Taking Empires Seriously: Three Missing Elements in Bradford's 'Digital Empires'

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I. Introduction

Anu Bradford develops the framework of 'digital empires',[1] namely the economic and legal key regimes[2] that shape, directly or by exerting indirect influence, today's digital sphere at the global scale (pp. 33-145). She analyses the operational logic of the three contemporary digital empires: the United States (US) market-based logic, the state-based and infrastructure-driven logic of China, and the rights-oriented logic of the European Union (EU). The book examines the investment choices tech companies face in (or to-

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1 Anu Bradford, *Digital Empires* (Oxford University Press 2023).

2 Regime is defined as 'principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area' (Stephen Krasner, 'Structural Causes and Regime Consequences: Regimes as Intervening Variables', in: Stephen Krasner (ed.) *International Regimes* (Cornell University Press 1983), 1.

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wards) each of these regimes, thereby expanding on Bradford's seminal scholarship on the 'Brussel's Effect'.[3]

'Digital Empires' provides a compelling account of global regulatory competition in the data market and the enduring impact of the Brussels Effect. By developing the conceptual framework of the digital empire and by unpacking the logic of the main players, this innovative book offers terms for the transnational conversation on law, policy, and technology.

We contend that taking the notion of 'digital empires' seriously – i. e., as a non-transient organising feature of the socio-economic digital landscape – attention should be paid to three elements the book either assumes or leaves under-explored: the cost and uncertainty of regulation, the fluidity of regional market competition, and the geopolitical implications of data colonialism. These factors are relevant to all three 'imperial' powers. For brevity, we will focus on the EU, and we will refrain from addressing the possible recent change of attitude by the Trump administration.

The EU meets the criteria of a digital empire since the industry within and outside its formal borders and decision-makers in other jurisdictions, are decisively incentivised to follow its regulatory approach, in particular as set forth in the General Data Protection Regulation (GDPR) (pp. 324-360). These incentives, formulated in Bradford's previous work, stem from the combined impact of five factors, that could be understood as conditions, since once met, the regulatory 'imperial' power emerges. These are: a significant market share, regulatory capacity, the political will to generate stringent rules, the inelasticity of the targets of the regulation, and the non-divisible nature of the products and production.[4] As Bradford shows, the EU meets these conditions. The first three are rather straightforward. As for the latter two – the EU focuses on consumer protection and therefore it is unlikely that consumers will migrate out of the EU (hence, the inelasticity), and it makes little sense to produce digital artifacts tailed solely to the EU market (hence, the non-divisibility). The EU thus may resist the market-base technological prowess of the US on the one hand, and state-run infrastructural powers of China on the other (pp. 324-360).

3 Anu Bradford, *The Brussels Effect: How the European Union Rules the World* (Oxford University Press 2020).

4 Bradford, *Digital Empires* (n. 1), 324-360. For analysis, see e. g. Dominique Sinopoli and Kai Purnhagen, 'Reversed Harmonization or Horizontalization of EU Standards?: Does WTO Law Facilitate or Constraint the Brussels Effect?', Wis. Int'l L. J. 34 (2016), 92-119 (99).

II. Unpacking 'The Empires' and the Transnational Effects

We argue that three critical factors must be recognised, and then empirically examined, for Bradford's claim to stand: the impact of regulatory costs (including uncertainty cost), the role of regional competition beyond the Empires, and the structure of data colonialism (in preventing, circumventing, or overcoming data sovereignty).

