

Collected Essays

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Seven essays from the Articles, gathered as one volume.
Economics, political philosophy, and the limits of formal
knowledge. This edition matches the versions published
at seennnr.art.

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Economics as a Contextual Toolbox: The First Step in a New Synthesis

Grand ideological systems break down into discrete policy tools, and the work of economics is choosing the right tool for the context rather than defending the purity of a doctrine. Gig labor, digital taxation, and AI governance show why the toolbox outperforms the menu.

Author's Note

Watching how standard economic models describe work and value, then watching how gig labor, digital platforms, and rapidly evolving AI technologies actually behave, made the gaps between the two hard to ignore. This paper proposes a different direction: economics as a contextual toolbox, where policy tools derived from diverse ideologies are selected and applied based on local conditions. The aim is to advance an adaptable, contemporary framework that corresponds to on-the-ground complexity, forming a preliminary step toward bridging economics and emerging technologies.

Abstract

Most mainstream economic models emerged during an industrial era characterized by stable employment, tangible products, and clear market boundaries. Yet, the digital economy, defined by gig work, intangible assets, and global data flows, often defies these older assumptions. This paper outlines a “contextual toolbox” approach, urging policymakers to move beyond rigid adherence to a single grand system, be it capitalism, socialism, or another, and instead break these systems into practical policy components. By examining three case studies (the gig economy, digital taxation, and AI governance), it demonstrates how mixing free-market incentives, collective protections, decentralized experimentation, and local governance can yield more equitable and context-sensitive results. Blended approaches that combine private resources with community-focused education and public investment have shown potential to address inequality and foster economic development. Drawing on the work of Elinor Ostrom, Mariana Mazzucato, and W. Brian Arthur, this paper argues for iterative, data-informed policymaking that can keep pace with rapid technological change. Rather than a minor tweak, the contextual toolbox is a vital starting point for deeper exploration in a world defined by fluid labor markets and digitally driven innovation.

1. Introduction

Grand economic theories often collide with practical realities. The gap becomes clear when standard models meet the everyday behavior of gig labor, digital platforms, and emerging AI. This points to a central truth: clinging to any single ideological framework rarely addresses the complexity of digital transformation, freelance labor, and emerging AI. Whether market fundamentalism, fully centralized planning, or minimal libertarianism, no monolithic paradigm proves universally successful.

Instead, this paper advocates treating ideological systems (capitalism, socialism, libertarianism, anarchism) as modular toolkits, comprising policy tools such as progressive taxes, community-based data trusts, mission-oriented public investments, or universal basic income (UBI), that can be blended situationally. Here, I demonstrate a contextual toolbox by examining three domains where standard models often struggle:

1. **Gig Economy:** Balancing labor flexibility with security.
2. **Digital Taxation:** Taxing intangible flows and profit shifting by global tech firms.
3. **AI Governance:** Creating a polycentric framework for advanced technologies.

These examples connect with the insights of notable economists and scholars (Ostrom, Mazzucato, Arthur), each of whom questions overly broad, one-size-fits-all approaches. This paper aims to recalibrate economic policymaking for a dynamic, tech-centric future.

2. The Problem: Outdated Models in a Changing World

Mainstream economic analyses frequently rely on assumptions rooted in the industrial or early-information ages. Three stand out as particularly unfit for today's environment:

1. **Stable Employment:** Classical theories depict workers holding stable, full-time jobs with a single employer, an increasingly rare model given the global rise of freelance work, platform-based gigs, and multi-job households (Anderson et al. 2021; International Labour Organization 2021).
2. **Tangible Value:** Standard metrics like Gross Domestic Product (GDP) prioritize physical output. However, modern economic value often hinges on intangible assets, ranging from user data to brand reputation, that are notoriously hard to capture in conventional statistics (OECD 2019).
3. **Clear National Boundaries:** Older frameworks assume geographically delimited markets and production. Yet tech platforms operate across multiple jurisdictions, making it difficult for national labor laws or tax codes to keep pace (Rodrik 2007).

Reliance on these outdated premises creates:

- **Policy Blind Spots:** Traditional employment surveys undercount gig workers; intangible capital is often omitted or undervalued in standard measures (Abraham et al. 2018; Ayyagari et al. 2019).
- **Regulatory Lag:** Antitrust laws designed for “brick-and-mortar” businesses struggle with platforms that make profits from data rather than sales (Crémer, de Montjoye, and Schweitzer 2019).
- **Binary Debates:** Policymakers fixate on “stronger government or freer markets,” ignoring that real-world economic systems already combine features from multiple ideologies.

Given the quickening pace of digital disruption, economic theory must adapt to cross-border gig work, intangible capital flows, and shorter innovation cycles.

3. The Toolbox Approach

3.1 Breaking Down Systems

Capitalism, socialism, libertarianism, and anarchism each contain a distinct set of policy levers:

- **Capitalism:** Markets, private property, price signals.
- **Socialism:** Collective provision, redistribution, welfare institutions.
- **Libertarianism:** Minimal state intervention, robust property rights, autonomy.
- **Anarchism:** Grassroots organization, voluntary cooperation, decentralized governance.

Political discourse often treats these packages as monoliths, market fundamentalists vs. anti-capitalists, regulation advocates vs. minimalists. In contrast, a toolbox approach decouples each policy lever (progressive taxation, mandatory benefits, open-source data requirements, etc.) from its broader ideological identity, allowing us to use them when and where they are contextually appropriate (Rodrik 2007).

3.2 Why Context Matters

Every region or industry has unique cultural norms, institutional capacities, and labor dynamics. One-size-fits-all policy solutions fail because they overlook local nuances (Rodrik 2007). Thus, if a particular sector exhibits labor exploitation, strong labor protections might be necessary; in another context, open competition might deliver better outcomes. By actively factoring in local cultures, labor practices, and governance capabilities, policymakers can fine-tune the selection of tools.

3.3 The Pluralistic Mindset

Pragmatism is the core principle:

- **Outcome-Oriented:** Retain private-market mechanisms if they foster employment without undue externalities; if serious harm appears, introduce collective interventions.
- **Iterative & Adaptive:** Pilot projects, “sandbox” zones, or controlled trials help policymakers see which tools work best, adjusting or expanding them based on measurable results (Appaya, Gradstein, and Mortimer 2020).
- **Data-Guided:** Focus on key metrics (e.g., wage levels, Gini coefficients, platform market share), rather than ideological preconceptions, to decide which elements to keep or discard.

4. Example One: The Gig Economy, Balancing Flexibility with Protection

4.1 Traditional Approaches

Policy responses to gig labor, from ride-hailing to food delivery, often polarize into two extremes:

1. **Pure Market:** Permit platforms to set compensation, benefits, and work conditions, fueling rapid innovation but risking precarious employment (Anderson et al. 2021).
2. **Rigid Regulation:** Require platforms to classify all workers as employees, securing formal benefits but potentially stifling the agile nature of gig models.

4.2 Toolbox in Action

- **Capitalist Incentives:** Keep barriers to market entry low so new firms can challenge incumbents, enhancing competition and lowering consumer prices.
- **Socialist Safety Nets:** Mandate that gig platforms pay into a common fund for healthcare, retirement, or retraining, offering workers baseline protection.
- **Libertarian Flexibility:** Use targeted experimental zones with lighter regulations to generate real-time data on wages, worker satisfaction, and platform behavior.
- **Anarchist Community Solutions:** Encourage worker-owned co-ops, enabling local groups to self-govern ride-hailing or delivery services (Ostrom 1990).

Outcome: This layered approach merges dynamic innovation with social safeguards, supplemented by region-specific pilot projects. In California, for instance, Proposition 22

(State of California 2020) exempts ride-share drivers from typical employee status. Rather than wholly accept or reject Prop 22, a data-based approach would refine its provisions over time, adapting if workers face exploitation or if constraints hamper innovation.

5. Example Two: Digital Taxation, Harnessing Global and Local Tools

5.1 The Problem

Tech giants such as Apple, Alphabet, and Microsoft earn considerable revenue worldwide but often book profits outside the jurisdictions where those revenues arise (TaxWatch 2021). Older tax systems, which rely on physical presence, fail to capture intangible flows of data and advertising revenue. Two blunt solutions frequently surface:

1. **Leniency:** Maintain low or zero digital taxes to attract tech investment, disregarding equity.
2. **Uniform High Taxes:** Impose hefty digital taxes that could reduce innovation incentives or raise costs for consumers.

5.2 Toolbox Fix

- **Capitalist Incentives:** Provide R&D tax credits to support tech development but institute a fair baseline tax on normal profits, ensuring a stable revenue stream.
- **Socialist Equity:** Introduce a modest data tax (e.g., 1% on user-related revenues) to fund public digital training or broadband access, following the template of the European Commission's proposed 3% levy on revenues from targeted advertising, digital intermediation, and the transmission of user data (European Commission 2018).
- **Libertarian Transparency:** Allow corporations to choose their tax domicile if they publicly disclose profit flows, enabling shareholders and users to hold them accountable.
- **Anarchist Localism:** Allocate part of the tax receipts to grassroots digital initiatives, community Wi-Fi or coding bootcamps, to foster local empowerment.

Outcome: Over time, these measures are refined via empirical data on compliance and investment. Current OECD/G20 agreements on a global minimum corporate tax (OECD/G20 2021) illustrate how multinational cooperation can address profit shifting. Although tech giants wield considerable lobbying clout, a harmonized global strategy is more resilient than unilateral efforts.

6. Example Three: AI Governance, A Polycentric Regulatory Sandbox

6.1 Context

AI now permeates sectors ranging from personal finance to urban infrastructure. Neither unregulated free-market AI nor centralized top-down mandates alone suffice to address the complex, fast-changing nature of AI systems. A polycentric approach with multiple layers of governance is crucial.

