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Foreword

Peter Fritz AO

The Doctrine of Uncontested Territory: Transitioning towards an AI-enabled future

It is my great pleasure to introduce this double issue of the *Journal of Behavioural Economics and Social Systems (BESS®)* – our most substantial yet, and the last to be published under this title before its transition to Emerald Publishing and rebranding as *Global Challenges and Responsible Solutions (GCRS)* in 2026.

As usual, this edition explores a broad range of topics and grapples with some of the thorniest challenges of our time. Chief among them is how we adapt to the rapid rise of artificial intelligence, which may soon reshape economies, organisations and societies at a pace not seen since the dawn of the computer age. The question is not whether this technology will reconfigure how we learn, work and make decisions, but how we choose to manage this process.

While the concept of AI has captured the global imagination, implementing it for specific tasks and processes may prove more difficult, as studies

suggest that up to 85% of major technology projects fail to achieve their original goals. These failures are rarely due to the technology itself, but stem from the difficulty of blending entrenched behaviours and organisational culture with new systems. People resist abrupt change to long-standing workflows, and so trying to transform an existing system with disruptive technology is like trying to install a modern engine into a horse-drawn carriage while it clatters along the road.

Innovative technologies demand equally bold deployment strategies, and this is where the **transitional approach** comes in. Instead of attempting to retrofit long-established systems with AI, a transitional approach would construct new, AI-enabled units alongside existing operations, complementing rather than immediately replacing them. These new systems would be designed specifically for AI and could be tested in controlled settings before being integrated into the mainstream. A transitional strategy allows organisations to maintain their core operations and reduce the risk of project failure while allowing innovative solutions to gain employee support and client trust by proving their worth.

We call this philosophy '**the Doctrine of Uncontested Territory**'. Rather than threatening established processes, AI should be used to create new spaces where it can operate without direct conflict. Transformation often focuses on adapting current systems; transition is outward-looking and forward-focused, viewing change as a journey rather than a series of threats to the status quo. By building AI-enabled systems in parallel, organisations can maintain essential functions while exploring new possibilities, learning iteratively and adjusting as they progress.

Alongside the challenge of creating new, uncontested spaces for AI-enabled innovation lies a quieter constraint that shapes whether transition succeeds or stalls: the capacity of organisations to carry decisions through to execution. This volume introduces **decision sovereignty** – a missing transmission variable in how decisions become action – explaining why well-designed strategies and technological investments so often fail to translate into sustained outcomes. As analytical and predictive capabilities expand, the real constraint increasingly lies not in the quality of insight, but in the authority and organisational capacity required to act decisively in contested environments.

True innovation rarely springs from the old systems it inevitably replaces. Just as cars and electrification required new infrastructure and fresh ways of thinking, creating unprecedented opportunities in the early 20th century, so too will AI reach its potential if it is unencumbered by the weight of outdated frameworks. By creating new and therefore uncontested spaces for AI through parallel divisions, pilot projects and new enterprises, organisations can avoid direct conflict with entrenched systems and disrupt themselves before others disrupt them.

This approach reduces resistance by leaving existing systems intact, allowing novel approaches to develop without provoking defensive pushback. It offers greater coherence between operations and technology, as new systems can be designed from scratch to align with AI's strengths. Scalability is improved, as these systems can expand more easily when freed from legacy restraints. Most importantly, new entities have clarity of purpose, as they can focus on future opportunities without being burdened by old habits and assumptions.

Of course, innovation never happens in a vacuum. Even when built in 'uncontested territory,' new systems can provoke disquiet, whether from employees fearing for their jobs, regulators worried about financial risks, or communities concerned about social impacts. A responsible

transition will therefore require empathy, foresight and social licence to succeed. We must map the ripple effects of systemic change, provide training and bridges for those tied to legacy systems, and acknowledge that innovation reshapes not only organisational structures but also personal identities and human relationships.

The goal of the Doctrine of Uncontested Territory is not disruption for its own sake. It is about creating sustainable value, boosting productivity and addressing economic challenges for the betterment of every citizen. The basic functions of organisations – delivering services, moving goods and meeting human needs – will remain unchanged. What will change are the tools and methods used to attain these goals. AI will allow us to achieve more with fewer resources, and in doing so, redefine what is possible for us all.

Today's leaders, policymakers and innovators face a choice, but it is not strictly binary. While organisations can cling to legacy systems at the risk of falling behind, they can also adopt structured, transitional approaches that blend careful stewardship of existing operations with forward-looking innovations. The Doctrine of Uncontested Territory provides a guiding philosophy: build the new thoughtfully, strategically and responsibly, rather than fighting the old.

The Orvieto Leadership Summit, co-hosted by Orvieto Musica and Global Access Partners in June this year, proposed three overarching principles for responsible decision-making in a world being transformed by AI. In their joint 'Orvieto Statement', Summit participants called on political and business leaders to:

1. Harness new technologies, including generative AI, to empower human agency, democratic governance, and social engagement, rather than replace them.
2. Practice interdependent leadership: engage with stakeholders, build consensus, and cultivate collective wisdom to navigate challenges and maintain social cohesion.
3. Embrace governance that respects individual autonomy, encourages civic participation, and ensures the benefits of technological progress are shared across present and future generations.

I hope these principles will serve as inspiration for our leaders as well as our readers as we collectively navigate the opportunities and responsibilities of an AI-enabled world.

Peter Fritz AO

Sydney, December 2025

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ARTICLE

An introduction: Journal publications and going digital

Prof Federica Ricceri, Simon Linacre, Prof John Dumay & Prof James Guthrie AM

Presenting the final issue of *BESS*, the editorial team reflects on the evolving landscape of scholarly publishing, focusing on the issues of research integrity and the use of artificial intelligence.

1. Introduction

As we press for the final edition of *BESS* as an open-access journal, we would like to reflect upon our journey over the last six years. We could only publish *BESS* due to the financial support of Global Access Partners (GAP), a not-for-profit institute for active policy. Recent discussions with the *BESS* Editorial Board and Editorial Board Executive have resulted in a decision to offer Emerald Publishing an opportunity to take over the journal, which they have accepted.[1]

A not-for-profit organisation, GAP initiated *BESS* in 2019 and has since developed it into a respected scholarly publication with a network of dedicated authors, a competent editorial team, an active

Disclaimer

This article examines the accuracy of artificial intelligence systems and the phenomenon of digital hallucinations. Generative AI tools were used selectively to assist with language refinement and to illustrate specific categories of error. All substantive ideas, analytical frameworks and conclusions are the sole responsibility of the authors. Illustrative footnotes are included to demonstrate instances in which such technologies may generate inaccurate or fabricated information. This disclaimer delineates the boundary between automated assistance and the authors' independent scholarly analysis.

1. GAP (2025), *The Journal of Behavioural Economics and Social Systems (BESS)* opens a new chapter under Emerald Publishing, media release 16 July 2025,https://globalaccesspartners.org/wp-content/uploads/2025/07/GAP_media_release_BESS.pdf

Editorial Board and an enthusiastic readership. Under Emerald Publishing, we envision *BESS* evolving into a global, hybrid general management journal with open and subscription access. We believe Emerald's reputation and well-established systems and processes will elevate the journal to this next phase.

The specific disciplines in which we would like to grow the journal's presence include the following ones:

- Responsible management and sustainability
- Global Sustainable Development Goals (SDGs) measurement and accountability
- Global grand challenges
- A social systems perspective on behaviour
- Behavioural economics
- Impact of artificial intelligence (AI) on human decision-making
- Impact on law reform

We also acknowledge that the world of scholarly publications is changing. The traditional IMRaD format (Introduction, Methods, Results, Discussion) most articles adhere to is being challenged because "while it may make research writing more efficient, the format ultimately constrains creativity and may even shape the very kinds of studies researchers choose to undertake" (Høydal, 2025). At BESS, we have always been creative and allowed authors to present their research alongside their ideas, opinions, outlooks and arguments. The articles in *BESS* range from traditional research formats and opinion pieces to open and exploratory essays. Similarly, our authors are not just academics. They are practitioners, politicians, policymakers, public servants or civil society workers. We hope to continue with the freedom and diversity of articles and authors in *BESS*'s new format.

This introductory paper aims to reflect on scholarly publications, academic research and the use of AI and introduce the papers in this final issue of *BESS*. The paper is structured as follows. In section 2, the background of scholarly communications is discussed and linked to *BESS*'s future. Section 3 provides a brief literature review on academic research and AI. Section 4 outlines the papers in this number of *BESS*. Section 5 provides a conclusion and limitations to be studied.

2. Background to commercial scholarly publishing and a future for *BESS*

Ongoing trends, technological innovations and evolving needs of researchers, institutions and industries shape the future of commercial and academic publishing. The key aspects that indicate where the industry might be moving centre around open access (OA) and open science, publishing market dynamics, research integrity issues and new technologies, especially the rapid deployment of AI.

The gradual growth of OA since the early 2000s has seen it become the primary form of research publication, with over three million OA articles published in 2022 out of a total of 5.2 (Campbell *et al.*, 2023). Many factors, including initiatives such as Plan S, drive this growth, where major European funders mandate OA and so-called transformative agreements, resulting in deals allowing institutions to pay a single fee covering access and OA publication, blending access and publishing costs. OA has also grown through preprint servers like arXiv, bioRxiv and medRxiv, allowing researchers to share findings before formal peer review and speeding up dissemination. As OA has gained traction, new models have also developed based on the author as a consumer and widened to include university presses and non-journal platforms such as F1000Research.

When looking at OA, it is essential to note it is just one sub-segment of a much bigger movement around open science, which also has a bearing on the development of scholarly communications. In recent years, there has been a move away from a reliance on citations as a proxy for quality, with institutions using other metrics to evaluate research, such as altmetrics that look at online influence or measures to help understand how open the publication process has been using open peer review processes. The move away from citations has led to new services and technologies being made available to researchers and their institutions. These have enabled broader collaboration across different countries and academic disciplines and open data sharing to open datasets to the global research community.

The demand for OA delivery and research tools has also contributed to consolidation in the publishing industry, with larger publishers acquiring or merging with smaller publishers. Companies like Elsevier, Springer Nature, Wiley, Taylor & Francis and SAGE – the 'Big Five' – continue to dominate. However, some smaller publishers and university presses are discovering niches in OA or specialised fields. Pure OA publishers such as MDPI and Frontiers have challenged Big Five dominance, but the challenge is also waning following research integrity issues.

Research integrity has been one of the hot topics in scholarly communications in 2025. In the wake of several issues – including the emergence of papermills, leading to mass retractions by some publishers as a result (Kincaid, 2023) – some publishers have had to take significant measures to identify integrity breaches and beef up their existing controls. Outside major publishing houses, predatory journals still threaten authors, with over 16,000 journals listed in Cabells' Predatory Reports (Linacre, 2023, p. 36). Efforts to educate researchers about low-quality or exploitative publishers are ongoing. Tools like *Think.Check.Submit.*[2] and indexing on platforms like DOAJ (Directory of Open Access Journals) help combat predatory behaviour and the concerns about eroding research integrity in recent years, further restoring trust in academic research.

The rapid development of AI may present another solution to this and other problems in publishing. We already see AI-assisted workflows, transforming manuscript submission, review and editing processes (e.g., plagiarism detection, grammar tools), search and discovery of academic content with advanced recommendation systems, and the peer review process with tools like ChatGPT for initial reviews or triaging papers. In the future, AI may also allow dynamic or custom publishing to flourish with greater flexibility and personalisation and support decentralised models with innovations like peer-to-peer publishing platforms utilising blockchain technology.

However, for many people, AI presents as many problems as it can solve, particularly around research integrity issues and concerns over equity and equal access to AI models, compounding existing issues around the ability of researchers and institutions in the Global South to pay article processing charges to make their articles OA. Overlaying all of this are geopolitical dynamics, which, in 2025, have been especially unstable with the new US administration in charge and continued conflicts around the globe.

Commercial and academic publishing will continue to alter, driven by financial rewards, openness, speed and equity pressures. The future involves a hybrid of traditional and emerging models, with technology and collaboration at its core.

2. https://thinkchecksubmit.org/

3. Academic research and AI

A prominent topic in academic research is leveraging generative AI to help with research by utilising machines. However, this research method has significant limitations irrespective of the AI technology employed. It is essential to consider AI unreliable unless the data's origins are known. For instance, ChatGPT draws its information from publicly accessible internet data, which is not a dependable source. Consequently, academics – or anyone for that matter – should not conclude solely from ChatGPT searches.

3.1 Generative vs. non-generative

What distinguishes these technologies? In simple terms, tools that use generative technologies create new content from scratch, drawing on large language models (LLMs) and statistical inference in response to user prompts. By contrast, non-generative tools do not produce original content; they analyse, process and improve existing material.

In the context of writing, this distinction can be seen across three broad categories. AI writers, such as ChatGPT, use **generative AI** to produce new text based on a user's prompt. Editors, such as InstaText, rely on **non-generative language technologies** that enhance, interpret or refine existing text without creating content from scratch and without the need for a prompt. Multi-purpose writing tools, such as Grammarly, combine generative and non-generative approaches. Accordingly, when content is described as AI-generated, it means that the text has been created by a generative AI system.

TABLE 1. Categorisation of generative AI and non-generative advanced language technologies, InstaText[3]

Technology	Generative AI	Non-generative advanced language technologies
Definition	Creates new content based on input data	Analyses, processes or improves existing content
Primary use	Content generation and creative tasks	Text analysis, editing and comprehension tasks
Interaction method	Prompt-based: Yes Users provide specific prompts to create new content	Prompt-based: No Users input existing text for editing or analysis
Examples	• ChatGPT • DeepSeek • Midjourney • Canva (Magic Write) • Copy.ai	• Google Translate • IBM Watson Natural Language Understanding • Google Cloud Text-to-Speech • InstaText

3. Why InstaText edits are not AI-generated, https://instatext.io/why-instatext-edits-are-not-ai-generated/

In the context of scholarly journals, originality and clear authorship are fundamental requirements, and the use of AI-generated content is often prohibited or strictly limited. This applies to research articles, conference submissions, dissertations and theses, as well as related outputs such as project proposals, book reviews, white papers, case studies, opinion pieces, journalistic articles and grant proposals.

Regardless of the AI type employed, it presents significant limitations when conducting research. As previously mentioned, when using ChatGPT, researchers need to confirm all data sources before reaching any conclusions. This approach is like using Wikipedia: it provides an overview, but further research should use the references cited in the article. If a reference leads to a credible source, authors cite that source instead of Wikipedia. ChatGPT faces additional limitations because it cannot access research behind academic paywalls, restricting its capabilities from an academic research standpoint. This limitation does not negate its usefulness. For example, ChatGPT can quickly generate a comprehensive list of issues concerning the use of AI in academic research. It can save time obtaining an overview, but like other technologies, you must use its output judiciously and conduct further research.

To experiment, we prompted ChatGPT with the following instructions:

> **Outline the dangers of using generative AI for academic research purposes and provide academic references for each threat.**

Table 2 below shows the results from the ChatGPT search, generated in less than a minute, which outlines these dangers, accompanied by explanations and academic references to support the claims.

TABLE 2. ChatGPT response regarding the dangers of using generative AI for academic research purposes (OpenAI, 2025)

1. Generation of False or Misleading Information
• **Threat:** Generative AI can produce plausible-sounding but factually incorrect or fabricated content. When researchers rely on AI-generated data, they risk introducing inaccuracies into academic literature. • **Example:** ChatGPT has been noted for confidently producing hallucinated citations and facts. • **Reference:** Ji *et al.* (2023)
2. Plagiarism and Academic Misconduct
• **Threat:** Generative AI may produce content that is either unoriginal or closely mimics pre-existing texts without proper attribution, leading to unintentional plagiarism. • **Example:** Students and researchers using AI tools for writing may unknowingly commit academic dishonesty. • **Reference:** Cottingham, M. & White, S. (2023)[4]

4. AI-hallucinated citation

3. Ethical Concerns in Data Use and Privacy

- **Threat:** Some generative AI systems are trained on datasets containing sensitive or proprietary information, which may inadvertently surface in the generated output.
- **Example:** Researchers risk breaching ethical guidelines by unknowingly using AI-generated data sourced from private or copyrighted material.
- **Reference:** Bender, E.M., Gebru, T., McMillan-Major, A. & Shmitchell, S. (2021)

4. Bias and Discrimination in AI Outputs

- **Threat:** Generative AI systems often inherit biases from their training data, potentially perpetuating or amplifying stereotypes or discriminatory practices in academic contexts.
- **Example:** Outputs from AI may reflect gender, racial, or cultural biases that compromise the neutrality of academic work.
- **Reference:** Birhane, A. & Prabhu, V. (2021)

5. Overreliance on AI Systems

- **Threat:** Dependence on AI can reduce critical thinking and analytical skills, leading researchers to accept AI-generated conclusions without rigorous scrutiny.
- **Example:** A generation-first approach may hinder methodological rigor and understanding of foundational principles.
- **Reference:** Floridi, L. & Cowls, J. (2019)

6. Lack of Transparency in AI Decisions

- **Threat:** Most generative AI systems operate as black boxes, making it difficult to understand how they derive conclusions or synthesise information.
- **Example:** Researchers may unknowingly use content generated by models trained on unverifiable sources.
- **Reference:** Lipton, Z.C. (2018)

7. Limited Applicability in Specialised Domains

- **Threat:** Generative AI may struggle to generate accurate or relevant content for niche academic disciplines or highly specialised research questions due to insufficient training data.
- **Example:** Misinterpretation of complex scientific concepts, particularly in fields like quantum mechanics or advanced mathematics.
- **Reference:** Marcus, G. & Davis, E. (2019)

8. Unverified Citations

- **Threat:** AI-generated references may include non-existent or irrelevant citations, creating issues with academic rigor and credibility.
- **Example:** Tools like ChatGPT have fabricated academic papers and attributions in their outputs.
- **Reference:** Thorp, H.H. (2023)

9. Dependency on Proprietary Technology

- **Threat:** Generative AI tools are often controlled by private companies, raising concerns about access inequality, licensing costs, and transparency in academic use.
- **Example:** Universities may inadvertently lock researchers into proprietary ecosystems that restrict data portability.
- **Reference:** Perelman, M. (2021)[5]

10. Undermining Peer Review and Expertise

- **Threat:** The ease of generating content could dilute the quality of academic work, making it harder to distinguish between AI-generated research and genuine scholarship.
- **Example:** Peer reviewers may struggle to verify the authenticity of AI-assisted submissions.
- **Reference:** Anderson, K. & Shaw, M. (2023)[6]

As outlined above, there has been growing interest in leveraging generative AI to assist with various research tasks. While these technologies offer potential benefits, such as efficiency in summarising documents and creating presentations, they also have significant limitations. A crucial concern is the reliability of the results produced by AI systems, which depends on the origins and quality of the data they are trained on. Without a clear understanding of this data, the findings generated by AI can be questionable. Therefore, researchers must approach generative AI cautiously and ensure transparency regarding the data sources to maintain the integrity of their scholarly work.

Now, we turn our attention to how several academic journal commercial publishers handle the issues of AI in their published work by examining their public statements on using AI. The order of the publishers is random, and the overview is based on information directly from the official websites as of December 2025.

3.2 Publishers

The following key points were from a web search of the major commercial publishing houses and their positions on using AI in scholarly activities in 2025. Please note that these include abbreviated text and direct quotes, which should be read as an indication of policy rather than exact policy statements.

3.2.1 TAYLOR & FRANCIS

Summary by ChatGPT: Taylor & Francis has articulated its AI policy, guiding authors on the appropriate use of AI tools. They emphasise that authors can use generative AI to improve review language. However, peer reviewers remain responsible for ensuring the accuracy and integrity of their reviews.

5. AI-hallucinated citation
6. AI-hallucinated citation

Extract from the publisher's website:[7]

> Introduction: Generative AI tools, such as LLMs or multimodal models, continue to develop and evolve, including their application for businesses and consumers. Taylor & Francis welcomes the new opportunities offered by Generative AI tools, particularly in enhancing idea generation and exploration, supporting authors to express content in a non-native language, and accelerating the research and dissemination process. Taylor & Francis is offering guidance to authors, editors, and reviewers on using such tools, which may evolve given the swift development of the AI field.
>
> Generative AI tools can produce diverse forms of content, spanning text generation, image synthesis, audio, and synthetic data. Some examples include ChatGPT, Copilot, Gemini, Claude, NovelAI, Jasper AI, DALL-E, Midjourney, Runway, etc. While Generative AI has immense capabilities to enhance authors' creativity, certain risks are associated with the current generation of Generative AI tools.
>
> Some of the risks associated with the way Generative AI tools work today are:
>
> 1. **Inaccuracy and bias:** Generative AI tools are of a statistical nature (as opposed to factual) and, as such, can introduce inaccuracies, falsities (so-called hallucinations) or bias, which can be hard to detect, verify, and correct.
> 2. **Lack of attribution:** Generative AI is often lacking the standard practice of the global scholarly community of correctly and precisely attributing ideas, quotes, or citations.
> 3. **Confidentiality and Intellectual Property Risks:** At present, Generative AI tools are often used on third-party platforms that may not offer sufficient standards of confidentiality, data security, or copyright protection.
> 4. **Unintended uses:** Generative AI providers may reuse the input or output data from user interactions (e.g. for AI training). This practice could potentially infringe on the rights of authors and publishers, amongst others.
>
> Authors are accountable for the originality, validity and integrity of the content of their submissions. Journal authors are expected to use Generative AI tools responsibly and follow our journal editorial policies on authorship and principles of publishing ethics, and book authors are expected to do so following our book publishing guidelines. This includes reviewing the outputs of any Generative AI tools and confirming content accuracy.
>
> Taylor & Francis support the responsible use of Generative AI tools that respect high data security standards, confidentiality, and copyright protection in cases such as Idea generation and idea exploration, Language improvement, Interactive online search with LLM-enhanced search engines, Literature classification and Coding assistance.
>
> Authors are responsible for ensuring that the content of their submissions meets the required standards of rigorous scientific and scholarly assessment, research, and validation, which the author creates. Note that some journals may not allow the use of Generative AI tools beyond language improvement; therefore, authors are advised to consult with the journal's editor before submission.
>
> Generative AI tools must not be listed as authors because such tools cannot assume responsibility for the submitted content or manage copyright and licensing agreements. Authorship requires taking accountability for content, consenting to publication via a

7. Taylor & Francis, AI Policy, https://taylorandfrancis.com/our-policies/ai-policy/

publishing agreement, and giving contractual assurances about the integrity of the work, among other principles. These are uniquely human responsibilities that Generative AI tools cannot undertake.

Authors must acknowledge within the article or book any use of Generative AI tools through a statement that includes the full name of the tool (with version number), how it was used, and the reason for use. This statement must be included in the Methods or Acknowledgments section for article submissions. Book authors must disclose their intent to employ Generative AI tools at the earliest possible stage to their editorial contacts for approval – either at the proposal phase if known or, if necessary, during the manuscript writing phase. If approved, the book author must include the statement in the preface or introduction. This level of transparency ensures that editors can assess whether Generative AI tools have been used and whether they have been used responsibly. Taylor & Francis will retain its discretion over the publication of the work to ensure that integrity and guidelines are upheld.

Taylor & Francis currently does not permit using Generative AI to create and manipulate images and figures or original research data for our publications. The term "images and figures" includes pictures, charts, data tables, medical imagery, snippets of images, computer code, and formulas. The term "manipulation" includes augmenting, concealing, moving, removing, or introducing a specific feature within an image or figure.

Utilising Generative AI and AI-assisted technologies in any part of the research process should always be undertaken with human oversight and transparency. Research ethics guidelines regarding current Generative AI technologies are still being updated. Taylor & Francis will continue to update our editorial guidelines as the technology and research ethics guidelines evolve.

Taylor & Francis strives for the highest standards of editorial integrity and transparency. Editors' and peer reviewers' use of manuscripts in Generative AI systems may pose a risk to confidentiality, proprietary rights and data, including personally identifiable information. Therefore, editors and peer reviewers must not upload files, images or information from unpublished manuscripts into Generative AI tools. Failure to comply with this policy may infringe upon the rightsholder's intellectual property.

Editors are the shepherds of quality and responsible research content. Therefore, editors must keep submission and peer review details confidential. The use of manuscripts in Generative AI systems may give rise to risks related to confidentiality, infringement of proprietary rights and data, and other risks. Therefore, editors must not upload unpublished manuscripts to Generative AI tools, including any associated files, images, or information.

Editors should check with their Taylor & Francis contact before using any Generative AI tools unless they have already been informed that the tool and proposed use are authorised. Journal Editors should refer to our Editor Resource page for more information on our code of conduct.

Peer reviewers are chosen experts in their fields. They should not use Generative AI for analysis or to summarise submitted articles or portions thereof when creating their reviews. As such, peer reviewers must not upload unpublished manuscripts or project proposals, including any associated files, images or information, into Generative AI tools. Generative AI may only be utilised to improve review language, but peer reviewers will always remain responsible for ensuring the accuracy and integrity of their reviews.

3.2.2. WILEY

Summary by ChatGPT: Wiley welcomes the responsible use of AI tools in manuscript preparation but makes clear that authors remain fully accountable for all content and must verify that it reflects their expertise, originality and voice. Authors should review the terms and conditions of any AI tool to ensure it does not claim rights over the work, and transparently disclose the use of AI upon submission, including how it was used and reviewed. AI must not be used to generate, alter or manipulate original research data, and tools cannot be considered capable of fulfilling authorship criteria or be listed as authors. Responsible use also requires protecting confidentiality when inputting sensitive content and ensuring compliance with ethical standards and publishing agreements.[8]

3.2.3. ELSEVIER

Summary by ChatGPT:[9] Elsevier recognises that generative AI and AI-assisted technologies can support manuscript preparation when used responsibly, but stresses that human oversight, expertise and accountability remain central to scholarly publishing. Authors may use AI tools to assist with tasks such as organising content, improving clarity or gaining insights, but they must carefully review and verify all AI output to ensure accuracy and scholarly rigour. Use of generative AI in manuscript preparation must be transparently disclosed in a separate declaration statement upon submission, including the name of the tool, purpose and extent of use; basic grammar and spelling checks do not require disclosure. AI and AI-assisted tools cannot be listed as authors or credited for authorship, because authorship responsibilities can only be fulfilled by humans. The policy also prohibits using generative AI to create or alter images and artwork in submissions, unless it is intrinsic to the research and described reproducibly in the methods, and prohibits reviewers and editors from uploading manuscripts into AI tools due to confidentiality and integrity concerns.

For peer reviewers and editors, Elsevier's policy emphasises that confidential manuscript content must not be uploaded to or processed by generative AI tools, owing to privacy, integrity and ethical concerns. Reviewers should rely on their own expertise when assessing submissions and should not use AI tools to generate review text or to evaluate confidential material. The overarching principle is that humans retain responsibility for interpretation, critical evaluation and decision making throughout the research and publication process.

Elsevier will continue to refine these policies as best practice evolves.

3.2.4. EMERALD PUBLISHING

Summary by ChatGPT:[10] Emerald's policy distinguishes clearly between creation of new content and editing existing material. Authors may not use generative AI tools to create or draft any part of a submission, including the abstract, literature review or research data, because such tools cannot fulfil authorship criteria or be accountable for the work; this reflects COPE's position on AI tools. Any use of AI must be transparently declared by authors in the Methods, Acknowledgements or an appropriate section, specifying the tool, version and extent of use, with proper citation of sources and adherence to copyright and data protection standards. Generative AI may be used only for copy-editing to improve language and readability of author-

8. Wily Author Services (2025), Best practice guidelines on research integrity and publishing ethics, https://authorservices.wiley.com/ethics-guidelines/index.html
9. Elsevier (2025), Generative AI policies for journals, https://www.elsevier.com/about/policies-and-standards/generative-ai-policies-for-journals
10. Emerald Publishing (2025), Publishing ethics: Artificial intelligence (AI), https://www.emeraldgrouppublishing.com/publish-with-us/ethics-integrity/research-publishing-ethics#ai

generated text, with authors remaining fully responsible for accuracy and integrity. Emerald also permits AI-assisted copy-editing of peer review reports, provided reviewers declare this use and take responsibility for the content.

In relation to peer review and editorial processes, Emerald prohibits uploading submitted manuscripts or review materials to generative AI tools or large language models for evaluation, assessment or decision-making, owing to confidentiality, privacy and integrity concerns. Reviewers and editors must rely on their own expertise, and any AI use for language refinement must be transparently declared. The policy also restricts publication of AI-generated images except under specific illustrative conditions with appropriate labelling and rights clearance, and maintains that AI tools cannot be cited or credited as authors. Emerald reserves the right to reject or take post-publication action on work that breaches these principles.

3.3 To AI or not to AI?

As evidenced above, academic publishers offer help and guidance to authors regarding using generative AI tools. However, the speed of development of new AI tools – and new behaviours in response – will inevitably create challenges for them. Major AI players frequently release the latest updates, and new players are also emerging based on different models and training. As such, publishers will need to work closely with all stakeholders to maintain the validity of published research. Inevitably, we must realise that AI is already firmly entrenched in the academic research ecosystem, and new AI tools will continue to evolve. While some researchers and publishers have misused these technologies, undermining research integrity, the vast majority use AI responsibly to strengthen the quality, rigour and impact of academic research.

4. Papers in this issue of *BESS*

We now present an overview of the articles included in this issue of *BESS*.

Neilson's (2025) academic article argues that parliamentary systems of government are superior to presidential systems in safeguarding democracy. The article is timely as President Trump took power and, within a short time, executed several executive orders that were significant for the financial, economic and societal wellbeing of the US and other countries.

The author supports this claim using empirical data comparing OECD nations, highlighting the negative correlation between presidentialism and indicators of democratic health like income equality and judicial independence. The research also examines the erosion of democratic norms due to "executive creep" and the crucial role of an independent judiciary. Finally, the study explores societal factors, such as declining public trust, and proposes reforms to strengthen democratic institutions and rebuild citizen confidence.

Neilson (2025) identifies several systemic factors in the sources as threats to global democracy's stability. First, the erosion of liberal democracy is occurring in many countries, shifting towards flawed democracy, electoral autocracy and, in some cases, a complete collapse into closed autocracy. According to a recent V-Dem report (V-Dem, 2023), advances in democracy over the last 35 years are being eroded. A concurrent drift into autocracy is underway in at least 42 of 193 United Nations members, meaning that 70% of the world's population now lives in autocracies.

Second, presidential systems of government are less effective than parliamentary systems in delivering good governance. Personalising an

over-powerful presidential role is considered a first step toward autocracy. The empirical evidence implies that parliamentary and mixed forms of government offer significantly better forms of democratic government than presidentialism. Additionally, presidential systems are more prone to executive/legislative gridlock, excess concentration of power, and a "winner-take-all" approach to politics, making democratic politics a zero-sum game.

Third, executive overreach and the politicisation of institutions undermine the balance of power crucial for effective democracy. Executive creep, judicial emasculation, politicisation of the public service and the co-option of media and kleptocrats need reversing to ensure the survival of liberal democracy. A key issue is the increasing power of the executive branch at the expense of the judiciary and legislature.

Fourth, a widening trust divide between the electorate and elected officials significantly contributes to dissatisfaction with modern democracy. This divide creates an opening for populist parties and politicians. Voter surveys indicate low satisfaction with democracy and declining trust in government across several countries.

Fifth, the capture of the judiciary by those seeking autocratic power is a significant threat. The politicisation of the judiciary undermines the rule of law, which is essential for democracy. The capture includes the selective appointment of judges, which can transform the judiciary into a facilitator of executive and legislative power. Also, the influence of "personalist leaders", who are more likely to oversee a steep decline in democracy during their tenure, is a significant threat. These leaders are more likely to use extra-constitutional means to suppress the opposition.

Institutional weaknesses also pose a threat. For example, the judiciary's lack of independence and public service from executive control threatens the very nature of democracy. Some constitutions' inflexibility can hinder a nation's capacity to adapt to changing political realities. Neilson (2025) provides examples of democratic backsliding, including Brazil, the US, Hungary, Poland and Turkey. These countries have experienced a decline in democracy, often under presidential or mixed forms of government.

Ford *et al.* (2025) explore the implementation of wellbeing budgeting in Australia. The authors critically assess the *Measuring What Matters* framework introduced in 2022, comparing the government's stated goals with the practical realities of budgeting. The paper analyses stakeholder submissions and government documents to identify challenges, such as poorly defined metrics and focus on economic growth over societal wellbeing. It highlights the need for better data collection and stakeholder engagement. The paper also recommends ways to improve the framework by incorporating inequality measures, regional indicators, wealth distribution, and focusing on First Nations people. It concludes that the wellbeing budgeting framework has become more of a statistical tool than a deeply embedded policy and budgetary approach.

The main finding of this paper is that the Australian government's rhetoric of adopting a wellbeing framework contrasts with the reality of the budgeting process, which still prioritises economic management and neoliberal ideals. Although the Australian government introduced the *Measuring What Matters* framework in 2022, aiming to align social and economic goals to improve Australians' overall quality of life, implementing wellbeing budgeting faces a range of challenges.

First, despite the Treasury's rhetoric, there have been persistent challenges in implementing the framework. Critics point out that the government's budget emphasises economic growth, with significantly more mentions of "economics" than "wellbeing".

Second, some data in the framework was collected before significant events like the COVID-19 pandemic and interest rate rises, which may not reflect current conditions.

Third, the concept of a wellbeing budget has faced political resistance from conservative forces over the past decade.

Fourth, there is a need to educate the public and policymakers about the benefits of focusing on wellbeing rather than just traditional economic metrics like GDP.

Fifth, wellbeing budgeting has become a statistical dashboard instead of embedded in policy formulation and budgetary processes. The responsibility for updating the wellbeing dashboard shifted to the Australian Bureau of Statistics (ABS) in 2024.

Sixth, themes and indicators related to inequality, regional indicators, wealth distribution and First Nations people are underrepresented in the framework.

Seventh, the shift of responsibility to the ABS brings uncertainty to the future of wellbeing budgeting in Australia, potentially shifting the focus to monitoring rather than policy formulation.

Finally, the authors recommend developing more nuanced wellbeing metrics and further research into the impact of wellbeing budgeting across different demographics. Also, in a broader global context, international governments recognise the importance of integrating broader wellbeing indicators, with countries like Scotland, Wales, Canada, New Zealand, and Germany embracing frameworks to monitor progress on non-economic outcomes. Australia's wellbeing budgeting aligns with the UN's Sustainable Development Goals by prioritising human and ecological needs.

Turnbull's (2025a) paper proposes "lifeboat money", a simplified, self-liquidating currency, as a mechanism for addressing market failures underlining economic and environmental harm. Drawing on historical examples like Stamp Scrip, the author argues this system could reduce financial system costs and incentivise sustainable practices by being tethered to a sustainability index. The index would reflect a region's reliance on renewable energy and other sustainability factors, influencing regional exchange rates. The author critiques existing monetary systems, highlighting their flaws in addressing climate change and promoting inequality, advocating for lifeboat money as a more efficient alternative aligned with ethical and ecological principles. The paper also explores the legal and practical aspects of implementing lifeboat money, considering potential conflicts with central banks and locally issued currencies' historical precedents.

Turnbull (2025a) addresses market failures that harm the planet by creating incentives to stop the degradation of the environment. The current monetary system creates price signals that incentivise activities that harm people and the earth, such as burning carbon, which leads to climate change. Lifeboat money, on the other hand, is designed to promote sustainability and discourage environmentally damaging practices. Here are some of the ways lifeboat money addresses market failures.

First, *tethered to sustainability*: Lifeboat money's value is linked to a sustainability index, which

measures the amount of benign renewable energy consumed in each bioregion as a percentage of total energy produced. Regions with higher sustainability would have more favourable exchange rates, creating incentives for sustainable practices. This contrasts with the current system, where currency values are driven by speculation and can be volatile and unpredictable.

Second, *disincentivising carbon use*: By linking the currency to sustainability, the system creates a disincentive to burn carbon, unlike the current system, which incentivises carbon-intensive activity.

Third, *promoting resource recycling*: The system encourages the recycling of non-renewable resources, supporting long-term sustainability.

Fourth, *protecting biodiversity*: Lifeboat money is designed to incorporate biodiversity protection through sustainability metrics, in contrast to current systems that do not prioritise biodiversity.

Fifth, *matching population to regional endowments*: Lifeboat money aims to align population levels in each region with sustainable regional resources, drawing on examples from Indigenous Australian practices.

Sixth, *reducing inflation and reliance on central banks*: Lifeboat money is proposed as a system that could reduce inflationary dynamics and systemic reliance on central banks through its self-liquidating design and use of negative interest rates. This contrasts with official currencies, which can exacerbate inequality and inflation.

Seventh, *decentralising power*: Lifeboat money decentralises economic power, in contrast to current systems that concentrate it.

Eighth, *shifting from prices to wellbeing*: The sustainability indexes associated with lifeboat money prioritise wellbeing over price signals, moving away from systems in which economic value is the primary measure.

In conclusion, by addressing these issues, Turnbull (2025a) seeks to create a monetary system that aligns with ecological principles and promotes humanity's and the planet's long-term wellbeing. The aim is to shift away from the current system that creates incentives to harm the earth towards one that promotes sustainability and a circular economy.