1. Regulatory Optimisation: Costs and Uncertainties in the EU Model

The EU regulatory model is advanced and complicated. Deploying the rules, institutions and procedures entails substantial benefits, but also generates costs, associated with implementation and enforcement (but also with opportunities that are left unexplored). For the EU to sustain its 'empire', the internal community has to perceive the benefits of this model as sufficiently significant (and worthwhile) so that it is willing to bear the associated costs.[5] Seen from this perspective, rules must not only be stringent; They have to be *rational* (i. e., the means must be tailored to achieve the purpose in practice, not only 'in the books'[6]). They need to be *consistent* (so that one legal regime fits well with the requirements of a neighbouring legal regime[7]). They need to be *predictive*[8] so that the industry can plan accordingly, and they need to be *adaptive* (so as to address the fast pace and non-linearity of technological innovation to adjust for mitigating risks while facilitating responsible innovation[9]). The institutional capacity necessary to generate such a regime is not

5 Bradford recognises the importance of acceptance when she refers to Eurobarometer results (p. 107). She likewise addresses the 'cost' criticism (p. 354). However, she stops short of embracing a robust cost/benefit argument as needed to take the empire claim seriously.

6 Roscoe Pound, 'Law in Books and Law in Action', American Law Review 44 (1910), 12-36; Jean-Louis Halperin, 'Law in Books and Law in Action: The Problem of Legal Change', Maine Law Review 64 (2011), 45-76. The 'suitability' part of the proportionality test covers parts of this claim, however, what we mean by 'rational' goes beyond 'suitability' to include empirically observed impact.

7 Inge Graef and Bart van der Sloot (eds), *The Legal Consistency of Technology Regulation in Europe* (Hart 2024).

8 By 'predictive' we mean anticipatory: regulation should not only respond to past events but also to emerging patterns by anticipating their impact. Predictive regulation also seeks the return of compliance investments. Michelle Finck, 'Blockchains: Regulating the Unknown', GLJ 19 (2018), 665-692 (683-684); Daniel Martin Katz, 'Quantitative Legal Prediction – or – How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry', Emory L. J. 62 (2013), 909-966.

9 Finck (n. 8).

limited to the enactment of regulations; it must cover also its agile and streamlined implementation and enforcement, in a comprehensive, comprehensible, and reliable manner. This regulatory complex is expensive. Whether stakeholders are willing to bear the costs in exchange for the advantages depends on a variety of factors which need to be empirically assessed. Of particular interest are costs associated with external effects – such as ensuring compliance associated with sustaining the 'Brussels Effect' – or in other cases where future causal links to payoffs are difficult to establish, and benefits may not be immediately apparent.[10] It seems that the initial creation of protective regulation was met with relative approval, but this may change during the phases of implementation and as other protective layers are added.

Bradford characterises the EU's regulatory model as rights-driven (pp. 105-145). This captures a part of EU design and facilitates the comparison to Chinese and US empires. However, the theoretical regulatory underpinning of EU tech rules is more complex. It is a layered structure, a significant part of which is based on the notion of risk regulation.[11] Some of these layers protect the structure of the internal market, including competition and consumer welfare, some of which aims at mitigating structural risks to democracy and the rule of law, while others are risks related to potential violations of rights.[12]

We think that the underlying logic of EU digital regulation can be understood as aiming to control, by regulation, the risk of social control. More specifically, the risk of social control includes the risk that US, Chinese, or any other multinational corporations will misuse their techno-regulatory private power to curtail individual liberties and equality, capture governments, or undermine competition. It also includes the risk that governments will misuse their regulatory and technological powers to disproportionately infringe rights or capture the democratic process. This protective design is essential for a well-functioning market in a value-based Union of democracies, but it is complex.

By focusing on a rights-driven approach in the more traditional sense of the word, Bradford to some extent bypasses the difficult relationship be-

10 See on the example of GMO legislation in the EU Justus Wesseler and Kai Purnhagen, 'Is the Covid-19 Pandemic a Game Changer in GMO Regulation?', EuroChoices 19 (2021), 49-52 (49-50).

