healthy mistrust that motivates the scepticism which in turn drives engagement and accountability.²²

The mechanisms for building and sustaining this relational foundation are neither mysterious nor beyond reach. They are embedded in the everyday institutions of democratic life: in schools that teach the practice of disagreement alongside its content; in local communities and civil society organisations that create the non-kin networks where trust between strangers is built and repaired; in faith organisations and public spaces that hold diverse citizens in proximity over time; and in government services designed not merely to deliver outcomes but to listen, respond, and be changed by what they hear.

What makes this moment urgent is that these foundations are no longer simply eroding through neglect. They are, in some cases, being deliberately targeted: by powerful institutions which want to corrode the relational substrate on which any shared vision and collective action depends: from owners of social media companies promoting extremist politicians and

15 Zubrick, S.R., Evans-Whipp, T., Olsson, C.A. et al. (2026). "Population Approaches to Promoting Relational Health From Early Life." *Clin Child Fam Psychol Rev*. <https://doi.org/10.1007/s10567-026-00566-6>

16 Chetty, R., Jackson, M.O., Kuchler, T. et al.. (2022). "Social capital I: measurement and associations with economic mobility." *Nature* 608, 108–121. <https://doi.org/10.1038/s41586-022-04996-4>.

17 Ostrom, E. (2010). *The institutional analysis and development framework and the commons*. Bloomington: Indiana University Press.

18 U.S. Surgeon General (2023). *Our epidemic of loneliness and isolation: The U.S. Surgeon General's advisory on the healing effects of social connection and community*. U.S. Department of Health and Human Services. <https://www.hhs.gov/sites/default/files/surgeon-general-social-connection-advisory.pdf>

19 Biddle, N, Gray, M, McAllister, I., and M. Qvortrup (2023). "Detailed Analysis of the 2023 Voice to Parliament Referendum and related social and political attitudes." ANU Centre for Social Research and Methods. <https://doi:10.26193/13NPGQ>

20 Enzell M. and Wildavsky A. (1994). *Hobbes's Natural Man is a Fatalist: Implications of Cultural Theory for Interpreting Hobbes and His Critics*. Working Paper 93-20. Berkeley: Institute of Governmental Studies, University of California at Berkeley.

21 Strengthening Democracy Taskforce. (2024). *Strengthening Australian Democracy: A Practical Agenda for Democratic Resilience*. Department of Home Affairs, Commonwealth of Australia. <https://www.homeaffairs.gov.au/about-us-subsite/files/strengthening-australian-democracy.pdf>.

22 More in Common (2021). *Two Stories of Distrust in America*. https://www.moreincommon.com/media/yfcbfmp/mic_two-stories-of-distrust.pdf

misinformation about crime to the work of nation-states launching cognitive warfare agencies promoting chaos and confusion. The question of how democracies protect and actively rebuild relational health is therefore not only a question of social policy. It is a necessary foundation for the cognitive renewal explored in the next section.

1. ASSEMBLY OF PARTS

SIX FUNCTIONS OF DEMOCRATIC PRACTICE

Democracy is a system for collective decision making, but it is also a system for learning: for shared intelligence about the choices a community faces and navigating the uncertainty of shifting socio-economic, environmental, and technological contexts. Albert Camus is attributed with saying, “Be careful when a democracy is sick, fascism comes to its bedside, but it is not to inquire about its health.” Across his writing, Camus argued that political systems become dangerous when they claim certainty.²³

Democracy, by contrast, accepts uncertainty and has evolved mechanisms to navigate collective thought using argument and deliberation: through how representatives are selected, the assemblies used for deliberation, the protection of participation rights, free speech, and the balancing of power. This separation of roles, and competition between different types of democratic authority, is key to its ability to argue, deliberate and get to better decisions. The acceptance of uncertainty is not a weakness. It is a necessity. Uncertainty is what makes democracy, at its best, a system that learns together and navigates overlapping decisions collectively.

This is one of many reasons why in the long-run democracy tends to outperform autocracy. Daron Acemoglu and others showed that ‘there is an economically and statistically significant positive effect of democracy on future GDP per capita ... “long-run GDP increases by about 20-25 per cent in the 25 years following a democratisation”.²⁴ Using data going back to 1789, Knudsen showed not just that autocracies have much higher variations in growth than democracies but also that they are more likely to experience economic crises.

²³ Camus, A. (1956). *The Fall*. Translated by Justin O’Brien. New York: Knopf, 1957. Originally published as *La Chute*. Paris: Gallimard, 1956.. <https://www.camus-society.com/the-fall>

²⁴ Acemoglu, D., et al. (2019). “Democracy Does Cause Growth.” *Journal of Political Economy* 127, no. 1: 47–100. <https://doi.org/10.1086/700936>

Democracy cannot guarantee collective intelligence, but it can reduce the risk of collective madness, echoing Dag Hammarskjöld's comment that multilateral bodies like the UN were 'not created in order to bring us to heaven, but in order to save us from hell.'

But the democracy they describe isn't just about periodic elections, or one person one vote, important though these are. All experience of democratisation, and its reverses, confirms that it is much better understood as an assembly or ecosystem of connected parts and norms. Some are structural and procedural. Others are enabling conditions that determine whether those structures can work effectively. Some are formal – like the work of legislatures. But just as important are the hinterlands – free media, civil society, universities – orchestrating argument and shared knowledge. The speed and quality of collective action depend on how these elements interact, both for choosing leaders and as a structured process for making collective decisions.

Viewed in this way, democratic governance unfolds through a series of interlinked stages, each performing a distinct function in the broader decision cycle. Problems and opportunities must first be framed, after which specific issues are identified as priorities for action. Options are then generated, debated, and scrutinised before authoritative decisions are made, including the allocation of public resources. Decisions must then be implemented through public institutions, followed by ongoing scrutiny and assessment of outcomes. Each stage brings different actors, forms of knowledge, and institutional mechanisms into play, and the effectiveness of democracy depends on how well these stages connect and learn from one another.

There is a useful analogy with familiar systems. A car is not a single object. It is an assembly of distinct components, each performing a specific function, each dependent on the others. For a car to work, it requires the engine converting fuel into energy with electrical systems to guide, steer and brake. The movement of the car is a result of the whole system of parts, not a single component. These parts have changed and been updated over time, rarely all at the same time. Recent improvements use software, data, driver assistance, GPS and diagnostics. The car still looks like a car. But its cognitive architecture, its capacity to sense, process, and respond, has been fundamentally upgraded.

Democracy is an assembly of this kind. It is not a single thing, but a layered system of interacting functions, each performing a distinct cognitive role, each dependent on the others. And like the car, it is an assembly that can be diagnosed, upgraded, and integrated with new forms of intelligence without being dismantled and rebuilt from scratch.

Understanding what is currently failing requires clear-sighted diagnosis of what's not working, what could be strengthened, and how these can be better integrated. That requires stepping back to see the distinct parts that make up the assembly of democracy.

The authorisation functions are the input layer: candidate selection, electoral design, party organisation, party policy platforms and constitutional frameworks all belong here. These are the processes through which authority is granted and revoked, and through which the system determines whose knowledge is heard and considered. This includes the framing of issues – often driven by social movements, campaign and coalitions, usually beginning outside the system. This also includes how systems inform voters with trusted and reliable information on issues and options, candidates, parties and election processes. Their cognitive quality includes how inclusive, informed and resistant to capture by narrow interests they are.

The decision-making functions are the processing layer: parliamentary deliberation, committee scrutiny, budget setting, executive approvals, legislative consultation and local councils. This is where competing information and interests are weighed and resolved into decisions creating authority for the state. The cognitive quality of this layer depends heavily on the information environment surrounding it, what evidence is synthesised, how to involve both

decision-makers and those impacted, formal requirements to consider evidence in decisions, and whether institutional culture rewards careful reasoning or incentivises performative and politically driven decisions.

The interpretation and constraint functions: these include courts, regulatory bodies, anticorruption agencies, as well as media and civil society. These help to correct and avoid errors. They identify when decisions have violated the rules of the system, constrain the abuse of authorised power, and enforce the boundaries within which collective reasoning must operate. They are the braking system of the democratic assembly, and essential for safety.