The paper by **Lucas et *al.* (2025)** explores the fossil fuel industry's avoidance of responsibility for its contribution to climate change and the accounting and accountability issues surrounding this. The paper uses content analysis of investigative journalism articles to identify key themes related to the fossil fuel industry.

The main arguments and findings are as follows. First, the fossil fuel industry actively resists decarbonisation efforts while concealing its activities, often with the help of governments. The sector spends considerable resources resisting global decarbonisation efforts.

Second, current accounting and accountability practices do not address the fossil fuel industry's broad social and ecological impacts. Organisational accountability alone cannot tackle the challenges related to the fossil fuel industry.

Third, the industry's focus on profit undermines efforts to address climate change. The pursuit of profit is prioritised over the wellbeing of people and the planet.

Fourth, systemic change is needed, involving governments, companies, civil society and other actors. Systemic change is necessary before lasting organisational change can be implemented.

Lucas *et al.* (2025) research draws on 177 articles from independent and mainstream news outlets published in Australia between 22 September and 29 November 2022. These dates cover the lead-up and outcomes from the COP27 negotiations. Three main themes identified through a content analysis of the selected articles were taxation and subsidies, carbon accounting and carbon trading, disinformation, greenwashing and sportswashing.

The taxation and subsidies of the fossil fuel industry benefit from generous tax concessions and subsidies. The sector can avoid paying income tax through offshore tax havens, transfer pricing, and the grandfathering of tax losses. Governments also provide significant subsidies to fossil fuel companies.

Carbon accounting and carbon trading: Carbon markets and trading are used to justify continued fossil fuel use. Concerns exist about a lack of transparency and the potential for greenwashing within carbon trading. The International Sustainability Standards Board (ISSB) aims to set global standards for sustainability disclosure, but its focus on financial materiality is questioned. There is a contest between the International Accounting Standards Board (IASB) and the Global Reporting Initiative (GRI) over which carbon reporting standards will become the norm. The Australian government's climate-related financial disclosure requirements are aligned with the ISSB and are criticised for a narrow focus on investor needs. Carbon offset schemes, including Australia's, have been criticised for a lack of integrity and the potential for fraud.

Disinformation, greenwashing and sportswashing: The fossil fuel industry uses these strategies to improve its public image. Companies are accused of "greenwashing" by making false claims about their environmental efforts. Sportswashing is used to normalise the operations of fossil fuel companies.

In conclusion, the paper highlights the need for an international coalition of civil society actors and progressive governments to address global climate change. It also explores investigative journalism's role as a valuable data source for social scientists. The study outlines that corporate capture of political processes is a significant issue that undermines efforts to address climate change. The fossil fuel industry uses various strategies to secure benefits from governments. Lucas *et al.* (2025) emphasises the urgency of transitioning from fossil fuels and the need for a just and equitable system transformation, and concludes that choosing to be part of the solution requires working together urgently, given that the future of humanity is at stake.

Fritz *et al.* (2025) introduce the concept of decision sovereignty to explain why well-informed decisions in policy, organisational and technological contexts so often fail to translate into sustained action. The research note argues that while advances in data, analytics and AI have dramatically improved decision quality, they have also increased decision intensity and contestation, exposing weaknesses in governance structures that are not designed to authorise and execute complex choices at scale.

By framing execution capacity as a distinct and constraining variable, the research note shifts attention from decision-making alone to the institutional conditions required for decisions to be carried out, offering a conceptual lens for understanding implementation challenges across both the public and private sectors.

The paper by **Silvi (2025**) revisits the long-standing tension between analytical rationality and managerial intuition, as articulated by Herbert Simon and Henry Mintzberg, and reframes it in the context of contemporary

artificial intelligence. It argues that the rapid adoption of AI systems intensifies, rather than resolves, Mintzberg's core concern: an overreliance on technically correct answers at the expense of asking the right questions.

The paper positions AI as the ultimate expression of Simon's analytical management paradigm. AI systems excel at processing large datasets, applying models consistently and producing coherent, structured outputs. However, this strength also exposes a fundamental limitation: while AI is highly effective at answering well-defined questions, it lacks the capacity to interrogate assumptions, surface unarticulated problems or navigate genuine ambiguity.

Drawing on research in critical thinking and dual-process cognition, the paper situates this limitation within the distinction between System 1 and System 2 thinking. AI demonstrates powerful automated and pattern-recognition capabilities but lacks the reflective and meta-cognitive functions associated with deeper reasoning. As AI-generated answers become more sophisticated, the human capacity to frame, challenge and refine questions becomes increasingly critical.

To address this gap, Silvi (2025) introduces the concept of **prompting advantage**. Prompting advantage is defined not as a technical skill in writing prompts, but as a higher-order managerial competence: the ability to recognise flawed problem framing, question hidden assumptions and identify when convincing answers are being produced to the wrong questions. This capability is presented as a contemporary articulation of Mintzberg's managerial intuition and a core requirement for effective human-AI collaboration.

The argument is illustrated through the Carta Matic case study, which shows how apparently robust financial analysis failed to detect deeper governance, strategic and industry-level risks. Despite strong quantitative indicators, the firm's collapse revealed what the paper terms the numerical sufficiency fallacy: the mistaken belief that comprehensive quantitative analysis alone is sufficient for sound decision-making.

Silvi (2025) further argues that prompting advantage can be developed and embedded through deliberate organisational practices, including structured workshops, canvas-based tools and facilitated human-AI collaboration. These approaches aim to transform intuitive problem-finding into a repeatable organisational capability.

In conclusion, the paper contends that AI does not render the Mintzberg-Simon debate obsolete but instead heightens its relevance. As analytical processing is increasingly automated, the distinctive human contribution lies in the ability to ask meaningful questions, navigate ambiguity and construct shared understanding. Developing prompting advantage is therefore positioned as a foundational capability for management education and organisational practice in the AI era.

Turnbull (2025b) proposes that "promoting democracies by democratising capitalism" involves transforming economic structures to enhance democratic governance. The approach outlines implementing time-limited equities, which are financial instruments or shares with a predetermined expiration date. This mechanism aims to promote fairer wealth distribution and prevent a select few long-term accumulations of power and resources, thus fostering a more equitable economic environment. Additionally,

the proposal includes polycentric self-governance, a system where multiple governing bodies coexist and operate independently at various levels. This decentralisation allows for more localised decision-making, empowering communities and individuals to have a more significant say in policies affecting them. By dispersing power, polycentric self-governance seeks to prevent the concentration of authority, which can undermine democratic principles.

These strategies aim to create a more balanced and participatory economic and political system. By aligning capitalism more closely with democratic ideals, the framework hopes to strengthen democratic institutions, enhance social equity, and empower citizens. Such economic reforms could lead to a more resilient and responsive democratic society where individuals have financial and political agency.

The final two essays, **Fritz-Kalish (2025)** and **Bodrova (2025)**, present complementary leadership perspectives informed by practice, dialogue and systems-level thinking.

Fritz-Kalish (2025) positions the Pacific as a critical testing ground for the Blue Economy, aligning regional experience with the G20's 2024 Blue Economy focus championed by Brazil. It frames Pacific Island nations as Large Ocean States facing acute climate, biodiversity and economic pressures despite minimal emissions, and argues that sustainable Blue Economy development depends on locally led growth driven by small and medium-sized enterprises, gender-inclusive entrepreneurship and innovative finance. Drawing on the work of GAP and the International Centre for Democratic Partnerships in the Pacific, the essay illustrates how Australia-Pacific partnerships can translate global ambitions into practical outcomes that align ocean stewardship, economic inclusion and regional cooperation.

Bodrova (2025) presents the recommendations of the Orvieto Leadership Summit, held in Orvieto, Italy on 24–26 June 2025, under the theme *Creative Insights for Transformational Human Decision Making*. The Summit's communiqué articulates leadership imperatives for modern decision makers at the intersection of neuroscience, Statement' – a call for the empowerment of human agency through technology, the embedding of scientific thinking in education and governance, and the fair distribution of technological gains across generations.

5. Conclusion

This final issue of *BESS* marks both an ending and a transition. It reflects a period in which scholarly publishing is being reshaped by digital transformation, open science and the rapid diffusion of AI, alongside renewed concerns about research integrity, equity and trust. The contributions in this issue exemplify *BESS*'s commitment to intellectual pluralism, bridging scholarship, policy and practice and engaging directly with global democratic, economic and ecological challenges.

As BESS moves to its next phase under Emerald Publishing, this legacy provides a strong foundation for continued experimentation, critical inquiry and responsible innovation in scholarly communication. The central challenge ahead is not whether to embrace digital tools and AI, but how to do so in ways that preserve human judgement, accountability and the public purpose of research.

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ARTICLE

Global, national and societal initiatives directed at reversing democracy's current tribulations

Fergus Neilson

The last three decades have seen considerable erosion of liberal democracy across many countries. Building on his 2023 *BESS* paper on the widening 'trust divide' between the electorate and the elected, Fergus Neilson sets out three clear principles – covering systems of government, institutional balance and societal trust – that would help reverse the broader trend toward autocracy.

Introduction

The most recent annual report from V-Dem shows that advances in democracy made over the last 35 years are being eroded (V-Dem, 2023). A concurrent drift into autocracy is underway in at least 42 of the 193 United Nations members, meaning that 70 percent of the world's population now live in autocracies. This article draws on academic literature, cross-country comparison and empirical research using data accessed from credible supranational sources, such as the World Bank, to review and analyse the trend toward autocracy and how it can be reversed at three levels:

1. Global principles: by rejecting or radically reforming presidential systems of government.
2. National policies: by working to ensure that executive creep and politicisation are prevented from undermining the institutions and independent judiciaries that maintain the balance of power essential to effective democracy.

3. **Societal priorities:** by acknowledging that narrowing the trust divide between the elected and the electorate should take precedence over the pursuit of individual re-election. Over the past twenty years, it is a widening trust divide that lies at the very heart of growing dissatisfaction with modern democracy and thereby amplifies the risk it poses by opening the door to emergent autocracy.

Global principles – reject presidentialism and quasi-presidentialism

This article first examines the global principles underpinning systems of government to hypothesise that a parliamentarian, rather than a presidential system, is a more democratic and effective form of government. Democracy is best served by parliamentary or mixed systems and ill-served by presidentialism, primarily because the personalisation of an overpowerful presidential role is often the first step along a slippery path into autocracy.

In seeking both academic and empirical support for this hypothesis, this article:

1. Compares the classical duo of parliamentarianism and presidentialism;
2. Argues for an alternative three-way division of government categorisation;
3. Reviews a dataset that includes all 38 current and six prospective OECD members, ranked against seven independent variables and assigned to one of three categories – parliamentarian (PARL), presidential (PRES) and a mix of both (QUASI); and
4. Evaluates the state of contemporary democratic government.

Parliamentarianism vs presidentialism

As with any cross-country study, one of the primary methodological problems is the wide variation between countries in the two headline categories – which is hardly surprising in a world of almost 200 independent nations. The presidential category includes the United States (US), with a population in 2023 of almost 335 million; it also captures Gabon (in reality, and until recently, the personal fiefdom of the Bongo family), with only around 2.2 million. The spectrum of parliamentary democracies is equally diverse, from India's population of 1.4 billion to the Duchy of Luxembourg with fewer than 300,000 people, more than 45 percent of them foreign-born. Regardless, we can broadly define the differences between parliamentary and presidential systems and identify the advantages and disadvantages of each.

In parliamentary systems, "the head of government … and his or her cabinet are dependent on the confidence of the legislature and can be dismissed from office by a legislative vote of no confidence or censure" (Lijphart, 1992, p. 2). In the presidential form of government, on the other hand, the president is popularly elected for a fixed term and can only be ejected by impeachment. In a parliamentary system, the executive consists of the prime minister and their cabinet and is collective or collegial. A president, by contrast, is essentially a one-person executive with a purely advisory cabinet selected and sackable at the president's will; a system that encourages the opposite of limited, balanced and shared power.

It can be argued that presidential systems are more stable, more democratic (with the popular and direct election of a president), characterised by mutual independence between executive and legislature, and biased towards more limited

government. Presidentialism does, however, run the risk of executive/legislative gridlock, temporal rigidity, excess concentration of power and operation "according to the rule of winner-take-all … an arrangement that tends to make democratic politics a zero-sum game" (Linz, 1990, p. 56). Parliamentary systems, by contrast, are characterised by mutual dependence between executive and legislature, greater flexibility when conditions change and power sharing, and are usually less prone to policy and legislative gridlock.

In the academic literature, there is ongoing debate around the relative advantages of the two systems. Sartori suggests that parliamentarianism will only work when it is served by parliamentary-fit parties, parties that have been socialised into being relatively cohesive and disciplined (Sartori, 1997). Lijphart advises that "the combination of parliamentarianism with proportional representation should be an especially attractive … (option) … to newly democratic and democratizing countries" (Lijphart, 1991, p. 72). Others also point to the higher probability of regime collapse under presidentialism (Samuels and Eaton, 2002). However, "what one thinks of the ultimate merits of presidentialism depends … (ultimately) … on what one thinks about the urgency of political change in given country" (Fukuyama *et al.*, 2005, p. 103).

The weight of the argument does, however, bias towards parliamentarianism, including the view that, all things being equal, "parliamentarism should be more successful than presidentialism in coordinating diverse views and interests", and better at dealing with "the persistent institutional conflicts that characterize political life in all democracies" (Gerring *et al.*, 2009, p. 31). However, is there a third way that acknowledges the variations within each system?

A third way

Comparisons between parliamentarianism and presidentialism began in the early 1990s (Linz, 1990; Lijphart, 1991). Subsequent research broadened the debate to accommodate a third form of governance, semi-presidentialism and/or semi-parliamentarianism (Sartori, 1997; Bahro *et al.*, 1998), proposing multiple sub-categorisations of government that take account of veto players, the chain of delegation and the impact of specific regional and cultural variations (Tsebelis, 1995).

Recent work supports the adoption of a three-way categorisation (Cheibub *et al.*, 2014), together with a determination to establish the empirical superiority of one of the three systems over the other two. This article builds on this perspective, analysing a sample of 38 current and six prospective member nations of the OECD and categorising them as either parliamentary (PARL), presidential (PRES) or a mix of both (semi or QUASI). This categorisation is to some extent inevitably idiosyncratic. No previous research has reached a collective agreement on the nations to be classified as QUASI/semi or mixed, nor agreed on what is to be included or excluded from the two headline categories. For example, Austria is noted in one study as the only obviously parliamentarised presidential/parliamentary regime in the world today, but is then excluded as such from the very data set used by its authors (Samuels and Shugart, 2010). Other examples are Ireland, included but not considered desirable (sic); Iceland, excluded because of its population size; and Italy, which is one of several countries included by some researchers but excluded by others (Sartori, 1997; Elgie 2005, 2011, 2016). Despite semi-presidentialism as a term being around since the 1970s, debate continues about its definition and the countries to be

classified as QUASI or semi-presidential (Sedelius and Åberg, 2019). This means there is considerable leeway in the allocation of nations to a category titled mixed, semi or QUASI. See Table 1 for the three-way categorisation of 44 actual and prospective OECD nations as adopted for this analysis.

Empirical evaluation

Thus we now have a third category, which is neither fully parliamentary nor fully presidential – that is, a mixed system in which the constitution anoints a president who:

1. Is elected by universal suffrage;
2. Possesses quite considerable powers;
3. Whose powers are tempered by a prime minister and ministers with authority; and
4. Can stay in office only if parliament offers no opposition.

However, there is considerable variation among those nations nominated as mixed, with no definitive categorisation of any of the generally agreed-upon forms of government. Consequently, in using a dataset of 44 current and prospective OECD nations, this article adopts study-specific classification and allocation of nations into one of three categories (see Table 1). These are PARL, PRES or QUASI. The 44 nations are then scored against seven independent variables, each being a measure of government competence and service delivery: equality of income (Gini coefficient); economic growth (average per cent per annum 2013/18); human development (HDI); voter turnout; democracy (GDI); tax revenue as per cent of GDP; and, only as a scale comparator, population in millions. Other than average annual real GDP growth (2013/18), all data is for 2020 or 2021.

TABLE 1. Three definitional categories of 44 actual and prospective OECD nations

Categories		Nos	Definitions
Presidential	PRES	10	Democratic presidential republics, of which Argentina, Brazil and Peru are prospective members of the OECD
Parliamentarian	PARL	21	Parliamentary democracies of which just one, Croatia, is a prospective member of the OECD
Mixed	QUASI	13	Nations which, if not all alike, are certainly not like either of the two headline categories and include self-declared semi-presidential governments (Lithuania), assembly governments (France), direct collegialism (Switzerland), incipient autocracies (Hungary), and one country with a directly elected prime minister (Israel)

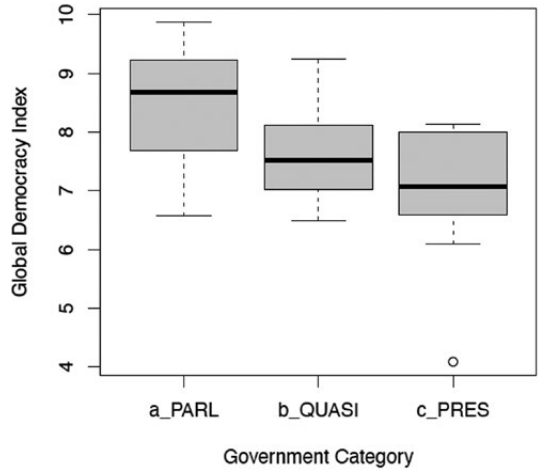
TABLE 2. Performance relativity (averages in each category/variable)

Category	Gini	GDP (%)	HDI	Turnout (%)	GDI	Tax (%)	Pop'n (m)
PARL x21	0.292	2.23	0.918	75.57	8.48	36.5	23.1
QUASI x13	0.317	2.94	0.890	60.80	7.68	33.8	18.9
PRES x10	0.428	2.58	0.826	66.99	7.00	23.6	96.3

The top scoring category in each variable is identified by grey shading, noting that the Gini coefficient sets perfect income equality at zero and perfect inequality at one (see Table 2). Also note that higher relative levels of tax revenue against GDP are characteristic of nations that are considered better at delivering services to, and accommodating the needs of, their citizens. So, in terms of governmental competence and service delivery, four Scandinavian parliamentary nations, with average tax revenues at close to 40 per cent of GDP, are thought to deliver better social outcomes than, say, the presidential US with tax revenue at just under 27 per cent of GDP (versus the OECD average of 34 per cent) (OECD, 2022).

Empirical results show that only on a single variable, average annual real GDP growth, do presidential (PRES) and mixed (QUASI) governments outperform countries governed by parliaments (PARL). In addition, on no single measure, even GDP growth, does presidentialism top the trio. Figures 1 and 2 imply the evident failure of presidentialism to deliver against factors seen as essential to effective democracy.

FIGURE 1. Relative performance on democracy measures (medians and quartiles)[1]

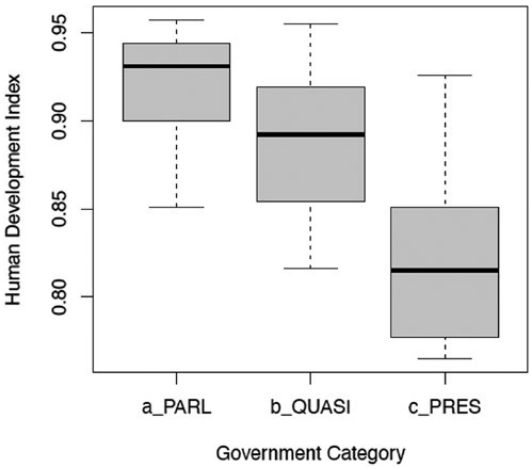


Presidentialism scores poorly against parliamentarianism and mixed forms of government in respect of both global democracy (see Figure 1 above) and human development indices (see Figure 2 following). Therefore empirical evidence suggests that parliamentarianism and mixed forms of government are likely to offer significantly better forms of democratic government than presidentialism.

1. *Global Democracy Index* – measures the state of democracy in 167 nations against five different categories: electoral process and pluralism, functioning of government, political participation, political culture and civil liberties. EIU, 2021

Gerring *et al.* support this conclusion, revealing "a strong relationship between parliamentarianism and good governance … (concluding that) … to the extent that these institutions influence the quality of governance, parliamentary systems may offer advantages over presidential systems of democratic rule" (Gerring *et al.*, 2009, p. 1).

FIGURE 2. Relative performance against human development measures (medians and quartiles)[2]



The state of democratic government

The implication of presidential shortcomings, as drawn from the empirical analysis above, is amplified by evidence of backsliding in democratic government over the past decade. With reports showing conclusively that slippage is under way primarily in presidential and semi-presidential regimes. The most recent International Institute for Democracy & Electoral Assistance (IDEA) listing of key OECD members that have de-democratised in the last year include Brazil, the US, Hungary (all PRES), Poland and Slovenia (both QUASI) (IDEA, 2021). The V-Dem 2021 listing of top ten autocratising countries between 2010 and 2020 includes Poland, Hungary, Turkey, Brazil and the US (V-Dem, 2021).

The most recent V-Dem study reports a record 42 'autocratisers', up from 33 in the previous report, and just 14 democratising countries, the lowest number since 1973 (V-Dem, 2023). Of the six OECD countries designated as autocratising, only one (Greece) is a parliamentary democracy. The remaining five – Brazil, the US, Hungary, Chile, Poland and Turkey – are presidential or mixed democracies. Of the eight OECD countries downgraded from liberal democracy to electoral democracy, six would be designated PRES (Colombia) or QUASI (Austria, Lithuania, Poland, Portugal and Slovenia).

Importantly, the evidence also suggests that presidencies are more vulnerable than parliamentary governments to a shift into authoritarianism (Turkey under Erdogan), the use of extra-constitutional expedients to suppress opposition (Brazil under Bolsonaro), and the ever-present threat of constitutional revision in pursuit of a presidency for life (Russia, China, Venezuela and Nicaragua) (Layne, 2021). Of the 12 current state leaders named and identified as dangerously personalist by Frantz *et al.*, 11 are presidents and one is a head of state in a nation categorised as QUASI. None are heads of government in parliamentary democracies. It is to be noted that "personalist leaders are more than three times as likely as others to oversee a steep decline in democracy during their tenure, and the democratic regimes that they lead are nearly three times as likely to collapse" (Frantz *et al.*, 2021, p. 99).

2. *Human Development Index* – summary measure of average achievement in key dimensions of human development including a long and healthy life, being knowledgeable and having a decent standard of living. UNDP, 2020

Global principles: conclusion and recommendation

Comparative and empirical studies suggest that the personalisation of an overpowerful presidential role is the first step on a slippery slope into autocracy. It seems clear that supporters of democracy should "have no principled reason to choose or maintain presidential government" (Ganghof, 2021, p. 22).

Emerging democracies would be well advised to instruct any Constitutional Convention to highlight that democracy has always been best served by a formal governmental framework designed to benefit from the stability and predictability of parliamentary or semi-parliamentary forms of government, as opposed to the retreat into autocracy that seems now to be characteristic of pure presidentialism.[3]

National policies – preserve and protect the necessary balance between executive, legislature and bureaucracy

The preceding section makes a single global argument that parliamentarian government systems are better than presidentialism at delivering effective democracy and the social benefits that emerge from it. This section argues that democracy and the balance of power essential to effective democracy at the national level are best protected by resisting executive creep and the politicisation of governmental institutions. This argument suggests that long-term success in national government relates not entirely to the system adopted, but also to the operation and competence of specific institutions and individuals involved in supporting and applying adopted constitutional principles.

It is also argued that static models of government neither accommodate the reality of continuous social and political change nor acknowledge the judiciary as a fundamental component of a democracy tripod (Shugart, 2008). From this argument, it is concluded that only by accepting the dynamic reality of institutional cooperation and co-existence can the ebb and flow of power in a democracy be acknowledged as the key driver of judicial independence, impartiality and subsequent legitimacy. Accordingly, parliamentarianism has, thus far, proven less vulnerable to the pursuit of power for the sake of power alone than has presidentialism.

The role and significance of governmental institutions

Democracy works when rules are clear, when it can regulate whatever disputes arise, when its constituent institutions can structure and regulate rivalries through non-obstructive rules, and when compromise is always possible (Przewoski, 1991). Democracy works because it allows for the possibility that the loser, this time, might regain power at the next election. Thus, democracy works where society has equal access to institutions and institutional rules, as well as the incentive to pursue their interests through these rules rather than through conflict.

Which, then, is the best system of government, through which to apply the rules and norms that come with a legitimate democracy? The system with the best rules and institutions for managing conflict resolution and system stability and setting norms and procedures should be considered the optimal form of government. Following the previous section, any evaluation can only involve a two-horse race between presidentialism (including semi-presidentialism) and parliamentarianism. The relative performance of 44 (actual and prospective) OECD nations would seem to place parliamentarian performance ahead of presidential performance (see Figure 3).

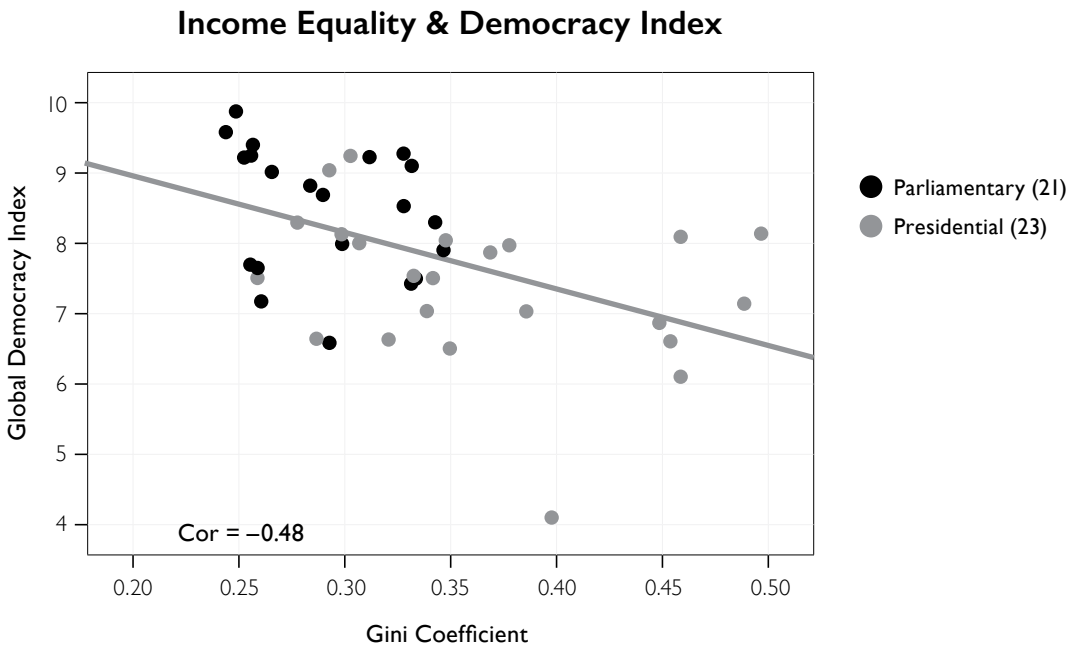
3. Perhaps Chile would also have been better served if their Constitutional Convention had heeded the advice of Napoleon Buonaparte to keep constitutions "short and obscure", where obscure implies the setting of broad principles not specific policies.

At the risk of over-stating the case for parliamentarism, relative comparisons strongly imply that the 21 parliamentary governments do a better job of performing against metrics related to the delivery of democratic freedoms, institutional performance, citizen freedoms and equality in living standards, all of which rely on the independence of an impartial judiciary (see Figure 3).

The 23 nations governed by presidential systems perform less well than parliament-governed nations in delivering income equality and the mix of social, judicial and cultural measures required to ensure legitimate and fully effective democracy (see Figure 3).

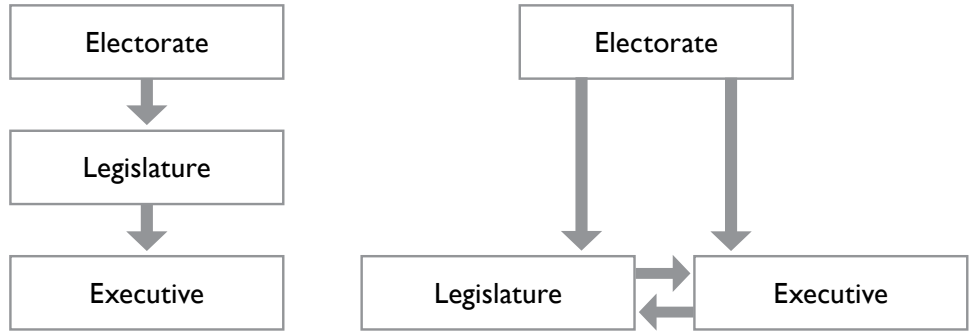
However, despite the apparent advantages of parliamentarianism suggested in Figure 3, it has been argued that parliamentary (hierarchical) and presidential (transactional) systems differ only in how executive power is positioned relative to the legislature and electorate (Shugart, 2008). Shugart's models of parliamentary and presidential power structure both display a pre-eminent role for the electorate and no explicit role for the judiciary (see Figure 4).

FIGURE 3. Institutional Performance: GDI[4] and Gini[5] (actual and prospective OECD members)



4. Global Democracy Index being an annual measure of democracy against five metrics – electoral process and pluralism, civil liberties, functioning of government, political participation and political culture
5. Gini Coefficient being a measure of 'statistical dispersion' quantifying the degree of income inequality in a nation. Where '0' implies perfect income equality and '1' implies maximal inequality

FIGURE 4. Shugart's Power Structure Models



Significance of the judiciary

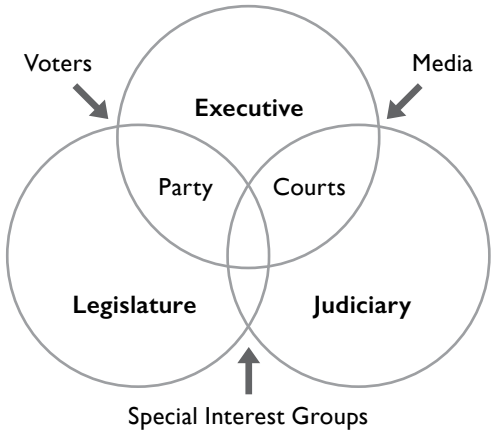
However, the structures shown in Shugart's models do not reflect the reality of actual power relationships in modern democracies, particularly as only an optimist would suggest that real power lies with the electorate. It seems clear that the preferences of an average American have only a minuscule, near-zero, statistically non-significant impact on public policy (Gilens and Page, 2014). The electorate will have influence and participation in some countries; but coercive power? No!

This is because the predominance of executive power is growing in both presidential and parliamentary systems, with neither system allowing for the dynamics of changing power relativities over time, nor for the necessities of realpolitik in the day-to-day operation of government. In addition, as noted previously, Shugart's models do not acknowledge the undeniably crucial role of the judiciary.

Significantly, V-Dem defines liberal democracy as a form of government characterised by judicial and legislative constraints on the executive and the protection of civil liberties and equality before the law (V-Dem, 2023). Furthermore, the first priority of most aspirant autocrats is to co-opt and capture the judiciary (Müller, 2023).

Democracies operate in a much more fluid manner than is implied by Shugart's models, and judiciaries are a much more significant component in the democracy tripod than electorates. Thus, for the purposes of this study, the electorate is relegated to influencer status alongside the fourth estate and special interest groups (lobbyists, unions, charities, etc.), and Shugart's fixed hierarchical boxes (in Figure 4) are replaced (as shown in Figure 5) with a Venn diagram of overlapping sets that more realistically represent the relationship between executive, legislature and judiciary as the driving elements of power at the heart of a dynamic democracy tripod.

FIGURE 5. Power intersections at the heart of democracy



This makes it possible to visualise democracy and its three overlapping sets as a system in which there is no strict hierarchy in place, but rather a constant interplay between all three key drivers of the system, as relative power between the three elements ebbs and flows with circumstance. This concept of the power intersect acknowledges that the relative influence of executive, legislature and judiciary will rise and fall over time, within countries and between countries. It also acknowledges that transactional and hierarchical politics are at play in both the parliamentarian and presidential systems, which are perhaps more similarly prone to risk than the empirical evidence suggests.

In parliamentarian systems, the executive directs the legislature by way of the whip and the promise of promotion, while the legislature can remove the prime minister by a vote of no confidence. At the same time, both the legislature and the executive ultimately rely on the judiciary to apply legal standing to their rulings and policy decisions. Effective democracy thus requires a productive interplay between executive, legislature and judiciary. Without balance and cooperation between the three, all governments run the risk of gridlock or backsliding into autocracy.

In the US, the Supreme Court is positioned at the intersect between executive and judiciary and should be a key element in the balance of power between the White House, Washington and individual state court systems. In the United Kingdom (UK), the same overlap can be seen in the role of the Attorney General, who attends cabinet as well as being senior legal adviser to the government, and in the role of the Secretary of State for Justice, who is a member of cabinet and, as Lord Chancellor, is responsible for the efficient functioning and independence of the courts.

What is apparent in many otherwise democratic nations is that this productive and balanced interplay is under attack. Under the sorry history of Boris Johnson and Liz Truss in the UK, the overt and ongoing pursuit of power by the executive branch included undermining the courts, proroguing of parliament, de-funding the BBC, limiting the rights of free assembly and protest, and widening the coverage of the Official Secrets Act. Each initiative is an attempt to broaden the scope and widen the diameter of the executive set in the Venn diagram shown in Figure 6. It can then be argued that there is only a difference in scale, aggression and timing between what Johnson and Truss hoped to achieve in the UK and what Orban and Duda actually achieved in the respective illiberal democracies of Hungary and Poland.

In the US, the republicanisation of the Supreme Court through the selective (and politicised) appointment of judges at federal, state and city levels does reflect the expansion of the executive set over the judiciary set (Levitsky and Ziblatt, 2023). It also acknowledges transformation of the Supreme Court itself from being an impartial interpreter of the law into what is, to all extents, a facilitator of both

executive and legislative power that no longer applies the law equally to all citizens, fully justifying re-classification of the US as a flawed democracy (V-Dem, 2023; EIU, 2022).

Why institutional independence matters

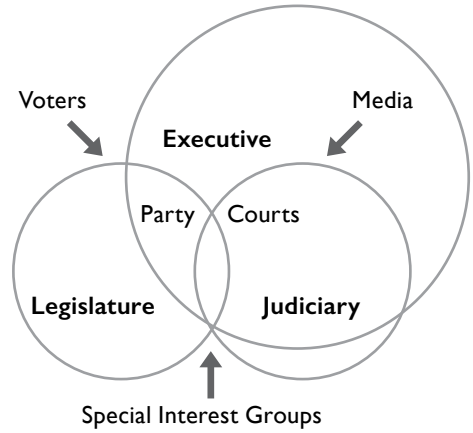
The politicisation of the judiciary in the US and in other aspirant autocracies runs in stark counterpoint to the belief that the rule of law is an essential pillar of democracy, intended to "ensure political rights, civil liberties and mechanisms of accountability that in turn affirm the political equality of all citizens and constrain potential abuses of state power" (O'Donnell, 2004, p. 32). The executive has expanded its powers at the expense of federal and state judiciaries (see Figure 6), leading to an erosion of legitimacy (overuse of shadow dockets), democratic credibility, electoral accessibility and institutional viability (Vladeck, 2022).

Rather than the balance of powers implied in Figure 5, the Venn diagram in Figure 6 reflects the executive creep characteristic of illiberal democracies. Specifically, it highlights the changes that are imposed when an incipient autocrat deals with opposition from the judiciary by sacking recalcitrants and replacing them with co-opted judges and jurists. Figure 6 also illustrates the reality in illiberal democracies, such as Hungary, Poland and even Singapore, where state capture now controls all forms of media by using constraints (access to newsprint), the threat of litigation and/or outright forced sale to regime-sympathetic oligarchs (Kralova and Vetsko, 2022).

The drivers behind institutional development and evolution

I therefore argue for the fundamental importance of independent judicial and legal systems to a successful modern democracy, whether

FIGURE 6. Judicial and legislative capture in 'illiberal democracies'



presidential or parliamentarian. As with much in life, the influence of the judiciary and other institutions will ebb and flow alongside changes in the balance of power between the executive, legislature and judiciary. However, without the genuine independence of these institutions (judicial, parliamentary and bureaucratic) from an overpowerful executive, the very nature of democracy is at risk.

These institutions are rule-enforcing mechanisms that "keep societies from falling apart, provided there is something to keep the institutions from falling apart" (Elster, 1989, p. 147). In many ways, the most important institution in setting rules, ensuring adherence to rules and ensuring cohesion, is a strong and independent judiciary.