11 See generally on risk-based regulation of data regulation: Carsten Orwat, Jascha Bareis, Anja Folberth, Jutta Jahnel and Christian Wadephul, 'Normative Challenges of Risk Regulation of Artificial Intelligence', NanoEthics 18 (2024), #11, doi: 10.1007/s11569-024-00454-9; for the GDPR Alessandro Spina, 'A Regulatory Mariage de Figaro: Risk Regulation, Data Protection, and Data Ethics', European Journal of Risk Regulation 8 (2017), 88-94; on the AI act Nicoletta Rangone and Luca Megale 'Risks Without Rights? The EU AI Act's Approach to AI in Law and Rule-Making', European Journal of Risk Regulation 16 (2025), doi: 10.1017/err.2025.13.

12 Rangone and Megalen (n. 11).

tween risks and rights.[13] A classic rights-protection regime is premised on pre-determined, clearly defined, enforceable shields (or, positive, swords). Risk, on the other hand, recognises ex-ante uncertainty.[14] A rights-based regime may be understood in terms of risks, when it is not clear whether certain behaviours will result in rights violations. This is often the case with rapidly developing technologies; waiting for clearly demonstrable cases of rights violations may prove to be too late – as, some argue, is the case with privacy – in the sense that remedial action may not adequately restore the breach to the *status quo ex-ante*.[15] Risk-mitigation on the other hand, may add an important protective layer, but risks are not always fully understood. The impact of regulatory measures – including unintended consequences and potential variations, whether aimed at classic rights-based protection or risk mitigation – are also uncertain. Any regulatory regime, while protecting against some risks, generates new risks. On a higher level of abstraction, even the costs of assessing these risks are difficult to quantify at the time regulation is enacted. While EU regulatory expertise may reduce uncertainty by adopting techniques such as offering 'safe harbours' when certain risk-mitigation procedures were followed – significant underlying uncertainties may nevertheless persist. This is at least in part because compliance costs for the industry and implementation costs for regulators are difficult to foresee, especially given the noted dynamic nature of technological evolution.[16]

Given the uncertainties surrounding the effects and costs of regulatory interventions, the resilience of the EU legal empire requires rigorous risk analysis. Such risks include regulatory errors of underprotection or overprotection, misaligned costs and unintended consequences.[17] In particular, it

13 Rangone and Megalen (n. 11).

14 See John R. Krebs, 'Risk, Uncertainty and Regulation', Philosophical Transactions of the Royal Society A. (2011), 4842-4852.

15 Kai Purnhagen and Justus Wesseler, 'Precaution and the Precautionary Principle: A View on the EU – The Example of Modern Biotechnology' in: Alain Marciano and Giovanni Battista Ramello (eds) *Encyclopedia of Law and Economics* (Springer 2025), doi: 10.1007/978-1-4614-7883-6_835-1.

16 Mario Draghi, *The Future of European Competitiveness – A Competitiveness Strategy for Europe* (2024), available at: <https://commission.europa.eu/document/97e481fd-2dc3-412d-be4c-f152a8232961_en>, last access 30 July 2025; see for sustainability reporting Félix E. Mezzanotte, 'Corporate Sustainability Reporting: Double Materiality, Impacts, and Legal Risk', Journal of Corporate Law Studies 23 (2023), 633-663; for deforestation Roldan Muradian, Raras Cahyafitri, Tomaso Ferrando et al., 'Will the EU Deforestation-Free Products Regulation (EUDR) Reduce Tropical Forest Loss? Insights from Three Producer Countries', Ecological Economics 227 (2025), Article 108389, doi: 10.1016/j.ecolecon.2024.108389.

17 Kai Purnhagen and Peter Feindt, 'Better Regulatory Impact Assessment: Making Behavioural Insights Work for the Commission's New Better Regulation Strategy', European Journal of Risk Regulation 6 (2015), 361-368.

seems that the resilience of any digital empire depends on its ability to experiment. This holds for the US and Chinese models and definitely for the EU regulatory empire. Sandboxes or similar experimental tools are necessary for streamlining the existing regulation and ensuring on-going adaptation, which, in turn, requires commitment and unique Research and Development (R&D) costs.

