RIGHTS, CITIZENSHIP AND SELFHOOD: THINKING THROUGH ALGORITHMS, LAW AND DEMOCRACY

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Even as commonsense treats law as an algorithm for (liberal) democracy, the “foreseeably pervasive” deployment of high-tech algorithm, ¹ is met with concerns for law and about democracy. The ostensible algorithmic turn in ordering society, sometimes in fundamental ways, raises questions about if and how law can respond to the social and technological changes that are attendant to the development and deployment of these technological trajectories. Can the attention on algorithms and law, including a silent facilitation of the pervasive deployment of algorithms in the public, help us understand the values inhabiting modern law better?

Oxford dictionary traces the etymology of the term algorithm to the Arabic source, “al-Khwārizmī ‘the man of Khwārizm’, a name given to the 9th century mathematician Abū Ja'far Muhammad ibn Mūsa, author of widely translated works on algebra and arithmetic.” ² While algorithms are generally recognized as a ‘precise, step-by-step procedure that requires, in and of itself, no human intuition or guesswork’ ³, we are concerned here with algorithms – in a reportative sense – with respect to the development and deployment of highly complex and advanced algorithms through the explosion of computing power, digital technologies, as well as big data and machine learning techniques. Much of the current attention on algorithms is connected to the supposed inexorable move towards (general) artificial intelligence, through machine learning algorithms in the ‘frontier’ fields of robotics, computer vision, speech recognition and natural language processing that is seen as inextricably altering social and human agency, while affecting law and its practice in fundamental ways. ⁴

Through the last decade, there has been growing attention around how such algorithms, and the attendant technological trajectories that are generally referred to simply as AI, have grave effects

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² Paul Nemitz, Constitutional Democracy and Technology in the age of Artificial Intelligence, 376(2133) Phil. Trans. R. Soc. A. 1-14 (2018) [hereinafter Nemitz].
on rights in various realms of traditional law - be it its effects on free speech, on discrimination, privacy and data security, control and surveillance, personality, causality, responsibility and liability, IPR, labour laws, and even the delivery of justice. Justice Sales aptly encapsulates these concerns here:

“How should legal doctrine adapt to accommodate the new world, in which so many social functions are speeded up, made more efficient, but also made more impersonal by algorithmic computing processes? At least with computer algorithms, one still has human agency in the background, guiding processes through admittedly complex computer programming. Still more profoundly, however, how should legal doctrine adapt to processes governed without human agency, by AI.”

A quick sweep of law journals gives a glimpse of the different aspects that the legal world has identified as matters of concerns with respect to the pervasive deployment of such algorithms, and include threats to existing notions and rights about privacy, personal anonymity and individual autonomy as preconditions and levers of democracy, including threat to decisional and informational privacy, and behavioral patterning as predictive technologies employing algorithms; legal protection against discrimination through algorithms and by AI, including algorithmic bias in predictive policing and the insurance sector; considerations about technological autonomy, and challenges to asserting social control over technology, including the recognition of non-human algorithmic entities as legal persons and ‘the virtual impossibility of governmental regulation of algorithmic control of regulated entities; the implications of algorithmic decision-making to free speech protections, including in realms like algorithmic editing, implications of personalized pricing using algorithmic models, and protection of well recognized rights for workers. Even as grave concerns about the detrimental effects on the realization of fundamental rights are being

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8 See STOA, id.
raised, some commentators also point out the possibilities of using algorithms, AI and machine learning as catalysts to revive and achieve ‘democratic ideals’,\(^\text{15}\) calls for ‘structuring the emerging market for AI justice’ since it offers efficiency and ‘at least an appearance of impartiality’, fostering a turn towards codified justice that favors a paradigm of standardization above discretionary moral judgment.\(^\text{16}\) These different responses and articulations also reveal the deep differences that are prevalent in society about public values regarding the development and deployment of such technologies.\(^\text{17}\)

