CAPCO JOURNAL

The Capco Institute Journal of Financial Transformation

Value dynamics

Disruptive forces reshaping financial services

Technological transformations

Beyond the hype: In what sense are algorithmic technologies transforming regulation?

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Welcome to the 61st edition of the Journal of Financial Transformation.

I am delighted to announce our new partnership with King's College London, a world-renowned leader in education and research, marking a new chapter in the Journal's long and distinguished history.

In this edition focusing on Value Dynamics, we explore a critical – and ever more pressing – challenge: how institutions across financial services create, distribute and sustain value.

As Professor Crawford Spence, our editor from King's College highlights in his own introduction, the forces shaping value dynamics across financial services are myriad, encompassing technological transformations, secular shifts, political and social structures.

As a firm that has been at the cutting edge of innovation for over 25 years, these value drivers intersect directly with the work Capco does every day, helping our clients around the globe transform their businesses for sustained growth.

The integration of innovative new technologies including generative and agentic AI models, the digitalization of currencies and payments infrastructures, the reimagining of customer experiences, the relentless evolution of market ecosystems, the vital role of culture as a value driver: these imperatives are where we see – first-hand – clear opportunities for our clients' future growth, competitive differentiation and success.

We are excited to share the perspectives and insights of many distinguished contributors drawn from across academia and the financial services industry, in addition to showcasing the practical experiences from Capco's industry, consulting, and technology SMEs.

It is an immense source of pride that Capco continues to champion a creative and entrepreneurial culture, one that draws on the deep domain and capability expertise of thousands of talented individuals around the world.

We do not take our hard-earned status as a trusted advisor lightly, nor our responsibility to make a genuine difference for our clients and customers every single day – placing excellence and integrity at the forefront of everything we do.

I hope the articles in this edition help guide your own organization's journey as you navigate the many complexities and opportunities ahead.

As ever, my greatest thanks and appreciation to our contributors, readers, clients, and teams.

Annie Rowland, Capco CEO

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Editor's note

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This 61st edition of the Journal of Financial Transformation is the first with a new editorial team in place, and is the product of a formalized collaboration between Capco and King's College London. This collaboration – a leading financial services consultancy and a prestigious academic institution – embodies the Journal's ethos: a balance between academic rigor and practical accessibility.

Traditional academic journals often deal with more prosaic conceptual matters. Even when they focus on more practical concerns, the timelines and mechanics of double-blind peer review processes can mean that the insights that they offer risk being out of date by the time they are published. Conversely, traditional op-ed articles in the financial press are all too often heavy on opinion and pre-conceived ideas and can lack the heft that comes with thoroughly researched pieces of work.

The Journal we've published strikes a vital balance between these two approaches.

This edition has an overarching focus of Value Dynamics. Specifically, the various articles look at how value is created, distributed and sustained across financial services. In turn, the submissions are grouped into three broad themes.

Technological transformations are explored in terms of how these can bolster or hinder value dynamics if not managed effectively. A number of secular shifts are also discussed – these being long-term changes that are impacting value dynamics in the sector. Finally, structural challenges are highlighted that emphasize the importance of sticky, tricky social and behavioral issues that surround the execution of financial services.

Overall, these themes highlight challenges and opportunities in the sector and encourage us to think differently.

It has been a pleasure working on this issue with such a fantastic and diverse array of different contributors.

Professor Crawford Spence
King's College London

Beyond the hype:
In what sense are algorithmic technologies transforming regulation?

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Abstract

This article discusses the transformative claims surrounding the integration of algorithmic technologies, such as regulatory technology (regtech) or generative artificial intelligence (GenAI), into financial regulation. While industry and consultancy narratives celebrate these tools as disruptive innovations, their implementation often reproduces existing institutional structures and power asymmetries. Drawing on insights from the social studies of finance, the article argues that algorithmic systems are not neutral instruments but actively reshape regulatory logics and normative orders. By privileging automation and calculability over contextual and interpretive judgment, these technologies reconfigure regulatory practices. This article calls for a more reflexive and critical engagement with algorithmic technologies specifically and technology-led governance, highlighting the need to re-examine the political implications of regulatory transformation in the digital age.