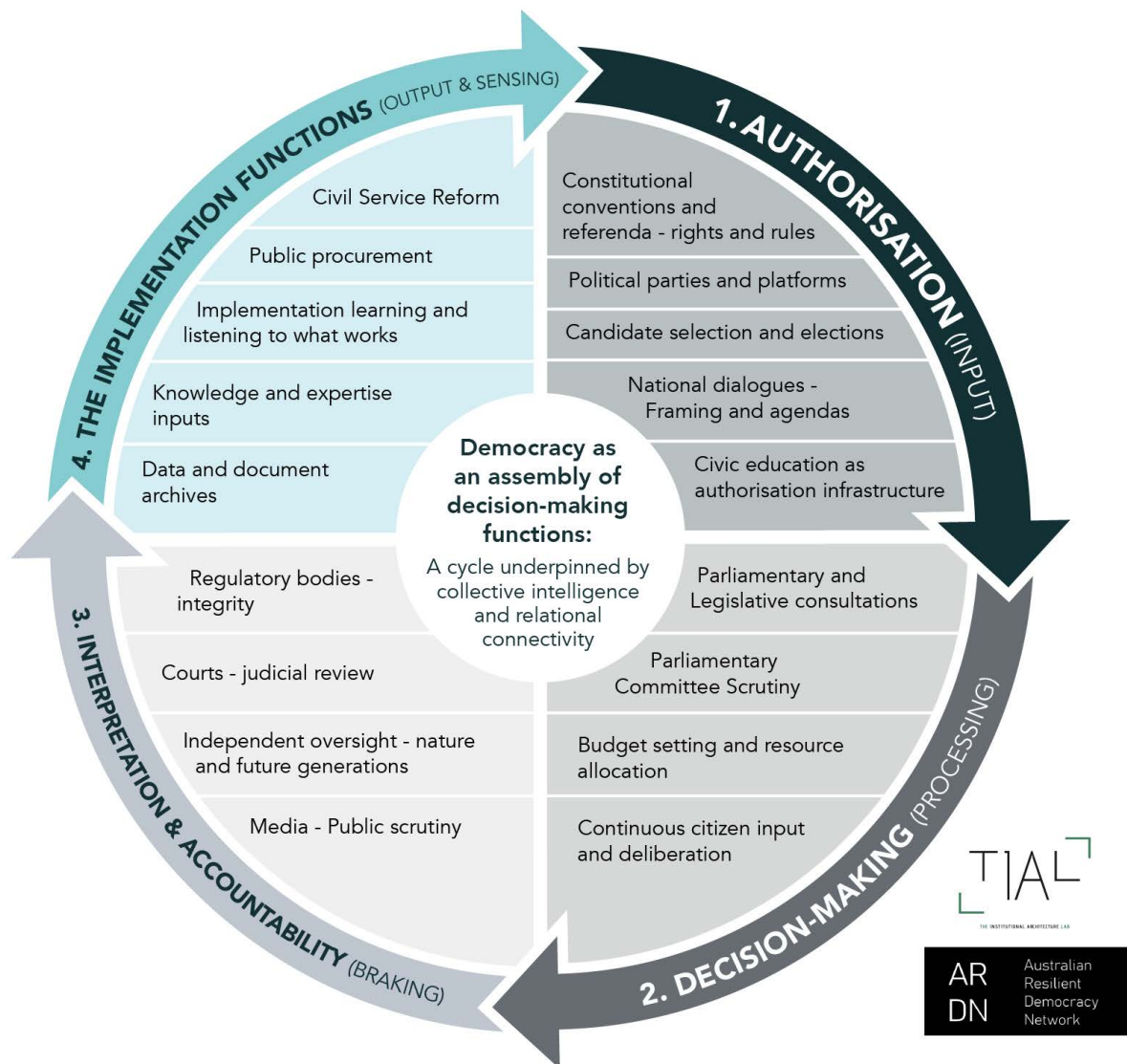
The implementation functions: these include public services, police, military, welfare and more and are the output layer, where democratic decisions meet lived reality. They are also, critically, a sensing layer or the point at which the system receives feedback on whether its decisions are working. This feedback is the most consistently underused input in democratic cognition. Governments make decisions, deliver services, commission evaluations years later, and by the time findings are available, the conditions have changed, the ministers have moved, and the learning is filed rather than acted upon.

Feeding into all of these are two complementary expressions of collective intelligence:

The knowledge institutions: the first set provide access to the shared memory of the world, organised through universities, archives, free and independent media, statistical and public data, cultural institutions, civic education systems and increasingly through AI. They gather and preserve what the world knows about everything from monetary policies to vaccines, mental health to carbon emissions, making it accessible and useful.

The participation and feedback functions: the second provides access to the collective intelligence of citizens in the present, their hopes, fears, wants and needs, expressed through civic spaces, civil society organisations, deliberative forums, consultation processes. These are where the views and judgment of citizens who are not elected or appointed enters the system. Many formal consultation processes are static, one-directional, and designed for procedural compliance rather than genuine knowledge integration. But many more recent innovations show how these can become much richer.

FIGURE 3
DEMOCRACY AND ITS FUNCTIONS



The car is a relatively closed system. Another analogy reminds us that democracy is more open than this. A watershed is also an assembly of interdependent parts in an open system. Catchment areas gather rainfall and direct it into streams. Rivers carry water through landscapes, shaped by topography, vegetation, and geology. Wetlands slow and filter flows, regulating what reaches rivers and aquifers. Groundwater systems store and release water across longer timeframes than surface flows. Each part performs a distinct function. Each is dependent on the others. Clear the catchment vegetation and runoff accelerates, groundwater recharge declines, and the system's capacity to buffer drought diminishes. The effects are non-linear and often delayed, a change upstream manifests downstream in ways that are difficult to anticipate and hard to reverse.

But what distinguishes a watershed from a car is that it exists in continuous dynamic exchange with the uncertainty created by its wider conditions. Rainfall patterns, temperature, land use, atmospheric composition are not external inconveniences to be endured. They are the conditions within which the system's flows are constantly being shaped and reshaped. A healthy watershed does not simply function. It absorbs disturbance, redistributes flows, and recovers from disruption through the adaptive interactions of its parts. An unhealthy watershed loses this adaptive capacity, not necessarily because any single component has failed, but because the relationships between components, and between the system and its wider conditions, have been degraded.

2. INNOVATION ACROSS PARTS MAPPING EXISTING SOLUTIONS

Looking to the future almost every aspect of the complex assembly we call democracy could be transformed. It would be surprising if precisely the same methods were appropriate in the 2030s as they were in the 1930s or 1830s.

The last few decades have brought a steadily widening menu of options for democratic evolution: citizens assemblies, juries, participatory budgeting, online platforms and science advice mechanisms. None on its own is an adequate answer to the problems of democracy. But taken together they point to a positive evolution in which democracy becomes both more effective and legitimate. In this section we summarise some of the promising innovations which point towards a potential roadmap for reform before turning in the section after it to the specific opportunities of AI.

Together these many options seek to answer three overlapping questions:

- how can democracy tap into the full collective intelligence not just of peer citizens but also of institutional memory and other countries?
- how can it answer the challenge of what Samuel Popkin, the political scientist, described as “low information” voters, since it’s not worth most citizens spending a lot of time understanding the details of different candidates’ views or policy options given the low likelihood their choice would have much impact.²⁵
- And how can democracy reinforce its relational foundations rather than eroding them and leaving an atomised, distrustful society?

Technologies can enable the manipulation of public narratives, concentrate influence over policy design, and introduce opaque decision systems that weaken democratic accountability, and so far, the combination of platforms and AI has proven to be mainly a disruptive force – making it easier to spread misinformation and encourage polarisation.

25 Popkin, S., (1991). *The Reasoning Voter: Communication and Persuasion in Presidential Campaigns*. Chicago: University of Chicago Press.

But technology can also play a positive role, particularly in helping groups of all sizes to think, deliberate and decide; in challenging misinformation and countering polarisation; and in orchestrating collective intelligence both at the micro levels (amplifying the intelligence of groups, meetings, boards and parliaments) and at the macro levels (by making it easier to tap into the world's shared knowledge and experience).

Here we look at innovations in democratic processes – we don't analyse the constitutional, legal and institutional reforms needed, without which no innovation can be legitimate, partly because these are widely covered in the democratic reform literature and partly because they are highly contextual. They clearly complement the ideas we set out.

What follows is a structured selection organised around the assembly framework set out in [Section 4](#), chosen to illustrate what is possible across each democratic function and to show where the most promising cognitive and relational innovations are already taking hold.

These represent a small fraction of what is already being attempted globally. Participedia, the world's largest crowdsourced database of democratic innovation, documents over 2,200 cases across 158 countries, supported by more than 800 organisations working on democratic renewal.²⁶ The OECD's 2025 survey of AI in government catalogues 200 real-world cases across 11 government functions.²⁷ The IPU's Centre for Innovation in Parliament has collected over 40 AI-specific use cases from parliaments across six continents since 2024 alone.²⁸ Specialist platforms including Reboot Democracy,²⁹ POPVOX's Modern Parliament tracker,³⁰ and Demos³¹ and the work of important initiatives like Democracy Next³² add further dimensions covering participatory governance, legislative modernisation, and public sector AI respectively.

Our aim is to provide a framework for thinking about how these fit together and to balance the tendency of some to promote particular options as 'solutions' to the problems of democracy. In our view it is precisely the multiplicity, the combination of complementary elements, that makes democracy strong.

AUTHORISATION FUNCTIONS

This is the input layer through which issues are identified, candidates are selected, power is allocated, and citizens shape their representation. Much of the landscape of authorisation has already changed thanks to social media, and the novel ways that campaigns can be organised. But innovation is also happening in the formal aspects of authorisation.

Candidate selection and political parties

Some envision a future without politicians entirely, where decisions are made either by randomly chosen citizens or by automated systems. We see little evidence that democracy can work well without either politicians or political parties (see [Conclusion](#)). But political parties remain one of democracy's least reformed authorisation mechanisms with many country's party processes still largely closed in terms of how they develop platforms, select candidates, and engage members. Moreover, many countries provide little or no training for politicians meaning that they struggle to use power effectively.

26 Participedia. (n.d.). Participedia. <https://participedia.net/> Accessed 05 May 2026.

27 OECD. (2025). Governing with artificial intelligence: The state of play and way forward in core government functions. OECD Public Governance Committee. https://www.oecd.org/en/publications/governing-with-artificial-intelligence_795de142-en/full-report/ai-in-regulatory-design-and-delivery_128691e6.html

28 Inter-Parliamentary Union. (n.d.). Centre for innovation in parliament. <https://www.ipu.org/impact/democracy-and-strong-parliaments/centre-innovation-in-parliament>. Accessed May 05 2026

29 Reboot Democracy AI. <https://rebootdemocracy.ai/> Accessed 01 May 2026

30 Modern Parliament — POPVOX Foundation Accessed May 2026.

31 <https://demos.co.uk/> Accessed May 2026.

32 www.demnext.org Accessed May 2026.

Some experiments have sought to change how parties work internally. The Five-Star Movement in Italy used methods for ‘liquid democracy’ to give members power to shape its programme. Spain’s Podemos offered an early model: its Participa platform allowed over 500,000 registered members to vote on party direction,³³ crowdsource policy proposals, and participate in Citizens’ Assemblies, while microcredit financing replaced bank dependency with direct citizen investment in electoral campaigns.³⁴ Post-election, Plaza Podemos maintained ongoing deliberation between citizens and elected representatives across thematic circles.³⁵

More recently, Japan’s Team Mirai has built an AI Interviewer that walks citizens through policy issues, challenging their thinking and feeding responses into party platforms. In the 2026 election they generated over 38,000 questions and 6,000 discrete policy suggestions that directly shaped their manifesto.³⁶ Its open-source Mirumei tool makes political funding flows publicly visible, reducing capture by narrow interests. Team Mirai’s tools are now being used after elections by parties as a bill-tracking app adopted by Japan’s dominant ruling party, the LDP, suggesting these innovations can spread beyond the parties that create them.³⁷

These experiments show that parties can find new ways to listen to constituents at scale and pace, strengthening the relational connection between citizens and political representation that authorisation depends on. Yet they face a common challenge: how to balance the preferences and decision-making rights of active party members, many of whom tend to be more ideologically engaged and less representative of the broader electorate with the views of wider, less politically active communities. The most promising experiments show it is possible to do both, opening party platforms and candidate selection to more diverse voices without simply handing control to the most engaged members.