6.2 Toolbox Fix

- **Capitalist Incentives:** Use government-backed prizes or tax breaks for socially beneficial AI solutions, healthcare, sustainability, while enforcing liability laws to internalize AI-related risks.
- **Socialist Oversight:** Implement audits or licenses for high-stakes AI in areas like finance or healthcare. Publicly funded AI research can target domains the private sector neglects (Mazzucato 2013).
- **Libertarian Sandboxes:** Create zones where developers can trial AI systems under transparency requirements. Scale successful projects and revise or abandon failing ones.
- **Anarchist Local Oversight:** Encourage municipalities or neighborhoods to decide on sensitive uses, like facial recognition, through local deliberation and municipal approval requirements, as San Francisco did when it made every acquisition of surveillance technology subject to Board of Supervisors approval and barred city departments from using facial recognition outright (San Francisco Board of Supervisors 2019).

Outcome: Multiple layers, from international instruments (e.g., the EU AI Act, European Union 2024) down to local communities, promote both experimentation and accountability. Though major tech companies often lobby for minimal regulation, layered oversight plus local input and sandbox experimentation can ensure a balanced path forward.

7. Theoretical Foundations of a Contextual Toolbox

7.1 Elinor Ostrom (Polycentric Governance)

Elinor Ostrom showed that neither state monopoly nor pure private markets consistently manage shared resources optimally. Polycentric governance, where multiple authorities overlap, often outperforms a single central authority in addressing commons dilemmas

(Ostrom 1990, 2010). By analogy, gig work or digital taxation can benefit from federal, local, and community-based interventions, rather than top-down standardization.

7.2 Mariana Mazzucato (Public Purpose in Innovation)

Mazzucato argues the state is frequently a co-creator of markets rather than a mere fixer of failures, citing NASA, DARPA, and other public R&D that paved the way for private tech booms (Mazzucato 2013, 2018). This aligns with the toolbox: public missions can catalyze innovation, overcoming the simplistic public and private divide by merging entrepreneurial risk-taking with social objectives.

7.3 W. Brian Arthur (Complexity Economics)

Arthur's work on increasing returns highlights how early, often random advantages can lead to entrenched platforms or standards (Arthur 1994). Complexity economics recognizes that markets can exhibit multiple equilibria and path dependence, undercutting classical assumptions. A data-driven, flexible policy approach, employing pilot programs, rapid feedback, and adaptability, fits well with a complexity lens.

8. Why This Works (with a Data Perspective)

8.1 Context Sensitivity

A toolbox approach adapts across cultural and institutional landscapes. Policies that help gig workers in Jakarta may not suit Berlin. Consequently, monolithic formulas break down, while a mosaic of socialist, capitalist, libertarian, or local measures can accommodate local specifics (Rodrik 2007).

8.2 Pragmatism and Evidence

This is not merely theoretical. Evidence from economies that blend labor-market flexibility with robust welfare nets points toward more equitable distributions alongside contained unemployment, with Denmark the most closely studied case (Andersen and Svarer 2007; OECD 2021). Denmark's "flexicurity" model, combining deregulated hiring and firing with strong social support, has held unemployment within a comparatively narrow band, roughly 4.5 to 6.5% across the decade to 2025 (Statistics Denmark 2025), and has better inequality indicators than purely market-driven systems.

8.3 Continual Learning

In a rapidly changing global environment, iterative experimentation is vital (Appaya, Gradstein, and Mortimer 2020). If a digital-services tax hurts small startups, the rate or threshold can be revised. If local co-ops demonstrate strong performance, they can be expanded. Feedback loops allow prompt recalibration, reflecting the fluid nature of technological and economic shifts.

8.4 Balancing Innovation and Equity

Single-minded reliance on market forces can magnify inequality, while purely redistributive models risk curbing productive incentives. The toolbox approach strives for a middle path, spurring innovation through competition and entrepreneurship, yet preserving fairness through social benefits, open data rules, and community-based oversight.

9. Addressing Objections

1. **Politically Messy:** A hybrid of ideological tools can complicate legislative processes. Unions may dislike flexible gig zones, and tech conglomerates may resist AI audits. However, incremental, pilot-based successes can build broader support, once communities observe real improvements such as higher wages or robust public services.
2. **Coherence Is Lost:** Critics contend mixing policies from different ideologies undermines overall consistency. Yet coherence can stem from shared outcomes, like stable labor income or transparent AI deployment, rather than a single ideological premise (Rodrik 2007).
3. **Is This Just Centrism?** While centrism often seeks political compromise, the toolbox can be more radical. It might propose universal basic income (often considered left-wing) alongside libertarian regulatory sandboxes for emerging technologies. Efficacy within each unique context, not ideological purity or a watered-down midpoint, is the guiding principle.

10. Toward a Broader Synthesis

This paper offers a preliminary framework for reimagining economic thought in a world increasingly shaped by digital platforms and rapid innovation. Viewing ideologies as separate toolkits, and combining them to address gig labor, digital taxation, and AI governance, moves beyond rigid “-ism” debates toward nuanced, real-world solutions. However, this only scratches the surface:

- **Tech & Society:** Future iterations might explore AI ethics, requiring open-source audits and robust community control, blending Mazzucato's public missions with local democratic checks.
- **Cross-Disciplinary Fusion:** Economists can partner with sociologists, engineers, and designers to refine such hybrid policies, applying the toolbox concept not only to economics but also to climate action, fintech, and beyond.

While I see more questions than answers at this stage, that is precisely where the greatest potential lies. The contextual toolbox is a stepping stone for bridging diverse disciplines and forging new ground.

11. Policy Toolkit Examples (Beyond the Three Cases)

- **Climate Change, Carbon Pricing + Dividends:** Impose a market-based carbon tax to curb emissions, then reinvest part of the proceeds in infrastructure or distribute dividends to maintain public buy-in.
- **Government Transparency, Blockchain Solutions:** Adopt a blockchain registry for public procurement or land titles, drawing on libertarian-style decentralization to ensure tamper-proof records, thus reducing corruption.
- **Financial Inclusion, Cooperative Banking:** Let private banks and credit unions compete, but support public or community banks where private capital is reluctant to serve marginalized populations. This merges the efficiency of markets with local trust.

In each case, the principle remains the same: combine policy methods that yield tangible results, rather than defaulting to a single ideological stance.

12. Conclusion

Economics must evolve to keep up with surging technological change and social fragmentation. Clinging to outdated assumptions fosters a gap between theory and practice. Embracing a contextual toolbox, drawing from capitalism, socialism, libertarianism, and grassroots movements, can provide a more flexible, effective approach. The examples of gig labor, digital taxation, and AI governance illustrate that no single system can tackle today's complexities. However, a judicious blend of market incentives, social safety nets, localized experiments, and polycentric governance can adapt more quickly.

Yes, it is messy, but incremental pilots, careful data tracking, and iterative refinements can mitigate resistance from vested interests. Concrete successes, such as Denmark's flexicurity or municipal curbs on facial recognition, show that evidence-based policies can transcend

ideological deadlock. These insights align with Elinor Ostrom's polycentric framework, Mariana Mazzucato's public-purpose perspective, and W. Brian Arthur's complexity economics, each highlighting the need for beyond-the-usual solutions.

Still, this paper is merely an initial foray. As an undergraduate who has observed both tech entrepreneurship and emerging regulatory debates, I remain optimistic about new frontiers in open-source AI, robust ethical oversight, and green investments, all propelled by hybrid incentives. This contextual toolbox stands as an invitation, to economists, technologists, and policymakers, to collaborate, refine, and experiment. Our rapidly evolving world demands a diversity of tools, not old dogmas.

Sources

Andersen, Torben M., and Michael Svarer. 2007. "Flexicurity, Labour Market Performance in Denmark." *CESifo Economic Studies* 53, no. 3: 389 to 429.
<https://doi.org/10.1093/cesifo/ifm015>

Appaya, Sharmista, Helen Luskin Gradstein, and Mahjabeen Mortimer. 2020. *Global Experiences from Regulatory Sandboxes*. Fintech Note No. 8. Washington, DC: World Bank Group. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/912001605241080935>

Arthur, W. Brian. 1994. *Increasing Returns and Path Dependence in the Economy*. Ann Arbor: University of Michigan Press.

Crémer, Jacques, Yves-Alexandre de Montjoye, and Heike Schweitzer. 2019. *Competition Policy for the Digital Era*. Brussels: European Commission, Directorate-General for Competition. https://competition-policy.ec.europa.eu/about/europes-digital-future/shaping-competition-policy-era-digitisation_en

European Commission. 2018. "Proposal for a Council Directive on the Common System of a Digital Services Tax on Revenues Resulting from the Provision of Certain Digital Services." COM(2018) 148 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018PC0148>

European Union. 2024. *Regulation (EU) 2024/1689 Laying Down Harmonised Rules on Artificial Intelligence*. Official Journal of the European Union. <https://eur-lex.europa.eu/eli/reg/2024/1689/oj>

International Labour Organization. 2021. *World Employment and Social Outlook 2021: The Role of Digital Labour Platforms in Transforming the World of Work*. Geneva:

International Labour Office. <https://www.ilo.org/publications/flagship-reports/role-digital-labour-platforms-transforming-world-work>

Mazzucato, Mariana. 2013. *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. London: Anthem Press.

Mazzucato, Mariana. 2018. *The Value of Everything: Making and Taking in the Global Economy*. London: Penguin/Allen Lane.

OECD. 2019. *Measuring the Digital Transformation: A Roadmap for the Future*. Paris: OECD Publishing. <https://doi.org/10.1787/9789264311992-en>

OECD. 2021. *OECD Economic Surveys: Denmark 2021*. Paris: OECD Publishing. <https://doi.org/10.1787/86f7b2d9-en>

OECD/G20. 2021. “Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy.” OECD/G20 Inclusive Framework on BEPS, 8 October 2021. <https://www.oecd.org/en/about/news/announcements/2021/10/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.html>

Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

Ostrom, Elinor. 2010. “Beyond Markets and States: Polycentric Governance of Complex Economic Systems.” *American Economic Review* 100, no. 3: 641 to 672. <https://doi.org/10.1257/aer.100.3.641>

Anderson, Monica, Colleen McClain, Michelle Faverio, and Risa Gelles-Watnick. 2021. “The State of Gig Work in 2021.” Pew Research Center, 8 December 2021. <https://www.pewresearch.org/internet/2021/12/08/the-state-of-gig-work-in-2021/>

Rodrik, Dani. 2007. *One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*. Princeton: Princeton University Press.