1. Introduction

The integration of algorithmic technologies into financial practices has been heralded as a major transformative shift. From high-frequency trading to robo-advisors, to predictive analytics and real-time compliance monitoring, digital technologies are said to alter the operational and strategic dynamics of banks and financial intermediaries. Yet, amid the technological enthusiasm lies a crucial question: are these technologies reshaping the foundations of finance, or merely reinforcing and extending existing structures under the guise of innovation?

In this article, we consider the possibility that the dominant narrative of technological transformation in finance is exactly that – just a narrative. We argue, however, that this narrative of techno-transformation serves a two-fold purpose. First, glorifying the transformative thrust of new technologies in finance helps IT providers and data vendors market their products to a tech-savvy audience of professionals, while at the same time remaining far removed from realities that fall short of promises. Second, and more fundamentally, the adoption of financial technologies tends to reproduce rather than disrupt existing structures. Paradoxically, the narratives of transformation often reinforce established hierarchies and

logics instead of challenging or dismantling them. The rhetoric of digital disruption may be more about perception than substance; indeed, such narratives frequently repackage existing structures under the appearance of innovation.

Our scepticism toward transformative claims is grounded in a long tradition in the social studies of finance, which has shown that financial technologies do not simply reflect or implement pre-existing economic rationalities – they participate in constructing them. As sociologist Donald MacKenzie (2009) argues, technologies can be "performative," in the sense that they help bring into being the very market behaviors and structures they purport to describe or support. Building on this insight, we suggest that the dominant narratives around financial technologies (fintech) and regulatory technologies (regtech), position big data, blockchain, machine learning or GenAI techniques as not merely describing change, but actively reproducing what already exists, framed as transformation. In this context, the celebration of financial innovation goes beyond reflecting technological capabilities and advances the interests of dominant actors. Detailed ethnographies of American or European trading floors, for instance, have shown how technologies embed organizational values and control mechanisms, often reinforcing managerial authority and institutional path dependencies rather than disrupting them [see, for example, Beunza (2019)]. What is presented as democratization or decentralization may, in practice, reflect a reconfiguration of existing power rather than its dissolution. Recognizing this performativity is a first step. It opens the possibility of imagining and enacting more concrete counter-performances that can instigate the kinds of structural changes that finance and its governance urgently require – changes that are too often deferred by the hype surrounding yet another supposedly disruptive technology.

We proceed in three steps. First, we harness the notion of imaginaries from the Science and Technologies Studies (STS), a framework that has influenced much of the social studies of finance, to identify not only the narratives but also their concrete implementation into financial practices, particularly in the case of AI. Second, we show how these imaginaries function not merely as cameras but as engines, extending McKenzie's (2008) analysis of financial models to fintechs and regtechs. Third and finally, we summarize and conclude by pointing towards specific changes that regulators and firms might consider in order to avoid the recurring cycle of disappointment tied to narratives of technological transformation.

2. Imaginaries and the promises of AI for financial services

Technologies are never neutral. The adoption of new technologies in finance is not simply about improving efficiency or reducing costs, as it is often presented. Rather, such adoption is embedded in broader imaginaries, visions of desirable futures shaped by collective assumptions about what technology should do and for whom [Jasanoff and Kim (2009); Jasanoff (2015)]. These imaginaries carry normative weight: they structure expectations, inform policy choices, and guide investment priorities. Yet what is often left unexamined is that the purported gains, such as efficiency or savings, are not universally distributed. These benefits typically accrue to specific actors and processes while excluding others, reinforcing existing inequalities rather than resolving them. In the context of financial services, imaginaries frequently revolve around promises of automation, personalization, and rational decision making. These promises are both aspirational and strategic. To paraphrase the well-known observation attributed to North American science fiction writer William Gibson, the future is already here, but it is not evenly