The US Constitution has remained essentially unchanged since 1788 (just 27 amendments in almost 240 years),[6] not because of rational choice but because of the virtual impossibility of making

6. In stark contrast, the Norwegian constitution has been amended 316 times in 200 years (1814 to 2014) in order to update the formal text in ways that keep it modern.

changes in a federal system of government.[7] The Supreme Court suffers from a politicised and ageing bench as a consequence of unbending constitutional originalism. Meanwhile, obstruction in the US House of Representatives to the *Protecting Our Democracy Act* and the *For the People Act* is not the rational action of a political party seeking to enhance the operation of a liberal democracy. Rather, it is a historical and sociological legacy of endemic conservatism in non-metropolitan America, which, in turn, is maintained by the constitutionally driven under-representation of the larger, more urbanised and more liberal states[8] and by minoritarianism enabled by the filibuster (whereby a partisan 40 per cent minority in the US Senate can permanently block legislation that is backed by the majority).

National policies: conclusion and recommendations

The ambiguity that embraces possible conclusions about the relative strengths and weaknesses of parliamentary and presidential forms of government, the competing influence of electorates and judiciaries, the interplay between stability and dynamism, and the drivers of decision making at individual and institutional levels presents a quandary. Is more research needed or can a clear decision be reached based on observation of the world as it appears to be?

If the latter, there can only be one conclusion: that the pursuit of politics is the pursuit of power. While the judiciary aims to play the long game based on precedence, it is the rational choices of individual members of the executive that control most of the day-to-day outcomes. Until then, the judiciary and the public service must work together to oppose executive creep, as they did in halting Boris Johnson's attempt to prorogue Parliament and must do if Viktor Orban is eventually to be removed as de-facto president of Hungary.

It should certainly be of concern that, through his term in office, Donald Trump gradually increased pressure on the Justice Department to erode its traditional independence from presidential control. Trump's declared priorities for his second term in office generally fit into the unitary executive theory or government that holds the president of the US as having the power to directly control the entire federal bureaucracy including the judiciary and that Congress cannot fracture that control by giving some officials independent decision-making authority (Swan *et al*., 2023).

This leads to the conclusion that it is only by accepting the reality of a dynamic structure of institutional cooperation and co-existence that we can acknowledge that the balance of power in a democracy is the key driver of independence, impartiality and subsequent legitimacy in the judiciary and bureaucracy. In addition, as the following section confirms, it is voter frustration – with an executive ambitious to extend its politicisation of what should be independent judiciaries, electoral commissions, administrative affairs tribunals and other public sector entities – that is driving much of the growing dissatisfaction with liberal democracy and reducing public trust in government.

Or, as stated by one of the public figure interviewees for this study, a former Australian Federal Minister, "that goes back to my point about the breakdown of trust. If people don't think they can trust our politicians to lead and the institutions of government to do the right thing, they will look elsewhere for security".

7. Requirements for US constitutional change: 2/3 majority in both houses and 3/4 of all US states, while Norway requires only a three-quarters majority in the unicameral Storting for amendments to come into immediate effect.
8. California, with a population of 39 million, has two senate seats, as does Wyoming with a population of barely 585,000.

Societal priorities – fix the obvious stuff highlighted in voter surveys from Australia, the UK and the US

It can be argued that, at the societal level, it is only by pursuing a narrowing of the trust divide between the elected and the electorate that modern democracies can counter the very real threat of emergent autocracy (Neilson, 2022 and 2023).[9]

The previous section argued that real power does not lie with the electorate. However, without the trust of a supportive electorate, no democratic government can resist the incursion of populist grandstanding and its possible regression into autocracy. Only by listening to the concerns of an electorate and implementing the operational changes that the electorate considers important can the trust divide be narrowed to the point where populists and incipient autocrats become marginalised.

The research on which this section is based suggests that the electorate is more keenly interested in operational and institutional reforms aimed at repairing the mechanisms of government than in immediate gratification, and on prioritising system renewal over the partisan distribution of bread and circuses.

Assessing electoral concerns

My research was carried out between September 2021 and March 2023 by way of interviews with current and former Australian politicians (n = 23), and with questionnaires directed at a sample of mostly mature age voters in Australia, the UK and the US (n = 188).[10] The research aimed to assess the extent to which trust in government has declined over the past decades. It also sought respondent views on what changes in operational behaviour at the institutional level might work towards narrowing the trust divide and restoring confidence in democracy.[11]

Survey results suggest that if liberal democracies are to resist their current adversities, they should acknowledge the trust divide, understand its causes, recognise its risks, implement operational reforms aimed at restoring voter trust in democracy, and prioritise the performance of institutions and politicians charged with its care (Neilson, 2022).

Social, business and educational (former high school contemporaries) contacts in Australia (n = 124), the UK and the US (n = 64) responded to questions about voting behaviour, satisfaction with democracy and trust in government as it currently operates. They were also asked for open-ended suggestions on reform and five contextual questions relating to the respondent's home country, age, work status, gender and highest education level achieved. It is clear from Table 3 following that most respondents expressed a low level of satisfaction with democracy.

TABLE 3. Relative ranking of satisfaction with democracy

Respondent category	Respondents	Satisfaction
Australian social and business contacts	87	3.03
Queensland contacts	37	3.00
UK high school alumni	34	2.51
UK social contacts	20	2.54
US social contacts	10	2.50
Total/Average	**188**	**2.85**

Note: Score on satisfaction with democracy: where 1 = totally dissatisfied and 5 = totally satisfied

9. This section, Societal Priorities, is derived from Neilson, 2022 and 2023
10. Voter survey questionnaire was directed in early 2022 to 574 social, business, and educational contacts in Australia, the UK and the US, with full responses received from 188 participants.
11. Trust Divide is defined as the gap between voters' expectations of, and their perceived satisfaction with, the performance of politician and government institutions.

Australian respondents did score a higher satisfaction with democracy (circa 3.0 out of 5.0) than did respondents from the UK and the US (circa 2.5). Australian politicians, seemingly satisfied with their own performance, scored highest at 3.4.

As noted, respondents were requested to evaluate the extent to which they trusted their respective governments and institutions of government. They were asked two questions:

1. What is **your level of trust** in your national government **today**?
   Where 1 = very low and 5 = very high.
2. Has your **level of trust** in your national government **changed** over the past 10 years?
   Where minus 2 = much lower, 0 = not changed and plus 2 = much higher.

The results show that over the last decade, trust in government has declined across the Anglosphere and is now defined by 53.5 per cent of survey respondents as Low or Very Low. Only 15.5 per cent of all respondents expressed a trust score of High or Very High. In Australia, just 18.6 per cent of 124 respondents scored their trust in government as High or Very High, and only Queenslanders scored Very High (see Table 4).

Pressure for reform

Voter survey responses confirm the findings from the academic literature, credible polling and the international commentariat (as well as feedback from interviews with Australian politicians) as to the poor state of trust in, and satisfaction with, governments across most liberal democracies, and the extent to which levels of trust and satisfaction are declining. However, the voter surveys were not just about the numbers; they were also about asking survey respondents to generate suggestions for changing the way that politicians and parliaments work – specifically, for suggestions on changes that each respondent believed would enhance the degree to which they would trust the system of government as it currently operates in their respective democracies.

Of 151 initial voter survey respondents (social and business contacts in the UK, the US and Australia excluding Queensland),[12] only 11 declined to make

TABLE 4. Voter trust in government

Catchment	The current level of trust where 3 = undecided	Change over the past 10 years where 0 = unchanged
US	3.00	–0.90
Queensland contacts	2.76	–0.65
Australia social and business	2.45	–0.95
UK high school alumni	2.16	–1.15
UK social contacts	2.10	–1.05

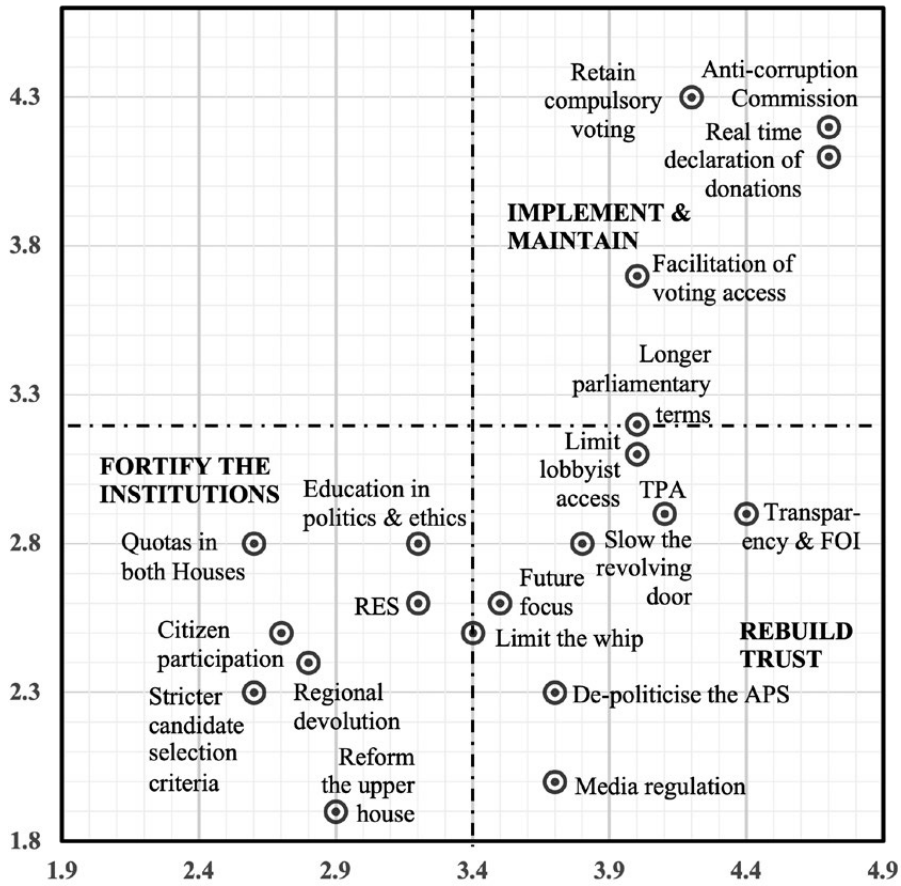
Note: Average levels recorded by voter survey respondents
Trust level in national government: where 1 = very low and 5 = very high
Change in trust over past decade: where minus 2 = much lower and plus 2 = much higher

12. Queensland respondents were not included in the second survey round as their first-round participation occurred too late to allow subsequent participation in the pursuit of suggestions for reform

suggestions for reform. Those who did respond put forward a total of 537 individual suggestions for reform, which were culled to 310 after review and evaluation. These, in turn, were grouped by common attributes into 20 primary reform initiatives. In turn, the 20 primary reform initiatives were returned to survey participants for scoring against Importance and Implementability, which, in turn, allowed construction of the Reform Matrix for Australia (see Figure 7).

FIGURE 7. Reform Matrix – Australia[13]

Y-axis – Implementability
Where 1 = challenging and 5 = achievable



X-axis – Importance
Where 1 = optional and 5 = crucial

13. FOI = Freedom of information; RES = Reform the electoral system (move to full FPTP); TPA = Truth in political advertising; APS = Australian Public Service. Respondents -44

A similar matrix was constructed for feedback from UK respondents. Both reform matrices suggest the possibility that a mainstream party seeking to rebuild trust with its constituents should focus on the following:

1. Adopting manifesto statements that, **in the short-term commit to implement and maintain** reform initiatives located in the high/right quadrant of the reform matrix;
2. Working towards reforms intended to **rebuild trust over the medium term** that are contained within the low/right quadrant; and
3. Future-proofing democracy with planning for programmes that **fortify institutions over the longer term**.

Despite some differences, it is worth noting that Australian and UK respondents both place high emphasis (**implement and maintain**) on the need for anti-corruption initiatives, greater transparency on donations and the enhanced facilitation of voting.

Country-to-country coincidence on reforms with applicability to the medium term (**rebuild trust**) included limitations on lobbyist access, the requirement for truth in political advertising, the need for greater transparency in policy decision making and slowing the revolving door for post-ministerial careers. Australian respondents also favoured the adoption of longer parliamentary terms.

Regional devolution, education in politics, citizen participation, stricter candidate selection criteria, electoral system reform and quotas were all acknowledged as longer-term issues.

Both respondent groups acknowledged, consciously or unconsciously, the importance of integrity and independence within government institutions – with a degree of separation from the executive – that are responsible for enforcing codes of conduct, addressing corrupt behaviour, managing elections, tracking donations, curtailing the influence of lobbyists and reviewing the evolution of democracy as it adapts to social, economic and political change.

Feedback from Australian politicians

The Australian politicians who responded to a request for an interview (n = 23) also highlighted some of the reforms identified by voters in the follow-up survey. Although the sample was small, the politicians did assign high scores to the importance of: extending parliamentary terms (4.6 out of 5); establishing what has become the National Anti-Corruption Commission (NACC) (4.4); requiring more significant control over, and real-time reporting on, donations (4.3); retaining compulsory voting (4.3); and introducing compulsory education in politics and ethics during the final two years of high school (4.0).

The widest gaps between Australian politicians and Australian voters in scoring for importance were related to the need for better access to voting (digital voting), the level of attention to be paid to the future (climate change, etc.), support for legislation on truth in political advertising and better control over the revolving door for post-ministerial careers. All were scored high by voters and low by the politicians.

Social priorities: conclusion and recommendations

Perhaps the gulf between elected and electorate is best encapsulated in the words of one of the interviewed Australian politicians who, after reviewing a draft of the survey results, stated: "I am deeply opposed to nearly all of your voters' reform suggestions. Most of them would, if enacted, dramatically reduce the sovereignty of parliament, and place it in a subservient position to some sort of council of experts".

That, in itself, suggests voter dissatisfaction in the way that politics is working. This is not to say that the issues that drove recent shift to the right in election outcomes for Greece, Turkey and Finland, namely the cost of living, energy prices and inflation, are irrelevant. Or that manufacturing outrage is electorally easier and more instantly rewarding than the long haul of fixing real (systemic) problems (Economist, 2023). However, feedback from the voter surveys and politician interviews suggests it is equally important that attention be paid to the systemic operational changes (the Obvious Stuff) required at societal level to re-build voter satisfaction with democracy and trust in the institutions that underlie democratic government.

Conclusions

The bookshelves of most students of political science today are almost certainly weighty with warning of the dangers facing liberal democracy around the world (Albright, 2018; Applebaum 2020; Diamond and Plattner, 2016; Levitsky and Ziblatt, 2018; Luce, 2017; Repucci and Slipowitz, 2021; Taylor, 2019; Temelkuran, 2019). In optimistic response, however, this article posits a credible hierarchy of initiatives for the recovery of liberal democratic government at the global, national and societal level: reject presidentialism; resist executive creep to preserve the independence of key institution; and reform those mechanics of government process that will work towards closing the trust divide.

In this context, therefore, Australia is assessed against its performance at each level. Overall, a generous marker would say "trying hard, but could do better". At the global level, it seems self-evident that Australia is a fully functional liberal parliamentarian democracy that, against virtually all measures, does deliver on behalf of its voters,[14] from whom little is demanded other than to pay taxes and turn up to vote in all national, state and local elections.

At the national level and under Australia's Constitution, the country's judiciary is independent from other arms of government. Separation of powers means that, in interpreting and applying the law, judicial officers (usually) act independently and without interference from the legislature or the executive. That said, judges at all levels are appointed by the executive government, without interference from the existing judiciary; the very problem that has eroded, and continues to damage, judicial independence in, for example, the US, Hungary and Poland. Over six billion people now live in countries where rule of law is declining (World Justice Project, 2022). Thus far, however, it does not seem to be an issue for Australia, but at 13th out of 140 countries in the World Justice Project rankings against adherence to the rule of law, some improvement should be possible.

At the societal level, the Australian voter survey respondents identified 12 reform initiatives that rank above the median score on importance (see Figure 7). All of them being reforms that the survey respondents believe would enhance the degree to which they would trust the system of government as it currently operates in Australia. Of the 12, five score high on both importance and implementability, but show a mixed record of actual and probable implementation:

1. **Implementation of an anti-corruption commission** – MERIT with Australia's National Anti-Corruption Commission commencing operation on 1 July 2023;
2. **Requirement for real-time declaration of donations** – PASS at state level but still resisted at national level;

14. Australia at ranked 22nd of 84, and is headed by thirteen PARL democracies, five QUASI, two emirates and one PRES (the US) – Quality of Life Index, 2023

3. **Retention of compulsory voting** – DISTINCTION with Australia considered by many as a model to the world;
4. **Facilitation of voting access** – FAIL with digital democracy at least a decade away; and
5. **Extension of parliamentary terms** – UNLIKELY TO CHANGE, despite continuous calls over recent years for extension of the three-year maximum term.

Looking at the remaining seven, there is still a long way to go. Lobbyists have virtually unlimited access to the corridors of parliament (Williams and Tham, 2023). Australia's federal lobbying controls, widely regarded as risible when compared with international standards, certainly fall short of OECD recommendations (*Sydney Morning Herald*, 2023). The revolving door continues to spin for former parliamentarians seeking a new career as lobbyists, and there seems to be little probability that truth in advertising laws as applied to commerce will soon, if ever, be applied to politics. However, looking on the bright side, "studying democracy and the legal system … (is about to) … become mandatory in New South Wales schools … under a revised curriculum designed to bolster knowledge of democratic systems (Harris, 2024, p. 11).

The politicisation of the Australian public service that started under the Hawke and Keating governments continues and shows no sign of abating. Media regulation and defamation laws still highlight concentration in the hands of overpowerful magnates. Apparent prioritisation of the immediate over emergent issues, such as climate change, de-carbonising the economy and dealing with an ageing population, remains a real concern for survey respondents; but all still linger in the too hard basket of many parliamentarians

If liberal democracy is to overcome its current tribulations, it would be advisable that reforms be directed at rebuilding the strength of government institutions at the heart of democracy, and that the necessary reform be introduced within the short term.

In conclusion, "the liberal West can no longer pay long-term lip service to open-ended statements in anodyne support of restoring trust in democracy. This is, and always has been, meaningless and empty sophistry that is just too easy to pass on to the next incumbent. But until such time as our elected representatives decide to put the revivification of democracy ahead of their re-election prospects, the status will ever remain *quo ante*" (Neilson, 2022, p. 39).

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ARTICLE

Measuring what matters: Rhetoric vs reality in wellbeing budgeting in Australia

Prof Graham Ford AO, Prof Federica Ricceri, Dr Cristiana Bernardi & Prof James Guthrie AM

An international team of governance and public policy scholars examine Australia's *Measuring What Matters* framework to assess how far 'wellbeing budgeting' aspirations translate into budget practice. Drawing on government documents and stakeholder submissions, they find the emphasis to date has been on measurement and reporting, with limited demonstrable integration into core fiscal decision-making.

1. Introduction

Australia introduced a national wellbeing budgeting framework, *Measuring What Matters*, in 2022 (Treasury, 2022). This initiative aimed to align social and economic goals to better understand and improve Australians' overall quality of life. The framework used 50 indicators to track various aspects of wellbeing, including health, security, sustainable social cohesion and prosperity (SBS, 2023).

Internationally, governments have recognised the significance of integrating broader indicators of wellbeing progress. Countries such as Scotland, Wales, Canada, New Zealand and Germany have embraced progress frameworks to emphasise the importance of non-economic outcomes and provide a perspective on national advancement and the wellbeing of citizens (Moll *et al*., 2025).

Disclaimer

Research for this paper used AI tools available for academic research. We used Professional Grammarly to check the text and edit the document. We used Google NotebookLM to summarise key documents. The authors checked all work created by AI, and the final responsibility for the text rests with the authors as any scholarly work.

Wellbeing budgeting aims to allocate resources to prioritise and advance society's overall wellbeing, often incorporating health, environment and social factors into financial budget decision-making – that is, prioritising human and environmental needs to ensure the wellbeing of present and future generations. This aligns with UN Sustainable Development Goals and a human-centric approach rather than solely focusing on economic and financial issues (OECD, 2024).

The Treasury rhetoric is that the 'wellbeing budget' can empower communities by involving them in defining their wellbeing, allowing them to contribute with their viewpoints, assumptions and suggestions (Treasury, 2023a). The Australian Government's national budget incorporates metrics related to quality of life, including education, healthcare and housing, alongside conventional measures like gross national product (GDP) growth. The concept of wellbeing emerged due to concerns regarding the limitations of the GDP indicator used by policymakers focusing on economic growth. It offers an alternative understanding of other aspects contributing to fulfilling citizens' quality of life (Fleurbaey and Blanchet, 2013). While there may be differing opinions on the definition and methods of measuring wellbeing, advocates of the approach believe that public policy's primary objective should be enhancing societal wellbeing in the public interest. The wellbeing approach is crucial to address three key challenges: (1) defining how wellbeing is assessed, (2) identifying whose wellbeing can be evaluated and (3) ensuring that all population members are adequately represented in the discussions surrounding these challenges.

Therefore, wellbeing budgeting in Australia should represent a public policy approach emphasising societal health and quality of life alongside traditional economic metrics like GDP. This aligns with a global trend within several governments prioritising wellbeing in public policy. Historically rooted in Australia, in early 2010, the initiative developed into a more structured framework for societal progress (Holden, 2019).

The recent progress of wellbeing budgeting in Australia can be summarised as follows (SBS, 2023). First, an initial draft framework was released in 2022. The incoming Treasurer, Chalmers, released the first national wellbeing framework beyond GDP. The second was the establishment of an indicator tracker. The framework uses 50 indicators to monitor various aspects of wellbeing, such as health, security, sustainability, social cohesion and prosperity. This comprehensive approach aimed to provide a whole government view of the nation's societal progress.

Third, trends and identification challenges were established. Treasury rhetoric in 2022 was that there had been improvements in life expectancy and feelings of safety, challenges in mental health, real wages, homelessness and trust in the national government. Fourth, the ongoing developments of the framework should be evaluated. Treasury rhetoric was to continuously refine indicators, improve data collection methods and enhance stakeholder engagement to ensure the framework remains relevant and practical (Moll *et al.*, 2025).

Australia's wellbeing budgeting initiative, *Measuring What Matters*, has involved stakeholder engagement in two rounds of Treasury consultations (SBS, 2023). The first public consultation, over 280 submissions, was received from individuals, organisations and experts. These submissions provided insights and feedback on the original proposed indicators and framework. Second, collaboration with international bodies, including meetings with other countries and international organisations, helped shape the framework by incorporating global practices and lessons from similar initiatives. Third, engagement with local communities and various societal sectors was to ensure the framework reflects Australians' diverse needs and priorities.

Despite these rhetorical ambitions, challenges in implementation persist. Critics highlight the Australian government budget's continued emphasis on economic growth, with economics mentioned 80 times versus a single mention of wellbeing in the 2022–23 budget (Martin, 2022). This imbalance illustrates the difficulty of shifting focus from economic indicators to genuine wellbeing measures (Grattan, 2023). Additionally, as seen in New Zealand, realising tangible improvements in wellbeing metrics takes time, underscoring the complexities of this transition (Bartos, 2022) and a change in government.

In the following paper, we identify several implementation challenges from 2022 to 2024 practices in our case study. First, concerning data collection, some of the data used in the framework was collected before significant events like the COVID-19 pandemic and multiple interest rate rises, which critics argue may not reflect current conditions. Second, over the past decade, the concept of a wellbeing budget has faced political resistance from conservative forces. For example, the former Treasurer dismissed the idea as laughable when it was first proposed. Third, public perception, there is a need to educate the public and policymakers about the benefits of focusing on wellbeing rather than just traditional economic metrics like GDP (Hughes, 2023).

Therefore, the paper aims to follow the processes associated with Australian wellbeing budgeting over several years, from 2022 to 2024. Also, it compares the rhetoric versus the reality of the government budgeting process via document analysis and various stakeholder submissions. This research provides insights into government responses during crises and New Public Management (NPM) developments, mainly focusing on New Public Financial Management (NFPM) and public budgeting. It significantly enriches the literature on public sector budgeting. Despite a lack of substantial scholarly exploration of the practices of wellbeing budgeting, this study delves into the implementation challenges and barriers encountered, utilising an Australian case study. The paper identifies potential areas for further research. It suggests that other governments interested in wellbeing budgeting can benefit from the findings to enhance their understanding of integrating such changes into their governance frameworks.

The paper organised as follows. The second section examines the historical development of NPM and public budgeting. The third section investigates the literature on wellbeing budgeting and its historical context in Australia. The fourth section describes the research methods, including case studies and content analysis and elaborates on the Australian case study. The fifth section focuses on the submissions, identifying themes and gaps and various shortcomings in measuring what matters. Lastly, the sixth section provides a conclusion and proposes directions for future research.

2. Literature Review on New Public Management and Public Budgeting

This section briefly reviews NPM and scholarly literature on public budgeting. For instance, Guthrie and Grossi's (2025) paper critically examined contributions to the book *Global Warning: Debating Developments in New Public Financial Management*, published by Olson *et al.* in 1998. Guthrie and Grossi (2025) stated that over the past 25 years, interest in New Public Financial Management (NPFM) has increased, paralleling the rise of neoliberalism and NPM as dominant forces in public sector administration globally. This paradigm shift is linked to a movement towards neoliberal philosophies and associated technologies. The paper notes that case studies on NPFM impacts have evolved into critiques of stringent accounting, auditing and accountability practices, revealing significant negative implications for the public sector, public services and civil society. New governmental budgeting forms, including wellbeing, have emerged. These budgeting measures are crucial to addressing contemporary and future challenges related to

sustainability, digitalisation and hybridisation, which could negatively impact the public sector, public services and civil society.

In their literature review, Roberto *et al.* (2025) examine NPFM scholarship, identifying a central theme: devolution and decentralisation or delegation of budgets. This theme explored the dynamics of budgetary decentralisation and its impact on governance and accountability. The literature underscores the crucial role of budgeting in shaping accountability and decision-making within public institutions. Performance budgeting appears repeatedly in various forms (such as wellbeing, gender and balance), with scholars debating effectiveness in practice to improve transparency and accountability.

Moments of crisis can also remind us that how we have often come to subordinate social relationships to economic ones is problematic. For instance, the Global Financial Crisis (GFC) and the COVID-19 pandemic mainly brought the public debate on welfare, anxiety, social isolation, needs and inequalities and care actions to the fore (Andrew *et al.*, 2020, 2021). These are societal and wellbeing matters.

Andrew *et al.* (2020, 2021) broaden the discourse by critiquing the impact of neoliberal ideologies on public budgeting, particularly in crisis contexts such as the COVID-19 pandemic. Their 2020 study examined Australia's constrained fiscal responses, attributing rigidity to decades of neoliberal policies that have eroded governments' capacity to implement flexible and crisis-responsive budgets. The 2021 study explored how inequality shapes budgetary measures, advocating for accounting research prioritising social and economic equity. Together, these studies extend the traditional focus of NPFM to encompass social wellbeing and ethical and societal dimensions, urging policymakers to address systemic inequities through budgetary developments.

These public budgeting debates have extensive unresolved histories (Wildavsky, 1966, 1978, 1979). The growing emphasis on wellbeing initiatives and the need for new forms of governance following crises are disrupting traditional societal and economic structures. This shift requires reevaluating the role of government and moving away from dependence on traditional economic and accounting indicators like GDP and balanced budgets. With political and economic systems struggling to guarantee stability, sustainable development and social equity, there is a push for a political agenda that *prioritises creating conditions conducive to human flourishing while ensuring harmony with the environment and the survival of present and future generations* (OECD, 2024).

Simultaneously, our encounters with worldwide catastrophes such as the Ukraine war, GFC, heightened awareness of the severity of the climate crisis, inequality of wealth, a surge in mental health issues and the COVID-19 pandemic underscore the magnitude and accumulation of challenges we confront together (OECD, 2021, 2023a).

While governments have long been accustomed to crisis and uncertainty as part of their reality, these events illuminate the fragile foundations of our daily security and economic structures for others. For several governments, previous nation-state transformations have rooted in NPFM's accounting, auditing and accountability practices (Guthrie and Grossi, 2025). Reflecting neoliberal ideologies and NPM practices, the focus of the Australian public sector has increasingly shifted towards its financial performance, shaping its organisational conduct through strategies, goals and detailed measurement processes (Guthrie and Grossi, 2025). In Australia, business accrual accounting was introduced (Carlin, 2006; Guthrie, 1998) and output budgeting (Carlin and Guthrie, 2003; Carlin, 2003; Hoque, 2022; Mauro *et al.*, 2017; Mauro *et al.*, 2021).

The NPM methods utilised to achieve these objectives – including economic and accounting

assessments and audit reasoning – mirror those employed by major accountancy firms like the Big Four in offering advice on policies and management to governments (Shore and Wright, 2015). By aligning their actions with the enablers of the Big Four, the public sector has embraced the NPM principles of efficiency and comparability. However, critics rightly question who reaps the rewards of these results, making these queries even more crucial (Carnegie *et al.*, 2021).

The above trends indicate the resilience of NPM and its intuitive appeal to politicians and policymakers (Lapsley, 2009, 2022; Lapsley and Miller, 2024). Its advocates argue that NPM can deliver policy outcomes. Lapsley and Miller's (2024) book highlights that such claims and aspirations are not matched by the evidence of NPM in action is supported by Alawattage and Wickramasinghe (2018). In line with other developed countries, Australia implemented budget reforms influenced by neoliberal principles in the 1980s and 1990s (Guthrie *et al.*, 1999.). These reforms aimed to enhance efficiency in the delivery of public services. Introducing wellbeing-like measurements signifies a shift in the nation-state's commitment, moving beyond focusing on GDP and financial resource allocation to prioritise distributive justice and the measurement of quality of life (Moll *et al.*, 2025).

Similar to the work of the scholars mentioned above, our aim in this paper is to examine experiences within a single country, considering its unique contexts and histories. This approach is essential for understanding how particular NPM changes are implemented in practice and assessing their effects on accountability and the delivery of public services. It suggests that other governments interested in wellbeing budgeting can benefit from the findings to enhance their understanding of integrating such changes into their governance frameworks.

3. Wellbeing budgeting practice in Australia

Recently, Australia's government has increasingly stated that it is focused on integrating a wellbeing framework into its public policy, aligning with global trends and prioritising quality of life and economic growth. The concept of wellbeing budgeting in Australia is not new. It has historical roots in the Treasury's mission to improve the wellbeing of the Australian people (Holden, 2019). This mission has traditionally encompassed various wellbeing indicators, including individual freedom, consumption possibilities, social equity, risk distribution and decision-making complexities. Before 2016, the Treasury identified five key metrics within the budget framework, although these were not widely publicised. These metrics emphasised resource access and sustainability over mere economic growth, necessitating an assessment of societal outcomes. The significance of this framework gained prominence with the emergence of New Zealand's wellbeing budget in 2018 (Holden, 2019). This shift sparked critiques of traditional economic measures like GDP, leading to discussions about incorporating wellbeing indicators into public policy. Proponents argue that a wellbeing approach offers a more nuanced understanding of national progress, resonating with critiques that GDP fails to capture essential aspects of societal health, education quality and environmental integrity (Treasury, 2023b).

Moll *et al.* (2025) article examines integrating contemporary wellbeing into government budgeting processes in Australia and New Zealand. The authors analyse official documents and media sources to compare the two countries' approaches, highlighting challenges in identifying and measuring wellbeing indicators, data reliability issues and the complexities of citizen participation. The study identifies key differences in implementation strategies and proposes a future research agenda focusing on citizen participation, wellbeing measurement, budget integration and reporting

practices. The paper contributes to a growing body of knowledge on new government budgetary practices, focused explicitly on wellbeing budgeting and its implications for public governance.

This article investigates and compares the Australian and New Zealand governments' experiences with wellbeing budget reforms, which aim to integrate wellbeing into public budgeting processes. Both countries have a history of budgetary reforms influenced by NPM. Wellbeing budget reforms utilise calculation, quantification and performance measurement for NPFM.

Nationally, various governments have integrated wellbeing into their policies through multiple means (Frijters and Krekel, 2021). For instance, in Europe, the European Commission established a framework to steer national policy development focusing on reducing health disparities and enhancing governance for health and wellbeing (WHO, 2013). Also, Wales introduced the *Well-being of Future Generations (Wales) Act 2015 in 2015*, which mandates that public entities achieve wellbeing goals and assess the long-term effects of policies on upcoming generations. This legislative endeavour was followed by similar actions like the implementation of the Scottish Government's Performance Framework in 2016 and the Wellbeing Budget strategy initiated by the New Zealand Government in 2019. These efforts align with the growing global adoption of standardised social wellbeing indicators such as the Organisation for Economic Co-operation and Development's (OECD) How's Life Survey since 2011 (OECD, 2021, 2023a, 2023b) and the European *et al.* initiative since 2002 and measures of life satisfaction (like the World Happiness Reports starting in 2012 (Helliwell *et al.*, 2012)).

Historically, Waring (1990, 2018), in her critique of the United Nations System of National Accounts (SNA), the principal framework for measuring national economic activity, argued that the SNA is structurally biased through its exclusion of unpaid labour, much of which is performed by women, including caring for children and older people. Rather than offering precise alternative GDP estimates, Waring used illustrative examples to demonstrate the scale of economic activity omitted when unpaid work is excluded from national accounts. Her work has been highly influential in advancing alternative approaches to measuring economic activity that recognise and value unpaid labour.

Assessing and tracking non-economic indicators is vital for measuring societal advancement, improving understanding of the economy and society and informing policy decisions. At the same time, conventional measures such as GDP should not be the sole focus, as they overlook social and environmental impacts and considerations of equity. By incorporating a broader range of metrics, societal progress can be monitored on aspects crucial for societal wellbeing and sustainable growth. Australia has a history of exploring alternative progress measures.

In recent years, the Australian government has shifted its public policy focus towards a wellbeing framework, aligning with global trends emphasising quality of life and economic growth. Although gaining recent attention, the concept of wellbeing budgeting in Australia has historical roots, particularly within the Treasury's mission to improve the wellbeing of the Australian people. This commitment has traditionally included various wellbeing indicators such as individual freedom, consumption opportunities, social equity and risk distribution. In 2022, Australia introduced the *Measuring What Matters* framework, marking a shift in economic strategies by incorporating wellbeing indicators into policy-making. The rhetoric was that this initiative underscores the importance of understanding and measuring wellbeing, aiming to improve citizens' quality of life. As Australia advances with its wellbeing budget, it positions itself as a potential leader in the global movement towards wellbeing economics (ABS, 2023).

The Measuring What Matters framework had five wellbeing themes shown in Table 1.

TABLE 1. *Measuring What Matters* Framework wellbeing themes

Prosperous: A society with a dynamic, strong economy invests in people's skills and education and provides broad opportunities for employment and well-paid, secure jobs.
Inclusion: equity and fairness are cross-cutting dimensions of the framework.
Sustainability: A society that sustainably uses natural and financial resources, protects and repairs the environment and builds resilience to combat challenges.
Cohesive: A society that supports connections with family, friends and the community, values diversity and promotes belonging and culture.
Healthy: A society in which people feel well and are in good physical and mental health, can access services when they need them and have the information they require to take action to improve their health.

Source: Treasury (2023a)

These themes are supported by 12 dimensions describing wellbeing themes and 50 indicators to monitor and track progress. The first dashboard, published by Treasury in 2023, defines the metrics for each key indicator (Treasury, 2023a). In 2024, the dashboard data was taken from Treasury and handed to the Australian Bureau of Statistics (ABS, 2024). The ABS updated the framework while retaining the themes and dimensions established by the Treasury.

Table 2 provides an outline for a brief history of key events.

TABLE 2. Australian Wellbeing Budgeting Brief History

Before 2022, previous attempts at a Wellbeing Budget (Moll e*t al.* 2024)
2022 Election Labor Federal government (Smith, 2022)
2022 Commonwealth Budgets 2022–2023 (Commonwealth of Australia, 2022)
2023 Treasury Report from Consultation 1 (Treasury, 2022)
2023 Measuring What Matters Report and Dashboard (Treasury, 2023a)
2023 Measuring What Matters Statement (Treasury, 2023b)
2024 Treasury Report from Consultation 2 (Treasury, 2024)
2023 Commonwealth Budget 2023–2024 (Commonwealth of Australia, 2023)
2024 Wellbeing Budget project moved to the ABS (ABS, 2024)
2024 Commonwealth Budget 2024–2025 (Commonwealth of Australia, 2024)

The Treasury presented the framework as a shift toward wellbeing-informed decision-making, emphasising societal wellbeing over purely economic metrics. Developed through a consultation progress number 1 and 2 with many submissions from stakeholders, including community groups, businesses and international organisations like the International Monetary Fund and OECD, the framework identifies five key wellbeing themes and dimensions, as illustrated in Table 3.

TABLE 3. *Measuring What Matters*: the five wellbeing key themes and dimensions

Prosperous: A growing, productive and resilient economy
• An economy that provides opportunities for all Australians.
• An economy that is more resilient and less vulnerable to shocks.
• People are financially secure.
• People have access to education, knowledge and training so they have the skills to fully participate in society and the economy throughout their life.
• People have access to necessary services and amenities.
• A sustainable budget that can continue to deliver the services Australians rely on and can buffer the economy against future shocks.
• A dynamic economy, which encourages and offers opportunities for innovation and entrepreneurship.
• An economy that seizes the opportunities from the net zero transition and digitisation.
Inclusive: A society that shares opportunities and enables people to fully participate
• A society that allows all people to afford life's essentials.
• A society that provides people access to secure, well-paying jobs.
• A society that supports social and economic accessibility and intergenerational mobility.
• Gender equality, including at work and in the community.
• A society that supports diversity and equity.
• Leadership in government and business that is representative of our diverse society.
Sustainable: A natural environment that is valued and sustainably managed in the face of a changing climate for current and future generations
• A healthy natural environment for current and future generations, protected from the damage being caused by climate change.
• A society and economy that is resilient and adapting to a changing climate.
• A society that sustainably uses our natural resources, on track to reach to net zero emissions.
• A society that values the social, cultural and economic significance of our natural environment.