San Francisco Board of Supervisors. 2019. “Administrative Code, Acquisition of Surveillance Technology,” Ordinance No. 103-19, City and County of San Francisco. <https://sfbos.archive.sf.gov/sites/default/files/00103-19.pdf>

State of California. 2020. “Proposition 22: Exempts App-Based Transportation and Delivery Companies from Providing Employee Benefits to Certain Drivers.” *Official Voter*

Information Guide. <https://vigarchive.sos.ca.gov/2020/general/propositions/22/title-summary.htm>

Statistics Denmark. 2025. "Sustainable Development Goals Indicator 8.5.2: Unemployment Rate." <https://www.dst.dk/en/Statistik/temaer/SDG/globale-verdensmaal/o8-anstaendige-jobs-og-oekonomisk-vaekst/delmaal-05/indikator-2>

TaxWatch. 2021. "Eight Tech Companies in the UK Avoided an Estimated £1.5bn in 2019." 2 June 2021. https://www.taxwatchuk.org/tech_companies_global_minimum_tax/

Abraham, Katharine G., John C. Haltiwanger, Kristin Sandusky, and James R. Spletzer. 2018. "Measuring the Gig Economy: Current Knowledge and Open Issues." NBER Working Paper 24950. <https://doi.org/10.3386/w24950>

Ayyagari, Meghana, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2019. "The Rise of Star Firms: Intangible Capital and Competition." World Bank Policy Research Working Paper 8832. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/957151556541265334>

The Empirical-Mythological Inverse Feedback Model

Data does not become useless in a distorted information environment. It becomes insufficient. A bidirectional method holds up better than a purely empirical one: empirical evidence filters mythological frameworks, and the frameworks that survive the filter read what the data alone leaves flat.

Data does not become useless when reality is manipulated. It becomes insufficient.

That is the reason for the empirical-mythological inverse feedback model. The name is awkward because the problem is awkward. In a distorted information environment the empirical signals still matter: trust surveys, bot activity, polling shifts, platform behavior, speech patterns, voting data, institutional confidence, market reactions. But those signals describe the surface of a process driven by symbols, fear, memory, status, humiliation, and collective narrative. A model that reads only the surface mistakes the smoke for the fire.

“Mythological” here does not mean false. It means the shared symbolic structures through which a group makes suffering, power, danger, belonging, and destiny intelligible. Jung called them archetypes. Plato, when he came to found his city, reached for a story rather than an argument: the myth of the metals in Book III of the *Republic*, a fiction the rulers tell so that citizens will accept the order they live under. Modern social science has its own vocabularies for the same difficulty: cultural cognition, the narrative policy framework, political myth, social identity, moral foundations, collective memory. The words differ. The problem is the same. Human beings do not process public life as isolated fact machines.

The model has two movements.

The first movement runs from empirical data to symbolic claim. Start with the measurable layer. Do not begin with a myth and go hunting for proof. Begin with observed behavior: trust collapse after a scandal, sudden support for a strongman, refusal to accept correction, fear clustered around migration, technology, crime, sect, class, or national humiliation. Then ask which symbolic structures appear to organize that behavior.

The symbolic claim has to risk failure. “The savior archetype is active” is not enough. What would count as evidence? Increased support for personalist leadership during institutional distrust? Language that frames politics as rescue rather than representation? Greater tolerance for emergency powers? Reduced interest in procedural constraint? If those indicators do not appear, the claim is discarded or revised.

The second movement runs back from symbolic claim to empirical interpretation. Once a symbolic structure survives testing, it can help read new data. A spike in authoritarian preference may not be only a policy response. It may be the activation of rescue politics under humiliation. A conspiracy wave may not be only ignorance. It may be a way to restore agency when institutions have become illegible. A disinformation campaign may spread not because its claims are credible, but because it names an injury the audience already carries.

That is the inverse move. Data filters myth. Myth, once filtered, explains patterns in data that data alone leaves flat.

The danger is obvious. Without discipline the model becomes pseudoscience: it names archetypes with theatrical confidence and stops testing anything. That version deserves to be rejected.

So the method needs rules.

First, every symbolic claim must be operationalized. If loss of agency is doing the explanatory work, specify observable proxies: language of powerlessness, demand for punitive leadership, withdrawal from civic participation, attraction to simplified enemies, survey responses about control.

Second, every symbolic claim must compete against non-symbolic explanations. Material insecurity, party identity, media exposure, education, age, religion, geography, and institutional performance may account for the pattern better. The symbolic layer earns its place only if it adds explanatory power once those are in the model.

Third, the method must document what failed. A serious research program records the narratives it discarded. If every myth survives, the filter is fake.

Fourth, the model must stay local before it becomes general. The savior figure in one society is not automatically the strong leader in another. Symbols travel, but they change shape through language, religion, class, colonial memory, and state form.

A concrete case makes the demand clearer. Take vaccine refusal. A data-only model can track partisan identity, exposure to false claims, local infection rates, education, and trust in medical institutions. A symbolic layer asks which deeper structures give refusal its meaning: bodily sovereignty, distrust of state intrusion, purity, religious boundary, racialized medical memory, anti-elite identity, fear of dependency. The empirical phase tests which of those predicts behavior once the ordinary variables are held constant. The inverse phase then asks the harder question, and the existing evidence poses it sharply.

In a randomized trial of 1,759 American parents, Brendan Nyhan, Jason Reifler, Sean Richey, and Gary Freed found that information refuting the claimed link between the measles vaccine and autism did reduce belief in that link. None of the four messages they tested raised the stated intention to vaccinate, and the refutation lowered it among the parents whose attitudes toward vaccines were least favorable to begin with. The factual layer moved. The behavioral layer did not, and in the most resistant group it moved the wrong way.

That finding has to be read carefully, because the literature surrounding it is widely misreported. Earlier work by Nyhan and Reifler described a backfire effect, in which a correction left the targeted group more committed to the misperception than before. The effect turned out to be rare. Wood and Porter tested fifty-two issues across more than ten thousand subjects and found no correction capable of triggering it. Nyhan has since written that corrective information usually produces modest but real gains in accuracy, and that the persistence of misperception is better explained by the decay of those gains, and by contrary cues from elites and media, than by any recoil in the correction itself.

So the claim is not that facts fail. The claim is narrower and harder to answer. Facts often land on the factual layer and stop there. The correction settles the medical proposition while leaving untouched whatever the refusal was carrying: a judgment about who may enter the body, who has lied before, who is being asked to trust whom. The gap between corrected belief and unchanged conduct is exactly where a symbolic layer would have to earn its place, and it is measurable.

The point is not to replace empirics with myth. The point is to stop assuming that empirics can read symbolic life without a theory of symbols.

Sovereignty raises the stakes. Borderless information operations do not only spread false claims. The RAND account of the contemporary Russian model describes something closer to saturation: high volume across many channels, rapid, continuous and repetitive, with no commitment to objective reality and none to internal consistency. A campaign built on those lines is not trying to win an argument. That such campaigns work by locating symbolic weak points is a hypothesis rather than a finding, and it is the hypothesis this model exists to test. The candidate weak points are humiliation, sectarian fear, lost greatness, corrupted elites, foreign puppetry, demographic panic, religious violation. A state defending only the factual layer may win the corrections and lose the public. A state defending only the mythic layer becomes propaganda itself. The difficult task is to defend shared meaning without falsifying reality.

That is why the model belongs inside the larger Project of Synthesis. It is not anti-empirical. It is model pluralism under context discipline. It lets different methods work where each is strongest, then forces them to answer to each other.

The model is not proven. It is a research program, and it has a first test. Choose several cases in which correction moved belief without moving conduct, code both the empirical and the symbolic variables, and ask whether the symbolic layer improves prediction after the ordinary variables are included. If it does not, the model shrinks. If it does, it earns more room.

That is the only way this idea stays alive without becoming mysticism with footnotes.

Sources

- Carl Jung, *The Archetypes and the Collective Unconscious*, Collected Works vol. 9 part 1, 2nd ed., Princeton University Press, 1969.
- Plato, *Republic*, Book III, 414b-415d.
- Dan M. Kahan, "Cultural Cognition as a Conception of the Cultural Theory of Risk," in *Handbook of Risk Theory: Epistemology, Decision Theory, Ethics, and Social Implications of Risk*, Springer Netherlands, 2012, 725-759.
https://doi.org/10.1007/978-94-007-1433-5_28
- Deborah Stone, *Policy Paradox: The Art of Political Decision Making*, 3rd ed., W.W. Norton, 2012.
- Emery Roe, *Narrative Policy Analysis: Theory and Practice*, Duke University Press, 1994.
- Chiara Bottici, *A Philosophy of Political Myth*, Cambridge University Press, 2007.
- Jonathan Haidt, *The Righteous Mind: Why Good People Are Divided by Politics and Religion*, Pantheon, 2012.
- Brendan Nyhan and Jason Reifler, "When Corrections Fail: The Persistence of Political Misperceptions," *Political Behavior* 32, no. 2 (2010), 303-330.
<https://doi.org/10.1007/s11109-010-9112-2>
- Brendan Nyhan, Jason Reifler, Sean Richey, and Gary L. Freed, "Effective Messages in Vaccine Promotion: A Randomized Trial," *Pediatrics* 133, no. 4 (2014), e835-e842.
<https://doi.org/10.1542/peds.2013-2365>
- Thomas Wood and Ethan Porter, "The Elusive Backfire Effect: Mass Attitudes' Steadfast Factual Adherence," *Political Behavior* 41, no. 1 (2019), 135-163.
<https://doi.org/10.1007/s11109-018-9443-y>
- Brendan Nyhan, "Why the Backfire Effect Does Not Explain the Durability of Political Misperceptions," *Proceedings of the National Academy of Sciences* 118, no. 15 (2021),

e1912440117. <https://doi.org/10.1073/pnas.1912440117>

- Christopher Paul and Miriam Matthews, “The Russian ‘Firehose of Falsehood’ Propaganda Model: Why It Might Work and Options to Counter It,” RAND Corporation, PE-198-OSD, 2016.
<https://www.rand.org/pubs/perspectives/PE198.html>

A World Made Equal: Universal Nuclear Proliferation as Security Paradox

Disarmament has failed on its own terms, and the failure is structural. Taking deterrence theory at its word, this essay argues for universal nuclear proliferation under rigorous international oversight as the more durable alternative, and answers the strongest objections: accident risk, the proxy loophole, and oversight defection.