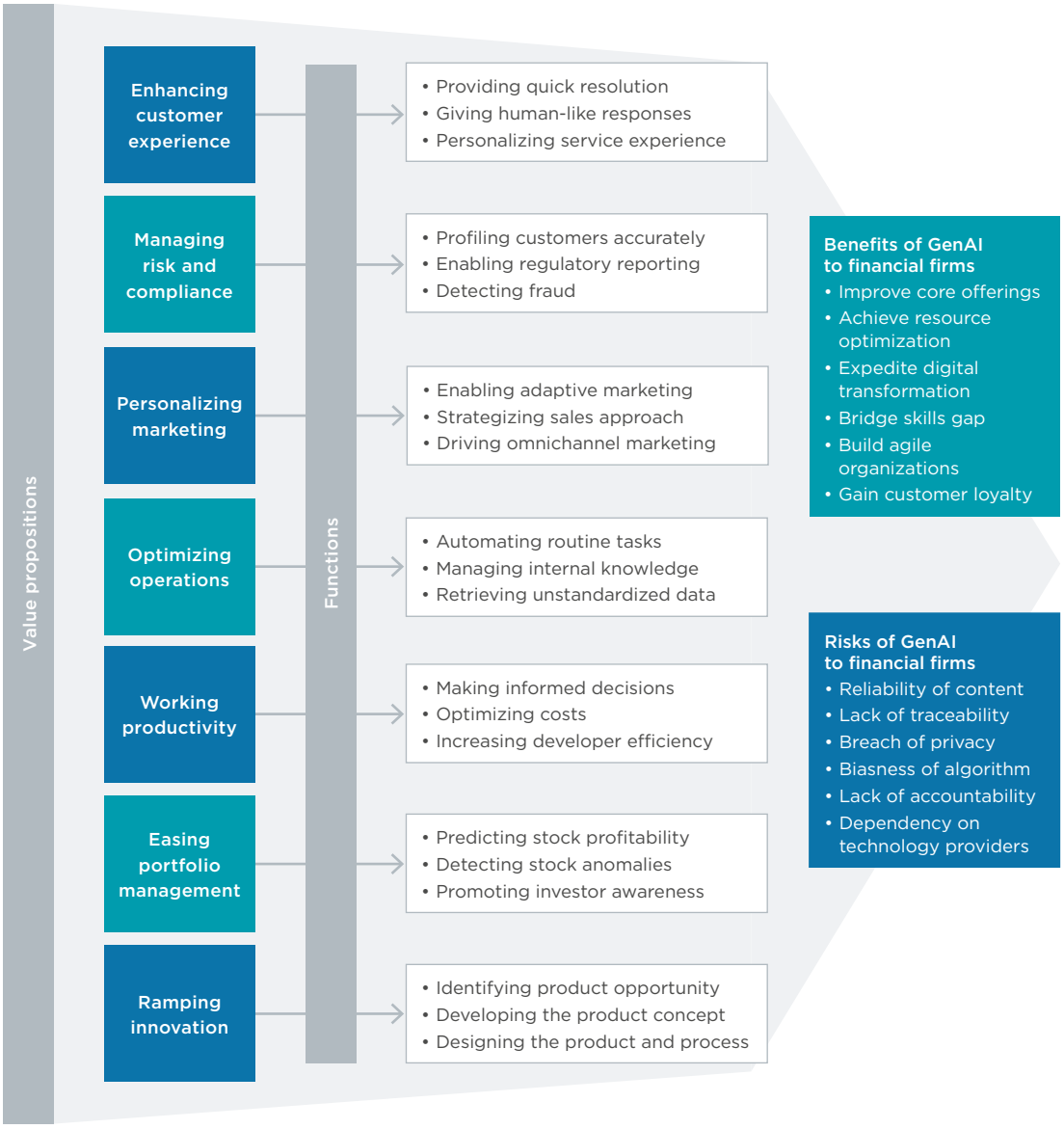
distributed. The same can be said of algorithmic innovation in finance: its benefits and impacts are asymmetrical, stratified across firms, markets, and jurisdictions.

Algorithmic systems are commonly cast as both the problem and the solution within governance contexts, creating a feedback loop in which technology justifies its own proliferation [Wijermars and Makhortykh (2022)]. GenAI, for instance, is widely framed within financial imaginaries as a tool for enhancing efficiency, transparency, and market integrity. However, such aspirations routinely overlook the institutional, social, and ethical complexities into which these technologies are deployed. For instance, consulting firms such as the Boston Consulting Group (2023) suggest that "AI is no longer a concept of the future—it's a game-changer today. And companies that move ahead decisively and strategically with AI will gain significant lasting advantages within their industries." Such statements illustrate how techno-optimistic imaginaries shape industry discourse, aligning with what has been described as utopian (and sometimes dystopian) narratives around AI – exaggerated accounts that seek to shape public perception and regulatory responses.