Cohesive: A safe and cohesive society that celebrates culture and encourages participation
• A society where people feel safe at home, online and in the community.
• A society that is Closing the Gap and values First Nations culture.
• A society where people have the time and opportunity to participate in the arts, culture and sporting activities.
• A society that has close relationships with family and friends.
• A government that is trusted by the public.
• People participate in the democratic process and engage in their community.
• A society that supports engagement in the community through volunteering or other means.
Healthy: A society in which people feel well and are in good physical and mental health now and into the future
• A society in which people are in good physical health.
• A society in which people are in good mental health.
• A society that ensures the health and development of its children.
• A society in which people are generally satisfied with their life.
• A society where people have enough time for family, friends, personal interests and their community.
• A society that values the contributions of all regardless of health or ability.

Source: Treasury (2023a)

The five themes are supported by 50 key indicators. The framework's 50 indicators, organised by wellbeing theme, are shown on a dashboard. For illustration, we produce Table 4 below, highlighting the indicators related to the wellbeing theme Prosperous.

TABLE 4. Prosperous theme indicators

Prosperous indicators		
1. Broadening access to work	**6.** Income and wealth inequality	**11.** Literacy and numeracy skills at school
2. Childhood development	**7.** Innovation	**12.** National income per capita
3. Digital preparedness	**8.** Job opportunities	**13.** Secure jobs
4. Education attainment	**9.** Job satisfaction	**14.** Skills development
5. Household income and wealth	**10.** Productivity	**15.** Wages

Source: Treasury (2023a)

These themes in the rhetoric help policymakers prioritise initiatives that directly impact on Australian society's wellbeing by understanding indicators' changes. Martin (2022) argued that integrating wellbeing into decision-making requires a shared understanding among policymakers of societal wellbeing and the interconnectedness of various outcomes. This approach stresses addressing the root causes of societal issues rather than their symptoms, promoting a systemic policy development process. The government acknowledged that improving wellbeing is a collective effort, necessitating a reconnection with the citizens it serves (Coade, 2023a).

In 2024, the ABS took over the annual dashboard updates to oversee the framework by selecting indicators and integrating them into decision-making processes. The ABS updated data for 42 of the 50 indicators while retaining the themes and dimensions initially established by the Treasury (Coade, 2023b).

As discussed below, key themes identified from discussions and submissions since 2022 have changed the framework or dashboard little since the draft was released.

4. Research Methods

This section provides an overview of the two research methods used in this paper. Section 4.1 provides the context and development of the wellbeing budgeting. In section 4.2, we provide details of the Australian case study and key events. Section 4.3 highlights how we analyse the individual submissions in phase two of the consulting project. Finally, we provide a stakeholder analysis of the second consulting project's key themes and what was necessary for various stakeholder groups.

4.1 Context for Wellbeing Budgeting in Australia

The government introduced the *Measuring What Matters* framework concepts in the October 2022–23 Budget. Subsequently, the government initiated the first phase of consultations, with many submissions received by the Treasury from a diverse range of stakeholders, including community groups, businesses, academics and government entities. Treasury argued that analysing the submissions and reviewing domestic and international approaches has surfaced five key themes crucial to societal wellbeing: prosperous, inclusive, sustainable, cohesive and healthy. Treasury agreed that these themes represent what we have heard so far. They may not necessarily be the final policy themes included in the Statement.

A second consultation process commenced in 2023 to engage with the Australian public.

4.2 Case study and content analysis methods

We have opted for a case study approach supported by content analysis (Yin, 2014) as a suitable method to address our research aims. Case studies are practical in comprehending an organisation's context and analysing its disclosure behaviour: "A case study is a research method that examines a contemporary phenomenon within its real-life context" (Yin, 2014, p. 13). This approach allows for adequate access to data, such as documents or records, and selecting a case study to shed light on the research question (Yin, 2014, p. 26). Our analysis focuses on analysing the government's wellbeing budget practices, its narratives and various submissions made to the Treasury.

To examine and organise the submissions from the second consultation, we utilised content analysis to identify the key themes addressed by each stakeholder group in their submissions.

Krippendorff (2012, p. 21) states that content analysis involves categorising written text into different categories based on specific criteria. By examining the contents of the consultation process, which received over 115 submissions, we aim to understand the underlying motivations and impact of various stakeholder's second groups.

Mathews and Guthrie (1985, p. 260) state that a content analysis requirement involves categorising a text into various categories based on criteria. This definition underscores the importance of using criteria that classify the analysed data. Specific technical standards must be met for content analysis to be deemed suitable. The primary requirement involves defining the unit of study, which, in this case, is the five themes. A second requirement concerns data capture that must be systematic, meaning that each item either belongs or does not belong to a particular category (Guthrie and Abeysekera, 2006, p. 120). In particular, "data capture must be systematic – it must be clear that an item either belongs or does not belong to a particular category"… and the content analysis "must demonstrate some reliability and validity characteristics".

Furthermore, content analysis is a method used to collect data by categorising qualitative information into predefined groups to identify patterns in information presentation and disclosure. Specific criteria were met to ensure content analysis's effectiveness (Guthrie e*t al.*, 2004). Several of these criteria are detailed below. First, the classification categories must be clearly defined and operational. Second, the data collection process must be systematic, ensuring that each item is definitively assigned to a specific category. Third, content analysis must exhibit reliability and validity characteristics. An essential aspect of content analysis involves selecting a unit of analysis. As Holsti (1969, p. 116) described, a recording unit is a distinct content segment categorised based on meaning, words and sentences for coding purposes.

The analysis results of the second consultation submissions are now presented in section 4.3, which provides a stakeholder analysis of the key themes and importance for stakeholder groups.

4.3 Stakeholder analysis of the key themes

Following consultation 1, a second consultation was conducted to engage with stakeholders. It was observed that *Inclusive* was used to replace the theme of *Secure* after consultation 1.

In consultation 2, there were 117 written submissions, with 15 being confidential, resulting in 102 being accessible to the public. These 102 publicly available submissions were presented to the government by the Treasury (Treasury, 2024). Each stakeholder submission was asked to choose three of the five most important themes. The research analysed, coded and categorised each submission. The coding broke down each submission into nine stakeholder groups, as shown in Table 5 below:

TABLE 5. Stakeholder Groups

A	An Australian government agency (Cohort 1)
B	International agencies and expert organisations (Cohort 2)
C	Not-for-profit community groups (Cohort 3)
D	Peak bodies and unions (Cohort 4)
E	Businesses (Cohort 5)
F	Academics think tanks, policy and research institutions (Cohort 6)
G	Parliamentarians (Cohort 7)
H	Individuals (Cohort 8)
I	Other (Cohort 9)

These were derived from the groups within the submissions.

Our analysis of these stakeholder cohorts indicates that the three top cohorts represented were Peak Bodies and Unions (34%), Community Groups and not-for-profits (21.5%), and Individuals (21.5%). Then followed Academics (14%) and Business (6%), with National, International and Parliamentary Representatives underrepresented. However, several of the cohorts may have been included in the confidential submissions that were not publicly available.

Then, the five themes are explored in the submissions. The themes were Healthy, Secure, Sustainable, Cohesive and Prosperous. It was noted that the Treasury directed submissions to select three of the five most important themes.

Table 6 below summarises the stakeholder group and codifies the themes selected.

The data collected demonstrated that the top theme was inclusiveness (39.22%), followed by health (38.24%), Sustainable (30.39%); and Cohesiveness and Prosperity (18.63%). Around 28% of all the submissions selected all five themes as necessary; therefore, they ignored the Treasury directive.

For instance, several quotes about the five themes based on the ranking are listed below to illustrate the comments provided. In order of representation, we now discuss these selected comments.

First, for **Healthy**, we noted the granular micro comments, for instance, "Reframe the Healthy theme to establish a neurological data set" [Cohort 4] and "Recognise that Obesity is a major driver of disease and disability in Australia." [Cohort 4]. Also, the macro observations are to "Include Universal Health Care as a given" [Cohort 5] and "Focus more on mental health, financial security, social connection and life satisfaction" [Cohort 4]. Therefore, we observed both macro and micro comments about what was to be included for health. None of these were captured in the dashboard.

Second, for **Inclusive**, there were several calls to develop new indicators such as the "Need to develop an effective, credible community engagement program" [Cohort 4] and "Test ways to engage ordinary Australians in the wellbeing process" [Cohort 5]. We observed that the current indicators for inclusiveness were insufficient for several stakeholder groups, and none changed because of stakeholder concerns.

Third, for **Sustainable,** several submissions highlighted the lack of a sustainability framework and suitable indicators. For instance, "Enhance framework to focus on the role of technology and look at risks and responses to wellbeing" [Cohort 6] and "Consider referencing sustainability against the sustainable development goals" [Cohort 4]. Also, specific stakeholder groups argue for their position: "Farmers manage 60% of the land mass, and a voice of regeneration is needed for sustainability" [Cohort 6]. None of these changed the dashboard indicators.

TABLE 6. Stakeholder group and themes selected

Number of individual stakeholders	Stakeholder Groups	Prosperous	Inclusive	Sustainable	Cohesive	Healthy	All themes selected	Other
Total	102	19	40	31	19	39	29	9
	100%	*18.63%*	*39.22%*	*30.39%*	*18.63%*	*38.24%*	*28.43%*	*8.82%*

The fourth theme is **Cohesiveness**, and several stakeholder groups have argued that the current statistical data collection does not include enough different stakeholder groups. For instance, "Focus on the wellbeing of children and young people" [Cohort 3], "Include kinship care and family indicators" [Cohort 7], "Infants and young children must be the touchstone for the development of the wellbeing framework" [Cohort 6]. We observed that none of these changed the dashboard indicators or theme descriptors.

In the fifth theme, **Prosperous**, various stakeholder groups highlighted social issues that should be included, such as "Recognise the failure of Banks to protect citizens" [Cohort 3], "Focus on financial wellbeing and a fairer financial system" [Cohort 7]. The issue of inequality and wealth distribution did not change the dashboard.

Also, we observed that a common sentiment in the submissions was that the proposed data collection across the five themes should better reflect the diversity of Australian society and capture what is essential to the community, wealth and prosperity. Beyond the five themes presented by the Treasury, several emerging themes highlighted in the submissions various stakeholders argue the need to be taken into account for the *Measuring What Matters* initiative to remain pertinent.

We identified the following themes and indicators that are underrepresented, as shown in Table 7, as concerns various stakeholder groups.

TABLE 7. Key themes and indicators underrepresented

1.	Inequality
2.	Regional indicators
3.	Wealth distribution
4.	First Nations people

The first was **Inequality**, which included "Recognition of gender equity and combining this into the wellbeing budget" [Cohort 1] and "Universal education as an investment in future wellbeing" [Cohort 3].

Second was the **Regional indicators**, which various stakeholder groups argued were important for such a policy initiative, such as "Must focus wellbeing on the rural v city gap" [Cohort 2] and the "Need to understand the needs of specific regional population groups to provide health gains" [Cohort 4].

Third was **Wealth distribution**, in which several stakeholder groups indicated that current data and statistics were inadequate to capture the "Role of housing as a core to overall wellbeing" [Cohort 1] as well as "Data gaps and monitoring unemployment, people in financial distress and those living below the poverty line" [Cohort 7].

Fourth was a focus on **First Nations People** indicators, which several stakeholder groups raised, for instance, the "Absence of cultural perspectives in wellbeing framework with its domain for measurement of what matters" [Cohort 3] and "First Nations should be foregrounded and go beyond closing the gap" [Cohort 4], only "Focus on health and wellbeing of the Indigenous community" [Cohort 4].

In summary, the consulting process phase 2 raised several issues; however, there was little change in the framework themes and indicators. Additional evaluations are needed to offer decision makers adequate community insights for policy development. The rhetoric was that a key objective of wellbeing budgeting was prioritising human welfare and environmental needs over GDP and growth to ensure the wellbeing of present and future generations. However, the reality was that the consulting process around the framework's themes and indicators changed little.

The analysis highlights the Australian government's rhetorical commitment to a wellbeing budget, aiming to integrate social and environmental health with economic indicators, as guided by the *Measuring What Matters* framework. However, the Federal Budget for 2024–2025 primarily focuses on financial aspects, such as addressing the cost of living and high inflation, with minimal integration of wellbeing initiatives. Despite this, it is emphasised that **incorporating wellbeing metrics into policy decisions is crucial**, rather than focusing solely on economic and financial metrics.

5. The Reality of Measuring What Matters

Section 4 explored several themes identified by the consultation process stakeholders and our research. In the following section 5.1, underrepresented themes and indicators are discussed in order of Table 7; section 5.2 highlights several challenges for policymakers concerning wellbeing budgeting.

5.1 Underrepresented themes and indicators

In this section, we now discuss key themes and indicators as per Table 7.In this section, we now discuss key themes and indicators as per Table 7.

5.1.1 Measuring What Matters – Indicators of inequality

The Treasury document highlights two prominent themes: Prosperous and Inclusion. One theme emphasises the importance of ensuring all individuals have access to a minimum economic security and public resources. The other inclusion focuses on promoting equality of opportunity, as indicated by references to providing opportunities for all Australians and enabling intergenerational mobility. Inequality is a contentious issue, with differing perspectives on the distribution of resources. Some advocate for complete equality of outcomes, which is considered an extreme position. Conversely, there is widespread discomfort with a system that perpetuates a privilege-exclusive elite, although opinions may vary on what level of wealth concentration is deemed unacceptable.

Many people would find a middle ground, as the backing for progressive income taxes and social welfare benefits shows, since this middle ground differs from person to person – societies leaning towards an oligarchic setup risk losing the dynamism that defines a thriving economy.

The 2022 Australian Unity Wellbeing Index notably highlights a growing disparity in wellbeing between older and younger Australians, with the younger population increasingly feeling deprived of the opportunities enjoyed by their predecessors and experiencing feelings of social isolation that do not bode well for equal opportunities. Therefore, equality should be mentioned within the Prosperous or Inclusive categories. For example, a point could be made under the Prosperous theme of an economy without significant and persistent disparities in wealth. Alternatively, the Inclusive theme should emphasise a society where everyone trusts that distribution mechanisms are fair while acknowledging hard work, innovation and entrepreneurialism.

It is essential to establish metrics for prosperity. There is a shortage of indicators for wealth, and the ABS regularly releases data on the distribution of financial wealth, including superannuation and home ownership. However, there is a lack of consistent data on the distribution of other types of wealth, such as human capital and social capital. Just as access to physical capital has been crucial in the past, access to these forms of capital is becoming increasingly important.

Similar to gathering data on poverty and inequality through financial measures, allocating resources towards aiding policymakers in comprehending the dispersion of human and social capital is crucial. While the government may be hesitant, it is a valid argument that a society's distribution of outcomes is likely influenced by the degree to which equality of opportunity has been attained.

5.1.2 Measuring What Matters – Regional indicators

Australia has been fortunate to steer clear of the stark regional disparities that have plagued other democratic nations. The consequences of regional decline are significant, including infrastructure underutilisation, costly public services, heightened expenditure on social welfare and law enforcement as communities deteriorate, and missed opportunities for young people in struggling areas. The Australian Unity Wellbeing Index and studies conducted by Australian actuaries reveal notable regional variations in wellbeing (Frijters and Krekel, 2021). The response to the COVID-19 crisis in Australia has underscored substantial wellbeing gaps between urban and regional areas. Some remote areas are displaying initial signs of social disintegration. Within the document's five categories – prosperity, inclusion, sustainability, cohesion and health – there is potential to delve into the importance of attaining regional parity.

5.1.3 Measuring What Matters – Wealth distribution

Limited data on wealth distribution is available, with the ABS using data from income and housing surveys to provide insights. The available data is from 2019-20, showing a noticeable increase in wealth inequality from 2010 to 2020. In 2020, the top two wealth quintiles, representing 40% of households, collectively possessed 83% of household wealth, up from 82% in 2010. Conversely, the remaining 60% of households witnessed a decline in their share of wealth from 18% to 17% over the same period. Furthermore, the proportion of households reporting a household net worth exceeding $5 million rose from 1.6% to 2.4% (Frijters and Krekel, 2021).

This data provides several insights into the distribution of wealth and concentrates on financial assets (e.g., superannuation, properties). As seen in stock market trends, fluctuations in financial wealth can vary significantly due to factors like interest rates, investor sentiment and short-term motivations for speculators rather than reflecting actual changes in the value of physical assets.

The government recognises the necessity of expanding wellbeing measurements beyond financial indicators. While acknowledging the significance of access to education, skills enhancement and continual learning, adequate indicators are lacking to evaluate human resource development and distribution progress. Given the changing economic landscape, human capital should be prioritised equally, if not more, in policy deliberations compared to financial capital.

That destructive pattern of public discourse can be countered only with the widespread distribution of human capital, particularly as an essential requirement for a sustainable society of healthy, secure, cohesive and prosperous citizens.

5.1.4 Measuring What Matters – First Nations People

The framework and themes contained indicators that were silent on First Nations people in Australia (Australian Institute of Health and Welfare, 2024) and their wellbeing. First Nations People in Australia encounter numerous obstacles within the framework of wellbeing due to historical, systemic and continuing inequalities. These hurdles affect

their social, emotional and economic wellbeing. Some primary challenges identified from the submissions and other sources include the following five challenges. First Nations people in Australia experience significant socioeconomic disadvantages compared to non-Indigenous Australians, including higher unemployment rates, lower incomes, poorer housing conditions and lower educational attainment, primarily due to the historical impacts of colonisation and ongoing systemic racism, leading to disparities across various aspects of life like health, employment and housing.

First, **Health Disparities** with higher rates of chronic diseases such as diabetes, heart disease and kidney disease; limited access to culturally appropriate healthcare services; lower life expectancy compared to non-Indigenous Australians; and mental health issues, including high suicide rates and intergenerational trauma. The health disparities faced by First Nations people in Australia are a significant barrier to their overall wellbeing. These disparities manifest in several ways, including **Chronic Diseases**: There are higher rates of chronic conditions such as diabetes, heart disease and kidney disease among First Nations communities. These diseases affect physical health and have broader social and economic impacts. **Healthcare Access**: Access to healthcare services that are both available and culturally appropriate is limited for many First Nations people. This lack of access contributes to poorer health outcomes and exacerbates existing health issues. **Life Expectancy**: On average, First Nations Australians have a lower life expectancy than non-Indigenous Australians. This gap highlights the need for targeted health interventions and support that address the unique needs of these communities. Also, **Mental Health**: There are significant mental health challenges within First Nations communities, including high suicide rates and the effects of intergenerational trauma. These issues are compounded by a lack of mental health services that are attuned to the cultural and community contexts of First Nations people.

Addressing these health disparities requires a multifaceted approach that includes improving access to healthcare, ensuring culturally sensitive services and addressing the broader social determinants of health, such as education, employment and housing. Additionally, recognising and healing intergenerational trauma and promoting mental health resilience are critical components of improving the wellbeing of First Nations Australians.

The second challenge is the **Socioeconomic Disadvantages.** This includes higher unemployment rates due to systemic discrimination and lack of job opportunities; lower income levels and financial insecurity; and limited access to quality education which leads to lower literacy and numeracy rates. First Nations people in Australia face significant socioeconomic disadvantages that contribute to their overall wellbeing challenges. These disadvantages include **Higher Unemployment Rates**: systemic discrimination and a lack of job opportunities contribute to higher unemployment rates among First Nations communities. This systemic issue often results in limited career advancement and job security. **Lower Income Levels and Financial Insecurity**: Many First Nations individuals experience financial insecurity due to lower income levels. This can be attributed to barriers in accessing stable employment, affecting their ability to support themselves and their families. **Limited Access to Quality Education**: Access to quality education is often limited for First Nations people, leading to lower literacy and numeracy rates. This educational gap is a significant barrier to achieving economic independence and

contributes to poverty and underemployment. Addressing these socioeconomic disadvantages requires targeted interventions, such as creating more job opportunities, implementing anti-discrimination policies in the workplace and enhancing access to quality education and training programs tailored to the needs of First Nations communities.

5.2 Challenges for policymakers

In their submission, Guthrie and McAuley (2023a) were concerned with aspects of capital that are not covered in established accounting systems – systems that are based on metrics derived from financial transactions. Their specific interest has been knowledge capital, which aligns with the OECD's suggestion that future wellbeing indicators include human and social capital. Guthrie and McAuley (2023b) also submitted six design features they believed were essential to establishing robust wellbeing indicators, as shown in Table 8 below.

Guthrie and McAuley's (2023a) submission proposal includes six recommendations to incorporate wellbeing indicators into the budget process. The focus is on prioritising outcomes over inputs and utilising existing data and frameworks, such as those from the OECD, to measure progress. The ultimate goal is to avoid prioritising economic growth alone and instead focus on enhancing societal wellbeing by addressing inequality and environmental sustainability. This requires educating policymakers, engaging stakeholders and developing comprehensive wellbeing indicators. The submission was part of The Treasury's *Measuring What Matters* consultation and argues that economic management should centre around human wellbeing. The authors assert that economic activity lacking improvements in wellbeing is meaningless, and a wellbeing budget is crucial for economic reform because it underscores that financial management is fundamentally about enhancing human wellbeing.

The authors propose six recommendations to support establishing a wellbeing budget in Australia. First, they recommend enshrining the wellbeing

TABLE 8. Design features of Guthrie and McAuley (2023b) submission

1.	Presentation of time series: a snapshot conveys little information.
2.	There is a need to build on what is already available, including the OECD framework and the ABS Measures of Australia's Progress.
3.	Integration of wellbeing indicators into governments' accounting systems. They should not be seen as an "add-on".
4.	Attention to inequality in wealth in all its dimensions, particularly the distribution of human capital and social capital.
5.	Engagement with existing networks of NGOs and not-for-profits.
6.	Establishment of a permanent working group.

budget in legislation to generate a time series of data reflecting improvements in societal wellbeing. Over time, such data will gain significance, enabling trend analysis and international comparisons. Australia already possesses valuable time series data in economic and social indicators. Second, they suggest that the Treasury collaborate with stakeholders to chart a course for the wellbeing budget, emphasising its importance given Australia's experiences with crises like environmental issues, inequality and living costs despite prolonged economic growth. The authors advocate for integrating wellbeing considerations into policy-making to ensure that economic systems enhance societal wellbeing. They propose adapting the OECD international framework to fit Australian conditions and also highlight that the ABS developed the *Measures of Australia's Progress* until 2013, with this work, including 26 pertinent wellbeing indicators.

Third, Guthrie and McAuley (2023a) stress the need for public servants to be educated on the significance of policy-making and the wellbeing framework, highlighting that policymakers should focus on interrelated wellbeing outcomes and the root causes of crises rather than symptoms. The authors advocate for adopting wellbeing as a government operational approach, citing the Wales Wellbeing of Future Generations Act as a model. Furthermore, the authors stress the importance of addressing inequality indicators, focusing on wealth inequality. Guthrie and McAuley (2023a) criticise the OECD wellbeing framework for only including the 80/20 income share and gender wage gap as inequality indicators, noting that wealth disparities are more persistent and challenging to measure than income disparities. They suggest that current indicators, such as rising housing prices, may not accurately reflect wellbeing, as they could merely indicate price inflation. Therefore, the development of more accurate indicators of housing wealth is recommended. Additionally, the authors underscore the challenges of capturing other wealth dimensions related to wellbeing, such as education, social connections and the ability to navigate everyday complexities, which are crucial but difficult to measure.

Fifth, the Australian Treasury should engage with not-for-profit networks working on wellbeing in Australia, New Zealand and globally. Guthrie and McAuley (2023a) note that major professional bodies, including the Australian Public Service Academy and Department of Finance, do not mention wellbeing budgeting or public values in their thought leadership papers. Finally, The Treasury should establish a working group to learn from the OECD and other countries about wellbeing budgets. Guthrie and McAuley (2023a) note that the 2022–23 Budget included a new section in Budget Paper 1 titled *Measuring what matters*, which was the government's first attempt at a wellbeing budget. They explain that this new section mainly discusses the meaning of wellbeing indicators and acknowledges that more work is to be done.

In 2024, the ABS took over updating the wellbeing dashboard. The ABS has maintained the reporting model initially set by the Treasury. The updates for 2024 include retaining the original themes and dimensions, as well as the indicator names and descriptions (including the "Why this matters" text), with minor adjustments made only when necessary. The metrics and data sources the Treasury chose have also been preserved, with limited changes where required. Additionally, the ABS aims to provide supplementary data to offer context in cases where the primary sources of information have not been recently updated (ABS, 2024).

6. Conclusions

Our research paper explored Australia's current development of wellbeing budgeting. It fills a research gap by examining the challenges in its implementation and analysing Australian wellbeing budgeting practices and development paths through official documents and consultation process submissions. The paper aimed to understand the recent progress of wellbeing budgeting in Australia. Additionally, it contrasts the government's rhetoric of adopting the wellbeing framework with the reality of the budgeting process, which appears to be about economic management and neoliberal ideals of a balanced budget and growth economy.

The empirical findings from our case study show that, in reality, measuring wellbeing has become a statistical dashboard instead of being embedded in policy formulation and budgetary processes.

The shift in responsibility for updating the wellbeing dashboard to the ABS in 2024 provides a relevant context for this observation. The ABS's update focuses on maintaining the reporting model established by Treasury, including themes, dimensions and indicators. This approach suggests that wellbeing metrics are primarily used as a statistical tool for monitoring rather than directly integrated into policy formulation and budgetary processes. The minor adjustments and provision of supplementary data emphasise data continuity and context but not necessarily on direct policy application.

Waring (1990) pointed out that the critique of conventional national income and product accounts has severe limitations. Indeed, it is becoming evident that traditional measures of GDP have been significantly oversold and overrated. The standard national income and product accounts presently available omit several aspects of the national economy and societal progress that need to be revealed for economic policy purposes. The survey methodologies and reliability indicators underlying our national accounting data are increasingly out-of-date. The days when a unique GDP can measure a national economy's and society's performance should be over!

The budgeting discussion emphasises the challenges in policy and government decision-making about wellbeing due to the lack of reliable data. In the absence of specific historical metric information, the role of statistical systems in shaping social and economic understanding is questioned, particularly for those lacking robust measurement. Understanding the interdependencies between wellbeing indicators is crucial. This complexity introduces questions about information weighting, experience, management and policymaking in decision-making processes and the public accountability associated with co-produced information. Historical issues in measuring budget reform performance highlight the need for rigorous scrutiny of the information provided by these measures. The question of who, such as the Australian National Audit Office, will ensure that the data offers a fair view of the countr's wellbeing. Wellbeing budgets are seen as an innovative area for research, promising new developments in understanding and measuring societal wellbeing.

We have identified several promising research directions for wellbeing budgeting. First, developing **Enhanced Wellbeing Metrics** focuses on creating more sophisticated and comprehensive metrics to accurately reflect various aspects of wellbeing, ensuring inclusivity and representation across diverse populations. Second, **Demographic Impact** explores how wellbeing budgeting influences different demographic groups, provides insights

into equity and effectiveness and identifies any disparities or areas requiring targeted attention. Third, **Intervention Effectiveness** assesses strategies and interventions to foster wellbeing and budgeting to determine best practices and scalable solutions. Fourth, discussing the role of **technology** and how it can support the implementation and monitoring of wellbeing budgeting through data analytics and digital platforms, enhancing efficiency and accessibility. Fifth, **organisational and policy applications** of wellbeing budgeting at both managerial and policy levels are needed to understand its broader societal impact and potential integration into existing frameworks. Finally, **Ethical Considerations and Challenges** address ethical concerns and possible challenges, such as privacy issues and resistance to change, which are vital for the responsible and sustainable adoption of wellbeing budgeting practices.

In conclusion, these areas enhance academic dialogue and offer practical insights for policymakers and organisations considering the adoption of wellbeing budgeting frameworks.

Nonetheless, international developments do go ahead. For instance, the 2030 Agenda for Sustainable Development includes 17 goals and 169 targets. Since its adoption, through its Action Plan on SDGs, the OECD has committed to being the United Nations' best-supporting actor in promoting the achievement of the goals of the OECD Centre for Wellbeing, Inclusion, Sustainability and Equal Opportunity (OECD, 2024).

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ARTICLE

Lifeboat money: Economic strategies for human survival

Dr Shann Turnbull

Drawing on historical experience with stamp scrip during the Great Depression, Dr Shann Turnbull revisits the concept of 'lifeboat money' – an emergency local currency designed to keep economies functioning in times of crisis. He argues that, in digital form and linked to a sustainability index, such a currency could realign market incentives away from carbon-intensive activity while supporting human wellbeing.

Introduction

In 2022, the United Nations Secretary-General stated that we were "on a highway to climate hell with our foot still on the accelerator" (Frangoul, 2022). There are eight billion feet on the accelerator. But no one has proposed to stop market failure driving climate change. In other words, to get eight billion people to take their feet off the accelerator and put them on the brake.

In 2006, Lord Stern (Stern, 2006, p. viii) advised the UK government, "Climate change is the greatest market failure the world has ever seen". But he made no recommendations to stop market failure. Instead, Stern only recommended amelioration with "tax, trading and regulation" (Stern, 2006, p. viii). This is like placing an air purifier on the exhaust pipe of carbon-burning automobiles. Or like trying to run up an escalator going down to a "climate hell – with our foot still on the accelerator". In these ways, humanity is sleepwalking into what leading scientists describe as a "ghastly future" (Bradshaw *et al.*, 2021).

Market failure arises when money creates price signals that generate incentives to harm people and the planet, such as burning carbon. This poisons our atmosphere with excessive carbon dioxide that heats our environment. We urgently need a monetary system that creates incentives to not only stop the burning of carbon but also stop other degradations of our atmosphere, oceans, rivers, lakes, soils and biodiversity of flora and fauna, as well as prevent us from consuming non-recyclable resources.

System science informs us that controlling so many variables require a requisite variety of control agents in each bioregion of our planet. Direct engagement is required with the eight billion people and the corporations responsible for burning fossil fuels and other forms of environmental degradation. However, the Law of Requisite Variety (Ashby, 1956, p. 268) "prohibits any direct and simple magnification [of control] but does not prohibit supplementation". This means that a requisite variety of supplementary co-regulators are required to simplify the regulation of complexity (Turnbull and Guthrie, 2019).

Modernity has allowed humanity to become disconnected from being governed by the endowments of nature that can sustain humans in each bioregion for eternity. Survival requires individuals in each bioregion and their sub-regions to possess the power, incentives and cultural capability to maintain a population density consistent with everlasting sustainability within their region.

An example of this approach is traditional Indigenous Australians. They were intimately connected with their country. They considered themselves to be part of nature and so governed by it. As a result of this worldview, they always had obligations to care for the country and allow it to maintain its wellbeing. They saw themselves as "ownees" (Turnbull, 1980, pp. 163, 164) of the country. Not owners, or just custodians or stewards of the country.

Words are the tools of thinking. Without words like "ownee" (Turnbull and Poelina, 2022, p. 12), we do not have the intellectual tools to understand Indigenous relationships and practices. This may deny individuals in modern societies the capacity to appreciate Indigenous wisdom (Turnbull and Poelina, 2022, p. 12) and learn how modern societies could likewise become sustainable (Turnbull *et al.*, 2023). Some Indigenous authors (Damoah *et al.*, 2024) may become intellectually colonised by modern, irrelevant, dysfunctional totems like economic values and prices.

Indigenous Australians used "message sticks" to invite hundreds of individuals from distant places, involving weeks of travel, who spoke different languages to a specific place at a particular time in the future to hold weeklong corroborees for specific purposes (Turnbull, 1980, p. 8, pp. 163–164). Our monetary system also acts as a message stick but with dysfunctional messages of what natural resources need nurturing, recycled and consumed to service society without depletion.

Indigenous knowledge about their environment was stored and shared in song lines. Survival knowledge was stored in hundreds of languages used in each bioregion or sub-region, as each also possessed different terrain, geology, climate, seasons, flora and fauna. However, none of their hundreds of languages had words to describe undefinable modern dysfunctional social constructs like economic value, money or markets that are driving climate change.

As described by Elinor Ostrom (Ostrom, 2009) in her Nobel Prize acceptance lecture, "markets and states" are not required by competing interests to

cooperate in self-governing life-sustaining resources for everyone. Indigenous Australians have demonstrated this ability for at least 65,000 years. This is longer than any other existing culture.

However, technology and the interconnectedness of local problems globally have now created a need to introduce markets for sustainable global wellbeing. This is because not all regions can establish fully self-sufficient circular economies. Trade will be required between regions to share surpluses and deficits of goods, services and technology.

We need to introduce a sustainability metric for each region to connect citizens to ever-lasting renewable endowments at each location. As each region can have quite different endowments of nature, each region could have various levels of sustainability according to at least three key variables. These are (a) local renewable and everlasting recyclable resources that can sustain human wellbeing; (b) trade to supplement resource deficits and share surpluses; and (c) population levels.

Technology is also crucial. However, assume it can be shared through trade. Cultural and ethical beliefs could also be important in managing regional populations. But it will be assumed that pragmatism will prevail to protect the greater good for unlimited future generations of humanity. If not, humans may not exist to learn that this essay failed in "securing human wellbeing"!

The exchange rates for trading goods and services between regions will be determined by their sustainability indexes' relative levels. Sustainability indexes would subsume the modern undefinable social construct of economic value. This is because economic value becomes irrelevant if humans are not sustained. No concept of economic value is required to allow living things to become self-regulating and self-governing. Nor are "markets and states" needed to design and operate self-governing automobiles and space explorers.

The purpose of trade would not necessarily be to promote growth, as physical degrowth may be required to achieve sustainability in some regions. The sustainability indexes, not economic value, would guide trade, migration and the sustainable population levels in each region.

The role of system science

System science explains how to manage complexity. Its cybernetic law of requisite variety describes why it is impossible to *manage directly* the complexity of the environmental degradations discussed above (Ashby, 1956, p. 268). However, it also explains how complex problems can be controlled *indirectly* by creating a requisite variety of supplementary co-regulators (Ashby, 1960, p. 285).

Volatile self-referential international money markets currently determine economic value. Relative pricing between currencies is based on speculation on how different economies may perform relative to others. Such unlimited and unknowable speculations become unpredictable, with little relevance to human sustainability.

For example, the unilateral random decisions by some countries to change the interest rate of their monopoly sovereign money can change relative prices. There are even examples where random presidential tweets on social media have significantly changed the relative values of currencies. This means that monetary economics cannot be a rigorous science subject to the laws of nature and be treated as a scientific system. It is merely a widely accepted belief system like a religion.

It also means that international trade and investment is inhibited. Risk is increased because there cannot be certainty as to the relative values of currencies in the future to obtain an acceptable payback. This makes the existing monetary system less efficient. As noted above, it is also dysfunctional as a source of market failure, creating climate change.

Central banking is but a specialised form of central planning. It means the same policies must become imposed on what can be radically different situations. A "one size fits all" policy denies diversity and flexibility.

In addition, the sovereign monopoly money is dysfunctional because it is given the magical power to earn interest, and the Bible forbids that. It allows money to create money. Like a virgin birth, it denies logic and is dysfunctional. It illustrates the power of massive groupthink and brainwashing for people to think illogically. It is a viewpoint that also (a) exacerbates inequality by making the money owners richer, (b) increases inflation by increasing the volume of money while not necessarily increasing either output or productivity to sustain the purchasing power of money, (c) increases the cost of productive investments capable of making nature yield its resources more productively to increase productivity that can reduce inflation, (d) doubles the cost of buying a home over 20 years when interest rates exceed 4% (Kenton, 2025) and (e) creates a basis to discount the future to undermine the ability in 'securing human wellbeing'.

Cryptocurrencies do not earn interest. However, their high energy consumption in mining new coins and validating *every* transaction exacerbates humanity's sustainability. This cost was neglected in a concept article on how the Central Bank of India could save costs by replacing its widely used paper money with digital untethered blockchain money (Mahesh *et al.*, 2024). Also unexplored was how a blockchain Central Bank Digital Currency (CBDC) would support interest rate policies. These problems highlight the need for a more stable, low-cost, efficient and competitive form of medium of exchange than existing official climate change-creating currencies or crypto CBDC tokens.

System literacy

A fundamental problem of the current financial system is that it is not a system with physical constraints. It is unlike any natural system regulating living things. This makes it inappropriate for either system science or cybernetic laws to fix the problems created by the current way money is designed.

Its founders defined cybernetics as "the science of control and communication in the animal and the machine" (Wiener, 1948). Both control and communications are dependent upon the transacting of data that is measured in "bits". Hence the name "bitcoin". Eight bits make a byte. Any bit transaction within and/or between biotas and devices involves matter and energy perturbations. This limits data processing and storage by devices, humans and all other biotas. It is now possible to identify the physical ability of humans to receive, store, process, respond and communicate bytes. While no metrics for meaning, knowledge or wisdom exist, no change in these social constructs can occur without transacting bytes. This provides the metrics for a science of governance (Turnbull, 2002; 2008).