Author's Note: This piece originated as a policy paper for a nuclear security course. It received an A- alongside a notable professor critique: "A bold and interesting op-ed... dangerous ideas notwithstanding." It is presented here as a structured thought experiment, an effort to push realist deterrence theory to its logical limit to expose why the current arms-control architecture continues to fail.

Abstract

For decades, the international community has pursued universal nuclear disarmament as the primary route to global security. This paper argues that the approach has failed on its own terms and that the failure is structural rather than contingent. Drawing on realist international relations theory, specifically Kenneth Waltz's deterrence logic and Scott Sagan's models of nuclear acquisition, the paper develops a structured argument for universal nuclear proliferation under rigorous international oversight as a more durable alternative.

The claim is not that proliferation is desirable in itself. The claim is that a universal regime aligns governance with the actual psychology of states rather than demanding that states transcend that psychology. The paper addresses the three most serious objections to this position: Sagan's organizational model of accident risk, the threat of fissile material diversion to non-state proxies, and the game-theoretic problem of oversight defection under a universal regime. It concludes with five policy recommendations for converting a world of universal capability into a world of strengthened accountability.

I. The Failure of the Disarmament Consensus

This paper is a structured argument, not an advocacy position. It takes the central premise of deterrence theory seriously and follows it to its limit, because the limit case exposes what the conventional non-proliferation consensus must assume in order to hold. If the argument is

wrong, it is wrong in ways that clarify why the current regime fails. If it is right, the implications are larger than the nuclear question itself.

For over half a century, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and subsequent arms-control frameworks have aimed to curb the spread of nuclear arms and eventually achieve universal disarmament. These efforts have largely failed to reach the promised land.

The NPT's fundamental bargain, in which nuclear-weapon states gradually disarm while non-nuclear states forgo weapons in exchange for access to peaceful nuclear technology, remains unfulfilled on both sides. Nuclear powers have modernized rather than retired their arsenals. Rising powers have questioned the order. States outside the NPT regime have nuclearized successfully. And the non-nuclear majority that complied with the bargain has received neither the promised disarmament nor, in many cases, the promised access to peaceful applications. The pattern is familiar from institutional analysis: a system that rewards compliance more than contribution. Non-nuclear states played by the rules. The rules did not deliver.

Realist theory offers an explanation for why this was predictable. Kenneth Waltz argued that states act primarily in their own self-interest, defined in terms of power and security, in an anarchic international system where no authority can enforce agreements from above. Scott Sagan's foundational analysis of why states build nuclear weapons identifies three drivers: security concerns, domestic political pressures, and normative-symbolic considerations. All three resist the logic of voluntary disarmament. A state facing a nuclear-armed adversary does not calculate "the others will follow my example." It calculates "the others might not, and if they do not, I am exposed."

Rather than striving for a world in which states transcend these fears, the more practical question is whether there exists an institutional architecture that works with state psychology rather than against it. Institutions that demand actors behave against their structural incentives do not reform those actors. They generate hypocrisy, evasion, and eventually open defection.

II. The Case for Universal Proliferation

The argument here is a reframe: if disarmament cannot be achieved, the next best outcome may be universalization. Universal nuclear proliferation, accompanied by rigorous international oversight, strict safety standards, and transparent regulatory frameworks, could paradoxically reduce incentives for aggression while strengthening the institutional architecture that currently exists only to manage a small number of nuclear powers.

The logic of nuclear deterrence, born in the Cold War, holds that mutual vulnerability prevents nuclear-armed states from engaging in large-scale wars. Thomas Schelling formalized the insight: the power to hurt, held in reserve and made credible, restructures the bargaining environment between adversaries more reliably than the power to win. The fear of mutual assured destruction prevented the United States and the Soviet Union from allowing their rivalries to descend into direct nuclear conflict for four decades. The logic has operated asymmetrically since: weaker states facing nuclear-armed adversaries have repeatedly sought their own deterrents to avoid coercion or invasion. Nuclear weapons create a balance of terror that has historically helped maintain peace between the states that possess them.

Waltz famously argued that “the gradual spread of nuclear weapons is better than either no spread or rapid spread.” As more states acquire nuclear weapons, he reasoned, the likelihood of large-scale war decreases, because every nuclear-armed state becomes more cautious. If a state like North Korea has found a degree of security and autonomy through nuclearization, deterring a regime-change intervention that would otherwise have been feasible, the question this paper poses is direct: what happens when this logic is applied universally?

Granting all states equal access to nuclear capability eliminates the current power imbalance in which a handful of nuclear states wield disproportionate coercive leverage over the non-nuclear majority. The nuclear divide is not simply a difference in capability. It is the point at which functional difference hardens into permanent hierarchical rank. Nuclear haves and have-nots occupy different positions in a hierarchy of sovereignty, where the security of non-nuclear states is permanently conditional on the restraint of nuclear ones. With universal proliferation comes a grim equality: if every state can retaliate with nuclear force, no state can rationally use it first.

The Preventive Strike Hazard

A valid critique of this framework is the acute instability generated during the transition phase. As a non-nuclear state moves toward an operational deterrent, its regional rivals face a window of vulnerability, creating a strong structural incentive for pre-emptive conventional or nuclear strikes (historically demonstrated by Israel’s strikes on Osirak in 1981 and Al-Kibar in 2007).

To prevent transition-era warfare, a universal regime would require multi-lateral security umbrellas and IAEA enforcement guarantees during a state’s “onboarding” period, preventing adversaries from exploiting the temporary asymmetry.

III. Historical Precedents

History offers tentative support for the deterrence claim. During the Cold War, the United States and the Soviet Union came perilously close to nuclear war on several occasions, most famously during the Cuban Missile Crisis of 1962. And yet they consistently pulled back from the brink. The fear of mutual annihilation was powerful enough to produce caution and, eventually, arms-control agreements.

If two bitterly opposed superpowers managed to refrain from nuclear use for four decades, a globally distributed deterrent architecture might create an even more stable equilibrium by removing the asymmetry that generates the most dangerous instabilities.

Historical Case Studies in Deterrence

Case 1: Ukraine (1994) Security Strategy: Surrendered Soviet-era nuclear arsenals in exchange for Budapest Memorandum paper guarantees from major powers. **Outcome:** Security assurances failed completely; Ukraine was invaded by Russia in 2014 and 2022.

Case 2: North Korea (2000s to present) Security Strategy: Acquired an indigenous, functional nuclear deterrent despite extreme international sanctions. **Outcome:** Successfully deterred Western-led regime-change interventions that targeted non-nuclear peers (Iraq and Libya, for instance).

The case of Ukraine is instructive. Ukraine gave up the nuclear weapons it inherited from the Soviet Union under the 1994 Budapest Memorandum, receiving security assurances from the United States, the United Kingdom, and Russia in exchange. When Russia annexed Crimea in 2014 and launched a full-scale invasion in 2022, those assurances proved worthless. Ukraine's vulnerability was direct and unambiguous: the state that gave up its deterrent found itself unable to prevent territorial dismemberment. The lesson states drew from this case, and drew correctly under realist logic, was that paper security assurances do not substitute for material deterrence.

IV. Organizational Risk and the Proxy Loophole

The most serious scholarly objection to Waltz's deterrence optimism comes from Sagan's organizational model. Sagan argues that states do not always behave as rational unitary actors. Real organizations, including military bureaucracies and nuclear command structures, have limited information-processing capacity, competing internal interests, standard operating procedures that adapt poorly to novel situations, and documented tendencies toward error under stress.

Sagan's most important empirical contribution is the documentation of historical near-misses:

- **1979 (NORAD Computer Error):** A training tape simulating a full Soviet attack was mistakenly loaded into live NORAD systems, generating launch alerts across strategic command.
- **1983 (Petrov Incident):** Soviet officer Stanislav Petrov correctly identified a satellite alarm as a false signal, overruling automated launch protocols.
- **1995 (Black Brant Rocket):** A Norwegian scientific rocket triggered Russian early-warning radar, resulting in the activation of the *Cheget* nuclear briefcase for the only confirmed time in post-Soviet history.

These were close calls caused by the ordinary failure modes of large organizations under time pressure. If the nuclear club expands from nine states to ninety, the number of organizational systems that must function flawlessly increases exponentially.

Addressing Structural Proliferation Risks

- **Risk 1: Organizational and Command Accidents (Sagan Model).** *Institutional Solution:* Mandatory universal sharing of early-warning systems, Permissive Action Links (PALs), and IAEA-certified fail-safe protocols.
- **Risk 2: Covert Transfers to Non-State Proxies and Terrorists.** *Institutional Solution:* Universal isotopic nuclear forensics combined with strict, non-negotiable state liability for all fissile material.
- **Risk 3: Pre-emptive Regional Strikes During Transition.** *Institutional Solution:* Multi-lateral international security guarantees and IAEA umbrellas during a state's onboarding phase.