On the one hand, GenAI is championed as a democratizing force: unlocking productivity, expanding access to advanced analytics, and providing insights at scale to all market participants, including regulators. On the other hand, such narratives tend to obscure more fundamental issues, such as algorithmic bias, opacity, and systemic risk, which emerge when flawed tools are adopted at scale, for example by an increasingly wide array of market participants and their regulators. The deployment of GenAI, often perceived as neutral or self-correcting, overlooks the fact that these technologies are deeply embedded in socio-economic structures marked by regulatory asymmetries and power concentrations [Sartori and Theodorou (2022)]. As we argued at the outset, such assumptions of neutrality are misplaced.

Sociotechnical imaginaries, despite their abstraction, are not merely discursive; they are actionable frameworks. They guide material decisions: where to invest, how to assess risk, and how to design regulation. Crucially, they tend to privilege certain actors, notably large financial institutions and bigtech firms, while marginalizing others. As such, these imaginaries reinforce institutional hierarchies and path dependencies rather than fostering pluralism or innovation. Moreover, dominant financial imaginaries tend to promote a microprudential logic of regulation and risk management, one that is inherently path dependent. Because GenAI tools are trained on historical data, they often reproduce established norms and heuristics, thereby limiting the possibility of transformative change [Campbell-Verduyn and Lenglet (2023)]. A case in point is the EMPOWER framework proposed by Dubey et al. (2024), which highlights GenAI's potential to enhance customer experience and operational efficiency (see figure below). However, the framework pays little attention to broader macroprudential or systemic risks, thereby reinforcing a technocratic rather than reflexive engagement with AI. As a result, GenAI is increasingly deployed within existing institutional templates, rather than prompting a critical interrogation of those templates. The risk, then, is not the emergence of a new, more democratic or frictionless financial paradigm, but rather the entrenchment of old models in new technical guises. This highlights the need for regulatory innovation and a more nuanced engagement with the sociotechnical dynamics of AI.

Figure 1: Dubey et al's (2024) funnel framework for how GenAI empowers financial organizations



In sum, imaginaries surrounding GenAI and other algorithmic technologies in finance continue to emphasize efficiency gains and cost reduction. However, these narratives often obscure the uneven distribution of potential benefits and systematically downplay broader likely risks and externalities. While such technologies may yield improvements for certain actors or domains, they also introduce new layers of complexity, opacity, and vulnerability, particularly as they are scaled across sectors, regulatory regimes, and asset classes. To avoid recurrent cycles of disillusionment when technological promises fail to deliver, more grounded and critical assessments of both their benefits and limitations are required. This includes a clearer recognition of the structural

risks that arise not merely from malfunction or misuse, but from the uncritical embedding of these tools into existing institutional logics and power asymmetries.

3. Warnings from regulatory technology practices in finance

The case of regtech provides a cautionary example of how technological narratives often diverge from practical outcomes. The emergence and proliferation of regtech provide instructive warnings. Beginning in the mid-2010s, a wave of industry white papers and consultancy reports championed regtech as a transformative response to mounting regulatory demands. However, rather than delivering systemic innovation, regtech developments often reinforced prevailing hierarchies and entrenched modes of compliance. A relevant example can be found in the white paper published by Compliance.ai (2019), which emphasized the "imperative to automate regulatory change management" amid growing financial complexity. While framed as a disruptive move, the solutions it promoted largely served to streamline existing compliance routines. They did not question the legitimacy or proportionality of the regulatory demands they sought to address. Instead, regtech applications were crafted to fit within current operational roles and legal interpretations, ultimately preserving the status quo rather than prompting reflective change or critical dialogue.

At the heart of this trend lies what we call automated rationality: the process through which algorithmic tools begin to define what counts as appropriate or legal conduct. As Aldasoro et al. (2024) note, GenAI is already being adopted for back-end processing and regulatory compliance, suggesting an implicit assumption that these tools can deliver efficiency and clarity in an otherwise ambiguous regulatory landscape. Designed and promoted by consultancies and technology vendors, these systems often obscure the fact that legal reasoning, discretion, and judgment are not reducible to rule-based automation. Similarly, GenAI introduces new interpretive logics that subtly reshape what is accepted as regulatory "truth," thereby contributing to the increasingly well-documented unintended consequences associated with the implementation of regulation [Lenglet et al. (2024)]. Consequently, GenAI and LLM-based systems are likely ill-suited to provide the forms of interpretive work that regulatory practices require.