Uncertainties are not limited to the internal EU community. The challenges extend to regulators (and industry) beyond European borders, especially when the regulation anticipates trans-jurisdictional application, given the structure of the supply chains. As experimentation and assessment tools become more complex, methodologies and protocols for trans-jurisdictional communication must be developed, which consider the different logics of the 'empires' and the supply chains connecting them. Put bluntly, since the empires do not operate in isolation but rather interact with each other, the medium for interaction is not only the market or technology; it is also the communicative fabric of risk-regulation (that itself, must be funded).

Bradford addresses the cost critique of the EU's regulatory model by noting that costs will appear on both sides of the border, inside and outside of the EU (p. 354). We agree, but it becomes a question of distribution. For cost-benefit analysis, a critical question is whether sufficient data exists to accurately assess the impact of EU regulations, internally and externally, and whether the data is effectively shared and analysed. The EU has identified the importance of data gathering strategies.[18] It remains to be seen whether these strategies will be implemented and deliver the information to the internal market and to the external stakeholders. It is no easy feat to ascertain which data is relevant and reliable. Neither is it easy to determine the role of external stakeholders in its assessment. Yet understanding the dynamics of supply chains, as well as how businesses and consumers respond to information and other stimuli along these chains, is essential for understanding potential counter pressures, and hence for the resilience of the digital empires.[19]

18 Considerable resources have been invested in data gathering strategies such as the EU's Better Regulation Agenda. For a critical analysis see Purnhagen and Feindt (n. 17).

19 Kai Purnhagen, 'Achieving Zero Hunger: Using Behavioural Insights and Contractual Regulation for the Achievement of UN SDG 2' in: Cass Sunstein and Lucia Reisch (eds), *Elgar Companion to Consumer Behaviour and the UN Sustainable Development Goals* (Edward Elgar Publishing 2025), 166-175.

2. The Potential Rise of Regional Competition

The Digital Empires capture market power and competition primarily as they exist today. Adopting, as we did in this review, an EU-centric perspective, Bradford (p. 324-360) attributes the success of the EU's model in no small part to the Union's consumer market power relative to the US and China (p. 326). However, global markets and competition dynamics may be less static. A fundamental characteristic of well-functioning competition is its fluidity – markets can rise and fall, and dominant players may be displaced by emerging ones.[20]

What, then, if regional competition emerges? Less developed markets outside of the dominant empires may leverage their trading position, thereby shifting global market dynamics. For instance, regions such as Asia-Pacific or South America could develop alternative data markets with regulatory standards lower than the GDPR but with comparable purchasing power, with profound implications. In recent years, the US has attempted to develop such an alternative to the EU.[21] If successful, the EU model would face a dilemma. While high exit costs might deter immediate shifts, pressures for reducing compliance burdens – such as through selective relaxation of EU data protection laws – may be difficult to counter. However, such relaxation could undermine the EU's regulatory competitive advantage, potentially sacrificing its rights-based data governance model in favour of retaining business within the Union.

A different scenario emerges if the internal EU community perceives the protective regulatory model as generating substantial individual value in such a way that increases demand and willingness to bear its associated costs. If the value generated for the internal market is sufficiently significant, the EU's rights-based approach could ultimately prevail in global regulatory competition despite a negative Brussels Effect. It may even convince others, such as Canada, Australia and other segments of the Commonwealth, to follow suit.

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20 The virtue of competition and its limits: Maurice E. Stucke, 'Is Competition Always Good?', Journal of Antitrust Enforcement 1 (2013), 162-197.

21 See the 'Asia Pacific Economic Cooperation Cross Border Privacy Rules ("APEC. CBPR")', established in 2021 and upgraded in 2023, which offers an alternative to the GDPR while complaining with most, but not all, of GDPR's requirements. It operates with an institutional structure that could relax the control of the EU on actual implementation and enforcement. In addition to the Unites States, participating states include Australia, Canada, Taiwan, Japan, Mexico, Republic of Korea, Philippines, and Singapore. It remains to be seen whether this organisation will indeed develop a counterbalance in terms of market power.