However, several social scientists inappropriately apply cybernetic principles and system science laws

to social constructs like money, economics, value, language and even conversations.[1] This makes it crucial for rigorous system science scholars to acquire system literacy to identify the different types of systems. Also, the word "information" has ambiguous meanings.

The public and social scientists commonly use the word "information" to communicate meaning, knowledge or wisdom. Like economic value, these concepts cannot be defined in physical units. However, the pioneers of cybernetics and system science restricted the word "information" to only mean "data". This distinction is commonly lost by some social scientists who seek to become cyberneticians and system scientists.

In 1948, cybernetics was defined as "The science of control and communication in the animal and machine" (Wiener, 1948). The pioneer of information theory was Claude Shannon. In the second paragraph of his seminal paper, he stated: 'These semantic aspects of communication are irrelevant to the engineering problem' (Shannon, 1948). On the same page, he defines his unit of analysis as "binary digits, or more briefly bits".

Physically, bits represent perturbations in matter and energy that make a difference. Eight bits are described as a "byte". Today, the word byte describes the operating capabilities of electronic devices and the internet. They can also be used to identify the ability of living things to receive, store, process and communicate data to establish a "science of governance" (Turnbull, 2002; 2008).

Another cybernetic pioneer was Ross Ashby (Ashby, 1956, p. 256). He authored an *Introduction to Cybernetics* in 1956. He likewise used the mathematics of bits to explain how to regulate and amplify the regulation of physical systems.

Ostrom had met Ashby. She articulated the law of requisite variety with the following words: "Any governance system that is designed to regulate complex biological systems must have a variety in the actions that it can take as there exists in the systems being regulated" (Ostrom, 1995). As complexity increases the ability of a centralised command and control hierarchy to provide requisite variety rapidly becomes diminished (Turnbull and Poelina, 2022, p. 26).

Achieving a requisite variety requires engaging with stakeholders, creating the degradations to provide a requisite variety of supplementary co-regulators. To obtain independent voices from each stakeholder constituency requires, what Ostrom describes as "polycentric governance" (Ostrom, 2009). Tethered "lifeboat money" (Turnbull, 2013, 2016, p. 206; 2024a, 2024b) provides a way to communicate between competing regions about their need to share life-sustaining resources, benefiting everyone.

In the next section, we describe lifeboat money, its operations, rejection and whether it could be privately issued legally. The concluding section considers ways to adopt lifeboat money, the different views of economists and how to develop an appropriate tether to keep humanity afloat on an everlasting basis.

Simplified lifeboat money

The need to redesign the nature of money was taken up in the last issue of *BESS* by Fritz and Mallory (2023). Much earlier, the topic was raised by Keynes (1923, p. 153). Keynes (1923) explained that "money is a mere intermediary, without significance in itself, which flows from one hand to another, is received and is dispensed and disappears when its work is done from the sum

1. https://en.wikipedia.org/wiki/Gordon_Pask

of a nation's wealth". Keynes (1923) was describing a simplified form of money that is not complicated by also being a store of value nor a unit of account (Turnbull, 2016).

Simplified money can only be used as a medium of exchange. Modern forms of official currency are more complicated. This is because it also carries out the role of being a store of value and establishing the social construct of price. As noted above, the uncertainties in identifying prices inhibit international trade and investment. It also inhibits the efficiency of markets. It impairs central banks in providing monetary stability with the current form of untethered official money.

The Economist and two former Bank of England (BoE) governors identified the need for a monetary tether to establish stable money. The 6 January 1990, cover story of *The Economist* stated: "Time to tether currencies". Mervyn King declared, "Societies have managed without central banks in the past. They may well do so again in the future." (King, 1999, p. 27). He pointed out that a monetary tether would be a feature of decentralised banking.

To reduce the volatility of official money, King's successor as BoE Governor, Mark Carney, was "intrigued" by the idea of establishing a synthetic hegemonic currency (Carney, 2019). This is what a sustainability index could achieve. It could achieve much more if the nature of money was also simplified to possess limited life like all things ecological. Table 1 identifies 32 ways a sustainability index tethered and terminating sustainable medium of exchange could create a more efficient and sustainable society.

The payment of a digital user fee to the issuers of lifeboat money allows this type of medium of exchange to be traceable. So, in the long run, 'securing human wellbeing' could involve "3T money" as it would become terminating, tethered and traceable. It would replace the interest policy analysis of official money concerned with "timing, transmission and transaction" (Turnbull, 2016, p. 196).

Official currencies were tethered to a specified weight of gold at the start of the Great Depression. This changed when the US Federal Reserve Bank (Fed) ran out of gold. To avoid the Fed going bankrupt, the emergency first Glass-Steagall Act (Gou *et al.*, 2022) of 1933 allowed the Fed to use government debt as a reserve asset. In this way, the US currency became untethered. However, a year later, hundreds of US banks closed because the Fed lacked sufficient liquid reserves to bail them out.

At this time, hundreds of communities in Europe and North America were being sustained by a simplified form of self-liquidating money (Turnbull, 2016). A handbook on creating, issuing and managing this type of money, described as 'stamp scrip', was published by US economist Irving Fisher (1933). Keynes (1936, p. 357) stated that "the idea of stamped money is sound" and that its inventor was an "an unduly unrecognised prophet Silvio Gesell (1862–1930)" (Gesell, 2019; Keynes, 1936, p. 353).

I describe Stamp Scrip as "lifeboat" (Turnbull, 2013, 2016, p. 207; 2024a, 2024b) money for two reasons: (1) it can keep businesses and local economies afloat when official monopoly money fails, or a pandemic imposes a lockdown; and (2) it can "secure human wellbeing" on an everlasting basis.

Lifeboat money can be created privately and independently of governments because it is intrinsically self-financed, as explained below. Tethered terminating lifeboat money avoids the need for central banks.

TABLE 1. Comparison between official money and tethered terminating lifeboat money

Differences between:		Official money	Lifeboat money: terminating and tethered to a sustainability index
1	Currency area	Nations	Bioregions
2	Choice of currency	Government monopoly	Locally dependent
3	Money created by	Government and banks	Users and their agents
4	Type of money	Complex	Simple
5	Unit of value	Not defined	Bioregional sustainability indexes
6	Inflationary	Yes	No (tethered to sustainability)*
7	Stability of value	Volatile self-referencing	With the level of local sustainability
8	Unit of account	Yes	No
9	Store of value	Yes	No
10	Medium of exchange	Yes	Yes
11	Interest	Unlimited compounding	Negative self-liquidating
12	Interest rates set by	Central Bank	Cost of users to redeem money
13	Ownership revealed	Anonymous	Optional through tracing user fees
14	Size of system	Unlimited	Minimised
15	Cost of system	Increasing to a collapse	Reducing
16	Integrity of regions	Exposed to contagion	Regionally independent
17	Integrity of system	Problematic	Locally self-regulating
18	Sustaining humanity	Not likely	More likely
19	Environment flaw 1	Incentive to deplete	Incentive to sustain
20	Environment flaw 2	No feedback from nature	Nature controls wellbeing
21	Biodiversity	Not relevant	Part of sustainability index
22	Political flaw 1	Concentrates power	Decentralises power
23	Political flaw 2	Little accountability	Local and direct
24	Social flaw 1	Compounding interest	Not relevant
25	Social flaw 2	Concentrates wealth	Decentralised within and between
26	Economic flaw 1	Incentive to burn carbon	Disincentive to burn carbon
27	Economic flaw 2	Distorts prices	Prices replaced with wellbeing
28	Economic flaw 3	Incentive to hold money	Disincentive to hold money
29	Economic growth	Needed to pay interest	Degrowth for sustainability
30	Circular economy	Inhibits self-reliance	Incentive for self-reliance
31	Migration control	Indeterminate	Strong
32	Population control	Little incentive	Mostly urgent

* The buying power of the medium of exchange increases with an increase in the sustainability index

Operations and rejection of lifeboat money

Hundreds of US, Canadian and European communities introduced privately issued stamp scrip (Mitchell and Schafer, 1990) to keep them afloat during the Great Depression. The 1933 Bankhead-Pettengill Bill proposed that the US government issue stamp scrip. It was drafted by Fisher and introduced to Congress on 17 February 1933. This was just two weeks before the inauguration of President Roosevelt on 4 March.

The Bill specified that users buying stamps from the US post office (Champ, 2008) would pay to redeem the notes. Each week, a stamp valued at 2% of the note's face value had to be affixed to its backside. This would generate an income over 52 weeks in a year for the post office of 104% of its face value. The government-owned post office would make a 4% profit even if the *money were distributed as a gift*. The Bill proposed that the money be distributed free of cost to state governments. State governments would then create employment by funding infrastructure projects and providing welfare for the unemployed.

The user cost of lifeboat money can be less than modern electronic official money if it is used quickly. For this reason, stamp scrip was also described as "speed" money. Fisher (1933) reported it circulated much faster than official money. In contemporary times, with electronic money, re-using it as it was received would become feasible. Even if it was only held for a full day, its cost would reduce from 2% over a seven-day week to only 2%/7=0.29 cents per dollar of face value. This is less than the transaction cost of "tap and go" smartphone payments, which can be 1.2% or more (Sorensen, 2025).

The ability of lifeboat money to replace the need for central banks introduces an existential conflict of interest for banks when considering the various types of CBDC money they could introduce (Mainelli *et al.*, 2022). Lifeboat money could substantially shrink the size and cost of the financial system. The number of US commercial banks had already decreased from a peak of over 30,000 in 1921 to 14,146 in 1934.[2] The number halved from 8,315 in 2000 to 4,470 in 2023 (Statista, 2025).

The Federal Reserve system was set up by private banks in 1913 to provide a way to create a lender of last resort in a financial crisis. However, the Fed itself faced failure in 1932 because it had run out of gold reserves (Gou *et al.*, 2022). This resulted in the Glass-Steagall Act, which introduced legislation to allow the Fed to use government debt as a replacement for gold as a reserve (Maues, 1933). But in 1933, the Fed ran out of liquidity.

The Bankhead-Pettengill Bill would not create debt, taxes or even a need for the Federal Reserve to exist. It would allow states, towns and many other entities to issue simplified money. This would further shrink the size of the Federal Reserve System and its cost as a percentage of GDP.

After his inauguration on March 4, President Roosevelt immediately declared a bank holiday for surviving banks on 6 March. It left no time to print a new bill to replace the Bankhead-Pettengill Bill. So, Congressman Steagall had to read aloud a replacement Bill at an emergency meeting of both houses of Congress on 9 March. Without discussion, the Bill was signed into law by the President on the same day to create a "New Deal" for the Federal Reserve. However, 75 years later, the US government had to bail out the Fed again during the 2008 financial crisis (Segal, 2024).

2. https://www.mercatus.org/economic-insights/expert-commentary/historical-rise-and-recent-decline-number- banks

The cost of the financial system as a percentage of GDP had grown from less than 2% in the 1870s to nearly 6% before the stock market collapsed in 1929. It rose to 9% in 2010 (Landy, 2013); by 2023, it became the most significant component of GDP, rising to over 20% (Tierney, 2025).

Eliminating complex official monopoly money earning interest with simplified competing negative interest rate money might well reduce the cost of the financial service sector back to single-digit percentages of GDP. This could also make a significant reduction in wealth inequality.

During the COVID epidemic in Australia in 2020 and 2021, state governments enforced lockdowns preventing individuals from earning money and denying consumers movement to spend. State governments responded by gifting money to individuals and firms with money that needed to be borrowed. It was an ideal occasion to issue lifeboat money that needed to be spent quickly and not hoarded.

It is a behavioural mystery why local councils and state governments in Australia prefer to increase taxes and/or debt rather than launch locally created financial lifeboats (Turnbull, 1983, 2020a, 2024a, 2024b). The Australian Constitution, s. 51(viii) carves out powers for states to establish their banking and "the issue of paper money" that today could include its digital tokens.

It is no mystery why national governments do not issue their own CBDC to the public. This is because it could introduce market forces to bypass the need for central banks. This threat emerged globally in June 2019. The widely popular social media platform Facebook announced its intentions to introduce its global cryptocurrency called the "Libra". A few months later, in December 2019, the *European Financial Review* published the article "How Facebook money could counter climate change" (Turnbull, 2019). As discussed above, it was based on creating a sustainability index tether for the Libra. The idea for other private financial entrepreneurs unilaterally introducing lifeboat money was published by the *European Financial Review* in July 2020 (Turnbull, 2020b). The legality of this is considered below.

Central bank conflicts of interest

BoE economists in 2003 (Cappie *et al*., 2003) raised the 1999 question of Mervyn King in 1999: could digital money replace central banks? They concluded that the central bank could exist as it avoided the inconvenience and costs of barter. By design, their analysis neglected to consider either a tethered currency as King had done or a limited life ecological "lifeboat" type of money.

On 12 March 2020, the BoE issued its first discussion paper on introducing a digital currency (Bank of England, 2020). They invited responses from the public to be received by 30 June. The Bank received 132 submissions, including mine, on 12 June on 'Without a stable unit of value a CBDC becomes flawed'. An online webinar to discuss the BoE introducing a CBDC was held on 7 April, titled *Central Bank Digital Currencies: opportunities, challenges and design*. No tether was mentioned, nor was the banks' existential conflict of interest. A second discussion paper was issued on 7 June 2021 (Bank of England, 2021). It did not address the BoE existential conflict of interests but discussed "stablecoins".

To raise the question of how central bank conflicts can be managed publicly, I organised a free online roundtable discussion on 7 July 2022. The session was hosted, moderated and recorded (Mainelli *et al*., 2022) by Alderman Professor Michael Mainelli.

He became the 695th Lord Mayor of the City of London in 2023. Besides me, the other speakers were two former members of the BoE monetary committee, Emeritus Professor Charles Goodheart and Professor Willem Buiter. Also speaking was visiting Professor Dr Andrew Hilton, the founding executive director of the Institute for Financial Innovations. Mainelli published my article on his Financial Services Club web pages as a conversation starter on 6 June 2022. It suggested that the Treasury Committee of the UK Parliament should manage BoE conflicts (Turnbull, 2022a).

Several commentators (Greenwood *et al.*, 2020; Janda, 2023) and former central bankers like King (Elliot, 2019) expect a new crisis. One of the many reasons is the continuous growth of government debt. The number of countries with government debt more significant than their GDP has grown to 20 (International Monetary Fund, 2025). There is little reason to believe this trend will reduce to avoid increasing debt levels to unsustainable levels and/or other crises. This highlights the short-term need for lifeboat money to keep local economies afloat in another crisis or an epidemic lockdown denying citizens a life-sustaining income.

Could privately issues of lifeboat money be legal?

The initial issues of privately issued stamp scrip were mostly issued without any reference to being a form of money. The first issue in Germany in the 1920s was described as "Wära" (a word compounded of two others, "ware" and "währung", which mean respectively "goods" and "currency". The paper payment vouchers were first issued as loyalty credits by retail stores. However, the credits were time-limited and required a small fee to buy a stamp to be affixed to the voucher to extend its life.

In this way, there was no legal basis for its regulation. This could be the same situation today, depending on the specific details. A stamp scrip type of lifeboat money began to circulate in Germany again early this century tethered to the Euro. The European Central Bank recognised its existence by publishing a report on "Virtual Currencies Schemes" (ECB, 2012).

A leading example is the Chiemgau (Gelleri, 2009). Margrit Kennedy (1995; 2012) financially assisted the formation of German regio currencies and formed an association. Kennedy invited me to be the guest speaker at the inaugural association meeting in the Traunstein Rathaus in the Chiemgau region of Southern Germany on 4 February 2006.

Kennedy was one of the co-founding members of the Sustainable Money Working Group (SMWG),[3] which we established in 2011. We initially named it the Green Money Working Group (Turnbull, 2011). Its other founding members were organisations, the members of which were involved in, or serviced over, 25 million UK citizens. This is sufficient to determine which party could form a government in a UK general election.

We held our inaugural meeting in the Great Hall of the Institute of Chartered Accountants in England and Wales (ICAEW) on 13 February 2012. The CEO of Coops UK chaired the meeting, representing 18 million members. Another founding member was the British Chambers of Commerce (BCC), the member businesses of which employ over 4.8 million citizens. Other founding members were the ICAEW, with 140,00 chartered accounts servicing millions of clients and the London-based "think and do tank", the New Economics Foundation.

3. https://era.org.au/uk-green-money-working-group/

The BCC's CEO appreciated that there could be uncertainty over the legality of their Chambers issuing lifeboat money for their members to continue to trade in a financial crisis. However, he believed such an initiative would be accepted in an emergency and the law would be changed.

The acceptance of various types of community currencies already exists around the world. Wikipedia lists 20 countries with around 100 different kinds of community, local or supplementing currencies.[4] They include significant areas like the US, UK, the Euro Zone and Japan.

The EF Schumacher Society promoted local currencies in the US. Before Bob Swann became the founding President of the Society in 1980, he worked with Ralph Borsodi in 1973 to introduce a community currency described as a 'Constant' in the town of Exeter, Vermont (Bacon, 1973; Schumacher Centre for New Economics, n.d). Several of the US community currencies were developed by activists who attended the residential seminars organised by the Society.[5] One of the activists was a Tasmanian acquaintance, Bill Morrison. He founded the global permaculture movement, which had its first international conference in Australia in 1984, where he met Margrit Kennedy. Lecture notes by Swann, me and others were published as *Building Sustainable Communities: Tools and concepts for self-reliant economic change* (Morehouse, 1997).

There are also official supplementary currencies. One is the Swiss WIR, a self-help system established in 1934 to issue stamp scrip with a negative interest rate of 12%. The user fee was removed in 1948 to provide interest-free credits to householders and 50,000 small and medium-sized businesses. The WIR network owns a bank with seven branches. There is evidence that the WIR network helps stabilise the Swiss official system (Stodder, 2000). This provides another argument for adopting lifeboat money as a supplementary 'reserve' currency. This is considered in the next concluding section.

Another official encouraged supplementary money is the 'social currencies' in Brazil. Their central bank facilitates self-help, non-profit user and managed currencies like the WIR. The legal counsel to the bank, Marusa Freire, reported (Freire, 2009, p. 83):

> **"In general, the accounting units of social currencies are set at a standard value, pegged to the unit of the official currency (e.g. Palmares and Rubi, in Brazil; LETS). There are, however, certain exceptions, such as currencies based on time (hours or minutes – e.g., 'Time Dollars System' and 'Japanese Fureai Kippu') or on physical units e.g. kWhr of renewable energy, generated by popular cooperatives, e.g. WAT in Japan and the Wara currency, used in Germany between 1920 and 1930)."**

This is a refreshingly open approach by a central bank promoting locally self-determined decentralised banking. It is consistent with promoting lifeboat money.

Adoption of lifeboat money

The adoption of lifeboat money could be motivated and adopted in many ways. Lifeboat money introduced as an emergency measure from a surprise financial crisis or lockdown from a pandemic would, by necessity, become tethered to the official monopoly money. This would not achieve its most important objective of stopping market failure from creating climate change. Nor would it become capable of countering

4. https://en.wikipedia.org/wiki/Local_currency
5. Simons Rock College, Massachusetts, July 1982; Eugene, Oregon, January 1983; Bard College, New York, June; 1983; New College of California, San Francisco, March 1984; Centre for Neighbourhood Technology, Chicago, March 1984

the complex assortment of other interrelated ways that humans are degrading the life support systems of our planet. It needs to be tethered to a sustainability index in each bioregion worldwide to achieve these objectives.

This objective is represented in line 17 of Table 1, concerned with the "Integrity of the system". The participation of all bioregions of the planet minimises existential risks. In Ostrom's words, the global environment represents a "common pool resource" (CPR). CPR is required to maintain the wellbeing of all humans and the environment that has created and maintained them. The idea that humans could replicate such a rich complex supporting bioamines and other supporting forms of biotas on another planet could be much riskier than protecting our home environment.

Unfortunately, the crucial reason for introducing lifeboat money was neglected in an article published by the London-based *Financial Times* in May 2024 (Kyriakou, 2024). The article obtained feedback from various experts on a webinar I presented on lifeboat money earlier in the month. One expert supported my proposal that lifeboat money should be first tested in a regulated "sandbox". Another expert was Andy Haldane, a former chief economist of the BoE. He did not believe there was a need for lifeboat money in his lifetime. Hopefully, his view could be true concerning any financial or pandemic crisis. But climate change is a known urgent problem that requires immediate action.

While economic experts like Lord Stern can identify "the biggest market failure the world has ever seen", their expertise seems to deny them the knowledge to remove the cause of market failure. It suggests that money is so sacred that they cannot question if it is appropriately designed.

Different world views by economists

Haldane's view of central banking appears distinct from that of his former colleague, Mervyn King. In 1999, King speculated that digital technology could lead to decentralised banking by stating: "The successors to Bill Gates would have put the successors to Alan Greenspan out of business" (King, 1999, p. 28). In his opening paragraph, King asks, "Will central banks exist?"

I raised the same question regarding the World Bank when my Australian colleague and former client, James Wolfensohn, was its President (1995–2005). Nick Stern, who later became a Lord, was his chief economist at the time. The adviser to the chief economist was David Ellerman. I met Ellerman in Boston in 1979 when he was the Industrial Cooperative Association's co-founder and staff economist. We shared a vision of self-reliant, self-financing, bottom-up economic development (Turnbull, 1983, 1986a, 1989, p. 159–166).

Wolfensohn chaired a meeting with Stern, Ellerman and me to ascertain if he should take my advice to change the business model of the World Bank. That was to stop colonising client countries with debt and instead educate them on self-financing with their local currency, as achieved by other leading economies. Ellerman (1982) had documented the institutional arrangements of how the Mondragon stakeholder-owned cooperatives had achieved this. I had used this as a case study in my just completed PhD. In 2006, Ellerman published a book on *Helping people to help themselves*.

However, the World Bank has still not changed its business model. This also illustrates the challenges in introducing logical improvement in the structure of financial institutions.

The 2009 Nobel Prize committee identified how Ostrom, a political scientist, introduced a new worldview to economists (Nobel Prize OUtreach, 2025). They reported:

> **"It was long unanimously held among economists that natural resources that were collectively used by their users would be over-exploited and destroyed in the long-term. Elinor Ostrom disproved this idea by conducting field studies on how people in small, local communities manage shared natural resources, such as pastures, fishing waters and forests."**

An added irony was that Ostrom shared the prize with Oliver Williamson, who authored a book on "markets and hierarchies" (Williamson, 1975). Ostrom denied neither was relevant in her acceptance speech, whose title began "beyond markets or states".

Hierarchies in organisations, whether in the private or public sector, represent centralised, top-down dictatorships. They are the antithesis of Ostrom's user-governed bottom-up distributed decision-making 'polycentric' networks. Another example of how economists are blind to reality is provided by Thomas Picketty (2017). He reported (Picketty, 2017, p. 353) that "through most of human history, the inescapable fact is that the rate of return on capital was always at least 10 to 20 times greater the rate of growth output (and income)". He could not explain how this arose because accounting doctrines do not require investor time horizons to be reported. This denies economists the ability to detect the extent to of surplus cash can be received for many years beyond an investor's time horizon (Turnbull, 2000a; 2021).

Establishing a tether

One current model of a monetary tether is the Big Mac index. It was invented by *The Economist* in 1986 as a light-hearted guide to whether currencies are at their 'correct' level. It is based on the theory of purchasing-power parity (PPP), the notion that in the long run, exchange rates should move towards the rate that would equalise the prices of an identical basket of goods and services (in this case, a burger) in any two countries. The Big Mac index has become a global standard, included in several economic textbooks and the subject of dozens of academic studies. Its creditability is based on McDonald's hamburgers, using an identical basket of commodities in each nation (*The Economist*, 2024).

A sustainability index would vary in each monetary area according to the extent to which all consumption was from everlasting renewable or recyclable sources from within the region or imported, without losing biodiversity. Such an index could take years to develop and refine.

However, a simplistic single commodity index for each nation could be established quickly. This could be achieved more quickly than it could become seriously accepted to counter climate change. Its primary purpose would be to educate the public on how it could work during the time required to establish more rigorous, detailed and bioregional-specific indexes.

A critical component of any sustainability index would be the degree to which all energy consumed in a region was from renewable sources within the region or imported. This data is already available in most jurisdictions around the world. Consider using this data type for each state or territory in Australia. The Australian Government Department

of Climate Change, Energy and the Environment[6] has published the energy mix by sources and territory for 2022 to 2023, as shown in Table 2.

The 'Renewables' bottom line in Table 2 would represent the sustainability index of each local currency in each region. This means that the Tasmanian dollar with a 44.1 index would be worth at least four times the money used in NSW, Victoria or Queensland. This disparity arises because Tasmania is one of the first regions in the world to obtain all its electrical power generation from renewable energy sources. Some of it is exported by an undersea cable to the mainland to make Tasmania a battery for Australia (Tasmanian Government, 2025).

Similar data is available for each state in the US, provinces in Canada and the 27 countries in the EU. They possess additional sources of energy like nuclear and biomass. However, this incomplete, simplistic way of establishing sustainability indexes would become highly educational, like the Big Mac Index.

Even just the publication of exchange rates between prospective lifeboat currency regions could begin to make fundamental changes as to where to locate significant production facilities that have an operating life of more than 20 years. As such allocations were made, the components of a simple index could be refined to include other elements like scarce metals and biodiversity. Likewise, the currency areas could become refined based on bioregions rather than nation-states.

The mere publication of sustainability index exchange rates could reinforce the capacity of the index to improve the rigour by which individual corporations can enhance their environmental, social and governance (ESG) reporting, even if this was initially limited to changes in their consumption and production of renewable energies.

Because of the exceptionally superior performance in Tasmania, Table 2 indicates extreme variations in sustainability index values within a single nation. It reveals the extent of the adjustments required to get more feet off the accelerator on a highway to climate hell. This will leave time to develop additional sustainability metrics. It also means that the sooner someone publishes simple metrics of benign renewable energy self-sufficiency, the better.

Hopefully, this article can act as a catalyst for someone somewhere to take global leadership in reducing the ghastly future expected for humans and their biodiversity support system that does not exist on any other planet.

TABLE 2. Energy mix by sources and territory (2022–2023)

	NSW	VIC	QLD	WA	SA	TAS	NT	AUS
Coal	37.1	33.4	32.3	7.7	7.5	8.9	0.0	25.9
Oil	43.7	39.1	36.6	34.6	49.2	39.7	28.2	38.9
Gas	9.5	18.1	19.9	54.5	25.4	7.3	70.4	25.8
Renewables	9.8	9.4	11.1	3.3	18.0	44.1	1.3	9.4

6. https://www.energy.gov.au/energy-data/australian-energy-statistics/data-charts/australian-energy-mix-state- and-territory-2022-23

Concluding comments

This article is part of a wider vision for reforming capitalism to become consistent with the self-managing, self-regulating and self-governing processes in all living things (Turnbull, 2018a; 2018b; 2018c).

A framework for this vision originated in the 1975 book *Democratising the Wealth of Nations* (Turnbull, 1975). The vision depended upon introducing ecological property rights that follow the practices of nature. This means replacing property rights that are static, exclusive and perpetual with dynamic, inclusive and time-limited rights for land, buildings, corporations and money.

Lifeboat money introduces an ecological form of currency. Ecological ownership of land and buildings can be achieved with community land banks. These can halve the cost of first home ownership by eliminating the cost of land owned collectively (Turnbull, 1983; 2017). Ecological corporations could be introduced with an "Investor-led tax incentive to create a stakeholder economy" (Turnbull, 2021). This also introduces distributed decision making, described by Ostrom as "polycentric" self-governance (Ostrom, 2009).

A supporting theoretical framework was developed based on identifying "surplus profits" (Turnbull, 2000a, p. 2) that accounting doctrines cannot report. I also used my PhD research (Turnbull, 2000b) to develop "The Science of Corporate Governance" (Turnbull, 2002) and "The Science of Governance" (Turnbull, 2008) and introduced to social scientists the concept of "tensegrity" (Turnbull, 2022b). Tensegrity is a defining feature of self-governing systems and their autonomous, almost self-governing nested subsystems. These system science concepts provided a basis to extend the scholarship of Ostrom to a global context (Turnbull, 2024c) for organisations and so complement the agenda of this article.

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ARTICLE

Accounting and accountability for and by the fossil fuel industry in a carbon-constrained world

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A multidisciplinary team of accounting and governance academics analyses how tax avoidance, subsidies, carbon trading and greenwashing are embedded in the fossil fuel industry, using investigative reporting from the COP27 period. They conclude that effective accountability requires coordinated international action, not incremental corporate reform.

1. Introduction

Busco *et al.* (2023) question whether corporate accounting and accountability can help the world recognise and tackle today's social and environmental grand challenges. In effect, they are asking: Is there a role for accountants in helping to preserve the planet? This inquiry mirrors the views shared by Dumay *et al.* (2019, p. 22), who examine the notion that organisational reporting has not substantially changed the status quo. Instead, significant global environmental and social challenges surround accounting, accountability practice, and its associated research.

While sustainability accounting and specific reporting initiatives can provide an organisational-level focus on non-financial issues, most have had a minimal impact on the broader social and ecological systems (Bebbington *et al.*, 2020; Gray, 2006; 2010). These formidable challenges, reflected mainly in the United Nations' Sustainable Development Goals (SDGs), such as poverty, inequality, water consumption, social disruption, refugee crises, and natural disasters, cannot be

tackled through organisational accountability alone (Vollmer, 2021). Instead, the behaviour and activities of organisations must extend beyond the current generation to future generations (Kosmala & McKernan, 2011).

The social and economic costs of our civilisation's dependence on fossil fuels are becoming increasingly apparent as the effects of human-induced climate change become more frequent, intense, and destructive. Over the last several years, the world's top climate scientists have consistently warned that failing to radically reduce that dependence over the next two decades will lead to catastrophic climate change and the potential collapse of human civilisation (Lenton *et al.*, 2019; Moses, 2020; Lucas, 2021b; Parry *et al.*, 2021; UNEP, 2022; IPCC, 2022; UNFCCC, 2022; IEA, 2022, 2023).

Nevertheless, the fossil fuel industry is responsible for around two-thirds of our greenhouse gas emissions (IPCC, 2007). Moreover, 57 state-owned and public companies are responsible for 80% of global carbon emissions (CarbonMajors, 2024) yet the fossil fuel industry displays an extraordinary ability to distract attention away from the fact that it remains the most significant source of climate disruption. Additionally, fossil fuels are still the world's largest and most dominant source of energy (Heede & Oreskes, 2016; Shue, 2017). Indicators of the industry's success in avoiding responsibility for its activities include the growing emissions from fossil fuel production and consumption, the increasing investment in its exploration and production, ongoing government subsidies (amounting to US$5.9 trillion in 2020), and continued resistance from financial markets to factor in the social, economic and environmental costs of climate disruption (*PARRY ET AL.*, 2021; Carrington, 2022; Carbonaro, 2022; Denniss, 2023).

Society's continued dependence on fossil fuels as a primary energy source has been driven home by wars in Ukraine and Palestine. These conflicts have highlighted our vulnerability to disruptions in the global supply of fossil fuels like oil and gas. With Russian supply lines cut, other transnational and state-owned corporations with oil and gas interests have been quick to capitalise on the gap, making record profits while engaging in multi-million-dollar public relations campaigns that perpetuate the idea that fossil fuels will continue to dominate our energy needs for decades to come (Harvey, 2022a). Similarly, governments in nation-states with economically recoverable oil and gas reserves have also been quick to argue for continued expansion of their exploration and production activities, even though any such expansion will blow the global carbon budget and seriously jeopardise any possibility of those nations meeting their international obligations to mitigate climate change (Campbell *et al.*, 2023; Carrington & Taylor, 2022).

Guthrie and Dumay (2021) emphasise the importance of understanding and accepting that normality and chaos coexist and that small changes can have significant impacts. They argue that humanity can better prepare for future crises by experimenting with new approaches and probing the living environment. As such, our paper introduces the concept of complex systems, where critical information lies in the relationships between the parts rather than being inherent to each component alone. Complex systems are typically interdependent, diverse, and able to adapt to their environments. Understanding complex systems is crucial to understanding how the world works. For example, the COVID-19 pandemic exemplifies how a small event can cause a humanitarian crisis with global consequences.

In light of these observations, Guthrie and Dumay (2021) discuss the need for new approaches to address the complex problems that businesses and governments face, particularly concerning the social and environmental justice issues related to climate change. These grand challenges and wicked problems require political negotiation; they demand that we work effectively in networks and bridge the divide between academia, industry, and policy.

Grand challenges and wicked problems (Bebbington & Unerman, 2018; Guthrie & Dumay, 2021) and issues of the commons (Hardin, 1968) are complex and multi-vocal problems that extend beyond a single discipline or one social, institutional, or organisational context (Campbell *et al.*, 2019; Kosmala & McKernan, 2011; Vollmer, 2021). As Ferraro *et al.* (2015, p. 36) argue, grand challenges typically display three characteristics. First is complexity: grand challenges are affected by multiple actors, locations, and timeframes. Second, uncertainty: grand challenges are characterised by non-linearity and dynamism, making it difficult for actors to identify their root causes, forecast the consequences of their present actions, or predict how future others will appreciate them. Third, there is incalculability: grand challenges encompass multiple criteria of worth and reveal new concerns.

Given the complexity, uncertainty, and incalculability of grand challenges, recent accounting and accountability studies emphasise the need to deepen our understanding of the connections between the actions, decisions, and responsibilities organisations are assuming towards addressing these wicked problems (see 'Opening accounting', a manifesto by Alawattage *et al.*, 2021).

Researchers have increasingly called for a broadened understanding of organisational accountability, particularly regarding sustainability. Nevertheless, most studies have, arguably, not responded to the continuing failures of individual organisations to make themselves responsible for any adverse social or environmental effects beyond their current and situated temporal structures (Dillard & Vinnari, 2019). As evidence, if contemporary accounting and accountability practices were the answer, we would not need more standards and legislation requiring organisations to become responsible for what economists commonly call negative externalities (Dumay *et al.*, 2020). These are matters beyond organisational boundaries (Dumay, 2018). Thus, we must focus on the interactions between governments, companies, civil society, academia, the scientific community, and other actors (Guthrie *et al.*, 2023). This paper embodies these concerns.

The rest of this paper is structured as follows. Section 2 provides a brief overview of the problems with the fossil fuel industry from the perspective of both the people and the planet. Section 3 summarises the accounting and accountability literature relevant to fossil fuels. Section 4 discusses how and why investigative journalism provides a valid data collection technique for sourcing relevant material. It also outlines our content analysis process. Section 5 divides the material into three themes and discusses each: taxation and subsidies, carbon accounting and trading, disinformation, greenwashing, and sportswashing. Additionally, it examines international challenges for climate change policy and regulation. Section 6 analyses issues related to accounting and accountability in the fossil fuel industry, and Section 7 provides a conclusion outlining the implications of our research for policy and practice.

2. Profit before people and the planet's problems in the fossil fuel industry

For decades, the scientific community has warned of the catastrophic consequences of further delays to global decarbonisation (Lucas, 2021b, 2021c). However, despite being responsible for around 60 per cent of greenhouse gas emissions (Heede, 2014; IPCC, 2007), the fossil fuel industry remains committed to further expansion. Worse still, many governments are not only allowing this expansion, they are encouraging it. A direct consequence of this behaviour is that global greenhouse gas emissions have increased, and extreme weather events have become more frequent and intense. Already, this is imposing tens of billions of dollars in damage to livelihoods and infrastructure across dozens of countries and displacing millions (Aguilar Garcia *et al.*, 2021). Consequently, there are growing calls to directly attribute these costs to the fossil fuel industry and other major polluters (Allen, 2017; Burger *et al.*, 2020; Marjanac & Patton, 2018; Mechler *et al.*, 2019; Zhai *et al.*, 2018).

Nation states that remain dependent on fossil fuels for energy or feedstock, including industries such as aviation, cement, shipping, plastics, clothing, metals processing, meat and livestock, and automobiles, are significant contributors to global greenhouse gas emissions. They are also major supporters of consumption practices that emphasise growth and the throwaway society. While accounting and accountability academics can help understand the systemic nature of wicked social and environmental problems, we must move beyond organisational accounting and reporting to see how we can undertake other actions that drive more extensive changes across socioeconomic systems. Systemic change must occur before lasting organisational change can be implemented (Christ *et al.*, 2024).

Unfortunately, many people are still wedded to the idea that improved reporting and greater levels of disclosure by individual organisations will save the world; it will not (Dumay *et al.*, 2019, p. 22; Gray, 2010).

To achieve systemic change, Gray (2006, p. 808) advocates an "ecological and eco-justice" (EEJ) approach to sustainability management and reporting practices. Gray argues that this approach will help organisations develop sustainability practices that positively affect their financial bottom lines and broader structural relationships (Milne *et al.*, 2009, p. 1241). However, not doing so may result in sustainability initiatives that provide some benefits for individual organisations that have little or no positive impact at a broader systemic level. Not taking an EEJ approach is problematic because a so-called 'sustainable' organisation will not survive in an unsustainable ecosystem. Instead, it becomes the canary in the coal mine. No matter the canary's health, it will surely perish in a toxic environment where companies ignore the future and sow the seeds of their destruction (Dumay *et al.*, 2010).