Accompanying these aforementioned responses are attendant questions about the ways in which law should foster regulation of algorithms and AI technologies, and how much legal regulation is desirable, and indeed possible. Fitsilis focuses on the major cases where regulation has currently been imposed upon algorithms, involving eight areas of law - competition, labor, environment, IPR, data-protection, consumer protection (and EU internal market).\(^\text{18}\) The norms, principles and modalities in these cases may then become an early framework around which legal responses to these technologies as also democratic concerns about such responses may be deliberated upon. The limitations of these legal responses itself then may become starting points for analysts. For instance, administrative law principles of transparency, accountability and nondiscrimination have been employed in much of these legal interventions to assert public regulation. What are the limitations with this approach require further analysis and consideration.\(^\text{19}\)

Importantly, further, concerns include possibilities of the slippery slope that these technologies will make obsolete even the very architecture through which fundamental rights and values are recognized as valuable. This is related to the concern and ‘possibility that emerging technologies may change our moral and ethical considerations’ – sometimes articulated as the habituation argument ‘that although at present the new technology is in conflict with established morals, there will be reconsideration of the morals when people become used to the new technology and its


\(^{18}\) Fotios Fitsilis, *Imposing Regulation on Advanced Algorithms* (Springer 2019). The cases – Microsoft cases (OS separated from media player and browser), Volkswagen emissions case (illegal algorithmic switch to sense and adjust gas emissions signal in the vehicle), Axel Springer AG v. Eyeo (ad-blocking, German cases), Google Spain SL and Google Inc. v. AEPD and Gonzales (right to be forgotten) and sharing economy in AirBNB and Uber, algorithmic financial instruments in GDPR.

\(^{19}\) For more on this see, Maayan Perel and Niva Elkin-Koren, *Black Box Tinkering: Beyond Disclosure in Algorithmic Enforcement*, 69(1) FLORIDA L. REV. 181 (2017).
possibilities and limitations. In time, morality will adapt.20 The breadth of concerns that are articulated brings our focus to the challenges (and opportunities) in the realization of disparate rights in isolated areas of law, as also towards the continuing recognition and strengthening of the very values that constitute contemporary societies and polities. Nemitz focuses on the challenges for law in responding to the concentration of digital power with the development of AI, and argues for incorporating principles of democracy, rule of law and human rights in the very design of the algorithm, and calls for Technology Impact Assessments to govern these technologies.21 The Scientific Foresight Unit of the European Parliament identified a number of opportunities and challenges in the use of algorithmic decision-making. These included ‘risks related to health, quality of life and physical integrity’ and serious threats that undermine ‘the fundamental principles of equality, privacy, dignity, autonomy and free will’.22

The question of agency – the presupposition that it is possible for human and social actors to influence the development of new technology– itself is a central concern about algorithmic and AI technologies. Within STS debates, the question of agency ‘leads into a long-standing discussion about technological determinism, and its more recent counterpoint, social determination of technology. In the technological determinist view, emerging technologies will materialize anyhow, independent of what people think deliberate or decide.’23 Given that we are talking about technologies that are termed as Artificial Intelligence, or autonomous technologies, these longstanding concerns generally about technology and human agency become sharper and even more prominent.

It is still early days for algorithmic trajectories to take roots in society, where the deep difference in public values about the introduction of these trajectories can and should impact the development and deployment of these technologies. What legal and regulatory principles can help in the articulation and institutionalization of these variegated concerns?24 What visions, foresight and