The Non-State Actor and Proxy Vector

In addition to internal accidents, universal diffusion creates a critical proxy vulnerability: the risk that a state might covertly transfer fissile material to non-state actors or terrorist networks to execute unattributable strikes.

To counteract this, a Universal Proliferation Treaty must institute absolute, non-negotiable strict-liability frameworks. Every warhead and nuclear fuel component must carry unique nuclear forensic signatures. Under this protocol, any detonation or dirty bomb traced back to a sovereign state's enriched material would trigger immediate, collective military retaliation against that host state, removing any illusion of proxy anonymity.

The answer to these vulnerabilities runs through institutional infrastructure. The NPT regime has perversely ensured that non-nuclear states were denied access to the safety and command-and-control technologies developed by major powers over decades of expensive trial and error. Under a universal regime, safety infrastructure becomes a mandatory precondition. No state receives formal recognition of its nuclear status without demonstrating certified command-and-control systems, secure storage, and verified civilian oversight.

V. The Oversight Defection Problem

A second serious objection is game-theoretic. The current non-proliferation regime is enforced by a small number of powerful states. Under universal proliferation, this enforcement structure collapses: if every state has nuclear capability, why would states comply with international oversight when coercive power has been equalized away?

This is the defection problem. Under the current regime, a state that defects from oversight creates an asymmetry it can exploit. Under universal proliferation, however, a state that defects cannot exploit that defection without threatening every other state simultaneously.

The retaliatory threat is no longer held by one or two global powers; it is held by the entire international system. The incentive to defect shrinks because the benefit of defection, asymmetric dominance, no longer exists.

Research by Nina Tannenwald on the nuclear taboo supports this analysis. The normative weight against nuclear use is not a function of the small size of the nuclear club; it is a function of the universal interest in non-use. Universal proliferation would amplify the normative weight behind the taboo, making every state a direct stakeholder in its enforcement.

VI. Policy Recommendations for a Universal Order

The institutional architecture required to make universal proliferation work requires deliberate construction across five core policies:

1. **Replace the NPT with a Universal Proliferation Treaty (UPT):** Replace the discriminatory two-tier system with universal obligations and universal rights, specifying IAEA certification as the condition for recognized deterrence status.
2. **Expand and Empower the IAEA:** Broaden the IAEA's mandate from civilian verification to comprehensive oversight of military safety: unannounced command inspections, security certification, and isotopic nuclear forensic tracking.

3. **Establish Standardized Command-and-Control Protocols:** Mandate international safety standards, fail-safe locks (Permissive Action Links), and fail-safe communications lines across all participating militaries.
4. **Enforce Mutual Assured Transparency:** Enact mandatory public declarations of inventories, delivery systems, and alert statuses, treating secret build-ups with immediate collective sanctions.
5. **Incentivize Civilian Nuclear Interdependence:** Expand assistance for low-carbon civilian nuclear energy. As Adam Smith argued regarding commerce, deep economic and technological interdependence creates material stakes in maintaining regional stability.

VII. A More Equal Nuclear Order

Universal proliferation may seem more dangerous than the current arrangement. It is not, once the current arrangement is honestly assessed: a small group of powers holding disproportionate leverage, a non-nuclear majority living under conditional sovereignty, and an arms-control framework that has failed for fifty years.

Making nuclear capability universal equalizes the geopolitical field. Every state faces the same cost of aggression. Distributed deterrence replaces concentrated vulnerability, building a global security system resting on the equal stake of all participants rather than the selective restraint of a few.

Sources

1. Sagan, Scott D. *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons*. Princeton University Press, 1993.
2. Waltz, Kenneth N. *The Spread of Nuclear Weapons: More May Be Better*. Adelphi Papers, no. 171, International Institute for Strategic Studies, 1981.
3. Schelling, Thomas C. *The Strategy of Conflict*. Harvard University Press, 1960.
4. Budjeryn, Mariana. *Inheriting the Bomb: The Collapse of the USSR and the Nuclear Disarmament of Ukraine*. Johns Hopkins University Press, 2022.
5. Tannenwald, Nina. *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945*. Cambridge University Press, 2007.
6. Mearsheimer, John J. *The Tragedy of Great Power Politics*. W.W. Norton, 2001.

This essay is also published on Substack: <https://sanadalrashidi.substack.com/p/a-world-made-equal-universal-nuclear> and on X:

<https://x.com/sanadAlrashidi/status/2084799993378918760>

Adaptive Coherence as Institutional Design: A Framework for Governing Under Uncertainty

Stable systems do not need fixed outputs. They need durable meta-principles, legitimate procedures, and revision the public can read. The framework is tested against Vision 2030 and AI governance, and it does not resolve cleanly.

Stable institutions do not need fixed outputs. They need stable standards for changing outputs.

That distinction sounds small until a system enters stress. A brittle institution treats its current instruments as proof of seriousness. It keeps the law, the target, the subsidy, the rule, the form. Conditions change around it. The institution survives on paper while its function thins out. Then the rupture comes and everyone calls it unpredictable.

Adaptive coherence locates stability somewhere else. The stable layer is not the instrument. It is the principle, the review procedure, the evidence standard, the accountability chain, and the public explanation that makes revision legible. The instrument can change because the frame does not.

This answers a weakness in the contextual toolbox argument. Rodrik states the methodological version of that argument plainly: economics is a collection of models rather than one model, and the work is selecting the model that fits the case. The political objection follows immediately. If policy tools are chosen by context, what prevents the powerful from calling every preference “contextual”? The answer cannot be taste. It has to be architecture. Adaptive coherence is the architecture that keeps contextual policy from becoming elite improvisation.

Institutional theory already gives the descriptive pieces. Pierson explains path dependence: institutions become sticky because actors adapt around them, beneficiaries organize, and alternatives become costly. Streeck and Thelen, and after them Mahoney and Thelen, explain how institutions move without formal rupture, through displacement, layering, drift, and conversion. North shows why formal rules cannot be separated from informal constraints and from the way both are enforced. Streeck shows how the pressures of democratic capitalism push states away from their distributive commitments. These accounts describe how institutions persist and move. Adaptive coherence adds the prescriptive question: where should continuity live?

Not all continuity is worth preserving. A tax rule can persist while the economic base it was designed for disappears. A financial regulator can keep its formal mandate while the risk

moves into instruments it barely understands. A development plan can keep its slogans while its projects stop serving the goal. This is false stability: form without function.

The opposite error is flexibility without discipline. That version loves pilots, sandboxes, experiments, revisions, consultations, and roadmaps. It can sound modern while giving regulated actors exactly what they want: constant renegotiation without a stable public standard. Flexibility is not a virtue by itself. Sometimes it is capture with better vocabulary.

Adaptive coherence requires four protections.

First, revision criteria have to exist before the revision. A policy should name the evidence that would trigger review, the threshold that would count as failure, and the process by which replacement happens. If the standard appears only after the preferred result is chosen, the process is not adaptive. It is decorative.

Second, the review process has to be visible. Public visibility does not solve capture, but secrecy makes capture cheap. Reasons must be stated. Evidence must be available. Revisions must be contestable by actors who do not benefit directly from the revision.

Third, accountability chains must outlast leadership. If every new administration can redefine the meta-principles, the stable layer is not stable. Long-horizon institutions need memory outside the current office: parliamentary oversight, judicial review, audit bodies, international reporting, public dashboards, and records that successors cannot quietly erase. Acemoglu and Robinson are useful here in their narrow form rather than their grand one. Where power is concentrated in a small elite and lightly constrained, a review clause is a document rather than a mechanism, because nobody outside the elite can force it to run.

Fourth, the informal culture has to treat revision as maintenance rather than betrayal. North matters here. A system can write review clauses into law and still punish anyone who uses them. Adaptive coherence is partly legal design and partly institutional habit.

Vision 2030 is useful as a live case because it tests the distinction under pressure. Its declared pillars, a vibrant society, a thriving economy, and an ambitious nation, have not moved, and neither have its higher-order commitments to diversification, private-sector employment, tourism, logistics, mining, and non-oil growth. The instruments beneath them have moved a great deal. The tourism target of 100 million annual visits by 2030 was reached in 2023, years ahead of the deadline, and was then raised to 150 million. Giga-project pacing has been recalibrated in public rather than quietly: Saudi Arabia's finance minister, Mohammed Al-Jadaan, has stated that where a strategy or project no longer makes sense to continue, there will be no hesitation to change it, stop it, or extend it. Program priorities, investment sequencing, sector targets, and delivery metrics have shifted with it.

This can be read as adaptive coherence, a frame holding steady while instruments are corrected against evidence. It can also be read as central planning revising itself faster than the public can evaluate, with the revision announced rather than adjudicated. Both readings have to remain in the analysis, and the case does not settle which one is right.

Deciding between those two readings requires two kinds of evidence rather than one. The official annual reports carry the internal account: targets, progress, revised programs, delivery structures. Independent assessment carries the external account: labor market outcomes, fiscal exposure, project feasibility, private investment, regional inequality, and institutional capacity. The framework gets stronger when it does not force the case to flatter the theory.

AI governance is the harder test. The EU AI Act is the first comprehensive legal framework for artificial intelligence anywhere, and it regulates horizontally, across sectors rather than industry by industry. It creates risk categories, provider obligations, documentation duties, human oversight requirements, and a distinct regime for high-risk systems. This is serious institutional work. It also shows the danger of output-level coherence. A law written around today's system categories may struggle when model capabilities, deployment patterns, and infrastructure dependencies change faster than the revision cycle.

The Act anticipated part of the problem. Article 112 requires the Commission to assess, once a year, whether the list of prohibited practices and the list of high-risk use cases need amending, and to report those findings to the Parliament and the Council. That is a revision criterion written before any particular revision was wanted, which is close to what adaptive coherence demands.