One viable strategy to confront potential regional competition would circle back to lowering compliance costs. This may be achieved by streamlining authorisation processes,[22] enabling regulatory sandboxes,[23] offering compliance guidance through specialised agencies,[24] and developing facilitative technologies that support compliance.[25] By optimising the cost-efficiency of compliance, the EU could enhance the appeal of its regulatory model while maintaining its globally competitive advantage.

3. Data (De-)Colonialisation?

Empires are in contest with each other. As Bradford emphasises, the primary contest cannot be reduced to a battle over models. Regulatory competition emerges as a secondary effect of the broader competition for data control (including harvesting, ownership access and uses) (p. 330-334). This perspective highlights the clash between data sovereignty and data colonialism. The latter signifies the process by which governments, non-governmental organisations, and corporations assert extra-territorial control over the data generated by entities that interact within the networked society.[26]

On this understanding, regulatory regimes generate friction points within the global data market by constructing checkpoints. In the Chinese context, this mechanism is intertwined with technologies to cabin not only the collection of data but also the flow of information. In the European context, such frictions can be viewed as a reaction to efforts to colonise data layers by multinational or non-European players. The EU's risk-based (or rights-based) regulatory framework – embodied also in the Artificial Intelligence

22 Alessandro Monaco, 'Regulatory Barriers and Incentives for Alternative Proteins in the European Union and Australia-New Zealand', British Food Journal 127 (2025), 171-189.

23 Finck (n. 8), 683-684; Tilman Reinhardt and Alessandro Monaco: 'How Innovation-Friendly Is the EU Novel Food Regulation? The Case of Cellular Agriculture', Future Foods 11 (2025) 100574, 1-13; Sofia Ranchordas and Valeria Vinci, 'Regulatory Sandboxes and Innovation-Friendly Regulation: Between Collaboration and Capture' Italian Journal of Public Law 16 (2024), 107-139; Dirk A. Zetzsche, Ross P. Buckley, Janos N. Barberis and Douglas W. Arner, 'Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation', Fordham Journal of Corporate & Financial Law 23 (2017), 31-103.

24 Reinhardt and Monaco (n. 23).

25 Kai P. Purnhagen and Alexandra Molitorisová, 'Public and Private Enforcement in European Union Food Law', European Journal of Risk Regulation 13 (2022), 464-476.

26 Nick Couldry and Ulises A. Mejias, *The Costs of Connection: How Data Is Colonizing Human Life and Appropriating It for Capitalism* (Stanford University Press 2019); Nick Couldry and Ulises A. Mejias, *Data Grab The New Colonialism of Big Tech and How to Fight Back* (Chicago University Press 2024).

(AI) act and the Digital Services Act (DSA) – can thus be perceived as a legal shield against the US data governance model, which facilitates global extraction of data. Without shielding, this extractive data model would enable the US and US firms to exert significant influence over European data flows, and ultimately, as noted earlier, generate a type of social control through technological means.[27] The Brussels Effect and regulatory competition are thus not independent phenomena but rather consequences of the larger struggle for data sovereignty (or data autonomy, which could be understood as a spectrum).

Interestingly, the Brussels Effect could itself be interpreted not only as a regional defensive mechanism, but also as a global proactive move, to the extent it is indeed successful in establishing global standards. As such, it is subject to criticism as a new form of colonialism – not centred on data extraction, but rather on the imposition of legal frameworks, the compliance with which, or more specifically, the demonstration of such compliance, requires data-sharing with Europe. By exporting its regulatory model globally, the EU influences data governance beyond its borders, shaping the legal landscapes of other jurisdictions in a manner that mirrors traditional forms of economic and political dominance. An 'empire', by definition, generates a form of colonialism when dominance is exercised outside one's borders without parity-oriented mechanisms of co-governance. Given the trans-national flow of data, a collision point emerges when activities seen by one empire as protected by rights, are seen by another empire as a violation of rights. This raises questions regarding the evolving nature of power and checks on power in the digital age, where legal regimes and data control become central mechanisms of influence. Anu Bradford provided us with a framework for structuring our conversation, for a better understanding, and for potential models of justifiable equilibria.