Those companies and governments that carry on without considering the potentially toxic environmental risks associated with their activities will be the first to deal with stranded assets and resources (Lucas, 2016). However, rather than confronting these risks and working to forge alternative pathways for developing alternative energy resources, governments and companies with significant financial interests in fossil energy and resources are doubling their commitments to a fossil-fuelled future. As such, they are not adequately considering the harmful effects of their pursuits on global society and the environment.

There is no longer any doubt that fossil fuels are a significant contributor to anthropogenic climate change. Even the most recalcitrant of

CEOs and political leaders cannot ignore the fact that continuing to use coal, oil, and gas poses a significant threat to all life on Earth. However, with trillions of dollars in potentially stranded assets at stake, it should come as no surprise that these offenders have spent billions of dollars over the last few decades on a range of strategies to ensure that public perceptions of their ability to secure investment capital and generate profit remain secure, at least over the near-term future (Influence Map, 2023; Lucas, 2021a, 2021b, 2021c, 2022a). In the fossil fuel industry, profit is a problem put before people and the planet, not the reverse.

3. Accounting and accountability with a fossil fuel focus

To tackle these upside-down priorities, we examine the systemic changes required to achieve accountability and transparency regarding climate change and energy policy matters. We also investigate the role of accounting and accountants in this process. For example, we ask: How can accounting and accountability help identify and mitigate social and environmental grand challenges such as climate change? Can accountants help to save the planet? (Gleeson-White, 2014). These are two questions that accounting academics face in contemporary times.

In response, regulators and accounting bodies continuously return to the sustainability accounting of individual organisations, citing reporting, disclosure technologies, and frameworks as the answer (Dumay, 2016). For example, the International Financial Reporting Standards (IFRS) Foundation has issued two reporting standards for reporting on sustainability and climate change (IFRS Foundation, 2023a, 2023b), while Lucas *et al.* (2024) highlight the contest between the International Accounting Standards Board (IASB) and the Global Reporting Initiative (GRI) over which substantiality and carbon reporting standards will become the norm. The ISSB standards focus on the information needs of investors and other capital providers, whereas the GRI seeks to meet the broader information needs of different stakeholders. However, the proposed reporting and disclosure solutions appear to add to the current alphabet soup of reporting frameworks rather than reducing them (Richards & Watson, 2021). Dumay (2017) laments that it is like putting old wine in a new bottle.

There is abundant evidence that corporate responsibility over climate and energy issues is not treated seriously by the world's biggest polluters or their home nation-states. Consequently, the accounting profession needs to recognise that it is no longer sufficient to maintain its focus on organisational accounting and reporting. Broader systemic changes are required to determine how the more extensive socioeconomic system operates to appropriately address our civilisation's climate and energy issues at the required scale and urgency (Baker *et al.*, 2023). The accounting profession can and should play a role in developing the new international regulatory architecture needed to severely limit the fossil fuel and resource extraction industries from continuing to determine our futures.

Crucial in these efforts are jurisdiction-specific reforms on how investors finance and national governments approve fossil fuel exploration and extraction projects. Baker and Andrew (forthcoming) discuss different fossil extraction models by large nation-states, including market coalitions and state-led and sovereign-owned wealth fund approaches. The market coalition approach, adopted by the US, involves government support for investments by American oil and gas

companies in other countries. In Australia, the most prominent players in the liquefied gas industry by market share are Chevron, Woodside, Shell, Santos, and ExxonMobil. However, journalists have reported on the involvement of these companies in large-scale tax avoidance and other dubious business practices (West, 2017a, 2020; Collaery, 2020; Foote, 2022a; Foote & West, 2023).

For example, the Chevron Corporation is an American multinational energy company specialising in oil and gas. The second-largest direct descendant of Standard Oil, originally known as the Standard Oil Company of California, Chevron is headquartered in California and is active in more than 180 countries. As of January 2024, Chevron had a market cap of US$282.21 billion and was the world's 33rd most valuable company (CompaniesMarketCap, 2024). Between 2014 and 2018, it paid no income tax on its Australian revenue of AU$10.5 billion (West, 2020a). It has also been engaged in the ongoing persecution of US-based lawyer Steve Donziger since 2011 after he and his team of Ecuadorian lawyers won a US$9.5-billion landmark case against Texaco, now Chevron, for dumping 16 billion gallons of toxic wastewater into the Amazon between 1964 and 1992 (Delahunty, 2021).

The state-led approach, on the other hand, does not involve private businesses and instead relies on state-owned companies investing directly in countries, often using financial instruments like development and aid loans. Russia and China, for example, have used this approach to support their strategic and economic interests at home and abroad. The sovereign wealth fund approach involves investment vehicles that manage a country's surplus reserves, aiming to generate long-term returns and diversify the country's wealth. Norway's Government Pension Fund Global is an example of such a sovereign wealth fund, which, as of April 2024, holds US$1.65 trillion in assets (SWFI, 2024).

Compared to the sovereign wealth fund approach, the main difference between the market coalition and state-led approaches is that these approaches prioritise external interests at the expense of countries with high levels of resources. At the same time, the sovereign wealth fund approach allows resource-rich countries to develop their infrastructure and capital to create long-term wealth.

Gillies (2020) discusses the belief of some researchers that simply extracting oil leads to corruption. It hinders economic growth and social welfare in oil-rich states while enlisting oil conglomerates and their elite political, judicial, and financial allies into unethical and illegal practices. Gillies (2020) comprehensively analyses how corruption operates, exploring both government and corporate strategies designed to maintain power and profits through wrongful actions. Her book examines how corruption has infiltrated oilfield service deals in Algeria, Angola, Brazil, Colombia, Ecuador, Equatorial Guinea, Iraq, Kazakhstan, Nigeria, Russia, Saudi Arabia, the United Kingdom, and Venezuela. Her research also sheds light on the role of oil-facilitated corruption in re-election campaigns and the revolving door between bureaucracy and the oil industry. Meanwhile, Lucas (2021a, 2022b) has documented a range of strategies deployed by the fossil fuel industry in Australia to achieve similar goals and how those strategies constitute various forms of soft corruption.

Andrew and Baker's (2020) study examines how leaked documents can contribute to the counter-hegemonic goals of a shadow accounting project that 'places people at the centre of a new

hegemonic formation' aimed at reinvigorating more radical notions of democracy. These researchers analysed material published by Wikileaks as part of Cablegate, specifically looking at the private communications between US Embassy officials regarding Chevron Nigeria from 2002 to 2010. The study highlights the significance of discourse in creating and maintaining hegemonic coalitions between powerful state and market actors, which are central to neoliberalism. The study finds that when companies share discursive practices, particularly in private, a hegemonic alliance can form where actors agree on a popular national program that ostensibly serves corporate interests while appearing collectively beneficial.

A recent study by Rodrigue, Diouf, and Gendron (2023) sheds light on the repercussions of over-relying on the Big Four accounting firms, especially regarding climate reporting and sustainability risks. The study reveals that these firms typically depict such risks as being economical, technical, solvable, and within their control. The authors reveal four strategies these firms use to frame the issues: positioning themselves as proactive generators of knowledge, highlighting the importance of quantification and measurability, advocating for neoliberal policy development, and minimising the emotional elements of socio-environmental concerns. They argue that these framing tactics oversimplify the intricate nature of sustainability challenges. Such narrative devices couch sustainability issues in terms of conventional organisational and economic perspectives, making it more palatable to pursue corporate expansion. The Big Four also tackle sustainability risks within the conventions of economics. Thus, they establish themselves as business consultants and assurance providers whose role is to boost profitability. Nonetheless, the authors propose that instead of concentrating solely on manageability, it is imperative to hold both businesses and the Big Four to account for their paltry contributions to safeguarding the planet and humanity.

4. Drawing on the work of journalists as a research method

For scholars to maintain quality in qualitative research, their data must span practice, theory, and literature such that the subsequent analysis captures the complexities of the underlying processes (Steccolini, 2023). As a source of reliable data for empirical research, however, journalists have an advantage over social scientists in truth-seeking and tend to be under-appreciated by many social science disciplines. The speed with which journalists can publish stories and information in the public interest contrasts with academics and scientists whose research usually takes several months or even years to be publicly available. Furthermore, unlike discipline-based researchers, journalists are not constrained to justify their work theoretically or methodologically by citing relevant literature or following discipline-based presentation formats, even though they share the same commitment to revealing truths and hidden facts. The best journalists actively hunt for scoops – big unknown stories with significant social and economic implications – the contents of which would otherwise not be available for scrutiny by academic researchers (Lucas, 2021a, pp. 9–10; Serrin & Serrin, 2002). For all of these reasons, we submit that the work of journalists presents opportunities for social scientists to widen and deepen their research.

The research material compiled in this paper draws upon 177 articles published in various independent and mainstream news outlets that implicate the fossil fuel industry relating to accounting,

accountability, the environment, and social issues published in Australia between 22 September and 29 November 2022. These dates cover the lead-up and outcomes from the COP27 negotiations in Sharm el-Sheikh, Egypt, in November 2022. We sourced the articles from a range of titles, including independent Australian media such as *Crikey*, *The Saturday Paper*, *Pearls and Irritations*, *Michael West Media*, and *The Conversation*, to popular broadsheets such as *The Guardian*, *The Sydney Morning Herald*, *The Age*, and *The Australian Financial Review* (Table 1).

TABLE 1. Media sources (published Sep-Nov 2022)

Publication	No. of articles
Independent Media	**34**
Pearls and Irritations	12
Crikey	7
The Saturday Paper	6
Renew Economy	5
Michael West Media	3
The New Daily	1
University-Funded Media	**22**
The Conversation	22
Popular Broadsheets	**86**
The Guardian	66
The Sydney Morning Herald	10
The Australian Financial Review	3
ABC News	3
Others (*Canberra Times*, *The Courier*, AAP)	4
International Media	**11**
BBC (3), Bloomberg, NBC, CNBC, Yahoo News, NPR, *The Independent*, *The Economist*, *USA Today*	11
Special Interest Media	**10**
Accountancy Age (3), *Inside Climate News* (2), *Times Higher Ed*, *Accountants Daily*, *qz.com*, *inkl.com*	10
Other (UN, Australian Government, Oil Change International, APPEA, Climate Action Tracker, Market Forces)	**14**
Total	**177**

We used content analysis to read and analyse the texts. First, we analysed a small initial sample of articles and developed seven coding elements organised into three broad narrative themes: fossil fuel taxation and subsidies; carbon accounting and carbon trading; disinformation, greenwashing and sportswashing. We used seven coding elements to classify articles under the following sub-headings: fossil fuel tax avoidance and super profits; government fossil fuel subsidies; carbon markets and credit trading; carbon accounting standards and disclosures; carbon offset accounting and regulation; greenwashing and sportswashing; developing nations and payment for loss and damages.

Several authors read and analysed the 177 articles in the sample using content analysis. The issues identified and the discussions on global accounting, accountability and social and environmental matters – mainly Australian – highlight a social system perspective rather than a single-issue perspective of accounting and accountability for and by the fossil fuel industry.

TABLE II. Narrative themes and coding elements

Narrative themes	Coding elements
1) Fossil fuel taxation and subsidies	6.1.1 Fossil fuel tax avoidance and super profits
	6.1.2 Government fossil fuel subsidies
2) Carbon accounting and carbon trading	6.2.1 Carbon markets and credit trading
	6.2.2 Carbon accounting standards and disclosures
	6.2.3 Carbon offset accounting and regulation
3) Disinformation, greenwashing and sportswashing	6.3.1 Greenwashing and sportswashing
	6.3.1 Developing nations and payments for loss and damage

5. Analysis and Discussion

The following analysis groups the issues into narrative themes to highlight their commonalities. There are three themes: taxation and subsidies, carbon accounting and carbon trading, disinformation, greenwashing and sportswashing, which include international challenges for climate change policy.

5.1 Fossil fuel taxation and subsidies

The first narrative theme, fossil fuel industry taxation and subsidies, has two sub-sections. The first explores tax avoidance and super profits; the second explores global government subsidies for the fossil fuel industry.

It is empirically demonstrable that there is a direct relationship between the financial interests of dominant corporations in the fossil fuel industry (as well as other polluting industries) and their ability to shape government policy on climate change and energy issues to their financial and political advantage (Aulby, 2017; Brulle, 2018; Farrell, 2016a, 2016b; Lucas, 2021a, 2021c; Stoddart *et al*., 2022). Two of the most apparent consequences of this relationship are extraordinarily generous tax concessions on a wide range of activities and the continuation of explicit and implicit subsidies, which currently amount to more than $US5.9 trillion annually (Carrington, 2021; Parry *et al*., 2021). Direct government subsidies in Australia alone amount to around $AU11 billion annually (Denniss, 2023; Lucas, 2016). The discussion below focuses on recent reporting on global tax avoidance and subsidies to illustrate how the fossil fuel industry and its allies in politics, government, the media, and industry continue to exercise a crippling effect on the ability of nation-states to decarbonise.

5.1.1 Fossil fuel tax avoidance and super profits

The International Consortium of Investigative Journalists (ICIJ) "shares narratives that cut through the clutter, revealing the true workings of business and government". They believe publishing facts from credible sources is fundamental to democracy and a basic human right. Investigations by the ICIJ,[1] such as the Paradise Papers and Lux Leaks, have exposed the staggering scale of corporate

1. See https://www.icij.org/about/

tax avoidance by some of the world's biggest companies. Still, the problem has been hard to quantify. One report by the EU Tax Observatory estimated that around 35 per cent of foreign profits made by multinationals, totalling $1 trillion globally, would have been shifted to tax havens in 2022 (Alstadsæter *et al.*, 2023).

The Tax Justice Network (2023) reports that national governments lose around US$480 billion annually to global tax abuse. Of that sum, US$311 billion is the result of cross-border corporate tax abuse by transnational corporations, while US$169 billion is the result of offshore tax abuse by wealthy individuals. However, the lower-income countries are hit hardest by global tax abuse. The Tax Justice Network (2023) also notes that, although the higher income countries suffer the most annual tax losses quantitatively (at US$433 billion), those losses only represent around 9 per cent of their public health budgets. By contrast, the tax losses suffered by lower-income countries (US$47 billion) are equivalent to half their public health budgets. Moreover, suppose countries fail to act and continue to support a slightly modified status quo regarding international tax rules. In that case, the Tax Justice Network (2023) estimates that global tax avoidance will amount to US$4.8 trillion over the next ten years. To put that figure in perspective, governments collectively spend around US$4.66 trillion annually on public health.

This behaviour is nowhere more evident than in global fossil fuel operations, which continue to engage in widespread tax avoidance while making super profits. Government legislation in Australia and elsewhere enables the industry to avoid paying income tax because it allows corporations to establish offshore tax havens. Companies not only funnel revenue into these tax havens, but the legislation also allows foreign-owned and located corporations to engage in transfer pricing to subsidiaries while encouraging the grandfathering of tax losses for an indefinite period.

The Australian Petroleum Production & Exploration Association (APPEA) (2022) suggests that Australia's liquid natural gas exporters will triple their financial contribution to the public in the 2022–23 financial year to around AU$13 billion, based on revenues of AU$95 billion in 2022. APPEA claims the industry employs 165,000 people along the supply chain, covering, for example, people who provide food, build infrastructure, and so on. However, this statistic, called the multiplier effect, is an unreliable overestimation. The industry only directly employs the full-time equivalent of about 17,000 people (APPEA, 2022).

Data from the Australian Tax Office (ATO) in 2023 reveals that the fossil fuel industry is Australia's main tax avoider, likely to be the case worldwide. *Michael West Media* has identified US oil and gas giant Exxon as the top tax dodger for 2023 (Foote & West, 2023). The West Report, based on nine years of ATO data, demonstrates the flaws in the corporate tax system, including the ability to indefinitely carry forward tax losses and the practice of shifting profits offshore through debt, intellectual property, and service payments to foreign affiliates.

The Big Four accounting firms, EY, Deloitte, PwC, and KPMG, are responsible for auditing and providing tax advice to most transnational companies and orchestrating these tax avoidance schemes (Lucas *et al.*, 2024). The West Report draws on annual corporate tax disclosures by the Australian Tax Office. It includes information on total revenue, taxable income and tax payable for corporate entities with a minimum income of

AU$100 million. It identifies the giant tax dodgers. As in previous years, mining, fossil fuel, and transport companies dominate the top rankings (Foote & West, 2023). Additionally, The Australia Institute has used ATO data to show how the nation's oil and gas exporters are almost exclusively foreign-owned and include large companies that paid no income tax for seven years after turning over AU$138 billion in revenue (Daniel, 2022).

As the Albanese Government prepared the ground for tax reforms in its 2023 budget, the former Australian competition chair, Rod Sims, pointed to the massive windfall profits currently enjoyed by multinational oil and gas companies operating in Australia since the beginning of the Ukraine war (Daniel, 2022). Perhaps intoxicated by these record profits, BP's head of oil and gas stated there is a need for investment in new oil and gas projects as far ahead as 2050 (Shearman, 2022). Sims has suggested that the tax rules applying to the oil and gas sector are far too generous and that these companies have been allowed to pay low taxes based on questionable deductions for far too long.

The ATO recently won a legal case against the oil and gas giant Chevron in 2022, disallowing AU$40 billion in interest deductions. The case sets a precedent for boosting the tax paid by oil and gas firms (McIlroy, 2022). The ATO has limited past-year debt deductions and requires firms to undertake significant restructuring of their arrangements, resulting in fewer debt-related claims. These reforms delivered about AU$12 billion in extra revenue in 2022 (McIlroy, 2022).

5.1.2 Government fossil fuel subsidies

The Australian Fuel Tax Credit Scheme is a heavy subsidy the federal government provides to companies that produce fossil fuels. In 2021–22, it cost taxpayers AU$7 billion; by 2025–26, economists expect the subsidy will increase by 32.7 per cent to AU$11.2 billion (Foote, 2022). According to ATO data, roughly half of diesel fuel tax credits since 2004 have been granted to fossil fuel companies (Foote, 2022).

Guthrie and Lucas (2022a, 2022b) report that the Australian fossil fuel industry receives large subsidies from the government but contributes relatively little in tax revenue. For example, the sector received more than AUS $70 billion in direct subsidies between 2015 and 2021. The subsidy is more than five times the income tax revenue collected by the federal government from 25 fossil fuel and energy companies over the same period. Nevertheless, despite generating significant revenues from coal, gas, and petroleum sales, most transnational companies pay little or no income tax because of the favourable tax arrangements they maintain with the Australian state and federal governments. Current taxation and subsidy levels undoubtedly demonstrate that the financial gains to the Australian people from the industry are not as significant as the industry and its political backers claim. Instead, serious negative social and environmental externalities are associated with fossil fuel production and its use, which remain unaccounted for in the companies' financial statements and how state and federal governments routinely treat them.

5.2 Carbon accounting and carbon trading

Our second theme is carbon accounting and trading. It spans three components: carbon market operations and carbon credit trading, carbon accounting standards and disclosure; and carbon offset accounting and its associated regulatory frameworks. Despite the evident resolve of many fossil fuel-producing nations to increase production and exports, many nations that consume those fuels appear equally committed to backing them.

Carbon accounting and trading are emerging as the primary tools for these countries to justify policies that future generations will likely harshly criticise as unforgivable transgressions.

Despite the G7's commitment to end international public finance for fossil fuels by the end of 2022, Japan has stated it will continue financing upstream fossil fuel projects. This policy is inconsistent with achieving the 1.5°C limit under the Paris Agreement. Moreover, Japan has been leading the drive to expand gas consumption in Asia. It is the world's leading financier of gas infrastructure globally and the world's largest public financier of fossil fuel projects, with $US6.7 billion spent on gas projects annually between 2019 and 2021. The Japanese government is also relying heavily on mitigation techniques that are highly unlikely to genuinely offset the additional emissions from its gas expansion, including the production of 'brown' hydrogen, ammonia co-firing, and carbon capture and storage, which former Prime Minister Fumio Kishida euphemistically described as decarbonising while still using fossil fuels (Arima & Wong, 2022).

5.2.1 Carbon markets and carbon trading

Two recent articles published by US investigative journalist Tim McDonnell (2022) raised serious concerns over the past decade about the lack of transparency in bilateral and multilateral carbon trading. For instance, the rules allow countries to designate information about their carbon market as commercial-in-confidence, making the process less than transparent and making it difficult for watchdogs to hold governments accountable. Another concern relates to the broader UN carbon market. This system is only credible if each credit counts just once. For example, if carbon credits are created from a forest conservation project in Zimbabwe and then sold to a US oil company via the UN marketplace, the credit counts against Zimbabwe's national or the oil company's corporate carbon footprint, but not both. To calculate such credits twice would create an illusion that global emissions are falling faster than they are, which amounts to greenwashing.

The 2015 Paris Agreement calls for establishing two types of carbon trading markets. These markets allow a higher-emitting country to pay for carbon-cutting projects in another country, such as conserving a forest or building a solar farm. The country selling the credits gets cash, while the government buying the credits pays for its emissions rather than directly reducing them. These credits are almost indistinguishable from carbon offsets. Based on evidence from multiple carbon market schemes over many years, many critics have argued that the putative goals of both tend to be plagued by unpredictability, inconsistency, and even fraud (Gilbertson & Reyes, 2009; Rogers, 2010; Lovell & Liverman, 2010; Pearse & Böhm, 2014).

5.2.3 Carbon accounting standards and disclosures

The climate-related disclosure standards framework developed by the International Sustainability Standards Board (ISSB) aims to build capacity for setting a global sustainability standard in developing and emerging economies. It also helps to create a genuinely global baseline of climate disclosure standards. A report detailing the framework's intentions outlines a five-year timeline for implementation, and this, coupled with the announcement that the ISSB will be merging with the Climate Disclosure Standards Board (CDSB) and the Value Reporting Foundation (VRF), introduces a new global 'Partnership Framework' to the world stage (Alberti, 2022).

However, over 100 academics raised substantial concerns over the ISSB's conceptual framework

during its consultation period. Scholars claim its focus rests squarely on financial materiality and the information needs of investors (Adams & Mueller, 2022). By contrast, other stakeholders are seeking a double materiality approach (as mandated in the EU) that also focuses on how the behaviour and activities of organisations contribute to or undermine sustainable development. A double materiality approach would better serve Australia's commitment to the United Nations' Sustainable Development Goals (Adams & Mueller, 2022; Guthrie, 2024).

The Australian Government unveiled its policy design for corporate climate-related financial disclosure requirements in 2022 to align with the ISSB. However, the draft legislation is fundamentally flawed. It takes a narrow view of large entities' sustainability information, following the investor-centric IFRS position, not the wider GRI and EU interpretation of sustainability disclosures (Guthrie *et al*., 2023).

Two perspectives emerge when examining institutions attempting to establish international sustainability reporting guidelines. The IFRS's financial perspective focuses on corporations generating financial value to create sustainability. It is an approach influenced and funded by the proponents of stakeholder capitalism, which prioritises information that aligns with a financial interpretation of sustainability. Hence, organisations such as the IFRS and ISSB emphasise creating financial value while disclosing the 'impacts' of climate change.

The second is a broader perspective that considers how the behaviour and activities of corporations affect the natural environment and society. The perspective embodies the GRI[2] and EU sustainability standards (European Commission, 2023). This version of sustainability aims to understand the impact of corporations on their external environments, including the sustainability of the natural environment and the well-being of humanity. It is an approach driven by global environmental and social concerns and by criticisms from the public that private organisations have not taken sufficient action to become holistically sustainable, nor have they provided enough information about their sustainability activities. Indeed, there are more differences between the two perspectives than just this.

If approved by the federal parliament, the draft legislation incorporating the IFRS's sustainability standards into Australian law contains significant faults that may negatively affect Australia's international reputation. One major flaw is the mischaracterisation of sustainability reporting as an extension of financial reporting. A proper framework for sustainability reporting should prescribe disclosures on financial, environmental, social, and governance performance, a distinction recognised and developed through various non-financial reporting frameworks over four decades (Christ *et al*., 2018). The GRI, for example, includes a range of standards that cover various topics, including financial matters, energy, carbon, biodiversity, employment, labour relations, training and education, diversity and equal opportunity, freedom of association, forced labour, the rights of Indigenous peoples, and health and safety.

The proposed changes put forward by the Australian Treasury expand the scope of a company's financial reporting requirements. The notable issue in the Treasury's materials is the assertion that imposing sustainability standards will somehow supply additional "financial information" as outlined in the objectives of the *ASIC Act 2001*, which already covers financial

2. https://www.globalreporting.org/

reporting standards. Sustainability standards should offer non-financial data to enrich the report user's understanding of an entity's operations. Hence, the government needs to ensure that legislation harmonises with mandated accounting standards so that the reports provide consistent information to local and global markets. The draft bill and its explanatory materials must clarify which non-financial information to provide. Given the national importance of Australia 'stepping up to the plate', the legislative process must include a discussion addressing the connections between sustainability standards, climate action, and reporting. However, there is no such discussion in the materials. Instead, the proposal narrowly focuses on sustainability as defined by large corporations (Ravlic, 2022).

Another issue is that the proposed bill inaccurately characterises the role of the Auditing and Assurance Standards Board. The suggested revision erroneously implies that the Board must develop standards specifically for sustainability, whereas the current legislation already includes these provisions within the broader scope of "other purposes". More specifically, the draft legislation mandates that organisations include a climate-related financial disclosure statement in annual reports. Consequently, each reporting organisation must secure an assurance report from their financial auditor. It is important to note that this requirement only applies to medium and large organisations. Given that the Big Four now audit 98 per cent of the top 200 listed companies and other significant entities like superannuation funds and private equity firms, this provision further consolidates power and privileges the Big Four accounting firms. The Treasury laws amendment bill 2024: climate-related financial disclosure states:

> 1.2 **Climate disclosures will be subject to similar assurance requirements to those currently in the Corporations Act for financial reports and will require entities to obtain an assurance report from their financial auditor. The extent and level of assurance required will be set out in Australian assurance standards for climate disclosures developed by the AUASB.**

The Big Four's fingerprints appear all over the global IFAC sustainability standard-setting. The Australian FRC announced in 2022 five new standard-setting appointments from the Big Four accounting firms. Also, the auditing and assurance standard setter has added a Deloitte partner and EY partner to deal with the assurance consequences of sustainability reporting (Ravlic, 2022).

5.2.2 Carbon offsets accounting and regulation

Several academics have levelled criticism at Australia's carbon offset scheme. Despite the substantial design flaws in that scheme that were introduced by the previous Coalition government (Merzian *et al.*, 2021; Kuch, 2022; Long & McDonald, 2022; Keane, 2023), the incoming Labor government did not attempt to address them until very recently (Lowrey, 2023). Although the government substantially improved the scheme, with the support of the Australian Greens (Morton, 2023), there remain significant flaws in how the government is implementing and monitoring it, which arguably allows for fraud (Lakhani 2023; Keane, 2023a; Macintosh *et al.*, 2024a).

Before the passage of the recent legislative amendments in March 2023, the regulatory framework risked being seen as state-sponsored greenwashing as it allowed fossil fuel companies to use carbon offsets without sufficiently tight regulation (Readfearn & Morton, 2022).

According to a review of 187 companies listed on the ASX200 by the Australian Council of Superannuation Investors, half had not committed to a net-zero carbon future in 2022, and only 3 per cent counted all the emissions caused by their activities (Readfearn & Morton, 2022). The former head of the Australian Carbon Credit Integrity Assurance body contended at the time that up to 80 per cent of credits approved in Australia were not delivering a genuine reduction in emissions because government regulators managed the system so poorly (Readfearn & Morton, 2022). Under the previous version of the scheme, mining and gas companies paid less than 0.1 per cent of their multibillion-dollar profits to buy the carbon credits they needed to comply with Australia's climate targets (Foley, 2022). This situation ramped up pressure on the Australian Government to restrict the use of credits and ensure the burden of reducing emissions falls on polluters (Slezak, 2022). To this end, the incoming federal government of Labor upgraded its climate target to cut emissions by 43% by 2030. Its legislative amendments impose pollution caps on the 215 largest industrial emitters, each required to reduce their emissions by 30 per cent before 2030 (Foley, 2022; Foley & Toscano, 2023).

The Federal Energy Department allows companies to buy Australian Carbon Credit Units (ACCUs) to offset their emissions instead of directly investing in new technology. The *Carbon Credits Act 2011*, also known as the Carbon Farming Initiative, defines ACCUs. One ACCU certifies that one tonne of CO2 (or equivalent of warming gas) has either been stored or not released into the atmosphere. Projects to generate ACCUs must comply with the standards outlined in Section 133 of the Act. Companies captured by the Safeguard Mechanism must cut their emissions between 3 and 6 per cent annually (Foley, 2022).

In an Australian Academy of Science study, researchers analysed the strengths and weaknesses of four approaches used to produce ACCUs. The approaches were human-induced regeneration (HIR), avoiding deforestation, landfill gas, and carbon capture and storage (Hannam, 2022b). The researchers found that the deficiencies of each method eroded trust in the credibility of the credits for investors and communities. Stakeholders were concerned whether the projects claiming carbon reductions would have proceeded without the credits. The intricate nature and opacity of the methods also disconcerted them.

Interestingly, the study only examined four out of 30 credit generation methods. For instance, farmers in inland New South Wales and Queensland receive compensation through the program for leaving land uncleared instead of clearing it for cattle grazing, even though rainfall is the primary factor influencing vegetation growth. As such, the report suggests that the regulator should restrict such initiatives to regions with higher rainfall and more evident signs of human activity (Hannam, 2022b).

In another example of the dismay the ACCU scheme can evoke, the Chevron Gorgon gas plant in Western Australia, now the world's largest initiative for reducing carbon pollution, has operated at a mere one-third of its capacity for six years. Since the beginning of the Gorgon project in 2016, Chevron has encountered consistent difficulties with burying CO2 on Barrow

Island (Readfearn, 2022), with a spokesperson explaining that addressing these challenges will be a multi-year endeavour (Milne, 2022). This operational deficiency significantly undermines the credibility of carbon capture and storage as a feasible approach to achieving net-zero emissions. Chevron has fallen short of its targets despite investing $US54 (AU$81) billion in this gas export facility to store carbon dioxide from offshore reservoirs and its commitment to bury 80% of the emissions. However, the company declines to disclose the extent of the shortfalls in all years but 2022. In that reporting year, Chevron effectively sequestered only 1.6 million tonnes of CO2 in an underground reservoir, while they released 3.4 million tonnes into the atmosphere. The company also acknowledged purchasing and surrendering 5.23 million tonnes of CO2 offsets to paper over its failure to reach its 2021 goal. All these carbon offsets are linked to international projects aimed at reducing emissions, with only 200,000 tonnes acquired from Australia's domestic market, accounting for less than 4 per cent of the total.

A joint investigation by *The Guardian* and the not-for-profit climate watchdog Corporate Accountability discovered that 39 of the top 50 environmental projects selling the most voluntary carbon credits were deemed likely junk or worthless due to one or more fundamental failings. As such, not only can they not be trusted to address global warming effectively, but most of the projects exaggerate the benefits to the climate while downplaying the potential adverse social and environmental effects of their activities (Lakhani, 2023). It should be noted that *The Guardian* conducted its investigation after the Australian Parliament passed the March 2023 legislation reforms. Macintosh *et al.* (2024a) further detailed many shortcomings revealed by these investigations in a recent scientific paper published in *Nature*. In a newspaper feature summarising the paper's findings, the two scientist co-authors explained that the government initially designed the Australian carbon offset program only to approve projects restoring native forests in areas previously untouched by human activity. However, the human-induced regeneration (HIR) projects that are now part of the scheme do not involve planting new trees but instead aim to support regeneration using existing seed stock in the soil while controlling seedlings through grazing management. There are 468 HIR projects in Australia, covering more than 42 million hectares. That is an area larger than the size of Japan. These projects have generated over 42 million carbon credits, which accounts for almost 40 per cent of annual credit allocations in recent years. Industries regulated under Australia's carbon pricing scheme, the Safeguard Mechanism, are anticipated to rely heavily on credits from HIR projects to meet their emission reduction obligations.

The environmental effectiveness of the Safeguard Mechanism depends on the credibility of these projects and whether their carbon capture is genuinely natural, additional, and permanent. The authors argue that many of these projects are not producing genuine emission reductions and, therefore, constitute fraud. They point out, 'If carbon credits keep being issued to HIR projects, the fraud will be worth somewhere in the order of $3 billion to $5 billion by 2030. The reliance of large polluters on credits from these projects will also punch a hole in Australia's emissions reduction target, leaving Australia well short of its ambition to reduce emissions by 43 per cent below 2005 levels by 2030'. Given such accusations and the credibility of the scientific evidence, they have recommended an investigation by the National Anti-Corruption Commission into the credibility of these projects (Macintosh *et al.*, 2024a).

5.3 Disinformation, greenwashing and sport washing

The third theme is disinformation, greenwashing, and sportswashing. There are two elements to this theme. The first is greenwashing and sportswashing. The second relates to developing nations and payments to them for loss and damages by developed countries.

The most prized asset in the world of global capitalism is fossil fuel reserves. However, extracting these resources quickly and in large amounts costs billions of dollars in capital expenditure. Companies operating in Australia that are solely focused on fossil fuels, such as Santos, Woodside, Hancock and Alinta (so-called 'pure-play' companies), are investing substantial amounts of money into building public goodwill by normalising their operations through generous donations to politicians, think tanks, universities, and sports organisations (Keane, 2022; Lucas, 2021a, 2021c).

The United Nations has publicly accused corporations of "greenwashing" their climate change mitigation credentials. The peak body highlights that companies cannot claim to be net zero while supporting fossil fuel projects. Following the UN report titled *Integrity Matters*, UN Secretary-General Antonio Guterres opined that the rules around corporate emissions reporting are so full of loopholes that they are wide enough to drive a diesel truck through; hence, they require significant tightening (Robertson *et al.*, 2022; UN, 2022). For example, while one-third of firms on the Forbes Global Top 2000 list of publicly traded companies have net-zero emissions targets, two-thirds have not outlined how to achieve that goal. A global investigation by the Australian Securities and Investment Commission (ASIC) found that up to 40 per cent of environmental claims made by companies may be fraudulent (Robertson *et al.*, 2022).

At the UN Climate Change Conference (COP27) in November 2022, a panel of experts expressed concerns regarding the prevalence of greenwashing among governments and businesses concerning their pledges to achieve net-zero emissions. The panel's analysis revealed that greenwashing can mislead the public by presenting a false image of environmental conservation efforts by an organisation or entity. The report proposed adopting more stringent criteria to translate superficial net-zero promises into concrete climate action. These recommendations ensure the commitments align with the Intergovernmental Panel on Climate Change (IPCC) guidelines to restrict global warming to 1.5°C. All such obligations must encompass the entirety of greenhouse gas emissions, including offsets and exports. Moreover, such companies must underpin their commitments with a comprehensive transition strategy that promotes accountability and transparency as the new standard.

The following reports indicate that greenwashing and its related activity of sportwashing are becoming an increasingly common strategy for nation-states and firms wishing to improve their public image on environmental and human rights issues.

5.3.1 Greenwashing and Sportswashing

Since the signing of the Paris Agreement in 2015, the World Bank has directly provided US$15 billion in finance to fossil fuel projects. However, the World Bank's funding for upstream oil and gas projects was supposed to end in 2019. A report by the NGO Bender (2022) reveals that the Bank and its subsidiaries have continued to fund oil refinery and gas processing since 2019 using

financial intermediaries like commercial banks and private equity funds. The report outlines that these indirect funding streams are a "major loophole" in the Bank's climate policy. Additionally, the Bank has indirectly funded coal projects despite its claim of ending direct funding for coal in 2010 (Harvey, 2022a). These activities suggest an intent to mislead the public and greenwash the World Bank's investment policies.

A report by Oxfam similarly finds that up to 40 per cent of the World Bank's reported climate-related spending is impossible to account for. Oxfam notes that while the Bank could be spending more than it claims, the difficulty of accounting for any money devoted to climate-related activities means it is impossible to say. The report argues that "the Bank's accounting methods could be made much more transparent". It also cautions that the Bank's audit exposes the danger that some climate finance claims could simply be greenwashing (Harvey, 2022b). A genuine independent audit of the World Bank's climate financing appears long overdue.

Environmental campaigners have argued that nation-states with substantial fossil fuel reserves, export interests, and dependencies, including the United States, Russia, China, Australia, Canada, Japan, and Saudi Arabia, have acted as spoilers in international climate change negotiations (Lucas, 2021c, 2022a). Climate activists were highly critical of Coca-Cola's sponsorship of COP27, arguing that, as one of the world's top plastic polluters, it significantly contributes to plastic pollution and the climate crisis. Therefore, the sponsorship was shameless greenwashing (Green & McVeigh, 2022).

Further, the campaign group Global Witness reports 636 oil and gas industry lobbyists registered to attend COP27, more than the combined delegations from the ten most climate-vulnerable countries (Michaelson, 2022). According to the UN Global Risks Report, issued in May 2022, there is a dangerous tendency for the world to move towards a global collapse scenario. Meanwhile, nations focus on nationalism and self-interest, hindering their ability to address global mega-threats (Cribb, 2022).