The first major amendment did something else. In May 2026 the Council and the Parliament agreed to postpone the obligations for stand-alone high-risk systems from 2 August 2026 to 2 December 2027, and the obligations for high-risk systems embedded in regulated products to 2 August 2028. The stated reason was that the standards, guidance, and compliance tools needed to make those obligations workable had not arrived on schedule. Civil society organizations read the same decision as the removal of protections before they had ever applied, arrived at without a proper impact assessment and under sustained industry pressure. Both readings can be true at once, and the case is instructive precisely because they are not easy to separate. A postponement can be technically justified and still lower the standard.

The structural lesson is narrower than either reading. The Act fixed its review criteria for the content of the rules and left the commencement date to ordinary legislative amendment, and the date was what moved, less than three months before the obligations were due. A meta-

level architecture that stabilizes the criteria while leaving the timetable open has not stabilized very much.

The answer is not “less regulation.” That is lazy. The answer is a meta-level architecture inside regulation: technology-agnostic harm criteria, independent audit capacity, automatic review triggers when capabilities shift, public reporting, and rules that follow control rather than formal labels. Article 25 of the AI Act already gestures toward this by treating a deployer, importer, distributor, or third party as a provider once it substantially modifies a high-risk system or changes the intended purpose of a system so that the system becomes high-risk. That is the right instinct, and Schaake’s account of privatized governance explains why it matters: when the capability that needs governing sits inside private infrastructure, a rule that tracks formal labels will never reach the actor who actually decides. Accountability has to follow power over the system.

Adaptive coherence therefore sits between two failures. It rejects brittle institutions that confuse continuity with competence. It also rejects improvisational institutions that confuse revision with legitimacy.

The difficult part is political. Adaptive coherence asks the powerful to accept stable procedures that may later constrain their preferred adaptations. No architecture can guarantee that. It can only make betrayal more visible.

That may be enough to matter. In institutional design, visibility is not innocence. It is friction.

Sources

- Paul Pierson, *Politics in Time*, Princeton University Press, 2004.
- Paul Pierson, “Increasing Returns, Path Dependence, and the Study of Politics,” *American Political Science Review* 94, no. 2 (2000), 251-267.
- Wolfgang Streeck and Kathleen Thelen, eds., *Beyond Continuity: Institutional Change in Advanced Political Economies*, Oxford University Press, 2005.
- James Mahoney and Kathleen Thelen, eds., *Explaining Institutional Change: Ambiguity, Agency, and Power*, Cambridge University Press, 2010.
- Douglass C. North, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, 1990.
- Wolfgang Streeck, *Buying Time: The Delayed Crisis of Democratic Capitalism*, Verso, 2014.
- Dani Rodrik, *Economics Rules: The Rights and Wrongs of the Dismal Science*, W.W. Norton, 2015.

- Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, Crown, 2012.
- Marietje Schaake, *The Tech Coup: How to Save Democracy from Silicon Valley*, Princeton University Press, 2024.
- Regulation (EU) 2024/1689, Artificial Intelligence Act, Articles 25 and 112.
<https://eur-lex.europa.eu/eli/reg/2024/1689/oj>
- Council of the European Union, “Artificial intelligence: Council and Parliament agree to simplify and streamline rules,” 7 May 2026.
<https://www.consilium.europa.eu/en/press/press-releases/2026/05/07/artificial-intelligence-council-and-parliament-agree-to-simplify-and-streamline-rules/>
- European Center for Not-for-Profit Law, “AI Omnibus: Deregulation at the Expense of Fundamental Rights,” 11 May 2026. <https://ecnl.org/news/ai-omnibus-deregulation-expense-fundamental-rights>
- Saudi Vision 2030 Annual Reports. <https://www.vision2030.gov.sa/en/annual-reports>
- “Saudi Arabia nears 2030 tourism target as visitor numbers hit 122m in 2025,” *Arab News*, 21 January 2026. <https://www.arabnews.com/node/2630117>
- “No room for ego as Saudi giga projects face continual reassessment: Al-Jadaan,” *Zawya*. <https://www.zawya.com/en/projects/construction/no-room-for-ego-as-saudi-giga-projects-face-continual-reassessment-al-jadaan-tr40kejl>

On the Limits of Pure Logic, Mathematical Formalism, and the Modeling of Knowledge

A formal system can preserve validity once its axioms are given, and it can do nothing to justify them. The boundary runs through Gödel, Wittgenstein, and Popper, through the Islamic arguments over demonstration and legal analogy, and into contemporary machine learning, where the same confusion returns at scale.

Pure logic becomes ideology when it forgets that it rests on what it cannot generate from inside itself.

That does not make logic weak. It makes logic honest. A formal system can preserve validity once its axioms are given. It cannot justify the world, the language, the purpose, or the relevance of those axioms by formal means alone. The frame has to enter from somewhere.

Gödel made the wound visible inside mathematics itself. In 1931 he proved that any consistent formal system whose axioms can be mechanically listed, and in which a modest amount of arithmetic can be carried out, contains statements it can neither prove nor refute, and that no such system can establish its own consistency by its own means. Wittgenstein drew the boundary from another direction: the limits of what can be said inside a language are not the limits of what can matter. Popper then gave scientific method a discipline of exposure. A claim becomes scientific not by sounding precise, but by risking failure.

Islamic philosophy and kalam had already lived with a version of this problem. The point is not to make a crude priority claim, as if Al-Ghazali “anticipated” every later European move or Ibn Rushd secretly wrote modernity in advance. That kind of historical chest-beating weakens the argument. The stronger claim is more precise: Islamic intellectual traditions developed sustained procedures for reasoning under conditions where demonstration, revelation, language, causality, law, and context could not be collapsed into one method.

Al-Kindi’s insistence that truth be accepted from whatever source conveys it, Al-Farabi’s account of the relation between language and political order, Ibn Sina’s analysis of self-awareness, Ibn Rushd’s defense of demonstration, and Al-Ghazali’s attack on metaphysical overreach all belong to a tradition that refused to treat method as self-sufficient. The disagreements matter more than the phrase “Islamic philosophy.” This was not one view. It was a field of disciplined conflict over what reason can do, where it stops, and what happens at the boundary.

Al-Ghazali is often flattened into an enemy of reason. That reading is too easy. His critique of the philosophers was not a rejection of logic as such. It was an attack on the illegitimate

extension of demonstrative certainty into domains where the premises had not earned it. The same discipline governs his legal theory. In *al-Mustasfa*, a ruling does not travel to a new case until the operative cause has been verified as present in that case, the step the jurists call *tahqiq al-manat*. That is not anti-rationalism. It is disciplined transfer.

This matters for contemporary modeling. Machine learning often repeats the error in a new technical form. A model formalizes a target, optimizes against data, and then presents the output as if the target were the phenomenon itself. But the target variable is a human decision. The data boundary is a human decision. The cost of a false positive weighed against the cost of a false negative is a human and institutional decision. The formal system can optimize inside those decisions. It cannot justify them.

Algorithmic discrimination is therefore not only a bias problem. It is a context problem. A model trained on historical hiring data may reproduce past exclusion even when the optimization is technically clean. A risk model in criminal justice may look precise while importing policing patterns, plea bargaining structures, surveillance intensity, and neighborhood exposure into the target variable. The formal result arrives dressed as neutrality. The context it stripped away returns as harm.

The dispute over recidivism scoring showed how little formalism settles on its own. Once groups differ in the underlying rate of the outcome being predicted, a risk score cannot be calibrated within groups and equal in its error rates across groups at the same time, except in degenerate cases. That is a theorem, not a defect of implementation. Two parties can therefore be arithmetically correct and still disagree, because what divides them is which error a society is willing to distribute, and that question does not live inside the model.

The same error appears in economics when models migrate too quickly. A model can clarify a mechanism by stripping context. That is the power of abstraction. But the stripped context may be where the policy question lives. The problem is not abstraction. The problem is forgetting the cost of abstraction after the result travels.

The remedy is not to abandon formalism. That would be childish. The remedy is a rule of transfer.

First, name the axiom. Every model should state the assumptions that make its inference possible. Not as ritual. As exposure.

Second, name the excluded context. A model should say what it had to ignore to become tractable.

Third, test context-fit before transfer. A result does not travel because it is elegant. It travels only when the receiving case preserves the conditions that mattered in the original.

Fourth, keep contradiction visible. When a model fails under a new context, that failure is not embarrassment. It is information about the boundary of the model.

This is where *tahqiq al-manat* belongs in a modern argument, provided the resemblance is not pressed into an equivalence. It is not the same thing as model validation. It is an older procedural cousin resting on the same refusal: an inference does not become portable by being formally clean, and the receiving case has to be examined before the rule arrives.

The canon problem follows. Modern curricula often teach Greek philosophy, European rationalism, analytic philosophy, and mathematical formalism as if the history of reason moved through a narrow corridor. Islamic philosophy appears, if at all, as transmission: a bridge between Greece and Europe. That is not only historically thin. It damages contemporary thought. It hides traditions that treated reason as powerful without making it sovereign over every domain.

The point is not inclusion for politeness. The point is method. A tradition that argued for centuries about demonstration, analogy, causality, language, law, revelation, and context has resources for a world drowning in models that cannot explain their own authority.

Formalism should remain. It disciplines thought. But formalism should lose its imperial mood. A formal system is strongest when it knows what it cannot carry.

The unanswered question is institutional again. Which fields have the humility to build context checks into their methods before failure forces the lesson from outside?

Sources

- Kurt Gödel, “Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme I,” *Monatshefte für Mathematik und Physik* 38 (1931), 173-198. <https://doi.org/10.1007/BF01700692>
- Al-Kindi, *Al-Kindi's Metaphysics: A Translation of Ya'qub ibn Ishaq al-Kindi's Treatise "On First Philosophy"*, trans. Alfred L. Ivry, State University of New York Press, 1974.
- Al-Farabi, *Kitab al-Huruf*, ed. Muhsin Mahdi, Dar el-Machreq, Beirut, 1969.
- Al-Farabi, *Al-Farabi on the Perfect State: Abu Nasr al-Farabi's Mabadi' Ara' Ahl al-Madina al-Fadila*, revised text, introduction, translation, and commentary by Richard Walzer, Clarendon Press, 1985.