Constitutional conventions and referenda

Constitutions are the foundational rules authorising governance structures. They have historically mainly been written by legal and political elites, as in the case of the 1787 US Constitution Convention which limited whose knowledge and values shaped the foundational rules that continue to govern (and according to ‘originalism’, their intentions over two centuries ago should be paramount).

Participatory and digital tools are beginning to open this process, with a growing body of evidence about what works and what doesn’t when reforming constitutions. Iceland’s 2010-2011 process crowdsourced a national constitution, combining a randomly selected National Forum of 950 citizens with open online drafting where public submissions directly changed nearly ten percent of the final text.³⁸ The parliamentary resistance ultimately blocked ratification, exposing the gap between participatory and political authority.

Ireland has gone further in formalising deliberative democracy as a constitutional tool: following its 2013-2014 Convention on the Constitution, the Irish Citizens’ Assembly was established in 2016 tasking 99 randomly selected citizens to deliberate on abortion over five weekends

33 GovLab.(2015). “People-Driven Governance: Spain’s Podemos Party.” <https://blog.thegovlab.org/people-driven-governance-spains-podemos-party>

34 Lupato, F. G., Jerez, A., & Meloni, M. (2024). Digital innovation in electoral campaigns: the case of microcredit in Podemos. *Policy Studies*, 45(5), 773–791. <https://doi.org/10.1080/01442872.2023.2203479>

35 Garcia, F.L., Meloni, M. (2023) Intra-Party (digital) Deliberation: the case of Podemos and the UK Labour Party platforms. ECPR General Conference, Charles University, 4-8 September 2023.

36 Sanders, N., Schneier, B., (2026). “Japan’s Team Mirai Uses Tech to Bolster Democracy, Not Undermine It.” TechPolicy Press. <https://www.techpolicy.press/japans-team-mirai-uses-tech-to-bolster-democracy-not-undermine-it/>

37 Hernandez, J., Notoya, K., (2026) The A.I. Evangelists on a Mission to Shake Up Japan. The New York Times 22 February 2026. <https://www.nytimes.com/2026/02/22/world/asia/japan-ai-politics-election.html>

38 Bani M., (2012) “Crowdsourcing Democracy - the Case of Icelandic Social Constitutionalism” *Politics and Policy in the Information Age*. Springer. <https://dx.doi.org/10.2139/ssrn.2128531>

in 2016-2017, reviewing over 13,000 public submissions and hearing from 25 experts.³⁹ This process helped break a decades-long political deadlock that parties had been unwilling to address difficult social issues and produced recommendations that were endorsed by 66 percent of voters in the 2018 referendum.

Other countries have since advanced similar but distinct approaches, including Scotland's Citizens' Assembly of 2019-2021 which started to look at representative participation to produce recommendations on how Scotland should govern itself amid Brexit uncertainty.⁴⁰ Chile's 2021-2022 Constitutional Convention went further still, combining gender parity, reserved indigenous seats and digital platforms that generated 78 popular initiatives for constitutional articles, each requiring 15,000 signatures.⁴¹ Yet the resulting constitution was rejected by 62 percent of national voters, underlining the same lesson Iceland taught: participatory innovation might broaden who inputs into the design of the reform but does not guarantee wider population support or representative authority to make constitutional change stick.

National dialogues

Some of democracy's most consequential decisions, from climate transition to economic reform to constitutional rights cannot be resolved through elections or parliamentary processes alone. National dialogues create the relational conditions for difficult decisions by building shared understanding across difference before prescribing solutions and generating the public authorisation that neither elections nor expert processes alone can produce.

Finland's National Dialogues model offers the most systematic approach: a permanently running infrastructure of structured conversations, organised simultaneously by civil society, public bodies and private actors across the country, on questions from climate transition to social cohesion.⁴² The dialogues feed into national summaries that inform policy without replacing political decision-making. Wales took a similar distributed approach with its "Wales We Want" conversation, using a network of 150 community Futures Champions to generate over 100 local dialogues, whose findings directly informed the groundbreaking Well-being of Future Generations Act, one of the few cases where national conversation produced binding legislation.⁴³ France's 'Convention Citoyenne pour le Climat'⁴⁴ and the 2008 Australia 2020 Summit⁴⁵ demonstrate larger-scale models, combining sortition and structured deliberation with digital broadcast to widen reach.

Across these examples, digital tools have played a supporting rather than leading role: Finland's model uses a shared online reporting platform to aggregate dialogue notes into national summaries; Wales used social media campaigns and a campaign website to extend reach and surface community voices; France's Convention streamed plenary sessions publicly and held online sessions during COVID-19 lockdowns; while vTaiwan and similar processes have pioneered the use of Polis, an AI-assisted consensus tool that maps where populations agree and disagree, as infrastructure for large-scale national deliberation, pointing toward a new generation of hybrid models that combine the relational depth of face-to-face dialogue with the scale and synthesis capacity of digital tools.

39 Citizens' Assembly of Ireland. (2017). First report and recommendations of the Citizens' Assembly: The eighth amendment of the constitution. https://citizensassembly.ie/wp-content/uploads/2023/02/FirstReport_EIGHTAMENDMENT.pdf

40 Scottish Government. (2022). Citizens' Assembly of Scotland: Research report. Performance, Delivery and Resilience Directorate. <https://www.gov.scot/publications/research-report-citizens-assembly-scotland/>

41 Vargas-Murillo, A. R. (2025). From design to practice in deliberative constitutionalism: Lessons and challenges from the Chilean constitutional process (2021–2022). *Frontiers in Political Science*, 7, 1581326. <https://doi.org/10.3389/fpos.2025.1581326>

42 Kansalliset Dialogit. (n.d.). National dialogues. <https://kansallisetdialogit.fi/en/>. Accessed May 2026.

43 Cynnal Cymru- Sustain Wales. (2015). The Wales We Want National Conversation. <https://cynnalcymru.com/the-wales-we-want-national-conversation/>

44 Convention Citoyenne pour le Climat. (2020). Les 149 propositions de la Convention Citoyenne pour le Climat. Conseil Économique, Social et Environnemental. <https://www.lecese.fr/sites/default/files/pdf/Convention/ccr-rapport-final.pdf>

45 Department of the Prime Minister and Cabinet. (2008). Australia 2020 Summit: Final report. Commonwealth of Australia. <https://apo.org.au/node/15061>

Civic education as authorisation infrastructure

All of the innovations described above depend on citizens who have the habits, skills and confidence to participate meaningfully. Civic education empowers communities with the knowledge to propose ideas, navigate disagreement, evaluate evidence, and hold power to account. However, these capacities are not innate, they require continual generational cultivation.

Civic education in schools has historically focused on how the system works, how laws are made, how governments are formed. This are often combined with experiential forms of civic education, from parliamentary visits to student councils. Recent literature has suggested the importance of when and how citizens actively practise the exercise of democratic power itself.

Civic knowledge and understanding are declining in many countries. For example, in Australia, only 28 percent of Year 10 students currently meet the civics proficiency standard, meaning the majority will reach voting age without adequate understanding of government works.⁴⁶ The Harvard-convened Task Force on Experiential Civic Learning defines this approach as education that delivers civic knowledge, skills and dispositions by actively practising democracy, whether through real or simulated civic action, recognising that at the core of democratic citizenship is excellence in how we interact with fellow human beings to find common purpose and solve shared problems.⁴⁷ This is civic education as relational infrastructure, not merely teaching about democracy but practising it. Some surveys suggests that experiential civic education such as parliamentary visits, election simulations, community councils leaves stronger and more lasting impressions than classroom instruction alone.⁴⁸ Cascais, Portugal has embedded this principle most systematically, with student proposals from age ten competing on equal terms with adult submissions in its citywide participatory budget building the habits of democratic agency from childhood that relational health depends on for its long-term renewal.⁴⁹ These are not marginal add-ons to democratic education, they are its most important content.

Global initiatives

Perhaps the most far-reaching initiatives aim to create a ‘demos’ that is transnational and even global. The current Global Citizens Assembly is an important example, bringing together a representative sample of the world’s citizens to deliberate on important issues around climate change, with a primary focus on food.⁵⁰ These aim to become a complement to traditional diplomatic and multi-lateral forums, showing how citizens can become experts, and how consensus can be reached even on difficult choices.

DECISION-MAKING FUNCTIONS

The next layer of democracy is where competing evidence, interests and values are weighed and resolved through decision making processes. This has often rewarded process over careful reasoning, and political interests over genuine deliberation. A growing range of experiments is beginning to change this, from AI tools that strengthen the cognitive capacity of parliaments themselves to new forms of structured citizen deliberation that bring distributed knowledge directly into the decision cycle.

46 Print, M. (2025). Exploring evidence and models for experiential civic education opportunities (Discussion Paper 13). Australian Resilient Democracy Network. <https://politicsir.cass.anu.edu.au/research/publications/resilient-democracy-exploring-evidence-and-models-experiential-civic>

47 Experiential Civic Learning for American Democracy: A Portrait of the Field

48 Australian Public Service Commission. Civic Education and Democratic Perceptions. Canberra: Australian Public Service Commission, 2025. <https://www.apsc.gov.au/sites/default/files/2025-09/Civic%20education%20and%20democratic%20perceptions%20-%20APSC%20template%20-%20Final.pdf>

49 Marques, M., Luís, A. L., & Teixeira, N. 2024. Strengthening young citizen participation through participatory budgeting: The case of Cascais. In C. Montenegro, Á. Rocha, & J. M. Cueva Lovelle (Eds.), *Management, tourism and smart technologies: ICMTT 2023* (Lecture Notes in Networks and Systems, vol. 773, pp. 174–182). Springer. https://doi.org/10.1007/978-3-031-44131-8_18

50 Global Citizens’ Assembly. (2026). Global Citizens’ Assembly. Iswe Foundation. <https://globalassemblies.org> accessed July 2026.