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21 Nemitz, supra note 1.
22 STOA, supra note 7; Similarly, Justice Sales argued for the constitution of a public agency for upstream scrutiny of algorithms, coupled with subsequent legal challenge in courts, Sales, supra note 5.
23 Swierstra, supra note 20 at 8.
24 Even as the relationship between law and regulation can be viewed as unclear, law can set the normative cornerstones for regulators, and legislations are a species of regulation. See ROGER BROWNSWORD, RIGHTS, REGULATION AND THE TECHNOLOGICAL REVOLUTION 6 (Oxford University Press 2008). See the statement of the UNESCO’s Director General: ‘a firm commitment to international solidarity in scientific progress, and to safeguarding human rights and human dignity from the misuse of science and technology’, BIOTECH: INTERNATIONAL IMPLICATIONS 2 (UNESCO, Paris 2003); c.f. Brownsword above at 23.
horizons are important here, and how do we imagine the role of the public sphere to envision, deliberate, and assess these technologies. Given that these technologies also (re)produce ‘social order’ and the controversies pertaining to surveillance, bias, agency and transparency recur across multiple sectors ‘ranging from the public sector to labour management and ordering digital communication’, demonstrating the need for a broader conversation across and beyond specific sectors. This points to the contingent and contested nature of the issues at hand, with deep differences traversing sectors and contexts that are “shaped by interests, power, and resistance”. These debates ought to, then, regard foundational choices and constitutive values relating to the ‘if and how’ of developing and deploying these technologies. This special issue is seen as a contribution to the constitution and performance of such a public sphere on law, technology and society, which takes the prospect of the ‘algorithmic turn’ seriously. It is in this context that the interventions in the current issue become significant.

The various contributions in this special issue offer valuable accounts and perspectives regarding the introduction of algorithms in multiple realms, be it in the so-called gig economy, health care, social media and hate speech, and its implications. The contributions focus on various concerns about risks to human rights, including dramatic increases in surveillance and erosions of privacy, loss of fair working conditions, and exacerbation of hate speech, arising from the introduction of algorithms in these realms, and the effects they have on democracy, citizenship and selfhood. Solange Ghernaouti dwells on the digital technologies that increase the potency of existing infrastructures of state surveillance, and how the digital ecosystem itself should then be viewed as a new risk for human rights. She presents a critical analysis of the detrimental effects of digital practices, digital ecosystem and the Internet on civil liberties, other related human rights, as also protection of the environment and biodiversity. She offers prescriptive and strategic recommendations based on the idea of the ‘common good’, and taking the concerns of cyber-security and multilateralism as part of the possible solutions. Siddharth Narrain focuses on the effects of online practices and platforms on an important fundamental right, the human right to freedom of speech and expression. He elaborates on the distinctive nature of hate speech online, its performative aspects, and the need for regulators to start focusing on the particularities of

25 Visions and Visioning becomes regulatory and public tools to construct and examine coherent pictures of potential future socio-technological states that arise from the development and deployment of the identified technological trajectory, and can then become useful tools to anticipate, deliberate and change course if necessary. See further, the special issue of Economic and Political Weekly, Sekhsaria and Thayyil ed., Narratives of Technology and Society Visioning in India, 54(4) ECONOMIC & POLITICAL WEEKLY 39 (2019) – on the relationship between Visions, Visioning and other techniques of technology assessment with the development of technology.


27 See further, Naveen Thayyil, Claiming the Social: Beyond ‘Law as Technology’ 11(2) SOCIO-LEGAL REVIEW 1, 19 (2015).
various platform infrastructures that makes the proliferation of such hate speech possible. Beyond the usual rhetoric of identifying what is hate speech in the quest for regulating online hate speech, he reminds analysts of the importance of taking the algorithmic materiality and infrastructure of hate speech in India seriously.

Two articles focus on the detrimental effects on rights via a prominent site of digital reconfiguration of work in the algorithmic ‘gig economy’ - ridesharing and cab aggregators. Mishra and Thayyil discuss the implications for labour rights from algorithmic infrastructures in rideshare apps in India. Within the context of a longer history of normalization of informal (and disorganized) work in the country, they identify specific facets in attendant labour practices, viz., precarious living conditions from the temporary and unprotected nature of the work environment, sharp drop of income for the transport workers accompanied with (even) longer working hours, as also erosion of unionization and collective bargaining possibilities. The authors locate the role of algorithms in these disentitlements, and call for specific regulatory measures towards algorithmic accountability. Marston and Holtum discuss the future of work in the time of algorithms, through a focus on the advent of ride-sourcing platforms in Australia. The deterioration of working conditions, and the erosion of the security and rewards of paid work through the steady growth of digital labour platforms of gig-work is seen as emblematic of the de-standardization of work in Australia. The authors focus on the future of work during AI and algorithmic automation as an opportunity to think about structuring work at large and to map out a more equal society. Towards this, the authors argue for a more considered, broader regulatory and social approach that addresses the cause of social inequality in society.