Sportswashing has become a favoured strategy for the coal, oil, and gas industries. Sherry e*t al.* (2022) estimate that fossil fuel companies provide sponsorship deals annually across fourteen top-tier Australian sports, accounting for 3.5 per cent of all sponsorship deals. The report finds that, although the sporting community can undoubtedly live without fossil fuels, the reverse may not be true – the fossil fuel industry will likely not survive without the support of the sporting community.

Environmental and human rights activists campaigned vigorously against the Qatari Government before, during, and after it was allowed to host the first-ever World Cup in an Arab nation. Qatar is a significant oil exporter with a questionable human rights record. The government spent US$300 billion to host the event, including US$6.5 billion to construct seven stadiums (Foxman & Nair, 2022). Accusations concerning the mistreatment and deaths of foreign construction workers on the project, along with Qatar's role in perpetuating a fossil-fuelled future, dogged the event (Foxman & Nair, 2022).

Several controversies circulated the conference before, during, and after it, including the disproportionate representation of fossil fuel industry representatives and associated sponsors, the failure of most nation-states to meet their international mitigation obligations, the continued financing of fossil fuel projects despite the increasingly dire warnings of climate scientists, and the need to include discussions

about compensation for losses and damages due to climate disasters.

The recent increase in fossil fuel extraction and use following COVID-19 and the war in Ukraine makes limiting global warming to under 1.5°C a far more complex goal (Schlosser, 2022). Attempts at the climate talks to get all countries to agree to phase out subsidies for coal, oil, natural gas and other fossil fuels all failed (Schlosser, 2022). According to a report by the UN Environment Programme (2022), the world will produce 58 gigatons of greenhouse gas emissions in 2030, more than twice the amount required to keep temperatures at 1.5°C.

In its *Emissions Gap Report 2021: The Heat Is On*, the UN Environment Programme (2021) revealed that, to date, each nation's determined contributions had put the world on track for a global temperature increase this century of at least 2.7°C. The report concludes that, in 2022, the world faces devastating consequences due to our failure to adequately respond to the triple planetary crisis – widening inequality, conflict, and rising food and energy prices. Swedish climate activist Greta Thunberg once again implored world leaders to heed these warnings at COP27, highlighting the need for more significant efforts by governments, organisations, and private companies to prioritise communities and human rights in combating the effects of climate disruption (Sainsbury, 2022).

In the words of the UN Secretary-General, ignoring these warnings is "moral and economic madness" (Milman & Borger, 2022). He also described the latest UN climate report as "a file of shame", cataloguing the empty pledges that put us firmly on track toward an unliveable world. He argued that high-emitting governments and corporations are not just turning a blind eye; they are adding fuel to the flames (CBC News, 2022).

Pakistan advocated for the issue of losses and damages to be part of the negotiations. In the recent floods in Pakistan, 20.6 million people required humanitarian assistance. According to the post-disaster needs assessment, the flooding caused $US14.9 billion in damages and US$15.2 billion in economic losses. The estimated costs for rehabilitation and the construction of more resilient infrastructure are at least US$16.3 billion (Lakhani, 2022). The issue is how much the developed nations are willing to pay developing nations for climate damages, acknowledging that wealthy nations have reaped economic benefits from their unsustainable development. Although it became clear through the negotiations that most countries want to quit fossil fuels, the question of who pays the bill remains contentious.

As president of the G77-plus-China negotiating bloc, Pakistan managed to keep developing countries united on loss and damage despite efforts by some rich countries to divide them. Nabeel Munir, a career diplomat and chief negotiator, led a team of negotiators who had witnessed the devastation and suffering from the recent floods in his country, which caused about 2,000 deaths. Pakistan's efforts led to the establishment of a fund to address loss and damage, although the size and specifics of the contributions are yet to be determined (Lakhani, 2022). Nevertheless, we should remember that, in 2009, developed countries promised to contribute US $100 billion a year in reparation funds to poorer countries by 2020, a goal they only achieved two years later (Harvey, 2023). Negotiators may yet find a way to overcome the excessive fragmentation witnessed across governments, sectors, and UN agencies to embrace the messaging repeated throughout civil society: that incremental change is not enough to reach 1.5°C and that a just, equitable transformation of the system is needed now (West, 2022).

6. Accounting and accountability for the fossil fuel industry

Despite the large body of evidence that the mining and energy industries have a history of exploiting workers and degrading the environment (Beder, 2000;2001), these industries continue to receive favourable treatment from national governments. The conventional explanation is that the mining and energy industries generate considerable revenues and employment, and that national economies could not (until recently) substitute the mining and energy industries with alternative streams of revenue and employment generation. The integrity of these explanations has been challenged by the looming risks posed by anthropogenic climate change, as a substantial body of scholarship demonstrates (Frumhoff *et al.*, 2015; Farrell, 2016a; Aulby & Ogge, 2016; Aulby, 2017; Brulle, 2018; Lucas, 2021a, 2021c, 2022a, 2022b; Arima & Wong, 2022). It is no exaggeration to say that these challenges constitute an existential threat to humanity. Therefore, we must all consider how and to what extent we can feasibly decarbonise society and what dirty and resource-intensive production practices we can substitute for cleaner and more efficient ones.

Traditional corporations in highly regulated economic sectors have developed a range of techniques to ensure their influence on government policy and decision-making remains strong (Guthrie & Lucas, 2022a; Lucas, 2018, 2022a, 2022b; Supran & Oreskes, 2017; Wood & Griffiths, 2018). Even more reliably than in other sectors, energy and resource companies use various strategies to secure a range of rents from governments, such as tax subsidies, direct and indirect financial contributions, royalty holidays, subsidised and dedicated infrastructure, concessional loans, relaxed conditions on project approvals, disregarding transgressions of the law, and so on (Aulby & Ogge, 2016; Guthrie & Lucas, 2022a; Lucas, 2022b; West, 2017, 2020).

Corporate accountability and transparency are vital to any discussion on the future of the energy and resource sectors because there is strong evidence that corporate political donations, lobbying, and the revolving door between the corporate and government realms have undermined due process and skewed government decision-making to favour private interests over public welfare (Lucas, 2018; Wood & Griffiths, 2018). Outsourcing has led to difficulties with retaining in-house government expertise. Externally, transnational corporations challenge the autonomy and authority of domestic governments and attempt to not only ingratiate themselves with senior public officials but to implant their operatives in crucial government and advisory positions, leading to accusations of state capture (Australian Democracy Network, 2022; Hertel-Fernandez, 2019; Innes, 2016, 2017; Lindsey & Teles, 2017; Lucas, 2021a, 2021b, 2022b; Tran, 2021).

Research has already addressed the democratic deficiencies generated by corporate influence on the energy and resource sectors in the UK (Influence Map, 2017, 2023), the USA and Canada (Hamilton, 2007; Lucas, 2021a; Pearse, 2007), Australia (Hamilton, 2007; Lucas, 2021a; Pearse, 2007), and worldwide (Aßländer & Hudson, 2017). Our paper provides a snapshot of how corporates exercise their influence through a detailed analysis of national media coverage over ten weeks in late 2022. This research contributes to the growing concern over undue corporate influence among academics (Angelopoulos *et al.*, 2009; Kelly, 2019; Lucas, 2021a; Wolin, 2010), national newspapers

(Mannix, 2015; Readfearn, 2012; Warhurst, 2017), independent public interest news outlets (mostly digitally-based) (Keane, 2013, 2017; West, 2017; West & Wilson, 2016), progressive think tanks, and NGOs (Aulby & Ogge, 2016; West & Marsh, 2019).

Contrary to the oft-remarked invocation of market forces as the sole determinant of a business's competitiveness and sustainability, governments of all political persuasions favour incumbent players even where those industries are anti-competitive, polluting, inefficient, and dependent upon government largesse. Many incumbent businesses have ramped up their efforts over the last decade to shield themselves from the effects of creative destruction – for example, by resisting waves of new technologies that create new industries to supplant the old (Baslandze, 2020). They employ overt and covert strategies to protect their interests, especially concerning climate change and energy policy (Fairley, 2020).

Indeed, as the need for urgent action has accelerated, so have the efforts of many resource and energy companies (along with their peak bodies) to oppose any policy or decision that might jeopardise their profits or political leverage. The research investigating these issues suggests that state capture is now the preferred business model for the fossil fuel industry. For businesses to preserve their market dominance, most now favour rent-seeking strategies and opposition to technological and organisational innovation (Lucas, 2021a, 2022a, 2022b; Wright & Nyberg, 2015).

7. Conclusions

The extent to which corporate interests have captured political parties, bureaucracies, and governments over the last decades should be a significant concern for all citizens. Just as corporate influence undermines fair discussion of environmental issues and energy options (Beder, 2000; Cahill & Beder, 2005; Hamilton, 2007; Lucas, 2021c, 2022b), the perception of undue corporate influence on public discussion and government decision-making undermines trust in the democratic process (Edwards, 2017). In a political environment in which misinformation about the fossil fuel industry, climate change, and energy options is not only normalised but also amplified by corporate-controlled media and politicians from parties who regularly reiterate that we are beholden to fossil fuels for the foreseeable future (Cook *et al*., 2017; McKnight, 2010), it is unsurprising that trust in both the mainstream media and government is at an all-time low in many countries (Edmonds, 2021; Evans, 2019; Keane, 2017; Perry, 2021).

To rebuild that trust, governments must act in the public interest as more voters express their views at the ballot box that climate change and ESG issues are a prominent concern for them. For example, in Australia, the incumbent pro-business and pro-fossil fuel government was recently defeated, mainly due to public disappointment with the incumbent's lack of decisive action on climate change (Murphy, 2022). In Europe, the EU is responding with further reporting legislation and due diligence legislation to set the rules for companies to respect human rights and the environment in global value chains (European Commission, 2022).

The fight to address climate change is a wicked problem (Dumay, 2020). Thus, when combating climate disruption and the fossil fuel industry as its leading cause, we must recognise that the issues it raises are a tangle of problems. Moreover, we must accept that resolving one issue often

creates other problems that need solving. For example, although a government could impose a carbon tax on a polluting industry, a cross-border carbon adjustment tax might need to be levied on recalcitrant nation-states. Countries with fossil fuel reserves can impose taxes and royalties on companies (Lucas *et al.*, 2024). However, governments must raise revenue from other sources as economies phase out emissions-intensive businesses. In this context, governments must prioritise ecological tax reform alongside stable state economics, greater valuation of and investment in cultural activities, and degrowth of certain unsustainable economic activities.

The argument that developing nations, already strapped for cash, will be further disadvantaged by not exploiting their fossil fuel reserves unless they find new revenue streams is undermined by the reality that most of their populations do not benefit from those activities. Furthermore, even in countries such as Venezuela, where socialist and social democratic policies of income redistribution from oil revenues have taken place, there has been little or no effort to diversify their economies, upskill their workforces, or develop alternative revenue streams.

The argument is that 'BRIICS countries are particularly vulnerable to the fiscal impacts of the energy transition because of their high reliance on fossil fuel revenues' (Laan & Maino, 2022, p. iv). However, this argument is likely disingenuous because many of these countries have serious corruption problems. Moreover, oil and gas revenues disproportionately advantage their political, military, and financial elites (Gillies, 2020). Furthermore, China is the most significant contributor to GHG emissions in these six countries, with a substantial proportion of those emissions related to servicing the manufacturing needs of Western Europe and North America.

Continuing to extract and burn fossil fuels to raise tax revenues is not sustainable, regardless of whether the companies involved pay their share of taxes. We need to know how much revenue a post-decarbonised developing economy needs to function and where that income comes from. The accounting and accountability changes required to address these issues are a global challenge that one government or company cannot correct in isolation. It is indisputable that it will require an international coalition of civil society actors and progressive governments to ensure that the financial benefits of fossil fuel extraction and global tax avoidance are reinvested in the decarbonisation of our societies together with all of the neglected social services that have resulted from financialisation over the last four decades (Guthrie & Lucas, 2022a, 2022b). We can be sure that sustained opposition to such measures will continue from all those incumbent interests that benefit from maintaining a slightly modified status quo. Given the fact that the future of humanity is at stake, it seems that we must all choose whether we want to continue to be part of the problem or work with one another as a matter of urgency to be part of the solution.

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RESEARCH NOTE

From the Mintzberg-Simon debate to prompting advantage: A new core skill in the AI era

Prof Riccardo Silvi

As artificial intelligence makes it easy to generate fast, polished answers, real advantage increasingly lies in knowing which questions to ask in the first place. Revisiting the classic Mintzberg–Simon debate, University of Bologna professor Riccardo Silvi introduces the concept of *prompting advantage* as a practical skill for using AI wisely, not just efficiently, in management and decision making.

1. Introduction

In 1967, Herbert Simon introduced a pioneering perspective on management education, emphasising a scientific approach that profoundly influenced subsequent generations. A decade later, Henry Mintzberg challenged the dominant analytical paradigm, asserting that business schools were producing managers capable of providing technically accurate answers but often lacking the ability to ask fundamental, strategic questions. This ongoing debate, rooted in the history of management education, has gained renewed significance in the context of artificial intelligence. A paradox emerges as AI systems become increasingly prevalent, despite our capacity to generate information. This article examines how the enduring tension between analytical thinking and managerial intuition continues to influence the human-AI relationship. It introduces the concept of prompting advantage, highlighting it as a frontier for gaining an edge in an era where the skill of asking the right questions is paramount for effective decision making and innovation.

2. Literature Review

Herbert Simon (1967) presented a scientific vision of management education that significantly influenced future generations. Later, Henry Mintzberg (1973, 1976) critiqued the prevailing scientific analytical model, arguing that business schools produced managers who could provide technically correct answers but were unable to ask fundamental questions. This historical debate, confined to the past of management education, gains surprising relevance in the age of artificial intelligence. As increasing AI systems emerge, we face a paradox reminiscent of the Simon-Mintzberg debates. While our ability to obtain accurate and immediate answers reaches unprecedented levels, the skill to formulate the right questions becomes more critical and rarer. This article explores how the historical debate between scientific analysis and managerial intuition continues to shape the relationship between humans and artificial intelligence, introducing the concept of prompting advantage as a new frontier.

2.1 The Simon Paradigm: Scientific Management Education

Herbert Simon, a Nobel Prize winner in economics, embodied the post-war confidence in making management more scientific and rigorous. His proposal for business schools was based on integrating disparate bodies of knowledge and skills into a synergistic relationship for improving managerial practice, combining the world of practice with several sciences through multidisciplinary approaches (Simon, 1967). For Simon, even managerial intuition could be reduced to analytical processes: "Intuition and judgment – at least good judgment – are simply analyses frozen into habit and into the capacity for rapid response through recognition." (Simon, 1987, p. 63) in the context of his work on intuition and decision making. It encapsulates his perspective that intuition and analysis are not separate cognitive processes. Instead, intuition is analytic thinking internalised through experience, enabling quick recognition and response. This reductionist vision viewed management as a discipline that could be perfected through scientific methods, quantitative data and predictive models.

2.2 Mintzberg's Critique: The Primacy of Intuition

Through his empirical observation of managerial work, Mintzberg developed a radical critique of this approach. In his "Managers Not MBAs" (2004), he denounced how prestigious business schools were obsessed with numbers and how their overzealous attempts to make management a science were damaging the discipline of management education. He argues that elite business schools – including Harvard Business School and the Wharton School – place excessive emphasis on quantitative analysis and abstract models, and that attempts to treat management as a science, detached from practice and experience, ultimately weaken management education and managerial effectiveness. Mintzberg's central thesis was that managers educated according to the analytical model became experts at providing technical answers to defined problems but lost the more fundamental capacity to identify problems, navigate ambiguity and ask meaningful questions. As he provocatively observed, many of these managers knew everything about strategy formulation but nothing about how to make things happen in organisations.

Henry Mintzberg (1977) responded with his critique of the dominant analytical model, arguing that business schools were producing managers capable of providing technically correct

answers but incapable of asking fundamental questions. This debate, relegated to the history of management education, assumes surprising relevance in the era of artificial intelligence. The emergence of AI systems presents a paradox that strangely echoes the Simon-Mintzberg debate. While our ability to obtain immediate answers reaches unprecedented levels, the competence to formulate the right questions paradoxically becomes more critical and rarer.

Seventy years after the original debate, artificial intelligence based on large language models represents the ultimate embodiment of Simon's vision. Modern AI systems excel precisely in those competencies that Simon valued, such as the rapid processing of enormous amounts of information, the consistent application of frameworks and models, and providing structured and logically consistent answers with speed and precision. Modern AI operates similarly to the business school's education, as criticised by Mintzberg. AI is extraordinarily competent at responding to well-formulated questions using word patterns recognised in training data. However, it is fundamentally limited in its ability to question assumptions, identify non-obvious problems or navigate genuinely ambiguous situations.

2.3 The Paradox of Artificial Competence and System 1 / System 2 Thinking

Just as Mintzberg argued that business school graduates could apply models without questioning them, the strengths and limitations of modern AI together give rise to what Moravec (1988) and Brooks (1991) term the paradox of artificial competence. As AI improves at providing answers, the importance of our ability to ask the right questions becomes increasingly crucial. Like the famous parable of the drunk man searching for his keys under the streetlight because there is light there, AI tends to provide brilliant solutions within its training parameters, but can completely miss problems that exist outside its cognitive range.

Critical thinking research distinguishes between two systems of human cognition that are particularly relevant to understanding the limitations of AI (Facione, 2023). System 1 thinking operates through quick, intuitive, pattern-recognition processes (Kahneman, 2011), areas where AI excels. System 2 thinking involves deliberate, reflective, analytical reasoning that questions assumptions and explores novel problem spaces – precisely the domain where human prompting advantage becomes crucial. AI systems demonstrate remarkable System 1 capabilities but lack the meta-cognitive awareness that characterises effective System 2 thinking, particularly the ability to question their own premises and identify what they do not know.

3. Conceptual Framework: Prompting Advantage

3.1 The Carta Matic Paradigm: When Numbers Tell the Wrong Story

The concept of prompting advantage can be best understood through the Carta Matic case, which demonstrates how sophisticated financial analysis – whether human or AI-driven – can reach fundamentally flawed conclusions when the right questions are not asked. Carta Matic SpA, an Italian producer of continuous-form computer paper in the early 1990s, appeared financially healthy based on standard metrics: 16.8% ROE, adequate liquidity ratios and 19% revenue growth. Any AI system analysing these numbers would likely conclude: "Creditworthy company with acceptable fundamentals and growth prospects."

However, the company nearly collapsed by 1992, with ROE plummeting to -55.3%. The numerical analysis overlooked critical factors that could only be revealed by specific questions. First, **Data Quality Questions**: Are all reported numbers accurately represented? For instance, what exactly constituted the "other credits" line item? The investigation revealed that these credits originated from withdrawals and lending to managers, effectively disguising management withdrawals. From a pragmatic point of view, this meant real equity available to the business was only 120k€, not the reported 375k€ – a fundamental misrepresentation of the company's actual financial position. Second, **Strategic Context Questions**: If the company truly held a quality position, why didn't this translate into higher margins compared to competitors? Why were quality-focused customers paying in 120 days rather than accepting standard terms for premium products? These questions would have exposed that customers were not actually valuing or paying for quality premiums, revealing a fundamental market strategy mismatch where the company's positioning existed only in management's perception, not in market reality. Third, **Industry Dynamics Questions**: How was technological change affecting competitive dynamics and business model viability? The emerging shift from dot-matrix to laser printing technology was creating industry-wide consequences: lower margins due to commoditisation, increased pressure on prices as quality differentiation became irrelevant and volumes at risk as the core product became obsolete. These dynamics rendered both the business model and financial model fundamentally unviable, yet remained invisible to traditional financial analysis.

This case exemplifies what Dumay (2015) refers to as the numerical sufficiency fallacy – the assumption that comprehensive quantitative analysis inevitably leads to correct decisions. Like AI systems, traditional financial analysis provided brilliant solutions within its analytical parameters while completely missing problems that existed outside its cognitive illumination zone.

3.2 Prompting Advantage: Definition, Foundations and Development

The Carta Matic case reveals a fundamental pattern: sophisticated analytical tools – whether traditional financial analysis or AI systems – excel at processing information within established parameters but falter when critical assumptions remain unchallenged. This points to a missing capability we term *prompting advantage*.

Prompting advantage is not simply the technical ability to formulate effective prompts for AI systems but a deeper meta-cognitive competence: the ability to critically interrogate both one's own assumptions and AI responses, to identify what is not being asked and to recognise when the most eloquent answer may be to the wrong question. Those who understand this prompting advantage do not just use AI as a faster processing tool but transform it into a thinking partner to explore previously time-consuming problem spaces. In this sense, prompting advantage becomes the contemporary equivalent of Mintzberg's managerial intuition, in which effective decision making relies on rapid, experience-based pattern recognition (Mintzberg, 2004). Mintzberg argued that effective management depends on qualities such as tolerance for ambiguity, systems thinking and the capacity for creative synthesis – capabilities that emerge from practical engagement rather than purely analytical training (Mintzberg, 2004).

Developing prompting advantage requires transforming the intuitive ability to ask the right

questions into a learnable, scalable competency. Organisations can build this capability through complementary approaches:

- **Bisociation Workshops** – Drawing on Arthur Koestler's (1964) concept of bisociation, these workshops bring together distinct knowledge domains – technical, humanities, artistic – to generate questions that no single discipline would have posed autonomously. In the Carta Matic context, a bisociation workshop involving financial analysts, technology experts and industry practitioners might have uncovered questions that traditional financial analysis missed.
- **Canvas-Based Methodologies** – Tools such as the Business Model Canvas, Business Opportunity Canvas, Cost Management Canvas and Strategic Financial Analysis Canvas can transform intuitive insights into systematic approaches. These visual thinking tools stimulate creativity while teaching executives to ask the right questions in a structured manner. Applied to the Carta Matic case, a Strategic Financial Analysis Canvas would have prompted inquiry into industry dynamics and competitive positioning – issues overlooked by standard ratio analysis.
- **AI-Human Collaborative Sessions** – Adapted for AI interaction, these structured sessions develop practitioners' ability to frame complex problems in ways that harness both human intuition and artificial intelligence. They train teams to recognise when AI responses, though technically correct, address the wrong questions – precisely the skill that could have prevented the Carta Matic analytical failure.

Seen through the lens of the Simon–Mintzberg debate, prompting advantage directly addresses a tension central to the AI era: the distinction between efficiency and effectiveness. AI enables us to generate information extraordinarily efficiently. However, without the ability to critically interrogate our own questions and the system's responses, we risk becoming less effective, solving problems that might not be the right ones to solve. As Mintzberg's critique of business school education warned, we may become highly skilled at applying models without questioning their premises.

This dynamic also reflects what Moravec (1988) and Brooks (1991) identified as the *paradox of artificial competence*: the better AI becomes at providing answers, the more crucial it is for humans to ask the right questions. Like the parable of the drunk man searching for his keys under the streetlight because that is where the light is, AI delivers brilliant solutions within the illuminated area of its training parameters, but may miss critical issues lying outside its cognitive cone of light.

4. Method

The research process behind this article was itself a demonstration of the *prompting advantage* and a practical exploration of the *paradox of artificial competence* (Moravec, 1988; Brooks, 1991). The initial connection between the Simon–Mintzberg debate and contemporary AI dynamics emerged from human intuition – the capacity to recognise hidden patterns between seemingly distant domains – built over years of experience, knowledge and research in performance management system effectiveness and business transformation.

However, moving from intuition to a structured argument required iterative human–AI collaboration. This was not a matter of simply instructing AI to draft an article, but of engaging it as a thinking partner: challenging its assumptions,

refining its responses and testing its outputs against the conceptual lens of prompting advantage. Each interaction generated new questions, surfaced alternative perspectives and revealed connections that neither the human author nor the AI would have identified alone.

In this sense, the method embodies the very thesis advanced in the preceding sections: in the AI era, value does not reside solely in human intuition nor in mechanical processing power, but in the capacity to orchestrate a generative interplay between the two. By deliberately applying bisociation, structured canvases and critical interrogation throughout the co-creation process, the research sought not only to describe prompting advantage but to practise it – transforming AI from a mere efficiency tool into an amplifier of human insight and a catalyst for conceptual innovation.

5. Discussion

5.1 Implications for Management Education

The Mintzberg-Simon debate, reevaluated through the lens of AI, suggests a need to rethink management education. If analytical processing and structured response generation become commodities provided by AI, what competencies should future managers develop to remain competitive? The answer appears to converge on the competencies that Mintzberg identified as crucial: the ability to ask the right questions, to critically read contexts, to navigate genuinely ambiguous situations and to integrate the technical and human dimensions of management. Paradoxically, the more powerful AI becomes, the more precious it becomes to that form of intelligence that Mintzberg called managerial intuition.

5.2 Practical Strategies for Developing Prompting Advantage

Organisations seeking to develop a concrete advantage in their teams can implement specific methodologies. Problem-finding sessions prove particularly effective; instead of starting from predefined problems, they stimulate teams to identify hidden or unarticulated problems through ethnographic observation techniques. Mintzberg used ethnographic-style observation in the 1970s, shadowing executives for days to understand what managers do, discovering that their work was fragmented, fast-paced and reliant on informal communication, rather than the structured planning or models taught in business schools.

Mintzberg's (1973; 2004) observational studies of executives revealed the fragmented, fast-paced nature of managerial work, challenging the formalised models taught in business schools. Creativity workshops that focus on question formulation rather than solution generation represent a significant shift in thinking. Techniques such as question storming (brainstorming questions rather than answers) (Adams, 2015), the extended Five Whys method (Ohno, 1988) and problem laddering (Morgan and Adams, 2009) foster a form of structured curiosity. This capability is foundational to prompting advantage, enabling practitioners to elicit deeper, more contextually relevant outputs from large language models. Business challenges specifically designed to evaluate problem-reframing capabilities offer experiential learning opportunities. These challenges should deliberately present ambiguous situations where the first problem formulation is always inadequate, forcing participants to iterate between questions, hypotheses and reformulations.

6. The Evolutionary Cycle: Intuition and Codification

A crucial consideration emerging from analysing the relationship between human and artificial intelligence is the fundamentally cyclical and synergistic relationship between intuition and codification. Far from being opposing approaches, they represent complementary phases of a continuous evolutionary process. Human intuition generates unprecedented insights, non-obvious connections and emergent understandings that escape consolidated patterns. These flashes of understanding immediately create tension toward the search for codification, a human desire to systematise, formalise and make replicable and scalable what initially existed only as individual intuition. Once developed, codification, which in the contemporary era often manifests through algorithms, AI systems and digital frameworks, does not represent the final point of the process but instead becomes a generative tool for new intuitions.

AI enables the exploration of spaces previously unthinkable for unassisted human cognition, thereby opening unexplored territories for intuition. The exploration creates an evolutionary spiral where each codification cycle elevates the complexity at which human intuition can operate. In management, this translates into the possibility of dedicating intuitive intelligence to increasingly sophisticated and multidimensional problems while AI handles growing levels of analytical complexity. From this perspective, the prompting advantage is not a static competence but part of a dynamic ecosystem of co-evolution between humans and artificial intelligence.

Those who develop a prompting advantage competence know how to effectively interrogate AI and understand how to use AI responses as a springboard for higher-level intuitions, which in turn fuel subsequent cycles of innovation and codification. It is not about rejecting Simon's analytical approach in favour of Mintzberg's intuition but about developing a dynamic synthesis that recognises the evolutionary and complementary nature of both. AI can manage the analytical dimension with superhuman efficiency, freeing managers to focus on activities that require genuine human intelligence, such as identifying emerging problems, understanding complex social contexts, navigating ethical dilemmas and constructing shared meaning.

7. Conclusions

The debate between Mintzberg and Simons, far from being a historical matter, proves prophetic for our era. The advent of AI does not resolve the tension between analysis and intuition. Still, it radicalises it while analysis is progressively delegated to machines, whilst intuition, understood as the ability to ask the right questions and navigate ambiguity, becomes the most precious distinctive competence.

The *prompting advantage* represents more than technical competence and is the contemporary manifestation of managerial wisdom that Mintzberg considers essential. In a world where obtaining answers becomes increasingly easy, knowing how to pose the right questions becomes increasingly precious. The challenge for organisations and educational systems is to develop this new form of literacy, not just knowing how to use AI but how to think with and beyond AI. As Mintzberg

had intuited fifty years ago, management does not consist of providing technically correct answers but of asking questions that open new possibilities for understanding and action. The AI era does not replace the debate between analysis and intuition but transforms it. At the same time, machines manage analysis, humans remain with the most profoundly human task of all, that of interrogating the world with wisdom, imagination and knowledge.

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RESEARCH NOTE

Introducing decision sovereignty: A missing transmission variable in models of implementation

Peter Fritz AO, Catherine Fritz-Kalish AM & Olga Bodrova

Why do well-informed decisions so often fail to become action? The research team at Global Access Partners offers a new analytical lens on execution failure in complex behavioural and institutional systems by introducing *decision sovereignty* ('S') as a missing transmission variable between decision quality and implementation.

Introduction: The Implementation Gap

Established firms and institutions have struggled to improve productivity through the adoption of new technologies such as artificial intelligence, even though these technologies can significantly reduce the costs of prediction, coordination and communication. Transformative change has therefore tended to occur more rapidly in newly formed entities, start-ups and discrete organisational units that occupy what may be described as "uncontested territory" and seek to supplant more established incumbents constrained by legacy procedures.

The difficulty faced by established organisations is not a lack of will, funding or technical know-how but the escalating governance costs of retrofitting radical new paradigms into ossified procedures, combined with a lack of *decision sovereignty* sufficient to carry reform through to completion. New companies have fewer resources but are free of the accumulated bureaucratic structures that older organisations developed to manage

outmoded environments. New organisations are also shaped around the capabilities of emerging technologies, in contrast to incumbents, which attempt to reshape those technologies to conform to existing organisational forms.

While traditional explanations of adoption failure focus on market incentives, cultural inertia and shortages of complementary assets, such accounts overlook a critical feature of contemporary technological change. Innovations such as AI do not merely automate tasks or generate content; they also dramatically increase *decision intensity* – the volume, frequency and scope of actionable decisions required of management. More choices mean more contestation, but the authority to make decisions in older firms remains embedded in governance structures designed for much lower decision intensity. As management tries to integrate the new technology, governance costs begin to rise faster than productive benefits, creating an internally generated (endogenous) ceiling on the pace and scope of implementation.

This article is intended as a conceptual research note. Its purpose is to introduce and clarify the concept of *decision sovereignty* as a missing transmission variable (S) in implicit and conceptual models of implementation, rather than to advance a complete theory or empirical test. *Transmission* refers here to the institutional process through which decisions are converted into authorised action and sustained execution, not to formal causal or econometric mechanisms.

This paper does not propose institutional reforms or governance designs. Its contribution is to make explicit an implementability condition that is typically assumed, but rarely examined, in economic and organisational models: the effective capacity to convert a selected decision into coordinated action. Decision sovereignty specifies the boundary conditions under which improvements in predictive capacity translate into realised outcomes, and the conditions under which they do not. In this sense, it operates not as a substitute for existing theories of decision making or implementation, but as a domain-of-validity[1] constraint on their practical applicability.

Prediction identifies what can be done; decision sovereignty determines what gets done.

The Governance Convexity Trap

The governance convexity trap described here will be familiar to practitioners across both the public and private sectors. The term 'governance convexity' is used to describe a commonly observed structural pattern rather than to assert a formal law. Increases in technological capability rarely produce proportional increases in output. Instead, they often lead to a disproportionate expansion of organisational overhead, including additional meetings, expanded legal review, heightened compliance requirements and more intensive risk assessment.

If the marginal cost of adoption were constant, organisations could scale implementation smoothly. Where marginal costs increase with decision intensity, however, an upper bound is eventually reached beyond which further execution becomes increasingly difficult. Organisations encountering this ceiling often exhibit characteristic responses: proliferating pilot projects rather than scaling core activities, entering prolonged review cycles or engaging in symbolic compliance while diffusing responsibility internally, leaving accountability for failure unclear.

1. In this context, 'domain of validity' refers to the conditions under which a conceptual or analytical model is expected to hold, rather than to a formal econometric specification.

Uncontested Territory

As incumbent organisations hesitate or stall, technological adoption often migrates to semi-autonomous internal units or, more commonly, to competing start-ups operating in uncontested territory, where decision rights can be configured at lower cost. Comparable dynamics are observable in policy and economic innovation through parallel structures such as taskforces, incubators and special economic zones established outside restrictive regulatory regimes.

Uncontested territory does not imply an absence of regulation. Rather, it denotes organisational spaces in which governance costs scale approximately linearly, rather than convexly, with decision intensity. In such environments, execution capacity can expand alongside innovation without being disproportionately constrained by governance overhead.

A Fresh Conceptual Framework

The concepts of convex governance costs, uncontested territory and decision sovereignty build on Ronald Coase's (1937) observation that firms exist in part to reduce transaction costs. This analysis extends that insight by arguing that technologies introduced to reduce such costs may become counterproductive where governance structures remain unadapted. Oliver Williamson (1985) similarly emphasised that internal governance imposes costs that organisations seek to minimise; this paper suggests that such costs can ultimately exceed the benefits of automation where governance arrangements are slow to evolve.

Clayton Christensen (1997) attributed incumbent failure primarily to the protection of ageing business models. By contrast, this paper argues that governance architecture itself constitutes a binding constraint on organisational adaptation. The analysis also draws on Douglass North's (1990) work on institutions and cliometrics[2] to formalise how convex cost structures impose ceilings on execution, and to conceptualise decision intensity.

The framework advanced here yields falsifiable implications in principle, suitable for future empirical work. Holding decision quality and access to general-purpose technologies constant, organisations characterised by higher decision sovereignty should exhibit systematically higher execution rates, shorter implementation lags and greater durability of outcomes. Conversely, improvements in predictive capacity should display diminishing or negligible effects on realised outcomes where decision sovereignty is low. Empirical findings that contradict these patterns would challenge the explanatory relevance of decision sovereignty as a binding constraint on implementation.

Decision Sovereignty

Organisations across sectors now possess access to unprecedented analytical capability, yet productivity growth remains modest and reform efforts frequently stall. The proximate cause is not a deficit of analysis but a limitation in execution capacity. The missing link between decision and delivery is decision sovereignty.

Decision sovereignty is not synonymous with formal authority. Rather, it describes an institution's capacity to select a course of action and see it

2. Cliometrics is the systematic application of economic theory, econometric techniques and other formal or mathematical methods to the study of history.

through to completion despite internal constraints and external pressures. It is the rare but critical ability not merely to decide, but to ensure that decisions are implemented.

This relationship may be expressed in reduced form as:

$$Y = S \times d(P)$$

where *Y* represents realised outcomes; *S* denotes decision sovereignty; and *d(P)* represents decision quality as a function of predictive capacity *P*. This expression is a reduced-form representation, not a full structural model.

Decision sovereignty can be decomposed conceptually as:

$$S = f(S_1, S_2, S_3, S_4, S_5)$$

where S_1 is *closure capacity*, defined as the ability to move from deliberation to binding decision, whether through formal authority or informal consensus mechanisms; S_2 is *execution fidelity*, or the degree to which authorised decisions are reliably implemented across the organisation; S_3 is *revision agility*, referring to the capacity of leadership and institutions to revise policy or procedures without undermining legitimacy; S_4 is *stress resilience*, understood as the ability to sustain learning, adaptability and effective functioning under internal or external pressure; and S_5 is *accountability clarity*, defined by the coherence and enforceability of authority, responsibility and liability. These components are analytically distinct but jointly necessary.

Technological change, such as AI, can accelerate decision intensity, revealing execution constraints that may otherwise remain latent.

Decision Sovereignty as Institutional Capital

Decision sovereignty is best understood as a durable institutional stock that behaves analogously to capital. It accumulates through coherent authority, accountability and learning processes, and depreciates when authority fragments or governance costs rise disproportionately.

Authority without sovereignty can issue directives but cannot reliably deliver outcomes; sovereignty without legitimacy can act but cannot endure. Sustainable institutional performance depends on their alignment.

Measurement and Research Agenda

The assumption that effective action automatically follows sound decision making is empirically untenable. While earlier theorists recognised the importance of institutions and bounded rationality, implementation authority has rarely been treated as an explicit constraint.

The Decision Sovereignty Index (DSI) is introduced here as a *conceptual decomposition* rather than an operational instrument:

$$DSI = (A \times C \times I) - V$$

where *A* denotes the *authority* to commit the system to act, *C* denotes *control* over resources and delivery pathways, I denotes *execution-relevant information*, and *V* denotes *exposure to veto* by internal or external actors. The algebra is mnemonic rather than calibrated, and the DSI is indicative rather than cardinal.

The multiplicative core of this formula (A × C × I) recognises that all three factors affect the others.

Authority without control cannot deliver, control without authority cannot commit, and authority and control without information are flying blind. Veto exposure (V) subtracts from the sum of these factors because it reduces the organisation's execution capacity.

Summary

Prediction has become increasingly abundant and cost-effective through advances in data, analytics and AI, yet realised outcomes have not increased proportionately. As predictive capacity expands, the difficulty of execution often rises where institutional capacity does not adjust in parallel.