Parliamentary and legislative consultations

The structured process through which parliaments seek citizen input before and during lawmaking, generates significant materials and reviews but often misses wider community sentiment, with submissions rarely influencing decisions in traceable ways. The review below suggests that the institutions responsible for parliamentary innovation are still primarily thinking about digital tools and AI as an efficiency tool rather than tools to strengthen cognitive infrastructure. Parliamentary deliberation has historically depended on the capacity of MPs and staff to navigate vast volumes of legislative text, precedent, and evidence under severe time pressure, a cognitive load that structurally favours those with the largest research teams and deepest institutional memory. AI is helping close that gap by making mass participation genuinely usable.

Brazil's Chamber of Deputies has led the way through its Ulysses platform, which use machine learning to categorise, summarise and surface both majority views and minority perspectives for legislators across archived legal text and 159 governmental sources.⁵¹ Brazil's Federal system has extended this further by creating an online system for public consultation of pending legislation, with over 30 million yes and no "votes" informing parliamentarians and lowering the barrier to meaningful participation.⁵² The UK's Humphrey system, first piloted by the Scottish Government, automates the review of public consultation submissions at scale,⁵³ while France's Grand Débat National demonstrated that AI could process over 500,000 citizen contributions into thematic clusters that directly informed policy responses to the Yellow Vest protests.⁵⁴

Estonia's parliament has integrated AI tools into its legislative database, enabling the tool to scan draft bills for errors before becoming law, and allowing MPs and staff to query existing laws and draft legislation in natural language which moves from manual document retrieval to conversational access to the full body of Estonian law.⁵⁵ Italy's Chamber of Deputies uses AI to compare amendments for similarity, automatically ordering them for debate and flagging inconsistencies with existing legislation.⁵⁶ Finland's parliament uses AI to summarise documents and generate accessible audio formats, lowering the barrier to informed participation. Colorado's state legislature pioneered quadratic voting for budget prioritisation by allocating vote tokens to legislators to capture not just what they prefer but how strongly, producing more nuanced prioritisation across competing bills. A 2024 court ruling stopped this practice, saying that the anonymous system violated open meetings law serves as a precise reminder that democratic innovation in legislative processes must remain as accountable to transparency as the decisions it seeks to improve.

The cognitive gains are real as the technology advances faster than the democratic processes; however, the uses remain focused largely on efficiency rather than building meaningful engagement.

51 Siqueira, F. A., Vitório, D., Souza, E., Santos, J. A. P., Albuquerque, H. O., Dias, M. S., Silva, N. F. F., de Carvalho, A. C. P. L. F., Oliveira, A. L. I., & Bastos-Filho, C. (2025). Ulysses Tesemô: A new large corpus for Brazilian legal and governmental domain. *Language Resources and Evaluation*, 59(2), 1685–1704. <https://doi.org/10.1007/s10579-024-09762-8>

52 Reboot Democracy. "Brazil's Online Consultation System Is Reimagining Democracy for the Digital Age." Reboot Democracy, n.d. <https://rebootdemocracy.ai/blog/ai-lawmaking-brazil-senate-part-4>. Accessed May 2026.

53 UK Government. (2025). "Shake-Up of Tech and AI Usage Across NHS and Other Public Services to Deliver Plan for Change." Department for Science, Innovation and Technology, January 21, 2025. <https://www.gov.uk/government/news/shake-up-of-tech-and-ai-usage-across-nhs-and-other-public-services-to-deliver-plan-for-change>

54 French Government. Le Grand Débat National. Paris: French Government, 2019. <https://granddebat.fr>

55 ERR. (2026, January 14). Estonian prime minister recommends parliament use AI to check bills. ERR News. <https://news.err.ee/1609910593/estonian-prime-minister-recommends-parliament-use-ai-to-check-bills>

56 Floridi, L., & Ascani, A. (2025). Augmented democracy in action: AI systems for legislative innovation in the Italian Parliament. *Minds and Machines*, 35(4). <https://doi.org/10.1007/s11023-025-09743-y>

Parliamentary committee scrutiny

The detailed examination of proposed legislation, government spending and policy implementation by specialist parliamentary committees faces two challenges of both processing the volume and diversity of public input into usable intelligence and rapidly synthesising the existing evidence base that should inform decisions. Several countries are actively advancing their democratic processes while also drawing out the benefits of changing technology.

Taiwan's vTaiwan has gone further creating the technology platform Polis to facilitate deliberation, consolidating citizen perspectives into visualised clusters of consensus and disagreement with its intentional reply-free design preventing the polarisation that derails most online consultation.⁵⁷ The outputs feeding directly into cabinet-level decisions rather than simply informing debate.⁵⁸ A number of technologies are also being piloted including The City of Boston in the United States has demonstrated an important further application using AI to summarise two decades of city council votes, building the institutional memory that allows committees to reason from precedent rather than reinvent their deliberative baseline with each new intake of members.

Together these two cases point toward committees as genuine knowledge-integrating institutions capable of processing both the distributed intelligence of citizens and the accumulated intelligence of research into decisions that are better informed than any single expert or official could achieve alone.

Budget Setting and Resource Allocation

The direct involvement of citizens in allocating public spending represents one of democracy's oldest practices. In the United States, the State of Vermont continues the practice of annual town meetings, where community members gather each March to debate and vote on local budgets. This assembly form of democracy continues the face-to-face, binding, and relational approaches which are genuinely enabling of democracy. The challenge has always been scale, and with scale introduces compounding cognitive challenges.

By 2019, the Participatory Budgeting World Atlas recorded nearly 12,000 processes across 71 countries, yet we have little systematic understanding of how many use digital tools, how many generate genuine deliberation rather than symbolic consultation, or whether the cognitive infrastructure supporting relational processes has kept pace with their proliferation.⁵⁹ At the scale of participation goes from hundreds of people to millions, and from local budgets to national ones, three failures compound: the volume of proposals overwhelms human synthesis capacity; the complexity of trade-offs across competing budget domains exceeds what most citizens can reasonably navigate without support; and simple voting mechanisms lose the preference intensity needed to distinguish strong priorities from weak ones. Digital tools and AI are now beginning to address each of these failures.

Many innovations involve the public in spending decisions. Scotland's Parliament has piloted a Citizens Panel specifically for budget scrutiny by randomly selecting citizens to examine annual accounts and spending priorities alongside parliamentary committee members, demonstrating that the scrutiny function itself, not just the consultation that precedes it, can be opened to

57 Weyl, E. G., Tang, A., & the Plurality Community. (2024). Plurality: The future of collaborative technology and democracy. <https://plurality.net/>

58 Lewis, P., Fischer, A., Webb, A., Biddle, N., Cripps, S., Snow, T., & Mulgan, G. (2025). Civic infrastructure in the age of digital engagement (Discussion Paper 10). Australian Resilient Democracy Research and Data Network, Australian National University. <https://politicsir.cass.anu.edu.au/files/docs/2025/11/Resilient-Democracy---Discussion-Paper-10---Digital-Civic-Platforms---Lewis-et-al---For-web.pdf>

59 Dias, N., Enríquez, S., & Júlio, S. (2019). Participatory budgeting world atlas 2019. Epopeia Records & Oficina. https://www.cascais.pt/sites/default/files/anexos/gerais/new/participatory_budgeting_world_atlas_2019_1.pdf

distributed citizen intelligence.⁶⁰ Barcelona's Decidim uses AI-assisted allocation optimisation to translate citizen preferences into spending decisions more fairly than traditional voting, now adopted across hundreds of cities globally.⁶¹ Paris offers one of the world's largest per-capita participatory budgets with €100 million annually allocated, open to anyone aged seven and above, regardless of nationality to submit budget proposals with a proportion of the city's annual budget.⁶² The small city of Cascais, next to Lisbon, went even further by nesting participatory architecture for youth and school budgets feeding directly into the citywide process: student proposals competing on equal terms with adult proposals.⁶³

Participatory budgeting is proliferating in form and reach, extending across generations, scales and continents, but primarily working for local decisions, particularly around issues such as public spaces.

Continuous citizen input into policy

Beyond discrete decision points with defined consultation processes, a growing number of democracies are building always-on platforms for continuous citizen input into policy. This shifts from episodic engagement to permanent dialogue between governments and the people they serve, and shows growing use of digital platforms to ensure open access to participation and scale. Many schemes have been experimented with allowing the public to propose ideas, comment and amend.

Brazil's Brasil Participativo has demonstrated what this looks like at national scale by using a Decidim-based platform hosted by the federal government enabling 34,000 people to participate online and in 125 workshops, with 1.4 million citizens voting online to express their views on policy priorities across multiple ongoing processes in the 2024-27 Pluriannual Plan.⁶⁴ Brazil government has incorporated these inputs into the final document and continued policy participation as federal infrastructure. Similarly, France's always-on Agora platform maintains permanent dialogue between citizens and government, with questions prioritised through weekly voting and the most supported ones answered directly by ministers.⁶⁵ India's MyGov platform has engaged over 1.3 million users in contributing ideas on national projects across multiple policy domains,⁶⁶ while South Africa's Siyam'kela Project demonstrates that continuous input need not require digital access - combining SMS with online forums to reach citizens in areas with limited connectivity.

Together these platforms point toward a process of informing decision making that existing democratic institutional approaches with the capacity to listen continuously, learn from what is heard, and make the connection between citizen input and policy change visible and traceable.

60 OECD (2026), *The People and the Budget: Empowering Public Understanding of Public Finances*, OECD Publishing, Paris, <https://doi.org/10.1787/81674d37-en>.