The case of regtech, once more, offers relevant insights. Organizations such as the London-based trade association TechUK have, for instance, articulated imaginaries that case regtech as a "game-changing" dual-purpose instrument, serving both as a shield against escalating compliance costs and as a sword in the battle against financial crime:

"With technologies such as artificial intelligence, machine learning, robotics, distributed ledger technology and biometrics, RegTech can enable regulatory compliance to become both the sword and shield against economic crime. Such a benefit not only reduces the burden of cost and complexity, but also improve capacities of financial services firms by automating compliance processes" [Challinor (2022)].

Such militarized metaphors subtly shift the framing of compliance from a normative endeavor rooted in morality or fairness, to a competitive contest over technology superiority. Under this narrative, financial firms are encouraged to adopt regtech not to strengthen the integrity of financial markets, but to shield themselves from reputational or legal exposure. The

emphasis shifts from reform or improvement to risk avoidance and reputational containment – a pattern still clearly visible a decade later.

This experience carries a broader warning: increasing reliance on automation and GenAI may amplify systemic risks rather than mitigate them. The opacity of these tools, combined with their tendency to disguise embedded assumptions, introduces new challenges. As the Institute of International Finance (2017) pointed out long ago now, machine learning and AI are now central to key processes such as anti-money laundering (AML) and know-your-customer (KYC) checks. Yet these technologies are frequently adopted without clear standards for data quality, model transparency, or accountability mechanisms. The result is that many firms are encouraged to trust so-called "black-boxed" systems, reducing their own capacity for critical oversight. In this way, automation takes on a life of its own and becomes a self-reinforcing imperative – less a means of improving governance and more an expression of procedural drift and risk avoidance.

These experiences demand a more fundamental rethinking of the role and direction of technology-assisted compliance and regulation. Indeed, what should be the goal of compliance? Can technologies like GenAI foster meaningful shifts in financial conduct, or do they risk reproducing existing norms under the guise of innovation? Might GenAI encourage market actors to approach regulatory texts through discussion and re-interpretation, thereby enabling more dynamic forms of understanding and dissemination? Or conversely, does the growing uptake of such systems reinforce a mode of oversight that is highly technical and opaque, effectively displacing public reasoning and democratic scrutiny?

4. What needs to change to enact real change?

If GenAI and other algorithmic technologies are to genuinely transform finance, rather than reproduce its existing configurations, they must enable the emergence of new normative orders. Such a transformation would require more than technical substitution; it demands a rethinking of the foundational principles upon which regulation operates.

Traditionally, financial regulation was grounded in legal hermeneutics: a practice in which compliance officers interpreted abstract legal texts and applied them to real-time, often ambiguous market circumstances. This was not a mechanistic task but a fundamentally creative and situated one: a form of practical jurisprudence, as Lenglet (2021) argues, that generated normative meaning in ongoing dialogue with specific contexts and unfolding events. In this interpretive model, regulation was less about enforcing static rules and more about crafting responsive, context-sensitive solutions in collaboration with market participants: "jurisprudence does not consist in an attempt to recognize rights and duties coded in advance [...] but rather seeks to solve specific problems by expressing the law" [Lenglet (2021), p. 815]. This captures how compliance work historically responded to uncertainty: not by retrieving fixed norms, but by generating them in real time through reflective judgment. It is precisely through direct engagement with the unfolding market event that the compliance officer develops a practical understanding of what is at stake and, in doing so, formulates a normative response that is attuned to the situation: "a normative proposal for acting (juris) prudently" (ibid).

However, this legal-hermeneutic mode of regulatory engagement is increasingly parasited by a regime of computation [Bailey et al. (2023)]. Algorithmic technologies bring with them a normative order based on calculability, not interpretation. Instead of accommodating ambiguity or engaging in normative deliberation, algorithms operate through executable scripts that transform regulation into a series of formalized outputs. In this model, the code itself becomes the norm: pre-structured, automatic, and unyielding. The space for discretion and reflexivity narrows considerably. As a result, regulation shifts from a dialogical and interpretive practice to one embedded in technological systems, where human regulators are sidelined or reduced to supervisory roles, and even then, often cannot fully grasp what they are observing.

This shift has significant implications. Yet regulation is still largely being drafted without adequate recognition of this epistemic transformation – one that cuts to the core of regulatory logic and the very meaning of rule-following. Current frameworks continue to presuppose human agency, while algorithmic systems increasingly generate their own internal logics and obfuscations. In this new regime, the normative order of finance is no longer centered on interpretive human subjects, but on technical artifacts that execute and enforce their own regimes of meaning.