Two further contributions examine the complexities in the balancing acts that regulators encounter in specific sectors, viz., algorithms in the health sector, and in state surveillance. Nishtha Bharti focuses on the regulatory conundrums related to the recent impetus for algorithmic initiatives in healthcare in India. She identifies key conundrums through a cursory examination of this landscape and underline the challenges that beset the ‘panacean’ promise that drive the narratives of development and deployment of algorithmic technologies in healthcare. Through such a focus, she emphasizes the need for contextualizing this technology in the ‘fragile but unique model of Indian healthcare, and to move forward keeping in mind the fallibility of technological design’ of the underlying architecture, ‘however pioneering it might appear’. Snehil Singh focuses on the need for additional judicial safeguards against panoptic state control and surveillance, through Section 69 of the Information Technology Act, 2000 in India. Towards effective protection for the fundamental right to privacy, he argues for the institution of prior judicial scrutiny (‘ex-ante ex-parte’) so as to
ensure that the specific executive actions of surveillance are well within recognized constitutional limits and to ‘prevent unjust surveillance and protecting the right to privacy’. Whether the judiciary will have the infrastructural capacity and intellectual resources to engage in such ‘technical matters’ in what may well be a whole slew of such executive requests would however require further consideration.

The final two contributions offer a glimpse of the fundamental nature of the societal debates around the deployment of algorithmic infrastructures, in law, technology, and society spheres. Anubhav Banerjee seeks to move beyond an anthropocentric frame of citizenship by seeking to analyze the state capacity and legal consequences in conferring citizenship rights to artificially intelligent entities. He examines the limits of existing jurisprudence in accommodating the determination of AI entities as citizens, the feasibility of conferring such rights to AI entities, and its legal consequences. In contrast to these sanguine expectations about such technological trajectories, Upendra Baxi locates the new practices of self-making in artificial general intelligence as an integral feature of neoliberal governance, and the resultant commodification of subjective experience as an active usurping of freedom. In his brief postscript, he engages with the implicit notion of algorithmic selfhood, and offers a glimpse of the breadth of thinking that is necessary to approach the fundamental issues that are involved in this algorithmic turn. In taking into account the blurring lines of ‘artificial’ and natural legal personalities, he underlines the importance of engaging with the problem of ‘how fictionality of legal person could ever transcend the will of those who created them in the first place’. Significantly, he argues for a vision of law as a social technology that seeks to impose some discipline of rights and responsibilities on the making of AI and such hard technologies.

Deliberating the desirability, possibility and the legitimate contours of legal regulation of new technologies, and identifying the relevant normative principles would be indeed key parts of the task at the supposed wake of this algorithmic turn. Many would agree that existing human rights frameworks could be seen as a baseline to start this conversation to seek accountability and assert responsibility from the making of the algorithms. Is it possible for law to aim for a broad agreement on the use of Algorithms and AI in general, or at least in specific sectors, and if not what are the normative principles useful for law to recognize disagreement, characterize the contours of social disagreement, and act despite such disagreement? Further, what regulatory principles and legal doctrines are to be invented and employed to facilitate law to democratically act despite deep differences and disagreements, even as we find ways to identify knowledges and
expertise that are (un)available for lawyers and regulators to govern the development and deployment of these technological trajectories? It is apparent to anyone but the wilfully blind that these algorithmic technologies are deployed within existing social cleavages, sometimes exacerbating them, and sometime producing new inequalities. Attention on the regulatory aims and goals that the law recognizes as legitimate, and the regulatory tools that the law finds as efficient, effective and legitimate in responding to these technological trajectories, can make visible the disagreements and resistance about law itself. What is currently considered self-evident about law, then, is suddenly recognized as contested, and the inevitability of such contestations in democratic law would then also make a supposed radical technology a handmaiden for democratizing law. Through the fostering of new public arenas of discussion and deliberation on putative algorithmic selves, then, helps assert the inevitability of contestation and reassertion of what law ought to be, also as an algorithm for law and democracy.