61 Decidim. (2026, April 7). Case study: Participatory budget 2020–2023 in Barcelona. <https://decidim.org/blog/2026-04-07-case-study-participatory-budget-2020-2023-in-barcelona/>

62 Yeung, P. (2021, January 8). How Paris's participatory budget is reinvigorating democracy. *City Monitor*. <https://www.citymonitor.ai/analysis/how-paris-participatory-budget-is-reinvigorating-democracy/>

63 Marques, M., Luís, A. L., & Teixeira, N. (2024). Strengthening young citizen participation through participatory budgeting: The case of Cascais. In C. Montenegro, Á. Rocha, & J. M. Cueva Lovelle (Eds.), *Management, tourism and smart technologies: ICMITT 2023* (Lecture Notes in Networks and Systems, Vol. 773, pp. 174–182). Springer. https://doi.org/10.1007/978-3-031-44131-8_18

64 Secretaria-Geral da Presidência da República. (2023, August 30). Presidente Lula assina o PPA mais participativo da história [President Lula signs the most participatory multi-year plan in history]. Governo Federal do Brasil. <https://www.gov.br/secretariageral/pt-br/noticias/2023/agosto/presidente-lula-assina-o-ppa-mais-participativo-da-historia>

65 Gouvernement français. (n.d.). Agora: La plateforme de participation citoyenne de l'État [Agora: The state's citizen participation platform]. Retrieved August 1, 2026, from <https://www.agora.gouv.fr/> Accessed May 2026

66 MyGov. (n.d.). MyGov: A platform for citizen engagement towards good governance in India. Ministry of Electronics and Information Technology, Government of India. Retrieved August 1, 2026, from <https://www.mygov.in/> Accessed May 2026

INTERPRETATION AND ACCOUNTABILITY

The last few decades have brought a proliferation of new bodies to constrain power and these have played critical roles in resisting autocratic practices and protecting democratic rights. But constraint without the capacity to act creates its own democratic failure. Courts, regulatory bodies, anticorruption agencies and budget offices have historically been democracy's most resistant functions to innovate, and where the complexity of legal systems, the high stakes of accountability, and the opacity of bureaucratic processes compound one another, the result can be systems that are very good at preventing bad decisions but very slow at enabling good ones.

Regulatory Bodies

The agencies responsible for designing, delivering and enforcing rules across every sector of public life face a cognitive challenge of accumulation and effectiveness: regulations accreting over decades until the system becomes too complex for citizens, businesses, or even regulators themselves to navigate. AI is beginning to address this at scale, though the design choices reveal starkly different visions of what regulatory reform is for. Virginia's AI review of 335,000 regulatory requirements across 66 agencies, classifying each as mandatory, discretionary or unauthorised, this has demonstrated what machine-scale regulatory scrutiny makes possible;⁶⁷ Germany takes a more calibrated approach, using AI to estimate compliance costs for lower-stakes regulations while reserving manual human assessment for high-cost determinations, explicitly preserving human judgment.⁶⁸ Boston's Green Tape initiative has gone furthest in combining AI analysis with structured citizen deliberation so that communities most burdened by regulatory complexity can actively co-design simplifications rather than having efficiency imposed on them, and embedding the principle that regulatory reform must remain as accountable to democratic values as the rules it seeks to improve.⁶⁹

Courts

Courts play decisive roles in many countries, constraining executive action. The US Supreme Court recently ruled on the President's tariff policy. Germany's constitutional court ruled on the government's climate policies. Weakening independent judiciaries is a first priority for autocrats.

But the courts also matter for everyday democracy, particularly if severe backlogs make it hard for people to find justice. Argentina's Prometea, developed in 2017 by Buenos Aires' Public Prosecutor's Office, addresses this directly by reducing the time to process 1,000 housing rights rulings from 174 days to 45, and predicting court outcomes with 96% accuracy, with the Inter-American Court of Human Rights subsequently adopting the system.⁷⁰ The Basque Country has approached the constraint function from a different angle: its 2026 Transparency Law embeds traceability directly into public decision-making,⁷¹ requiring that contributions are recorded and addressed, processes remain verifiable, and decisions leave a visible trail, therefore shifting transparency from a passive right to access information toward an active architecture of accountability that strengthens the relational trust between citizens and institutions that democratic legitimacy depends on.

67 Gambrell, D. (2026, April 28). Rethinking regulation: How Virginia used AI to streamline its regulatory code. RebootDemocracy.AI. <https://rebootdemocracy.ai/blog/ai-regulation-case-study-virginia>

68 OECD (2025), "Governing with Artificial Intelligence: The State of Play and Way Forward in Core Government Functions", OECD Public Governance Committee, September 2025 https://www.oecd.org/en/publications/governing-with-artificial-intelligence_795de142-en/full-report/ai-in-regulatory-design-and-delivery_128691e6.html

69 Noveck, B.S. (2025), "From Red Tape to Green Tape: Decluttering the State with AI and Collective Intelligence", Reboot Democracy. <https://rebootdemocracy.ai/blog/green-tape>

70 Cerda, L. (2024, November 12). Prometea: Revolutionizing judicial efficiency in Argentina through artificial intelligence-powered legal solutions. Inter-American Law Review. <https://inter-american-law-review.law.miami.edu/prometea-revolutionizing-judicial-efficiency-in-argentina-through-artificial-intelligence-powered-legal-solutions/>

71 Governing with Others: The Basque Country Turns Collaboration into Rule of Law

Nature and future generations

Democracy's constraint functions have historically spoken only for the present and the interests of those alive and able to vote today. Two innovations are beginning to extend democratic accountability across time and beyond the human.

The first is accountability to future generations. Wales's Well-being of Future Generations Act, now a decade old, was the first legislation in the world to make sustainable development the central organising principle of government, requiring all public bodies to consider the long-term impact of their decisions on people not yet born.⁷² Its independent Future Generations Commissioner, appointed by cross-party consensus was given powers to conduct formal reviews, intervene in planning decisions, and compel public bodies to respond to recommendations. This has produced concrete accountability outcomes: the Welsh Government scrapped its plan to build a motorway extension around Newport on future generations grounds in part due to the Commission's recommendations and adopted a new purpose-driven curriculum developing ethically informed citizens with climate and eco-literacy.

The second is New Zealand, Ecuador and an expanding number of jurisdictions who have taken a parallel step, granting legal personhood to rivers, forests and ecosystems. This is extending democratic accountability constraints not just across time but beyond the human entirely, recognising that democratic systems which account only for present human interests systematically underweight the conditions on which all future life depends.

THE IMPLEMENTATION FUNCTIONS

Current representative democracy assumes that the public authorises the policies promised in manifestos and programmes, and then simply observes as they are put into practice. But implementation always involves change, surprise and new choices. So, some innovations have tried to involve citizens more directly in processes of implementation, particularly groups like parents or patients; using real time scoreboards to share results and new issues; rights to challenge or pause policies; or tapping into collective intelligence to turn broad promises into actions with more likelihood of success. These are all part of the broader goal of shifting democratic governance towards more active and continuous learning.

Civil Service Reform

Civil servants, social security administrators, public health workers are mandated to deliver the decisions from the previous functions and are expected to deliver increasingly complex services with tools and systems that have changed little in decades.

AI is beginning to address this directly, though with important caveats about where human judgment must be preserved. The UK's Humphrey suite which is deployed across Whitehall, the NHS and the Department for Work and Pensions equips civil servants with AI tools for document summarisation, consultation analysis, and meeting transcription, promising improvements in productivity while freeing staff to focus on judgment-intensive work rather than administrative processing. Across Europe, Catalonia, Germany and Finland have deployed AI in social security administration to support eligibility checks, categorise unstructured data, and automate document processing, trying to learn from the many scandals and missteps already seen in uses of AI for fraud detection and welfare provision (for example in the Netherlands).

The critical design principle emerging from these examples is that AI must complement rather than replace human contact in public services: where transparency and consent are absent,

⁷² Haydn Davies, The Well-being of Future Generations (Wales) Act 2015—A Step Change in the Legal Protection of the Interests of Future Generations?, *Journal of Environmental Law*, Volume 29, Issue 1, March 2017, Pages 165–175, <https://doi.org/10.1093/jel/eqx003>

efficiency gains in delivery can simultaneously damage the relational trust between citizens and institutions that democratic legitimacy depends on in social protection systems.

Public Procurement

The process through which democratic spending decisions become real-world contracts, goods and services has historically been one of democracy's most opaque implementation functions, vulnerable to corruption, capture by incumbent suppliers, and compliance failures that are invisible until they become scandals.

AI is transforming this accountability function across two distinct problems. Israel's AI-based Good Standing system addresses compliance verification: its automated process for issuing approvals to over 23,000 non-profit organisations annually reduced average response times from 45 days to one hour, while flagging suspicious signs of corruption or improper management. The GovAI Coalition, founded in 2023 by the City of San José and now expanded across local, state and federal agencies in the United States, addresses the governance infrastructure problem: governments lack the knowledge and contractual frameworks to procure AI responsibly, so the Coalition has built shared procurement templates, knowledge-sharing tools and an AI Contract Hub, a collective intelligence solution to what would otherwise be a collective action failure, with every agency reinventing its own AI governance from scratch.

Living systematic reviews, including the Australian Living Evidence Consortium during the COVID-19 pandemic, replaced the traditional model of static evidence synthesis with continuously updated reviews that incorporate new trial evidence as it emerges, enabling policymakers to track the state of knowledge in real time rather than waiting years for an updated guideline.⁷³ Together these approaches point toward an implementation layer that learns continuously rather than episodically

KNOWLEDGE AND EXPERTISE INPUTS

There are many routes for knowledge to influence democratic decision-making: through the media, universities, science advisory mechanisms, expert commissions and many more, including parliamentary teams. Universities, statistical offices, archives, independent media form democracy's memory and synthesis layer, providing the base resources. In many ways this is a golden age of knowledge to guide democracy with vastly more evidence being created, synthesised and shared than ever before, often by specialist institutions; much more data to guide decisions, on everything from air quality to social mobility; and ever more sophisticated AI tools that can help quickly to assemble global collective intelligence in relation to topics.

A persistent cognitive challenge, however, is not one of production but access to existing knowledge: vast stores of information exist but remain functionally inaccessible to citizens and decision-makers who need them, locked behind complexity, fragmentation, and interfaces designed for specialists rather than democratic use, and often the supply of evidence is insufficiently guided by knowledge of demand and use, particularly by busy decision-makers whether in governments or the frontline of public services.