To move beyond rhetorical invocations of disruption and toward genuinely transformative outcomes, regulatory actors therefore must reassert the interpretive and normative dimensions of compliance and regulation. This involves designing oversight frameworks that support human decision making, contextual evaluation, and ethical deliberation alongside technological tools. Regulators should introduce clear standards for algorithmic transparency and traceability, establish procedures for contesting automated decisions, and involve affected stakeholders in shaping regulatory responses. In short, moving beyond the hype means confronting not only what these technologies do, but how they reshape the normative foundations and power dynamics of regulation itself.

Short summary:

- Algorithmic technologies are heralded as transformative, yet often serve to extend rather than reshape existing financial structures.
- Industry narratives frame AI as transformative while masking institutional continuity.
- Regulation is shifting from human judgment to rule-based automation.
- Tools meant to innovate compliance have largely entrenched existing routines.
- Meaningful change requires transparency, contestability, and normative engagement.

References

Aldasoro, I., L. Gambacrota, A. Korinek, V. Shreeti and M. Stein, 2024. "Intelligent Financial System: How AI is Transforming Finance," BIS Working Papers 1194, June

Bailey, S., M. Lenglet, G. Lord, D. Pierides and D. Tischer, 2023. "Parasitic Universes: Organisational and Technological Meddling in the Social," New Technology, Work and Employment 38:1, 41–58, https://tinyurl.com/52u3chw9

Beunza, D., 2019. Taking the Floor: Models, Morals, and Management in a Wall Street Trading Room, Princeton University Press

Boston Consulting Group (BCG), 2023. A Generative AI Roadmap for Financial Institutions, November 13, https://tinyurl.com/bdt69bru

Campbell-Verduyn, M. and M. Lenglet, 2022. "Imaginary Failure: RegTech in Finance," New Political Economy 28:3, 468–482, https://tinyurl.com/5t4x4t62

Challinor, J., 2022. "RegTech on the Rise to Tackle Fraud," TechUK, May 26, https://tinyurl.com/3tkcwt8c

Compliance.ai, 2019, "The Imperative to Automate Regulatory Change Management for Compliance in Financial Services," white paper, https://tinyurl.com/4667upp7

Dubey, S.S., V. Astvansh and P.K. Kopalle, 2024. "Generative AI Solutions to Empower Financial Firms," Journal of Public Policy & Marketing, December, 44:3, https://tinyurl.com/c2mnkh6p

Institute of International Finance (IIF), 2017. "Deploying RegTech Against Financial Crime. A Report of the IIF RegTech Working Group," March, https://tinyurl.com/ym4bmeh8

Jasanoff, S., 2015. "Future Imperfect: Science, Technology, and the Imaginations of Modernity," in S. Jasanoff and S.H. Kim, eds., Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power, University of Chicago Press

Jasanoff, S. and S.H. Kim, 2009. "Containing the Atom: Sociotechnical Imaginaries and Nuclear Regulation in the U.S. and South Korea," Minerva 47:2, 119–146, https://tinyurl.com/2jfmhtp2

Lenglet, M., 2021. "Algorithmic Finance, its Regulation, and Deleuzean Jurisprudence: A Few Remarks on a Necessary Paradigm Shift," Topoi 40:4, 811–819, https://tinyurl.com/325the7a

Lenglet, M., D. Pierides and B. Taupin, 2024. "How to Undo Things with Words? Explication and the Counterperformative Effects of Regulation," Organization 31:8, 1237–1261, https://tinyurl.com/3tzmj5t8

MacKenzie, D., 2008. An Engine, not a Camera: How Financial Models Shape Markets, MIT Press

MacKenzie, D., 2009. Material Markets: How Economic Agents are Constructed, Oxford University Press

Sartori, L. and A. Theodorou, 2022. "A Sociotechnical Perspective for the Future of AI: Narratives, Inequalities, and Human Control," Ethics and Information Technology 24:1, https://tinyurl.com/msjfzuuh

Wijermars, M. and M. Makhortykh, 2022. "Sociotechnical Imaginaries of Algorithmic Governance in EU policy on Online Disinformation and FinTech," New Media & Society, 24:4, 942–963, https://tinyurl.com/46ww59rz

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