- Ibn Sina, *Ibn Sina's Remarks and Admonitions: Physics and Metaphysics*, trans. Shams C. Inati, Columbia University Press, 2014.
- Ibn Rushd, *Averroes' Tahafut al-Tahafut (The Incoherence of the Incoherence)*, trans. Simon Van den Bergh, 2 vols., Luzac, 1954.
- Al-Ghazali, *The Incoherence of the Philosophers*, trans. Michael E. Marmura, 2nd ed., Brigham Young University Press, 2000.
- Wael B. Hallaq, *A History of Islamic Legal Theories: An Introduction to Sunni Usul al-Fiqh*, Cambridge University Press, 1997.
- Dag Nikolaus Hasse, *Success and Suppression: Arabic Sciences and Philosophy in the Renaissance*, Harvard University Press, 2016.
- Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, trans. D. F. Pears and B. F. McGuinness, Routledge and Kegan Paul, 1961.
- Karl Popper, *The Logic of Scientific Discovery*, Hutchinson, London, 1959.
- Solon Barocas and Andrew D. Selbst, "Big Data's Disparate Impact," *California Law Review* 104 (2016), 671-732. <https://doi.org/10.15779/Z38BG31>
- Jon Kleinberg, Sendhil Mullainathan, and Manish Raghavan, "Inherent Trade-Offs in the Fair Determination of Risk Scores," *Proceedings of Innovations in Theoretical Computer Science*, 2017. <https://arxiv.org/abs/1609.05807>
- Alexandra Chouldechova, "Fair Prediction with Disparate Impact: A Study of Bias in Recidivism Prediction Instruments," *Big Data* 5, no. 2 (2017), 153-163. <https://doi.org/10.1089/big.2016.0047>
- Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*, St. Martin's Press, 2018.
- Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism*, NYU Press, 2018.

Collective Confusion as Civilizational Phase: Beyond Misinformation into Structural Epistemic Collapse

The epistemic crisis is not bad information inside a working system. It is a phase in which the shared ground for assessing any claim has collapsed, and the tools built to correct false content cannot reach a problem they were never designed to address.

The crisis is not that people believe too many false things. That is the surface. The deeper problem is that many publics no longer share the procedures by which a claim becomes more or less believable.

Misinformation assumes a working epistemic floor. A false claim appears, a correction arrives, and the public can in principle update. That model still matters. It works for many cases. It does not describe the phase we are entering. In the confusion phase, correction reaches people after trust in the corrector has already collapsed. The issue is no longer content quality alone. The issue is verification itself.

C. Thi Nguyen's distinction between epistemic bubbles and echo chambers sets the boundary. A bubble is a structure from which relevant voices have been left out, often by accident. An echo chamber is a structure from which relevant voices have been actively excluded and discredited. The difference is practical rather than decorative: exposure to outside evidence can break a bubble, and the same exposure can harden a chamber. Collective confusion goes further than either. It names the condition in which verification institutions compete inside an environment that has already learned to read every act of verification as factional performance.

Four forces drive the phase.

First, cognitive overload produces resignation. The familiar story says that more information makes citizens more critical. That is too clean. At high volume, information does not reliably produce skepticism. It produces exhaustion. People stop judging claim by claim and outsource trust to whatever system stands closest: the platform, the influencer, the party, the group chat, the confident voice that arrives before the others. Arendt named the endpoint. In a late interview she observed that if everybody always lies to you, the consequence is not that you believe the lies, but that nobody believes anything any longer, and that a people which can no longer believe anything cannot make up its mind. The political function of falsehood is not persuasion alone. It is the removal of the ground on which judgment would have to stand.

Second, borderless influence has become a geopolitical instrument. RAND's "firehose of falsehood" model characterized contemporary Russian propaganda by four properties: high volume across many channels, rapid and continuous repetition, no commitment to objective reality, and no commitment to consistency. The aim is not to win each argument. It is to make stable factual ground look naive. This is cheaper than territorial coercion and harder to attribute than conventional aggression. A state no longer needs to own the public sphere it wishes to damage. It needs only to inject enough contradiction into it.

Third, platforms convert epistemic asymmetry into infrastructure. Zuboff's name for the condition is epistemic inequality: unequal access to learning imposed by hidden mechanisms of information capture, production, analysis, and control, or, in her own formulation, the widening abyss between what people can know and what can be known about them. The platform models the user's susceptibility with a precision the user cannot return. Confusion is therefore not merely an accident inside such a system. It becomes tolerable, and at intervals profitable, when attention, anger, fear, and identity threat hold users in place. The public becomes legible to the platform long before the platform becomes legible to the public.

Fourth, institutional trust is no longer eroding in one place at a time. Gallup's October 2025 reading placed American trust in mass media at 28 percent, the first time the measure fell below 30 percent, down from 31 percent a year earlier, with 51 percent among Democrats, 27 percent among independents, and 8 percent among Republicans. Edelman's 2026 Trust Barometer, drawn from roughly 34,000 respondents across 28 countries, reported that seven in ten people are unwilling or hesitant to trust someone whose values, background, or sources of information differ from their own. The OECD's 2024 trust survey, covering 30 member countries, found a larger share reporting low or no trust in their national government, 44 percent, than reporting high or moderately high trust, 39 percent, and treats trust as an operating condition of government rather than as a mood. None of these findings proves civilizational collapse. Together they describe a pattern that cannot be reduced to one bad newspaper, one election, or one platform.

The threshold claim needs discipline. A society has not crossed into collective confusion merely because people disagree, distrust elites, or believe false things. Disagreement is normal. Distrust is often rational. The threshold is crossed when four indicators converge: cross-institutional trust falls below the level public adjudication requires; correction loses political force across politically mixed populations; rejection of verification institutions becomes a credibility signal rather than a liability; and the institutions that supply verification lose capacity and reach at the same moment.

The second indicator has to be stated carefully, because the evidence does not say what pessimism assumes. Nyhan and Reifler's much-cited 2010 experiments found cases in which a correction hardened the misperception it targeted. That finding has not survived testing at scale. Wood and Porter examined fifty-two contested issues across more than ten thousand subjects and found no correction that reliably produced backfire; their subjects broadly accepted factual information even where it cut against their commitments. Walter and Murphy's meta-analysis of sixty-five studies found that corrective messages do move belief in misinformation, though far less in politics than in health, and far less against misinformation encountered in the world than against misinformation built in a laboratory. Nyhan himself later concluded that the durable problem is not backfire but decay: the accuracy a correction buys tends not to last or accumulate, and is overwhelmed by cues from elites and media promoting more congenial claims.

That is the failure worth naming. Correction is not psychologically impotent. It is politically weak. The individual mind updates and then drifts back, because the surrounding environment supplies no authority able to hold the update in place. The problem was never only inside the head of the person being corrected. It sits in the structure that decides whose corrections count.

Each indicator can be measured, though imperfectly. Trust surveys capture one layer. Correction research captures another. Media capacity, local news decline, fact-checking reach, judicial trust, scientific confidence, and platform dependence capture others. None is sufficient alone. The claim becomes serious only when they move together.

Habermas does not disappear here, but he becomes less sufficient. Communicative action assumes that the norms built into serious speech can be recovered once domination is exposed. Collective confusion is harsher. It holds that the infrastructure which lets speech bind has itself been damaged. Truth, sincerity, and rightness still matter. They do not function politically unless publics share enough procedure to recognize them.

The claim is also narrower than Baudrillard's. Simulation describes a world in which the sign has severed every relation to a reality it might once have represented. Collective confusion describes something more ordinary and more tractable: institutions that still refer to a real world and have lost the standing to be believed about it. The first condition is metaphysical and admits no repair. The second is institutional, and can be dated, measured, and in principle reversed.

This is where the Project of Synthesis has to be careful. "Civilizational phase" is a dangerous phrase if it becomes a mood. It is useful only if it forces measurement. A phase has

indicators, thresholds, and exit conditions. If it cannot be falsified, it is rhetoric wearing a lab coat.

The exit condition matters. Collective confusion is not eternal. Phases end through collapse, adaptation, or reconstruction. Collapse is the oldest path. Adaptation is slower. Reconstruction is the one that requires theory. A public sphere cannot be rebuilt by adding more facts to a space that has lost the authority to receive them. It has to rebuild the conditions under which a fact can count.

That reconstruction will not be neutral. Every actor claiming to rebuild verification is also claiming power. The question is not whether power enters the process. It already has. The question is whether the new verification architecture can make its own power visible enough to be contested.

That is where the paper has to stay unresolved. The confusion phase names the damage. It does not yet name the institution that can repair it without becoming another machine of control.