Implementation learning and listening to what works

Democracy's implementation layer has several cognitive challenges for its learning systems, specifically governments deliver services today while commissioned evaluations deliver insights years after the services. By the time findings are available, conditions have changed, ministers

73 Elliott, J. H., Lawrence, R., Minx, J. C., Oladapo, O. T., Ravaud, P., Tendal Jeppesen, B., Thomas, J., Turner, T., Vandvik, P. O., & Grimshaw, J. M. (2021). Decision makers need constantly updated evidence synthesis. *Nature*, 600, 383–385. <https://doi.org/10.1038/d41586-021-03690-1>

have moved, and learning is filed rather than acted upon. The feedback loops that would allow democratic systems to learn what works, for whom, and at what pace, are structurally absent from most public service delivery.

New living evidence systems and adaptive learning approaches, including Bayesian Adaptive Trials and Living Evidence Reviews, offer a fundamentally different approach. Rather than evaluating at the end and hoping for the best, they embed continuous learning directly into implementation, updating beliefs about what works as new evidence emerges, adjusting interventions in real time, and systematically surfacing what matters most to the communities being served.⁷⁴ Applied researchers in Australia have partnered with the NSW Department of Education to test these approaches across education and social policy, the approach shifts evaluation from a once-off audit to a continuous, embedded part of how policies are prioritised, designed and delivered.⁷⁵ UNESCO's broader adaptive implementation framework, now being adopted across education systems globally, confirms the same principle at international scale: embedding feedback and evidence into every stage of the policy cycle produces better outcomes and greater equity than top-down linear implementation models ever could.

Data and Document Archives

The IMF's StatGPT initiative illustrates both the promise and the necessary design discipline.⁷⁶ Despite decades of investment in open data, official statistics remain difficult to discover, interpret and apply the challenge is no longer availability but usability. StatGPT addresses this by using AI as an interface layer rather than a knowledge producer: interpreting user intent and translating it into structured queries against authoritative sources, rather than generating plausible-sounding answers that may be subtly wrong. The distinction matters enormously as general-purpose AI models frequently produce results that are statistically plausible but factually incorrect, undermining the trust in official data on which democratic deliberation depends.

The European Parliament has applied the same principle to institutional memory, deploying generative AI to allow citizens to query its full historical archive in natural language by converting decades of public records from specialist repositories into publicly navigable knowledge.⁷⁷

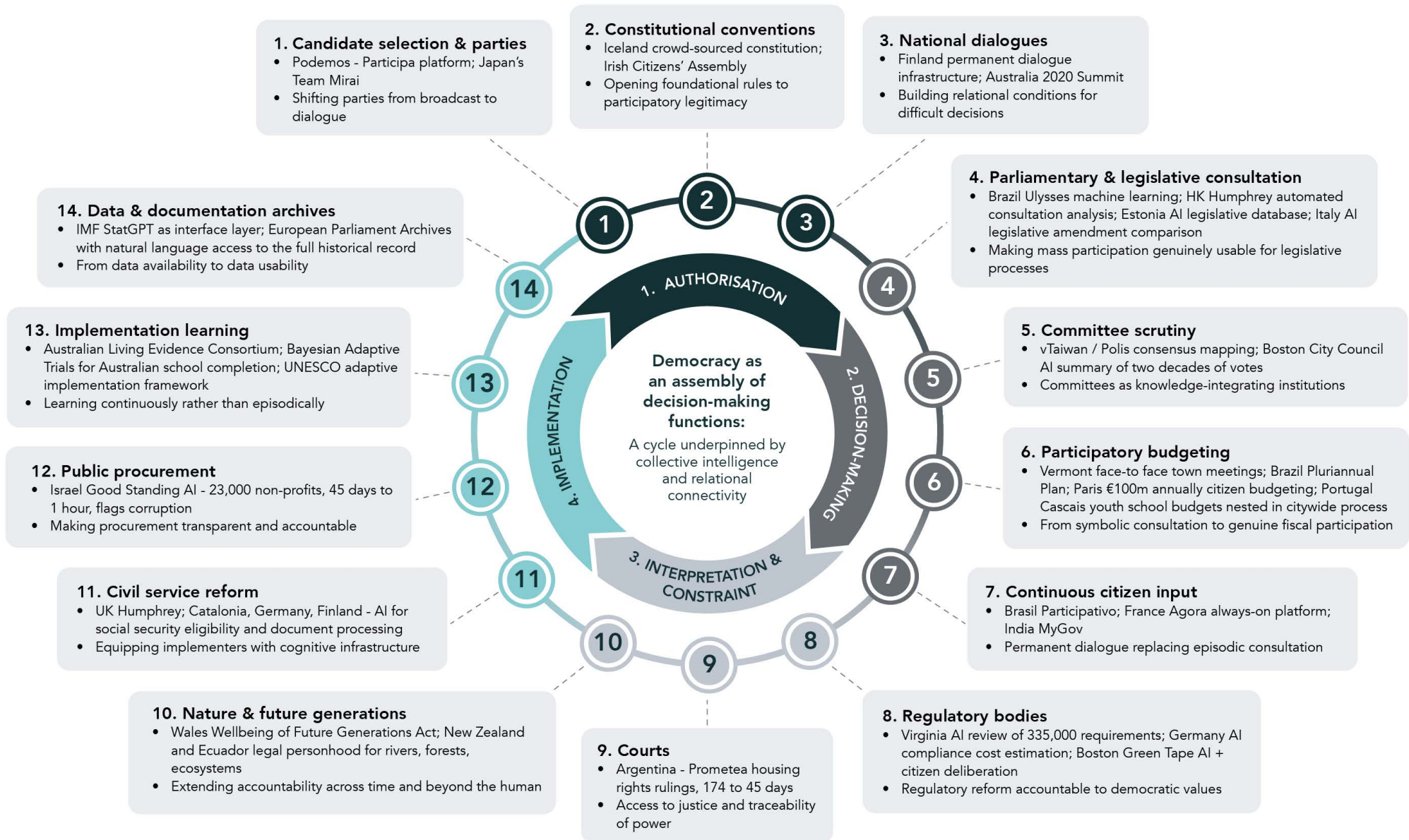
74 Cripps, S., Gales, B., & Lopatnikova, A. (2025, July 10). Learning while doing: How Bayesian adaptive learning could transform social policy. The Policymaker. <https://thepolicymaker.appi.org.au/learning-while-doing-how-bayesian-adaptive-learning-could-transform-social-policy/>

75 Cripps, S., Lopatnikova, A., Afshar, H.M., Gales, B., Marchant, R., Francis, G., Moreira, C. and Fischer, A. (2025). "Bayesian Adaptive Trials for Social Policy." Data & Policy 7, e27. <https://doi.org/10.1017/dap.2024.97>

76 Tebrake, J., Boukherouaa, E. B., Danforth, J., & Harikrishnan, N. (2026). StatGPT: AI for official statistics (Departmental Paper No. 2026/004). International Monetary Fund. <https://doi.org/10.5089/9798229036863.087>

77 Organisation for Economic Co-operation and Development. (2025). Governing with artificial intelligence: The state of play and way forward in core government functions (Box 5.35, "AI-powered search and transcription of the European Parliament archives"). OECD Publishing. <https://doi.org/10.1787/795de142-en>

FIGURE 4
DEMOCRACY, ITS FUNCTIONS AND METHODS



3. POLITICAL LEADERSHIP

Some believe in a future of democracy without politicians: that the very idea of a professional politician is unhealthy and bound to create a vested interest that stands against the public. And so, they favour innovations that displace or bypass elected representatives through sortition, citizens assemblies and so on.

We take a different view. We believe there remains a vital, and quite specialised role, for orchestrating programmes and seeing them through, though we also want to see politicians complemented by many other methods to shape decisions. There are distinct skills needed to orchestrate opinion, form programmes and reach decisions, and some recent exercises without politicians (such as Chile's failed attempt to write a new constitution) reveal why politicians and parties remain important to democracy.⁷⁸

Politicians at their best speak into existence a public who can act in their own interest, as John Dewey put it. They devote time to thinking about how to synthesise multiple goals and options. They can provide a counterweight to experts, reflecting citizen common sense. And they can lead national conversations that profoundly change peoples' minds, helping them to confront difficult issues.

Unfortunately, there are several problems now with selection, skills and support. Often the wrong people are attracted to becoming politicians, partly because of the abuse and threats of violence they now face (particularly women), partly because of the limitations of party selection processes. Few politicians receive adequate training to do their job well. Non-democratic China takes this issue far more seriously than the democracies which generally assume they will learn on the job. And, once in their roles the rewards for politicians may only loosely correlate with their competence in using power. Many have learned that delivering on their promises, and implementing policies effectively, may not be rewarded at elections. Mood, vibes and perceptions may be more important than facts.

⁷⁸ Landemore, H  l  ne. *Politics Without Politicians: The Case for Citizen Rule*. New York: Penguin Random House, 2026.

Even worse, in the contemporary context of populist hyper-politics, there is a striking pattern of leaders being rewarded not for their achievements but for their ability to elicit conflict. Many more deliberating solicit being blamed or attacked because they realise that if the attackers can be portrayed as the establishment this may be sufficient to prove their authenticity. The quality of their achievements and the coherence of their plans count for less than who their enemies are if enough of the public believe that their enemies' enemy is their friend.

In short, political leadership is another part of the democratic assembly that needs rethinking and reform:

- More rigorous scrutiny of politicians plans and proposals (this already happens to some extent in relation to economic policy but relatively little for other fields)
- Easier routes for people of all backgrounds to become politicians
- Better protecting politicians from hate speech, threats and violence with severe penalties
- Public funding for academies to properly train politicians before they take office and once in office
- Laws to reinforce truth telling in politics, building on the action of the Wales Senedd in 2026

4. TECHNOLOGY & AI AS COGNITIVE INFRASTRUCTURE

Many of the examples described above use technology. Democracy has always depended on the technologies of its time – printing and newspapers, telegraph and telephones, radio and television. As indicated earlier one of the oddities of recent years is that the core functions of democracy have been relatively unchanged by successive generations of digital technology (from the Internet to smart phones and AI) while the surrounding ecosystem of political campaigns, media commentary has been dramatically changed, not always for the better.