Decision sovereignty makes explicit a transmission condition that is typically assumed but rarely examined. By introducing S as a boundary variable between decision quality and outcomes, the framework clarifies when improvements in insight translate into action and when they do not.

Decision sovereignty does not replace existing theories of decision making or implementation. Rather, it specifies the conditions under which such theories retain explanatory power in complex, contested environments. It offers a general framework for analysing execution failure without prescribing institutional design or policy intervention and provides a foundation for future theoretical and empirical work.

Disclaimer

The authors used generative artificial intelligence tools solely for language editing and stylistic clarity. All substantive ideas, arguments, interpretations and conclusions are the authors' own, and the authors take full responsibility for the content.

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RESEARCH NOTE

Promoting democracies by democratising capitalism, with time limited equities and polycentric self-governance

Dr Shann Turnbull

At a time when democracy is weakening under extreme wealth concentration, Dr Shann Turnbull advances a radical proposal: redesigning capitalism through time-limited equity and polycentric self-governance. The approach seeks to rebalance economic power, strengthen democratic accountability and align markets with long-term social and ecological priorities.

Introduction

The extraordinary concentration of global corporate assets has perverted and/or replaced worldwide democracies: "Eight men own the same wealth as the poorest half of the world's population" (Timms, 2017).

Corporations with unlimited life can aggregate such wealth. A counterintuitive and peaceful solution for promoting both democracies and capitalism is to use a self-funding tax incentive for the wealthiest people on the planet to increase their profits. But this would be on condition that they would "democratise the wealth of nations" (Turnbull, 1975, Turnbull, 2000, p. 403) for their children who need to survive our "ghastly" (Bradshaw *et al.*, 2021) environmental future. The approach has potential appeal across the political spectrum.

The ability to encourage wealthy investors to "democratise the wealth of nations" (Turnbull, 1975) arises because corporations concentrate wealth in a way accounting doctrines cannot report. This is because accountants only take

annual snapshots of profits without reporting their accumulation by shareholders. Accountants have no requirement to identify shareholder investor time horizons. Tax authorities cannot tax unreported profits. Neither can economists like Picketty learn how wealth becomes so concentrated.

Picketty (2017, p. 253) asked in his 2017 book: "Why is the return on capital greater than the growth rate?" The extent is astonishing. Picketty reports, "Through most of human history, the inescapable fact is that the rate of return on capital was always at least 10 to 20 times greater than the rate of growth output (and income)."

The absence of a term to define returns exceeding investment incentives is another reason why economists cannot explain rising wealth inequality. I define such profits as "surplus" (Turnbull, 1975, p. 36). Economists use words like "excessive", "pure" (Emerson & Dixon, 2024, p. 30), "super-profits" or "economic rent" that are reported by accountants. Another word is required to distinguish profits that are *not* reported.

Surplus profits

I learnt about surplus profits as a financial analyst in the Treasury department of a global corporation in New York City in 1962. It was during the summer break between my two years at Harvard Business School. A prescribed reading in our first year educated me on how foreign investment exported wealth from host nations on a basis that generated "unlimited, unknown and uncontrollable foreign liability" (Penrose, 1956, p. 235). This is not in a way identified by the winners of the 2024 Nobel Prize (Nobel Prize Outreach, 2025b).

The Treasury Department of the global corporation received pitches from international operating units to fund new projects. The foreign exchange risk was not as volatile as it is today. There was a gold standard and fixed exchange rates.

Discounted cash flow analysis supported pitches for the life of projects. These could be for periods of up to thirty years. However, we did not recognise projected cash flows beyond ten years, even in the US. This meant projects could receive surplus profits for at least 20 years. Most countries were allocated a shorter time horizon to reflect perceived country risks.

Several countries had a time horizon of only four years. This meant recovering all the funds invested within four years plus an after-tax return above a specified hurdle rate. Surplus profits could also be generated for 26 years, representing 87% of the project's life. Surplus profits are not trivial. Penrose identified how a single US investment in Australia generated dividends 260% times greater than the initial investment each year to become "8% of the dollar export receipts in the Australian balance of payments" (Penrose, 1956, p. 221).

Because surplus profits are untaxable, corporations can distribute them via stakeholder shares. These shares can then be endowed to each voting citizen in each bioregion, creating locally owned and controlled richly democratic stakeholder governed circular economies. It would replace the non-self-funding US tax incentives to develop the complicated Employee Share Ownership Plans (ESOPs). These involve only around 6% of US citizens (NCEO, 2024).

In Australia, all employers must contribute 12% of any wages and salaries to fund employee pensions. Contributions began at only 3% in 1992. By the end of 2024 they had accumulated to $A4.2 Trillion. As all publicly traded equity investments in Australia are only $A2.6 Trillion, Australian pension funds are now being forced to invest an ever growing

one third share of their funds in less liquid private equities and/or overseas.

The exporting or domestic saving in this way makes the economy less self-reliant. In addition, it indicates the extent that the sharing of unreported surplus profits could increase national self-reliance and increase the wellbeing of all employed citizens' spending power by 12%. Inequality and taxes would also be reduced with the size and cost of government to enrich democracy.

Distributed decision making (Polycentric governance)

The tax incentive would be tied to corporations also adopting distributed decision-making that Elinor Ostrom described in her 2009 Nobel prize lecture as "polycentric governance" (Nobel Prize Outreach, 2025a). This allows organisations to become both self-governing and provide other benefits to all citizens. In this way, corporations could achieve the objectives of the US Business Roundtable (BR, 2019) "to provide benefits for all Americans". Corporations would then become agents for what Ostrom described as being a "Common Pool Resource". Such corporate CPRs create a basis to protect and nurture host environments from the degradation created by the 8 billion people on the planet.

A way to obtain the above outcomes is to introduce a self-funding tax incentive for shareholders to change corporate constitutions in three ways: 1. A fraction of their shareholder equity is transferred by book entry each year to a stakeholder equity account from which shares can only be issued to citizens. Location of the citizens would be limited to the host bioregion of the firm and/or in the electorate of the politicians who introduced the tax incentive; 2. Shareholders elect two boards, one to manage the business elected with one vote per share and a second board to manage the corporation with one vote per shareholder. (European corporation may have two boards, but shareholders only appoint one board that then appoints the other); 3. Each stakeholder constituency on which the corporation depends for its existence in its host bioregion elects advisory boards to protect their interests, mentor management and suggest Key Performance Indicators for the "Governance Board" (Murray, 1998).

The democratically elected governance board has no power to manage the business. It simplifies complexity for directors by removing their systemic, direct, unethical conflicts. These arise when directors become involved in selecting and paying auditors who report to shareholders on the integrity of the directors' accounts. Other conflicts arise when a director controls the AGM to hold directors to account, determines the agenda, location and/or time of the meeting, counts the votes in contested elections, use open proxy votes to entrench their positions, control the and/or or support their own re-nomination or remuneration.

Managing other conflicts of interest is also made more credible by the governance board. Eliminating systemic director toxic conflicts reduces both the complexity of their duties and financial liabilities. It allows completely different skill sets, experiences, and community connections to be introduced to the firm. These are enriched by the stakeholder mentoring boards. However, shareholder's primacy is maintained as only shareholders possess the power to nominate or dismiss directors and determine their remuneration.

The tax incentive cost is recovered from taxes paid on dividends gifted to stakeholders, with other

stakeholders reducing or eliminating their welfare costs. Dividend distribution would be maximised to minimise equity dilution. Because the incentive costs are recovered, they can be made sufficiently large so shareholders can achieve higher, quicker, less risky profits by endowing stakeholders five per cent of their equity each year.

The stakeholder boards provide a way to "privatise regulation" (Turnbull, 2008; 2021) and advise the governance board, independent of management, on how well management provides other benefits to stakeholders.

Ecological corporations protecting nature

Corporations would then take on ecological characteristics in three ways. (a) adopting polycentric self-governance like all living things; (b) creating "offspring" corporations like biotas. Firms would grow their business through their offspring entities funded by dividend re-investment plans and from new investors. Offspring firms also provide succession planning for shareholders, management, and stakeholders, and (c) Like all biotas, possess limited life. A five percent endowment per year creates a 20-year life. This time limit, *without a tax deduction*, was adopted by US corporate charters after the War of Independence. "Having thrown off English rule, … citizens made certain that charters were issued one at a time with a limited number of years" (Grossman *et al.*, 1993).

I have twice proved the practicality of raising high-risk start-up enterprises with contracts for their investment being limited to 15-year leases. The first was Saxonvale Vineyards Limited. It was funded in 1969 and publicly traded in 1975. The second was Barwon Cotton Limited funded in 1979 and publicly traded in 1984. I was also a 1983 co-founding owner of Australian Film Underwriting Pty. Ltd. We funded half a dozen films with investors only obtaining copyright revenues for seven years to minimize reporting costs.

Self-funding wellbeing for all citizens

Distributing surplus profits to citizens creates a process to fund a universal corporate well-being dividend for all citizens. It would reduce the need for taxes, welfare payments and big government. The US State of Alaska illustrates the potential. In 2022, every resident over 12 months obtained a dividend of $US3,284 from a single pipeline business (DeMarban, 2022). If a similar dividend was obtained from four other enterprises, it would exceed the US minimum wage (US Department of Labor, 2009).

The endowment of surplus profits directly to only citizens would allow a majority of the UN's seventeen Sustainable Development Goals to be achieved (United Nations, 2024). These are the first 7 ("no poverty", "zero hunger", "good health and well-being", "quality education", "gender equality", "clean water and sanitation", "affordable and clean energy"), number 10, "reduced inequalities", and number 17, creating "partnerships for the goals".

No new laws are required to introduce polycentric governance. Significant business examples exist in leading jurisdictions. It is only the corporate constitution that needs changes. Examples of such distributed decision-making are the Mondragón Corporacion Cooperativa in Europe, The John Lewis Partnership in the UK and VISA International based in the US. These principles are consistent with earlier work on building self-reliant communities through locally embedded ownership,

participatory governance, and decentralised economic control (Benello *et al.*, 1997).

Each example has survived business cycles for over half a century to provide evidence of their competitiveness and resiliency. These features are consistent with why evolution universally develops distributed decision-making in all living things. It allows them to become self-regulating, self-reproducing, self-governing, and to various extents self-repairing.

Changing corporate constitutions

I have twice changed corporate constitutions to introduce polycentric governance. The first was in 1974. I became the unpaid CEO of the unincorporated Australian National Ski Federation. I federated the self-governing state bodies into a non-profit incorporated as the Australian Ski Federation. Australia became a self-governing member of the Fédération Internationale de Ski. The FIS was in turn a member of the self-governing Olympic Committee, that self-selects its members. Olympic sports illustrate how the self-governing insights of Ostrom can be extended from local self-governing clubs to a global authority through various levels of nested networks of autonomous organisations. They both cooperate and compete creating win-win outcomes for all stakeholders.

Polycentric governance allows the emergence of this paradoxical behaviour. Mathews notes that it is a defining feature of self-governing components described as a Holon (Mathews, 1996). Their contrary paradoxical behaviour is described as "Tensegrity" (Turnbull, 2022b). It is so ubiquitous in the structure of living things that Tensegrity is described as "The architecture of life" (Ingber, 1998). Networks or Holons are described as Holarchies that exhibit radically different characteristics from hierarchies (Turnbull, 2022a, p. 91).

For example, Holons are autonomous but also integrated. They are centralized while at the same time decentralised. Holons can exhibit behaviour that can be both bottom-up and/or top-down, ordered and/or chaotic. The founding CEO of the polycentric self-governing VISA corporation coined the word "Chaordic" by combining the words "Chaos", and "Order" (Hock, 1999). Tensegrity allows stakeholders to obtain benefits while maintaining shareholder primacy. Unitary boards deny tensegrity to make it invisible to their researchers.

Promoting Democracies by Democratising Capitalism

Promoting democracies is consistent with the governance proposals of Larry Fink, the CEO of BlackRock. BlackRock is currently the largest fund manager in the world managing US$15 trillion, as at the end of 2025. In a 2018 letter to the CEOs of the companies BlackRock had invested in, Fink identified "Group Think" as a problem. He wanted: "A new model of corporate governance" (Fink, 2018).

Fink named one of his executives I reported to for another investor in the UK in 2002. This was when I was commissioned by the London-based New Economics Foundation to author one of their public policy booklets on "A New Way to Govern: Organisations and Society after Enron" (Turnbull, 2002).

My policy booklet explained why Fink stated in 2018: "Companies must benefit all of their stakeholders, including shareholders, employees, customers, and the communities in which they operate." This is only common sense.

No business can exist without stakeholders. But unitary boards promoted as "best practice" (ICGN, 2021) shut out stakeholder voices to deny Fink's wish "to bring other critical stakeholders to be brought to the table".

It's time to radical reduce inequality to democratise and purify capitalism. Ecological constitutions would create self-reliant self-governing bioregional ownership and control of corporations. It would allow every citizen of the planet to participate in local self-determination of sustainable populations in each bioregion and how to best protect and nurture the environment to perpetuate biodiversity that included humans. This provides a reason for green votes to join the extreme left and right to vote for a shareholder driven richly democratic stakeholder self-governing society (Turnbull, 2000; 2021).

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ESSAY

Empowerment through entrepreneurship: ICDP case study of Australia-Pacific cooperation – Presentation on the Blue Economy at Green Rio[1]

Catherine Fritz-Kalish AM

Building on practical experience and illustrative case examples, Catherine Fritz-Kalish AM explains how locally led small and medium-sized businesses across the Pacific have collaborated to build networks of support that create economic opportunities and improve livelihoods, with lessons for coastal regions worldwide.

Good afternoon. Hello, Brazil and Blue Economy Rio Summit[2] participants.

I am Catherine Fritz-Kalish, and I am speaking to you from Australia.

I grew up living very close to our famous Bondi Beach, which is almost as famous as your Copacabana. Growing up by this magnificent ocean, I developed a deep appreciation for the Pacific Ocean's incredible beauty, a healthy respect for its tremendous power and increasing concern for its threatened ecology. I'm lucky to live on the world's largest island continent.

Today, I represent two organisations – the Managing Director of Global Access Partners (GAP) and the Director of the International Centre for Democratic Partnerships (ICDP). I was invited to speak because we have an exciting story about how 'Large Ocean States' of the Pacific work with Australia to develop the region's Blue Economy sustainably.

1. This is an edited transcript of the virtual presentation delivered by Catherine Fritz-Kalish AM, Director of ICDP, on the *Blue Economy panel at the Green Rio Summit on 31 October 2024 in Brazil.*
2. Green Rio / Blue Economy RIO Summit, 2024

My role today is to provide a high-level overview of the Pacific Region's Blue Economy and explore how our experience may be relevant to Brazil's sustainable SME sector.

Please consider how our experience can translate to a similar collaboration between Brazil and the Pacific region. I invite those interested in working with us to build an alliance between Brazil, Australia and the Pacific.

To frame this discussion, let's consider the Australian context. Australia's Blue Economy generates over 229 billion Australian dollars annually and supports over 700,000 jobs across diverse sectors, including offshore energy, fisheries and aquaculture, marine tourism and transport.[3]

Australia is a global 'blue carbon hotspot', home to 12% of the world's blue carbon ecosystems, which hold between 5% and 11% of global carbon stocks.[4]

However, just like Brazil, our coasts and marine ecosystems face numerous threats—from climate change and coastal development to land-based runoff and direct human impact. As a member of the global Ocean Panel, Australia is committed to sustainable ocean management.

We've also signed the UN High Seas Biodiversity Treaty,[5] initiated the Sustainable Ocean Plan[6] and established National Ocean Accounts[7] to measure policy impact.

Our Blue Economy policy is integral to Australia's commitment to achieving net-zero emissions by 2030. So, we are working collaboratively with global organisations who share our values and goals, and we are actively working alongside our First Nations peoples, the traditional custodians of our country. One example of this kind of collaboration includes the Saltwater People Alliance, which aims to address the power imbalances faced by Traditional Owners. This initiative supports the preservation of their Sea Country, helping to record and share the cultural significance of these waters.

The Pacific Island Nations' context vastly differs from Australia's regarding Blue Economy development. In total, 14 Pacific Island Nations are spread across thousands of islands.

The Pacific Islands are at the forefront of climate change, biodiversity loss and pollution despite contributing less than 0.03% to global greenhouse emissions.[8] It is the most aid-dependent region in the world – around 6.5% of the region's GDP is derived from foreign aid, rising to almost a third for small island nations, once Papua New Guinea and Fiji are excluded.[9]

Three-quarters of the Pacific population live in rural areas and rely on agriculture and fishing for their livelihoods.[10] And for those outside the agricultural sector, men outnumber women in paid employment by 2 to 1, and men earn 20–50% more than women.[11]

So, considering this context, what are some solutions to Blue Economy challenges across the Pacific? How do we develop long-lasting, meaningful connections between the people

3. DCCEEW, 2025a; Parliament of Australia, 2022
4. DCCEEW, 2025b
5. DCCEEW, 2024
6. DCCEEW, 2025a
7. ABS, 2022
8. SPC, n.d.
9. Lowy Institute, 2023
10. ACIAR, 2021
11. World Bank, 2022

of the Pacific and Australians to build a sustainable Blue Economy and make a real impact?

Our solution rests on supporting sustainable small and medium-sized businesses to grow, and we do that through the ICDP – an organisation formed seven years ago to answer the Australian Government's call for solutions to strengthen relationships and people-to-people links between Australia and the Pacific Island nations.

ICDP is an independent, non-profit organisation that aims to build businesses that engage Australian and Pacific Island entrepreneurs. ICDP started as a collaboration between government and industry. It resulted from GAP's 'Second Track' process of bringing a group of stakeholders together with a common problem and developing a solution.[12]

The ICDP network has grown to over 1,300 members, primarily from Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu and Australia. Sixty per cent of our members are women entrepreneurs.

Our objectives include supporting entrepreneurs through capacity building and seed funding, enhancing collaboration in sustainable development, promoting Pacific Island women as leaders and deepening understanding between Australia and Pacific Island nations.

ICDP has also established 10 hubs across the Pacific where entrepreneurs can meet physically and virtually. We have local Hub coordinators who help us run capacity-building workshops and network events, promote quarterly newsletters and offer mentoring opportunities.

I have spent many hours talking with Pacific-based entrepreneurs, and last month, I facilitated a dialogue with representatives from six different Pacific countries about how best to develop the Blue Economy in the region.[13] We had robust, honest discussions to advise this Summit on the reality of the ground across the Pacific. We discussed the challenges and successes of the region.

Let me share their thoughts with you.

Taholo Kami, a well-known oceans expert from Fiji, explained that in terms of the Blue Economy and aquaculture, most ministerial meetings in the region are still dominated by the tuna industry, but building viable as well as vibrant Large Ocean States will require economic diversification and official representation from local communities as well as tuna industry interests. The sea cucumber – bêche-de-mer – is a billion-dollar market in China, for example, and could be one of several high-value fisheries developed in the Pacific over the next 10 years.

Tourism remains the region's other primary industry, and Cook Islands, Fiji, Samoa and Palau offer high-performing examples of success. Fiji is now exploring ways to shift the focus from highly commercial, Western-owned cruise lines to 'small house' stays that benefit local communities and allow more people to experience the natural beauty of these islands.

Local, regional and international shipping and transportation offer another avenue for growth. Vanuatu and Tuvalu are already encouraging the use of non-fossil fuels for marine transportation, ferries and fishing boats. Most small ships still rely on simple two-stroke engines and international assistance to adopt more efficient four-stroke, and eventually, electric motors will help drive this transformation.

12. Blackshaw, 2020
13. ICDP, 2024

Growing regional geopolitical rivalries put Pacific Island nations in a stronger position to leverage partnerships and attract investments in ways not possible five or ten years ago. While securing investment without surrendering sovereignty will be a balancing act, an increasing international willingness exists to fund sustainable development and climate projects.

There is a real opportunity to support and grow Pacific Island businesses, and at ICDP, we are working on the ground to do that with entrepreneurs.

Salote Waqairatu-Waqainabete, Managing Director of Landscaping Solutions and ICDP Hub Coordinator for Suva, Fiji, is one of those entrepreneurs. Having built a successful landscape supply company in Suva, an interesting observation from Salote was that while she appreciates the importance of digital literacy beyond online marketing, balancing business compliance, new technology, and financial probity with traditional obligations and priorities remains an issue, as she feels obligated to meet local criteria of success as well as Western measures.

Josh Forde from digital consultancy firm Ackama in New Zealand has operated in the Pacific for the last seven years. The company sees ample opportunities for its services in developing the region's Blue Economy. Rather than focus on geopolitical and governance concerns, the company believes that recent investment in better broadband links across the Pacific will help businesses and communities connect and take advantage of these new opportunities more agilely than countries chained to legacy infrastructure.

During our dialogue, Cam Neil, Founder of Red Hat Impact, commented that developing an innovative finance framework like the one he is creating could help cooperatives of smaller firms develop into de-facto larger businesses, as they did in Western countries two hundred years ago. Such cooperatives can expand to a much larger size while maintaining their membership model and retooling this historic Western model could create new opportunities in the Pacific today.

So, opportunities are diverse, and local cultural and social needs must be considered.

The best way to illustrate our collaborative work at ICDP and the opportunities for sustainable business development is through a case study example.

One of the ICDP companies is called *Less than Container Load (LCL)*. My colleague James Kana is the founder and Director. He realised that small cocoa growers in the Solomon Islands could not fill a whole shipping container independently, so it was too expensive to ship their products to export markets. In response, James developed a seamless way to optimise their use of shipping containers by bringing all the growers together, sharing freight and logistics costs, and filling a container together.

Once he had developed his solution plan, James was introduced to the ICDP network, which opened a network he could use for funding and support. Seed funding from the Australian government in 2022 enabled the pilot and business plan development. More support from the ICDP Network developed the idea, and James' network developed it even further. *The Less than Container Load* pilot was a success.

But that is not all. *Less than Container Load* has diversified because of global environmental regulations. Growers wanting to export to Europe must comply with new climate impact standards,

which require tracking emissions and impact reports, so *LCL* could also develop a solution for this.

LCL is developing a digital platform to help organise and aggregate small farmers' produce to improve the efficiency and increase the scale of their trade. *LCL* continues to expand its network and is looking for further opportunities with local government, international partners, and the private sector.

ICDP has supported James, connected him with partners and supporters, and helped with capacity building.

This is one example, but many have come from collaboration through Global Access Partners, ICDP and the ICDP Pacific network.

ICDP's initiatives in the Pacific highlight the benefits of collaboration in addressing pressing challenges like climate change, biodiversity loss and pollution.

ICDP works with local governments, local businesses, local service providers and global NGOs and funding sources such as the Australian Government and the US Agency for International Development, and we are exploring locally led commercial solutions to Pacific issues, focusing on innovative and sustainable business practices.

As we look to the future, I encourage collaboration between Australia and Brazil's public and private sectors. What can we learn from each other? How can we leverage frameworks such as the G20, particularly the Oceans 20 Engagement Group, to enhance our efforts? Could we build on the successes of ICDP to foster similar projects with Brazilian SMEs?

Together, we can drive meaningful change and create a sustainable future for our oceans and the communities that depend on them.

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ESSAY

Leadership imperatives from Orvieto: A communiqué from the 2025 Orvieto Leadership Summit

Olga Bodrova

An eclectic gathering of creative thinkers at an annual chamber music festival in Orvieto explored how neuroscientific insight, deliberative democracy and human-centred artificial intelligence can strengthen modern decision making. The Summit's recommendations articulate a vision of *interdependent leadership* in an age of disruption.

The Orvieto Leadership Summit on *Creative Insights for Transformational Human Decision Making* brought together 45 thought leaders from science, the arts, business, public policy and academia in Orvieto, Italy, on 24–26 June 2025. Convened by Orvieto Musica, Inc. in partnership with GR3 Advisory and Global Access Partners (GAP) and held as part of the broader cultural programme of the 32nd Orvieto Musica festival, the Summit offered a unique blend of dialogue, creativity and experiential learning, enriched by live chamber music, somatic practice and deep listening exercises.

Contributors included former heads of state, Nobel laureates, musicians, entrepreneurs, scientists, public health experts and senior academic researchers. Through open, free-flowing discussions facilitated by moderators, they explored the latest developments in neuroscience and artificial intelligence and new approaches to creative business problem solving and public policymaking. Discussions highlighted the potential of generative AI to enhance productivity and

social outcomes when designed and deployed in ways that strengthen, rather than diminish, human agency, democratic engagement and equity.

A central outcome of the Summit was the Orvieto Statement, which proposed several guiding principles for decision makers: empower human agency through technology, foster interdependent leadership grounded in dialogue and collective wisdom, and ensure that technological gains are fairly shared across current and future generations. The Summit also recommended the establishment of 'second track' taskforces and working groups to advance the scientific and psychological understanding of human decision making, including the creation of a dedicated Centre for Human Thinking and Decision Making.

Looking ahead, participants called for a deeper integration of scientific critical thinking in education, stronger public literacy around AI and the promotion of governance models that are inclusive, adaptable and anchored in human values. They urged policymakers to recognise the transformative power of interdisciplinary exchange and to invest in leadership development that draws on both analytic and intuitive modes of thinking. There was strong support for making the Orvieto Summit an annual event, with broader youth engagement and ongoing collaboration through international networks.

Orvieto

Towering a thousand feet above the unspoiled valleys of southwestern Umbria, about an hour north of Rome, Orvieto is both a dramatic hilltop citadel and a popular tourist destination. Founded by the mysterious Etruscan civilization, Orvieto offered its first citizens a natural fortress atop the flat summit of a large butte of sheer volcanic tuff, ejected by an ancient volcano whose massive crater now cradles Lake *Bolsena*.

This ancient town can trace an unbroken lineage from its Roman conquest through Medieval and Renaissance times with periods of great prestige, strategic importance and political influence. Since 1993, it has found renewed fame as the home of a popular chamber music festival, attracting artists, performers and music lovers from all over the world.

Shaped by centuries of unbroken habitation and renowned for its rich historic and cultural heritage, Orvieto stands as a testament to humanity's ingenuity, resilience and imagination, making it the perfect setting to explore the art and science of human decision making in a new age of accelerating cultural and technological change.

Summit Communiqué

1. We, the participants of the Orvieto Leadership Summit on *Creative Insights for Transformational Human Decision Making*, met in Orvieto, Italy, on 24-26 June 2025 at the invitation of Orvieto Musica, Inc., GR3 Advisory and Global Access Partners (GAP). We congratulate Prof Kim Walker, Catherine Fritz-Kalish AM, Anca van Assendelft and the Summit organisers for delivering a highly engaging event, bringing together 45 thought leaders and creative thinkers from Australia, Belgium, Canada, the Czech Republic, Germany, Finland, Israel, Italy, Peru, Spain, Switzerland, the United Kingdom and the United States.
2. We extend our heartfelt thanks to Mayor Roberta Tardani and the people of Orvieto for their hospitality. Orvieto, with its breathtaking natural beauty, storied past and centuries of wise decision making, was the perfect setting for a summit dedicated to thoughtful leadership and inspired collaboration.
3. We express particular gratitude to Orvieto Musica, both in artistry and spirit, for bringing together remarkable musicians from around the world. It was a privilege to witness their intimate chamber music performances, which filled our Summit with creative energy and inspiration.
4. We appreciate the depth and richness that the integration of Socratic dialogue, somatic experience and music immersion brought to our conversations and connections. We thank the Summit's distinguished thought leaders for their insights into the neuroscience of human creativity, the power of artificial intelligence (AI), and the exciting opportunities created by the nexus of the two.
5. We also thank Summit facilitators Clare Shine, Catrien van Assendelft, Catherine Fritz-Kalish AM and Dr Alex Fischer for their thoughtful moderation, and Allan Parker OAM for his guidance in crafting an 'Orvieto Statement' from our combined take-aways. Special acknowledgment is due to the experiential practices that supported this journey, including Hans Weygoldt's somatic breathwork session and Prof Kim Walker's deep listening exercise.
6. We acknowledge the insights HE Yves Leterme, Prof Riccardo Viale and Peter Fritz AO offered during the Summit's opening session, including their perspectives on the limitations of real-world human decision making and the need for democratic governance to stay fit for purpose at a time of growing external threats and internal challenges. We envision a future in which AI may positively reshape many aspects of the economy, society and government; however, we urge decision makers to use this new technology to empower people and ensure the benefits of AI are fairly distributed to maintain individual wellbeing and social cohesion.
7. We stress the importance of interdependent leadership grounded in human-centred values, empathy and courage as well as data-driven analytics to navigate the complex journey that companies, organisations and governments are about to take. We also call for the inevitable integration of increasingly capable AI in education, art, business and society to be co-designed with citizens, employees and voters, as effective solutions can only be honed and accepted through genuine dialogue with stakeholders and citizens.

8. While we recognise the need for a balanced approach, we are also excited by the prospect of AI-powered alternatives to society's embattled institutions and outdated processes. We note Peter Fritz's point that fundamental advances in technology, ideas or organisational structures are often best achieved through *transition* – by creating entirely new systems that operate outside the legacy framework – rather than incremental transformation or retrofitting.
9. We appreciate Prof Baroness Susan Greenfield's insights into neuroscience and the impact of screens on children's minds. We applaud the commitment of Prof Sharon Goldfeld AM to improve all five domains of preschool childhood development in Australia, given the clear evidence now available on early brain development, stagnating rates of attainment of milestones, and the financial and social benefits of improving the results of disadvantaged children.
10. We agree with Nobel Laureates Prof Saul Perlmutter and Prof Brian Schmidt AC that broader integration of the scientific method into schools and universities would strengthen the critical thinking skills required to help future generations interrogate, rather than blindly accept, AI-generated results and social media content. We support their advocacy of deliberative polling and citizen juries to revitalise and inform policy debate.
11. We welcome the research insights shared by Prof Karim Lakhani, Prof Hila Lifshitz and Steven Randazzo of the Laboratory for Innovation Science at Harvard on the augmentation of employee performance through generative AI. Their 'Automation, Augmentation and Transformation' framework offered a compelling lens for rethinking personal and team productivity in business settings. We note with interest the satisfaction reported by employees when interacting with generative AI, alleviating potential concerns of the dehumanising effect of this technology. We also enjoyed the interactive sessions led by Prof Hila Lifshitz to explore the use of AI in music and business innovation.
12. We were inspired by the personal courage and fortitude displayed by Joe Gagnon and Dr Brenda Lau MD and acknowledge the links they forged between physical vitality and good mental health. Mr Gagnon challenged us to live with intention and focus, showing how discipline and clarity can shape a meaningful life, while Dr Lau explained how the language we use can be a hidden driver behind chronic disease and burnout. We were also intrigued by the original approach of Christopher Duncan towards personal enlightenment and professional success. These contributions demonstrate the value of embodied awareness, somatic insight and reflective self-inquiry in shaping transformative leadership.
13. We support ongoing cooperation with the Club of Madrid, led by María Elena Agüero, to leverage the experience and convening power of its members to promote international democracy and better leadership. We agree with Ms Agüero's observation that 'the triangle' of data, analysis and resources will not result in positive social change without strong leadership.
14. We look forward to maintaining the friendships we forged at this Summit, developing the scientific and social themes it explored, and building on these discussions through participating in GAP working groups over the coming year.

The Orvieto Statement

We propose that decision making in business and government be guided by the following overarching principles, which were co-designed through a consensus-driven workshop facilitated by Allan Parker OAM and reflect the collective input and mutual agreement of all participants:

I. **In an uncertain world of rapid technological change and cultural upheaval, new technologies such as generative AI must be harnessed to empower rather than replace human agency, political democracy and social engagement.**

II. **Interdependent leadership must engage with and listen to stakeholders to seek consensus and build the collective wisdom required to navigate current challenges, repair the social fabric and ensure that democratic governance remains fit for purpose.**

III. **For the sake of a flourishing world, leaders must embrace governance that respects individual autonomy, encourages civic agency and ensures that the benefits of technological progress are shared with current and future generations.**

Summit Recommendations

1. We support the creation of GAP and GR3 'Second Track' taskforces and working groups to explore and implement the Orvieto Principles and identify specific examples of successful, scalable innovations that could inform broader policy shifts.
2. We also support, in principle, the proposal for GAP to convene a cross-sectoral working group to explore the concept of a 'Digital Republic' to unlock the potential of AI to enhance democracy and citizen engagement. We acknowledge this as one perspective among many and suggest broad, inclusive engagement to identify a range of future governance models.
3. We recommend that post-Summit working groups explore ways to translate the personal health and wellness insights offered at the Summit into state and national policies to mitigate the deleterious effects of the social determinants of health.
4. We urge GAP to accelerate the establishment of a Centre for Human Thinking and Decision Making to explore the neuroscience and psychology of human choice and the potential of AI to inform better policymaking and improve public services.
5. We support, given the evidence presented by the Laboratory for Innovation Science at Harvard and other contributors at the Summit, the appropriate integration of AI into business and organisational workflows to augment, rather than replace, the expertise of human workers. We also recommend more rigorous academic research into the use and implications of AI and call for adequate training for employees, students and decision makers to maximise its benefits.

6. We advocate the incorporation of scientific thinking techniques throughout schools and universities to equip young people with the critical thinking skills they need to distinguish fact from fiction, make evidence-based decisions for themselves and society, and navigate a rapidly changing work environment.
7. We invite students and leaders to draw on the complexity and beauty of the natural world as a source of insight and innovation. This Summit has challenged conventional boundaries, reminding us that meaningful progress often emerges through interdisciplinary exchange, reflective observation and even moments of creative disorder. It is in this spirit that we advocate an educational approach that values not only critical analysis but also the interdependence of human systems and natural ecosystems, informed intuition and alternative ways of thinking.
8. We hope the Orvieto Summit becomes an annual fixture on the global leadership calendar and support greater participation by younger people in future events to expand intergenerational insight and co-creation.

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Prof Graham Ford AO has over 30 years of experience in corporate governance and has held numerous board director and chair roles across several sectors, encompassing a wide range of businesses nationally and internationally. Graham has operated in highly regulatory environments in the for-profit and not-for-profit sectors, in both corporate and academic higher education and vocational education environments. Graham was the Chair of Australia's largest not-for-profit for 11 years and continues as Chair of a global not-for-profit, encompassing some 135 nations and 30 million members. Graham was awarded Member of the Order of Australia AM in 2015 for his service to the community, and Officer of the Order of Australia AO in 2023 for his distinguished service of a high degree to the Australian and international community. Graham is a Fellow of the Australian Institute of Company Directors.

Peter Fritz AO is Chairman of GAP and Group Managing Director of TCG – a diverse group of companies that over the last fifty years has produced many breakthrough discoveries in computer and communication technologies. Peter's innovative management style and corporate structuring have led to the creation of a business model that is being copied by many successful entrepreneurs and has become part of university undergraduate and masters programs in business management in Australia and around the world. Peter chairs a number of influential government and private enterprise boards and is active in the international arena, having represented Australia on the Organisation for Economic Co-operation and Development (OECD) Small and Medium-Sized Enterprise Committee. He is the holder of seven degrees and professional qualifications, is a recipient of the Order of Australia, and has received many other honours.

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Simon Linacre is the former Head of Content, Brand and Press at Digital Science. He has 20 years' experience in scholarly communications, has lectured and published on the topics of bibliometrics, publication ethics and research impact, and has recently authored a book on predatory publishing. Simon is also a Trustee of the Committee on Publication Ethics (COPE) and a tutor of the Association of Learned and Professional Society Publishers (ALPSP). He holds Masters degrees in Philosophy and International Business.

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Fergus Neilson has enjoyed a long career in the military, merchant banking, management consulting and private equity funds management. After retiring from the corporate world, Fergus worked with GAP to establish and operate *The Futures Project*, accessing crowd wisdom to generate strategic policy options in the energy space. More recently, he returned to academic study at University College London and in November 2022 was awarded an MSc in Political Science (Democracy and Comparative Politics). This was his fourth postgraduate degree in the peripatetic pursuit of continuing (and cross-discipline) education; following on from a Postgraduate Diploma in Economics (UEA 1971), an MA in City and Regional Planning (UBC 1977) and an MBA (Macquarie 1985). Fergus can be described as a generalist, with publications in the *Journal of Soil Conservation New South Wales*, the *Australian Market Researcher*, *The Sydney Morning Herald* and GAP's *Open Forum* website.

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Dr Shann Turnbull is the founding principal of the International Institute for Self-governance and a Founding Life Fellow of the Australian Institute of Company Directors. After a Harvard MBA, Shann became a serial entrepreneur, establishing over a dozen firms, including two public mutual funds and three publicly traded corporations. In 1975, he became a founding author/presenter of the first educational qualification in the world for company directors. The United Nations published a summary of his 1975 book *Democratising the Wealth of Nations*. He was invited to Prague in 1990-91 and Beijing in 1991 to advise on stakeholder privatisation. He authored Australian Parliamentary reports on Aboriginal self-determination in 1977–78. His 2001 PhD from Macquarie University created a methodology to establish the science of governance of any specie and introduced the self-governing concept of Tensegrity. Dr Turnbull is a prolific author on using the self-governing practices of biota to reform the theories and practices of capitalism.

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