Sources

- C. Thi Nguyen, “Echo Chambers and Epistemic Bubbles,” *Episteme* 17, no. 2 (2020), 141-161. <https://doi.org/10.1017/epi.2018.32>
- Hannah Arendt, *The Origins of Totalitarianism*, Harcourt, Brace, 1951.
- Hannah Arendt, “From an Interview” (with Roger Errera), *The New York Review of Books*, 26 October 1978. <https://www.nybooks.com/articles/1978/10/26/hannah-arendt-from-an-interview/>
- Christopher Paul and Miriam Matthews, “The Russian Firehose of Falsehood Propaganda Model,” RAND, 2016. <https://www.rand.org/pubs/perspectives/PE198.html>
- Shoshana Zuboff, *The Age of Surveillance Capitalism*, PublicAffairs, 2019.
- Shoshana Zuboff, “Caveat Usor: Surveillance Capitalism as Epistemic Inequality,” in Kevin Werbach, ed., *After the Digital Tornado*, Cambridge University Press, 2020.
- Jean Baudrillard, *Simulacra and Simulation*, University of Michigan Press, 1994.
- Brendan Nyhan and Jason Reifler, “When Corrections Fail: The Persistence of Political Misperceptions,” *Political Behavior* 32, no. 2 (2010), 303-330. <https://doi.org/10.1007/s11109-010-9112-2>
- Thomas Wood and Ethan Porter, “The Elusive Backfire Effect: Mass Attitudes’ Steadfast Factual Adherence,” *Political Behavior* 41 (2019), 135-163. <https://doi.org/10.1007/s11109-018-9443-y>

- Brendan Nyhan, “Why the Backfire Effect Does Not Explain the Durability of Political Misperceptions,” *PNAS* 118, no. 15 (2021), e1912440117.
<https://doi.org/10.1073/pnas.1912440117>
- Nathan Walter and Sheila T. Murphy, “How to Unring the Bell: A Meta-Analytic Approach to Correction of Misinformation,” *Communication Monographs* 85, no. 3 (2018), 423-441. <https://doi.org/10.1080/03637751.2018.1467564>
- Gallup, “Trust in Media at New Low of 28% in U.S.,” 2 October 2025.
<https://news.gallup.com/poll/695762/trust-media-new-low.aspx>
- Edelman, “2026 Trust Barometer: Trust Amid Insularity,” January 2026.
<https://www.edelman.com/trust/2026/trust-barometer>
- OECD, *OECD Survey on Drivers of Trust in Public Institutions - 2024 Results*, OECD Publishing, 2024. https://www.oecd.org/en/publications/oecd-survey-on-drivers-of-trust-in-public-institutions-2024-results_9a20554b-en.html
- Jürgen Habermas, *The Theory of Communicative Action*, Vol. 2, Beacon Press, 1987.

What Economics Loses When It Travels Fast: Context Collapse and the Discourse Failure of Economic Ideas

An economic finding is accurate only inside the conditions that produced it. The media formats it travels through strip those conditions away, and public debate inherits a claim that has the shape of the original and none of its truth.

An economic claim is rarely false everywhere. It is usually true somewhere, under conditions the public version has already thrown away.

That is the failure. Economic discourse does not merely simplify technical findings. It often removes the conditions that made the finding meaningful in the first place. A result produced inside a model, a city, a labor market, a tax regime, or a crisis year becomes a portable slogan. The slogan then circulates as if portability were proof.

Economics was never built to survive that kind of travel without damage. Its strongest claims are conditional. Minimum wage effects depend on local labor markets, monopsony power, wage levels, enforcement, sector composition, and the time horizon used to measure them. Fiscal multipliers depend on monetary policy, slack, openness, debt structure, and whether a country controls its own currency. Tax incidence depends on market structure, mobility, and legal design. The technical literature knows this. Public debate usually does not.

The conditionality is not a footnote attached to the result. It is frequently the result itself. Ilzetzki, Mendoza, and Végh, working across forty-four countries, estimate a substantial fiscal multiplier in economies with predetermined exchange rates, a multiplier of about zero where exchange rates float, and a negative one in heavily indebted economies. There is no single number to quote. The number is a property of the regime the spending passes through. The instrument matters as much as the regime. Romer and Romer, isolating tax changes that were not adopted in response to expected economic conditions, recover contractionary effects much larger than those obtained from broader measures of tax changes. The finding and the method that produced it cannot be separated without loss.

Dani Rodrik's defense of economics as a discipline of models is useful precisely because it refuses the fantasy of one universal economic law. Models are tools. Their authority depends on whether their assumptions fit the case. The discipline fails when economists, journalists, or politicians convert a context-bound model into a general doctrine. The public then inherits the shape of expertise without its discipline.

The minimum wage debate shows the pattern cleanly. Jardim and her coauthors, studying Seattle's increases to \$11 in 2015 and to \$13 in 2016, found that hours worked in low-wage jobs fell, that the probability of remaining employed did not change, and that the loss of hours fell hardest on the least experienced workers. Cengiz, Dube, Lindner, and Zipperer, examining 138 state-level minimum wage increases between 1979 and 2016, found the total number of low-wage jobs essentially unchanged five years after each increase. These findings do not cancel each other. They ask different questions, at different scales, of different populations, with different instruments. One follows individual workers through a single city's administrative records. One counts jobs across four decades of state policy. The public version turns the pair into a fight between "minimum wages kill jobs" and "minimum wages have no cost." Both slogans are worse than either paper.

What makes the compression indefensible is that the boundary is stated in the work itself. Cengiz and his coauthors report that the increases they study place the minimum wage at roughly 37 to 59 percent of the state median wage, and that up to about 55 percent of the median they find no relationship between how hard an increase bites and how employment responds. They say plainly that the American minimum wage changes they examine have not reached a level at which significant job losses appear. They also report evidence, imprecisely estimated, of employment falling in tradable industries, alongside no such effect in the restaurants and retail businesses where most minimum wage workers are found. Everything the slogan discards is already on the page. The paper is not the source of the overreach. The compression is.

The same thing happened after 2008 with austerity and fiscal multipliers. Blanchard and Leigh regressed growth forecast errors on planned fiscal consolidation across twenty-six European economies, using forecasts made in 2010, and found that each additional percentage point of GDP in planned consolidation was associated with output about one percent below forecast. Their inference was narrow and careful. Forecasters had been working with an implicit multiplier near one half, and the actual multiplier early in the crisis was substantially above one. They found no comparable relationship in the decade before the crisis, and they stated in their own conclusion that the result does not imply fiscal consolidation is undesirable. Public debate flattened all of it into a morality play about whether austerity was right or wrong. The more useful question was more boring and more important: under which macroeconomic conditions does consolidation become self-defeating?

Context collapse is not only a media problem. The phrase belongs to the study of social platforms, where Marwick and boyd used it for what happens when audiences that were once separate are folded into one. Economic discourse suffers a version of the same thing, except that what collapses is not the audience but the condition. The medium accelerates the

failure, and the incentive begins earlier. Economists gain public authority by speaking beyond the case. Politicians gain usable weapons by removing qualifiers. Platforms reward compression because qualifications do not travel well, and Postman's argument about television holds for the feed: a medium does not simply carry an argument, it decides what kind of argument can be made inside it. The problem is structural. A careful claim has many handles. A slogan has one.

None of this is new. Lippmann wrote in 1922 that the real environment is too large, too complex, and too fleeting to be known directly, so public argument proceeds over a simplified picture of it instead. What is new is the speed at which the simplification is manufactured, and the number of people who receive no other version.

This is why fact-checking alone cannot repair economic discourse. A fact-check can correct a number, a quote, or a false causal claim. It cannot restore the missing architecture of an argument. When a public claim says "free trade raises welfare," the issue is not only whether the proposition holds inside a model. The issue is who gains, who loses, how compensation works, whether workers can move, whether regions can absorb the shock, and whether political institutions can hold their legitimacy through the transition. The context is not an accessory. It is part of the truth.

The discipline needs a public translation norm. Every economic claim that leaves technical space should carry four pieces of context with it: the population or market studied, the mechanism claimed, the conditions under which the result holds, and the conditions under which the result should not be trusted. Without those four pieces, public economic language detaches from the knowledge it claims to represent.

This does not mean public writing must become unreadable. It means compression must preserve the load-bearing structure. "Minimum wage increases at the levels American states have actually enacted have not reduced the total number of low-wage jobs" is longer than "minimum wages do not kill jobs," and it is not academic clutter. The qualifying clause is the part that tells a reader when to stop believing the sentence. That is the sentence staying honest.

The deeper problem is legitimacy. Economics already suffers from the suspicion that technical language conceals political preference. Context collapse confirms that suspicion even when the original work was careful. The public sees confident experts make claims that fail outside their conditions, and concludes that the discipline itself is fake. The waste is that the discipline usually had the tools to avoid the failure. Those tools were stripped away in transit.

Economics should not try to become less conditional. Its conditionality is its strength. The task is to make the conditions visible enough that public debate cannot steal the conclusion while abandoning the frame that made it true.

The question left open is institutional. Who holds the authority to enforce context in a public sphere built to reward its removal?

Sources

- Dani Rodrik, *Economics Rules: The Rights and Wrongs of the Dismal Science*, W.W. Norton, 2015.
- Christina D. Romer and David H. Romer, “The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks,” *American Economic Review* 100, no. 3 (2010), 763-801. <https://www.aeaweb.org/articles?id=10.1257/aer.100.3.763>
- Ethan Ilzetzi, Enrique G. Mendoza, and Carlos A. Végh, “How Big (Small?) Are Fiscal Multipliers?,” *Journal of Monetary Economics* 60, no. 2 (2013), 239-254. <https://ideas.repec.org/a/eee/moneco/v60y2013i2p239-254.html>
- Olivier Blanchard and Daniel Leigh, “Growth Forecast Errors and Fiscal Multipliers,” IMF Working Paper 13/1, January 2013. <https://www.imf.org/external/pubs/ft/wp/2013/wp1301.pdf>
- Ekaterina Jardim, Mark C. Long, Robert Plotnick, Emma van Inwegen, Jacob Vigdor, and Hilary Wething, “Minimum-Wage Increases and Low-Wage Employment: Evidence from Seattle,” *American Economic Journal: Economic Policy* 14, no. 2 (2022), 263-314. <https://www.aeaweb.org/articles?id=10.1257/pol.20180578>
- Doruk Cengiz, Arindrajit Dube, Attila Lindner, and Ben Zipperer, “The Effect of Minimum Wages on Low-Wage Jobs,” *Quarterly Journal of Economics* 134, no. 3 (2019), 1405-1454. <https://academic.oup.com/qje/article/134/3/1405/5484905>
- Alice E. Marwick and danah boyd, “I Tweet Honestly, I Tweet Passionately: Twitter Users, Context Collapse, and the Imagined Audience,” *New Media & Society* 13, no. 1 (2011), 114-133. <https://journals.sagepub.com/doi/10.1177/1461444810365313>
- Walter Lippmann, *Public Opinion*, Harcourt, Brace and Company, 1922.
- Neil Postman, *Amusing Ourselves to Death: Public Discourse in the Age of Show Business*, Viking, 1985.