Understanding these options and how they could work is vital for rebuilding democracy, and should be one of the priorities for AI research and development, though so far it has received only a minuscule fraction of the funding provided for new models of advertising or entertainment. Here we sketch some of the possibilities.

USING AI TO HELP DEMOCRATIC PARTICIPATION

Many see AI as the enemy of reflective thought and even as a threat to any institutions: as one recent paper argued they ‘delegitimize knowledge, inhibit cognitive development, short-circuit decision-making processes, and isolate humans by displacing or degrading human connection.’ But this is much too simplistic a position. There are many examples of AI contributing to worse thinking and ‘cognitive surrender’, but also many examples of AI helping groups to think and learn more effectively, and in the right circumstances it’s already clear that AI tools can help groups to think and deliberate, and at multiple scales. Many tools are being used in this way including: Socrasynth, Habermas Machine, Poli.s, Mindhive, Crowdsmart, SwarmAI, as well as many uses of chatbots to interview the public to gather views.⁷⁹

They usually cluster contributions into a manageable number of themes (rarely more than seven); they eliminate repetition and emphasise only new ideas and arguments; and they signal to the group how its own perspectives are evolving, and where potential consensus might lie.

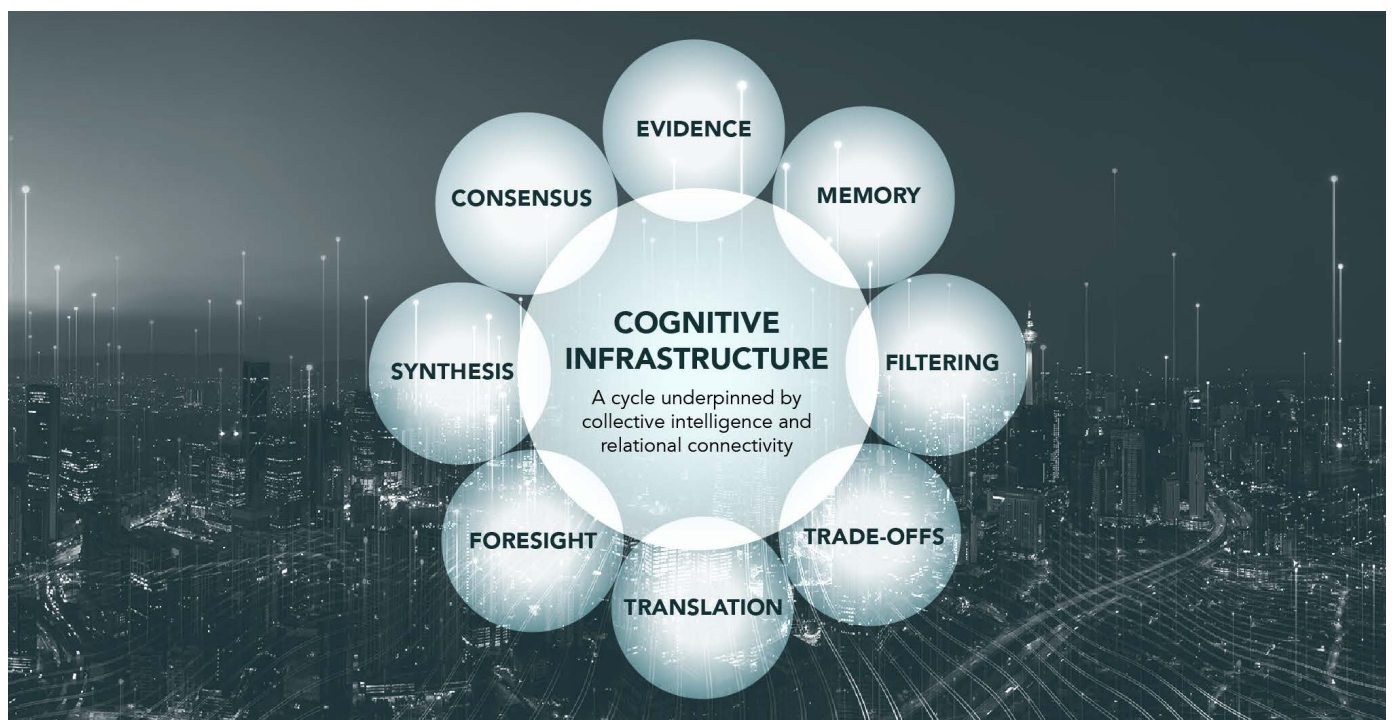
⁷⁹ For example, in Bowling Green, Kentucky

They sit alongside other Large Language Models (LLMs) which can help orchestrate access to evidence, meta-reviews, emerging innovations, and the next generation of these will make available knowledge more continuous and living, using knowledge graphs and other tools to enable understanding of landscapes of options.

Recent work by the Collective Intelligence Project shows that the public tend to be quite happy to engage with AI in democratic processes⁸⁰ and AI in its various forms can help any group – whether a committee, parliament or community – to think in many dimensions:

- **Evidence:** helping to access to the state of global collective knowledge around an issue. What's been tried, what's worked where, when and how, what are promising new ideas?
- **Foresight:** AI tools can help to sketch out the likely contexts for decisions, the key trends, scenarios and possibilities (fiscal, demographic, environmental).
- **Memory:** AI can help to organise the collective memory of the group itself (or the city and nation): what are relevant precedents, past decisions, or evidence that could be relevant.
- **Trade-offs:** Once ideas are being generated, AI tools can highlight trade-offs or possible unintended consequences, for example addressing potential costs.
- **Filtering:** existing AI tools are good at removing hate speech, or outlier points of view
- **Translating:** they can also help to translate – stories, languages, formulations that make sense for one group can be baffling for another even if the underlying concepts are similar.
- **Synthesising:** they can then synthesise large scale inputs into manageable elements, or potential actions and decisions
- **Consensus:** finally, AI tools can show where there is consensus, where there is potential consensus on ends but disagreement on means, and where profound differences are unlikely to disappear.

FIGURE 5
COGNITIVE INFRASTRUCTURE



80 See: <https://blog.cip.org/p/2025gdindex> for surprising data on public trust in chatbots and AI for decision-making. For the CIP's broader roadmap proposals, see: https://static1.squarespace.com/static/631d02b2dfa9482a32db47ec/t/65f9a1296f1a357e918f7a58/1722968408230/CIP_+A+Roadmap+to+Democratic+AI.pdf

What follows are often looping processes. Small groups can deliberate and synthesise their views which are then shared at larger scales, ideally including some of the outlying ideas, before returning to smaller groups for another cycle. Some will use simple voting methods, other options such as quadratic voting, or use of tokens, or use of proxies.

In these various ways AI can help to improve the cognitive infrastructure needed for groups to deliberate, though as with any kind of institutional design, the detail, and learning from experience is vital.⁸¹

GROUPS, COMMITTEES AND CABINETS

The methods described above have obvious relevance to the work of committees, councils, parliaments and cabinets which play such vital roles in democracy. Globally there are many traditions of councils and assemblies whose job was to judge, thoughtfully and sometimes slowly: like the Maori *kaumātua*, Gadaa in Ethiopia, Igbo in Nigeria, Jirga in Afghanistan, the Majlis in Arab tradition and the many Panchayats in India. Some are small with high trust and intimacy, for rapid decision-making, like the original panchayats (from the Hindi *panch* meaning five). Lenin's Politburo had seven members as does China's Politburo Standing Committee today. These are effective for quick decisions but risk being dominated by one or two individuals, and they are not so good for legitimating the decisions that are taken.

Others are larger with 5-15 members (like juries or Cabinets), which allows for more balanced deliberation and representation of different interests, though if their scale rises much over about twelve it's harder for everyone to speak or to fully understand why others say what they're saying. There are then many larger forms, like the councils of 30-50 members used to handle confederations of multi-clan systems like Iceland's Althing (perhaps the world's oldest parliament that's still in existence), or even larger ones like parliaments of many hundreds which require very formalised procedures, and are better at ratifying than reasoning, usually break into parties or factions and require smaller committees to do much of the work.

The design of these groups is strongly shaped by cognitive limits as well as social dynamics. Since our short-term memory is limited, it's very hard to follow the views of more than seven or so people; our attention deteriorates quickly. The larger the group the less we can rely on our own judgements of people and the more we rely on status, reputation or seniority which can be misleading. So, all of the tools described above for organising memory, deliberation, consensus can greatly improve the functioning of all of these groups, with big implications for everything from the physical design of parliaments and cabinet rooms to the materials they use to shape their inputs. Our guess is that in the near future it will be almost inconceivable for any group to discuss a serious topic without at least some help from AI.

CONNECTING THE CITIZEN TO THE STATE

These methods may also help to address an obvious cognitive flaw in modern democracies. In more traditional societies there was a nesting of governance, from the household to the village to the tribe or confederation. In modern societies these intermediate steps are eliminated, and the individual is required to make complex abstract judgements at a scale that is usually far beyond their comprehension.

Who is really well-placed to take a view on the virtues of tariffs, corporate taxes, the design of pensions or pathways to cut carbon? Even experts struggle. The result is that many societies risk being structurally incompetent because their systems of cognition are so obviously misaligned with the nature of their tasks.

⁸¹ There is a rapidly growing literature on how AI tools can assist democracy, and also about some of its risks, eg what Schroeder et al. call "synthetic consensus cascades," in which AI-generated content creates the illusion of widespread agreement and suppresses dissenting perspectives Daniel Thilo Schroeder et al. "How Malicious AI Swarms Can Threaten Democracy". In: arXiv preprint arXiv:2506.06299 (2025).

There are many possible answers. Some have argued for “10% less democracy”,⁸² restricting voting rights based on knowledge requirements,⁸³ the replacement of voting with simulated popular preferences augmented with experts’ beliefs,⁸⁴ or rebalancing institutions so that expertise is given greater weight in the division of deliberative labour.⁸⁵

But these are all problematic and likely to be resisted as disenfranchising some groups to the benefit of others. Other options raise up public skills. One example is the idea of each individual having a series of AI coaches to help them make decisions, perhaps one to represent their immediate material interests, one the interests of their children, another their community and perhaps another the planet. These could advise on competing political programmes and issues, offering a multi-perspectival view of the world, but one that is also very much framed around the individual’s values and interests.