III. Conclusion (Or: Where Do We Go from Here?)

In a world of digital empires, Bradford identified the logic that generates empires. We examined the elements that support their sustainability. The EU's ability to maintain and protect its rule of law and rights-based governance framework, (manifested now in a plethora of regulatory instruments), cannot be taken for granted. We argue that the sustainability of the EU regime will depend not only on the legal sophistication of its rules but also on its adaptive agility in calibrating these rules and on innovative enforce-

27 Couldry and Mejias (n. 26).

ment and compliance mechanisms. Demonstrating that the regime generates positive value (in both senses of the word: normative and economic) is important for garnering acceptability by the regulated industry and support by citizens, users, and consumers. Sensitivity to regulatory burdens and uncertainty are important. So is attention and support for technological evolution.

Moreover, as data becomes a principal vector of geopolitical and economic influence, regulatory competition is not limited to the three empires but is situated within a struggle for control over digital infrastructures and informational sovereignty among potential contenders. While other economies may not vie of an 'empire' status, they may seek to situate themselves in a favourable position, including by forming sub-empire alliances, which may alter the playing field.

In that context, regulation itself – the norms, institutions and procedures – is a structural element of a regime, as is the attitude and capacity of the regulators, and their access to learning and experimentation.[28] This latter point – regulatory innovation – affects the sustainability of an empire. Relatedly, recourse to technology itself is a regulatory tool, not only in the sense of 'code is law',[29] but more importantly, in the sense of developing hardware and software that support the development and implementation of acts, directives, regulations and the procedural and institutional mechanism of compliance and enforcement.[30] Of particular interest is the use of technology in order to check against misuse of technology.[31] A digital empire without the relevant digital infrastructure, including digital regulatory infrastructure, is less likely to survive as such.

Ultimately, the Brussels Effect should be understood as a dynamic, strategic and contested process embedded in a wider context of transnational

28 For the concept of agencification as capturing regulators capacity and attitudes beyond the written rules, see Guy Lurie, Amnon Reichman and Yair Sagy, 'Agencification and the Administration of Courts in Israel', Regulation & Governance 14 (2020), 617-860 (718). For the importance of infrastructures see Thomas Streinz, 'The Evolution of European Data Law' in: Paul Craig and Gráinne de Búrca (eds), *The Evolution of EU Law* (3rd edn, Oxford University Press 2021), 902-936; Angelina Fisher, Benedict Kingsbury and Thomas Streinz, 'Sensoring the Oceans: The Argo Floats Array in the Governance of Science Data Infrastructures' in: Fleur Johns, Gavin Sullivan and Dimitri Van Den Meerssche (eds), *Global Governance by Data: Infrastructures of Algorithmic Rule* (Cambridge University Press, forthcoming).

29 Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books 1999).

30 This approach takes the notion of 'regulation by design' a notch further. For origin, see Ann Cavoukian, who served as Information and Privacy Commissioner of Ontario, advising to secure privacy by technological means, at: <https://iapp.org/media/pdf/resource_center/pbd_implement_7found_principles.pdf>, last access 30 July 2025.

31 Hans-Wolfgang Micklitz and Giovanni Sartor, 'Compliance and Enforcement in the AIA Through AI', *Yearbook of European Law 2025*, yeae014, doi: 10.1093/yel/yeae014.

power asymmetries. As such, future legal analyses must grapple with the dual role of EU regulation – as both a protective mechanism for fundamental rights and a potentially hegemonic force in the global ordering of data governance. The challenge for the EU lies in reconciling these roles through a regulatory approach which benefits are sufficiently evident so that the various stakeholders are willing to shoulder the higher costs involved in a rights-based approach.

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