It’s also vital to strengthen the muscles of engagement. Hyperlocal neighbourhood governance can be both good in itself and good for cultivating the habits of agency, dialogue and compromise, and so are participatory budgeting schemes that involve everyone (including schoolchildren) in making decisions about money.

Another option that is possible longer term is the requirement to occasionally sit on juries (perhaps of 100 or 200) dealing with contentious issues at the level of the town or city or the whole nation. This would have the advantage of helping citizens to periodically become relatively expert on some issues and get a feel for the difficulties of the world. This would make people less likely to see politics through simplistic frames, just as juries in criminal justice serve a dual purpose of determining guilt and public education, simultaneously renewing the relational foundations of democracy and improving its cognitive functioning.

82 Jones, G. (2020). 10% less democracy: Why you should trust elites a little more and the masses a little less. Stanford University Press.

83 Jason Brennan, *Against Democracy*, Princeton University Press, 2016

84 Brennan, J. (2016). *Against democracy*. Princeton University Press. <https://doi.org/10.1515/9781400882939>

85 Moore, A. J. (2017). *Critical Elitism: Deliberation, Democracy, and the Problem of Expertise*. Cambridge University Press. <https://doi.org/10.1017/9781108159906>

CONCLUSION

DEMOCRATIC RENEWAL, ROADMAPS AND EVOLUTION

The central idea of democracy – rule by the people – has repeatedly changed its meaning over more than 2000 years. The designs that made sense in the 19th century – periodic elections, representative parliaments, mass parties- have served the world well. But they are no longer sufficient. This paper has argued for:

First, a shift from diagnosis to design. While it's right to analyse the problems, too much of a focus on failure is debilitating. What's needed are options that can be tested, to deep understanding of what works. Democracy needs fewer autopsies and more experiments and plans.

Second, we need a shared mental model of how democracy works. The assembly framework set out in this paper is not merely descriptive. It aims to provide an alternative both to rigid defence of the status quo and to excessive faith in singular solutions, showing how reforms to participatory budgeting, AI deliberation tools, civil service reform, and regulatory transparency can complement each other.

Third, we've advocated a transition from monitory to cognitive, relational and action-focused democracy. The monitory phase gave democracy better mechanisms for watching power. The next phase must give it better mechanisms for using power wisely, informed by richer collective intelligence, sustained by stronger relational foundations, and oriented toward solving the shared problems that citizens increasingly feel their institutions are incapable of addressing.

Fourth, relational health and satisfaction are core democratic outcomes, not soft add-ons. We measure GDP, voter turnout and institutional trust, but we lack good ways to assess whether democratic participation is building or eroding the relational connections between citizens and institutions. This is in effect the 'dark matter' of democracy right now: clearly essential to understanding the patterns, but inadequately theorised and measured.

Fifth, we advocate deliberate design of AI and digital environments for democratic and civic purposes. Platforms are already reshaping how citizens relate to each other and to institutions. AI is already informing decisions, filtering information, and shaping the conditions of democratic participation. But only a minuscule fraction of the public funding now going to AI is supporting R&D in democracy.

Sixth, we need roadmaps. Much of the world has developed long-term plans to achieve the transition to net zero, with complex options for transport, energy and buildings. We need comparable roadmaps and pathways for the reinvention of democracy, connecting vigorous innovation with careful adoption (as on the following page). These need to encompass the full range from tools for neighbourhoods to deliberate on planning decisions to national conversations about issues like end of life, from enhancing how parliaments debate to enabling citizens to propose new policies. These need to be as diverse as the tasks that democracy has to handle.

Democracy is a work in progress not a finished achievement. It's a living thing not a monument. Anyone who cares about it should also care about its renewal and feel a shared duty to pass on something better to the next generation in the spirit of the Canadian poet Dennis Lee, whose poem is quoted on the walls of the Scottish Parliament, and urges us to live as if in the early days of a better civilisation.

AUTHORS' ACKNOWLEDGEMENTS

The Institutional Architecture Lab was formed in 2023 by Sir Geoff Mulgan, Jessica Seddon, and Juha Leppänen in an effort to help the institutional design community coalesce, learn together, and grow. Each of us has been involved in various stages of creating new organizations and other institutions. Like many other people, we have witnessed first-hand the absence of a formal community along the way — or a place where we can learn from past experience. We are aware that there is a lot of great work happening around the world, but nowhere to recognize it.

The **Australian Resilient Democracy Network** was established in 2024 as a collaboration between Australian researchers, civil society leaders and government agencies. The network is designed to encourage interdisciplinary, collaborative and applied research seeking policy-relevant insights that measure, diagnose and assess pathways strengthening Australia's democratic resilience. The network is dedicated to sharing the analysis publicly and to encourage the use of these ideas to prompt future research collaborations and actionable policy.

This paper grew from discussions and workshops held during Geoff Mulgan's appointment as the 2025 ARDN⁸⁶ International Fellow, supported by the Australian National University's School of Politics and International Relations, the Australian Government's Office for Social Cohesion, and the Human Technology Institute at the University of Technology Sydney.

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Sir Geoff Mulgan and Dr Alex Fischer

APPENDIX

THE CONNECTED PARTS OF A DEMOCRACY - AND EXAMPLES

FUNCTION	SUB-AREA	KEY EXAMPLES
Authorisation	Candidate selection & parties	Spain's Podemos (Participa platform, 500,000 members, crowdsourced manifesto); Japan's Team Mirai (AI Interviewer, 38,000 questions, open-source Mirumei funding transparency, Gikai bill-tracking adopted by LDP) Shifting parties from broadcast to dialogue
	Constitutional conventions	Iceland (crowdsourced constitution, 950-citizen forum, 10% of text from public submissions); Ireland (Citizens' Assembly on abortion, 13,000 submissions, 66% referendum endorsement); Scotland (2019–21 Assembly); Chile (gender parity, indigenous seats, 78 popular initiatives - rejected 62%) Opening foundational rules to participatory legitimacy
	National dialogues	Finland (permanent dialogue infrastructure, online aggregation platform); Wales "Wales We Want" (150 Futures Champions, informed Well-being of Future Generations Act); France Convention Citoyenne (150 citizens, public streaming, COVID online sessions); Australia 2020 Summit (1,000 representatives, 8,800 community participants); Singapore Forward SG Building relational conditions for difficult decisions
Decision-making	Parliamentary & legislative consultation	Brazil Ulysses (machine learning across 159 sources, 30 million public votes); UK Humphrey (automated consultation analysis); France Grand Débat National (500,000 contributions, AI clustering); Estonia (AI legislative database, natural language queries, Apsakaleidja civic bill-checker); Italy (AI amendment comparison); Finland (AI document summarisation) Making mass participation genuinely usable

FUNCTION	SUB-AREA	KEY EXAMPLES
Decision-making	Committee scrutiny	Taiwan vTaiwan/Polis (consensus mapping, reply-free design, feeds cabinet decisions); Scotland Citizens Panel (budget scrutiny with randomly selected citizens); GovLab Policy Synth (automated legislative web research); Boston city council (AI summary of two decades of votes) Committees as knowledge-integrating institutions
	Participatory budgeting	Vermont town meetings (face-to-face, binding, centuries old); Brazil Pluriannual Plan (1.5 million citizens, Decidim, 76% of proposals incorporated); Barcelona Decidim (AI allocation optimisation, 64,000 participants, adopted globally); Paris (€100m annually, open age 7+); Cascais (youth school budgets nested in citywide process); Colorado quadratic voting (2024 court ruling on transparency) From symbolic consultation to genuine fiscal influence
	Continuous citizen input	Brazil Brasil Participativo (Decidim platform, 1.4 million voters, ongoing policy participation); France Agora (always-on platform, weekly prioritised questions to ministers); India MyGov (1.3 million users, national projects); South Africa Siyam'kela (SMS + online, limited connectivity areas) Permanent dialogue replacing episodic consultation
Interpretation & constraint	Regulatory bodies	Virginia (AI review of 335,000 requirements, mandatory/discretionary classification); Germany (AI compliance cost estimation, human review preserved for high stakes); Boston Green Tape (AI + citizen deliberation, communities co-design simplifications) Regulatory reform accountable to democratic values
	Courts	Argentina Prometea (housing rights rulings 174 to 45 days, 96% accuracy, adopted by Inter-American Court); Basque Country Transparency Law 2026 (contributions recorded, processes verifiable, decisions traceable) Access to justice and traceability of power
	Nature & future generations	Wales Well-being of Future Generations Act (decade old, motorway scrapped, purpose-driven curriculum, Commissioner with review powers); New Zealand, Ecuador, others (legal personhood for rivers, forests, ecosystems) Extending accountability across time and beyond the human

FUNCTION	SUB-AREA	KEY EXAMPLES
Implementation	Civil service reform	UK Humphrey suite (Whitehall, NHS, DWP - summarisation, consultation analysis, transcription, £45bn productivity target); Catalonia, Germany, Finland (AI for social security eligibility, document processing) Equipping implementers with cognitive infrastructure
	Public procurement	Israel Good Standing AI (23,000 non-profits, 45 days to 1 hour, flags corruption); GovAI Coalition (San José, expanded US-wide, AI Contract Hub launched February 2025) Making procurement transparent and accountable
Implementation	Implementation learning	Australian Living Evidence Consortium (living systematic reviews, COVID-19 guidelines updated in real time); Bayesian Adaptive Trials - NSW Australia (school completion, belonging at 12–13 stronger predictor than attendance, continuous policy adjustment); UNESCO adaptive implementation framework (global education systems) Learning continuously rather than episodically
	Data & document archives	IMF StatGPT (AI as interface layer not knowledge producer, structured queries against authoritative sources); European Parliament Archives (natural language access to full historical record); Greece DidaktorikaAI (50,000 academic publications accessible to policymakers) From data availability to data usability

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Demos – Licence to Publish

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