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Text-Driven Jurisdiction in Cyberspace

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I. Introduction

In this chapter I further develop a philosophy of technology for law and the rule of law, more specifically for the role of territorial jurisdiction in the protection against crime and against arbitrary use of the *ius puniendi* (right to punish). In the face of the code- and data-driven nature of cyberspace, I discuss modern positive law as based on a text-driven jurisdiction, and the main argument of the chapter is that we cannot take for granted that the kind of legal protection that is offered by a text-driven criminal jurisdiction will hold in the context of cyberspatial challenges. In section II, I investigate how modern positive law-as-we-know-it was triggered by the technologies of cartography and the printing press, arguing that both modern democracy and the rule of law are affordances of these technologies, as they enabled the rise of an exclusive, monopolistic territorial jurisdiction. In section III, I explore the scope of written legal speech acts, integrating some key insights from the philosophy of technology in speech act theory. This allows me to explain how the substantive and procedural principles of criminal law legality depend on the performative effect of written legal speech acts, highlighting their connection with the rise of territorial jurisdiction and the creation of an artificial, modern *demos*. In section IV, I discuss the new challenges of competing territorial jurisdictions that claim legal powers outside their territory, as well as challenges posed by new types of 'brute jurisdictions' that are based on the force of technological infrastructures that may overrule the performative effect of written legal speech acts.

In the conclusions, I call for keen attention to the specific affordances of cartography and the printing press that must be preserved if we want to uphold criminal law principles such as the presumption of innocence, the right to a fair trial and the legality principle, taking note that preservation will require reinvention and imagination rather than taking for granted the mode of existence of text-driven jurisdiction.

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II. Modern Positive Law and Territorial Jurisdiction

Lawyers must get their act together as the rise of computational infrastructures and the ubiquity of the Internet challenge much of what we take for granted, notably the way that 'jurisdiction' exists (or what some call its 'mode of existence').[1] Since both international and national law depend on the idea of jurisdiction as a foundational concept, if not as their joint vanishing point, this is not cheap alarmism over difficulties to enforce the criminal law outside one's territory or yet another appeal to Internet exceptionalism, but a sober call to action. This call is based on the findings of a dedicated *philosophy of technology for law* that I have been developing in my research into the implications of data-driven environments for the law,[2] and more specifically for the integration of artificial intelligence into legal practice and legal research.[3] Legal theory and philosophy of law have been children of their time, recounting narratives about the nature of law and the rule of law that assume a text-driven infrastructure. This assumption has, however, been a hidden presumption that may no longer fly. Whereas there was no need to even mention positive law's reliance on the technologies of the word in an era where text was like the air we – lawyers – breathe (invisible, like water for fish), the primacy of the written word and its proliferation by way of the printing press can no longer be taken for granted.

In this chapter, I will defend the crucial importance of positive law as a historical artefact that offers a specific type of double instrumentality. On the one hand, it offers protection against criminal offences by way of the *ius puniendi*, while, on the other hand, it offers protection against arbitrary use of the *ius puniendi* by the state. Unlike morality or politics, this double instrumentality offers more than the moral preferences of whoever holds office on behalf of the state and less than the exercise of mere brute force by whoever manages to claim the monopoly of violence. The nature of positive law entails the attribution of legal effect when specified legal conditions apply, noting that such legal consequence is the performative effect of a dedicated set of speech acts that have been consolidated in a dynamic corpus of legal texts. My emphasis on the double instrumentality of positive law does *not* imply a positivist understanding of law. On the contrary, it highlights the purposive, justice-oriented and positive nature of law,[4] weaving the *fil rouge* of legal certainty through both types of protection, rejecting the separation between law, morality

[1] On the concept of 'the mode of existence', as used here, see M Hildebrandt, 'Three Framing Concepts' (2021) COHUBICOL Working Paper 1 on Text-Driven Normativity, ch 2, s 2.1, www.publications.cohubicol.com/working-papers/text-driven-normativity/chapter-2/.

[2] M Hildebrandt, *Smart Technologies and the End(s) of Law: Novel Entanglements of Law and Technology* (Cheltenham, Edward Elgar, 2015).

[3] M Hildebrandt, 'A Philosophy of Technology for Computational Law' (*LawArXiv*, 2020) www.osf.io/preprints/lawarxiv/7eykj.

[4] G Radbruch, 'Legal Philosophy' in K Wilk (trans), *The Legal Philosophies of Lask, Radbruch, and Dabin* (Cambridge, MA, Harvard University Press, 1950); M Hildebrandt, 'Radbruch's *Rechtsstaat* and Schmitt's Legal Order: Legalism, Legality, and the Institution of Law' (2015) 2 *Critical Analysis of Law* 42.

and politics, while nevertheless highlighting the distinctive performative role of law in 'modern' society, as well as the system of institutional checks and balances that distinguishes law from both morality and politics. Without legal effect, fundamental rights, including property and human dignity, become moral imperatives dependent on personal inclinations or privileges granted by those in power. Legal effect is neither a matter of brute force nor one of mechanical application. This is where a hermeneutical understanding of positive law differs from both formal and sociological positivism,[5] which also clarifies why acknowledging the emphasis on positive law does not imply legal positivism. A hermeneutical approach is focused on the key role played by interpretation when establishing the meaning of both legal text and human action, based on their multi-interpretability – which requires a decision on how the text is read in light of the facts and how the facts are to be read in light of the applicable law. This decision is not defined or determined by either logic (as legal formalism may suggest) or causality (as sociological positivism would have it). Instead, it requires situated human judgement, practical knowledge and keen awareness of the discretion that is inherent in all acts of interpretation. As Dworkin has argued, such discretion is not equivalent with arbitrary judgement based on a judge's contingent moral or political inclinations.[6] Deciding on interpretation, instead, implies a normative commitment to the integrity of the law, taking into account the bandwidth provided by legislation, prior case law and an anticipation of what a dedicated interpretation implies for future decision-making. By defining the decision on interpretation in terms of the attribution of legal effect as performative effect, we may avoid simplistic accounts based on logical or causal inference. Thus, highlighting 'legal effect' as the vanishing point of positive law and of effective legal protection does not assume that one buys into Kelsen, Schmitt, Carré de Marlberg, Hart or Raz, noting that Radbruch, Duguit, Hariou, Dworkin and Waldron developed a keen understanding of the centrality of positive law without falling prey to legal positivism.

A. The Affordances of the Technology of the Printing Press: Rule by Law

In this chapter, I will address the hermeneutical nature of positive law as a historical artifact, grounded in a specific information and communication infrastructure (ICI) – that is, in the technologies of text, or *manuscript (hand written) and*

[5] R Dworkin, *Law's Empire* (London, Fontana, 1991); J Waldron, 'The Rule of Law', *The Stanford Encyclopedia of Philosophy* (Summer edn, 2020) www.plato.stanford.edu/archives/sum2020/entries/rule-of-law; HLA Hart, *The Concept of Law* (Oxford, Clarendon Press, 1994); H Kelsen, *Pure Theory of Law* (Clark, Lawbook Exchange, 2005); J Austin, *The Province of Jurisprudence Determined* (WE Rumble ed, Cambridge, Cambridge University Press, 1995).

[6] R Dworkin, *Taking Rights Seriously*, 5th print edn (Cambridge, MA, Harvard University Press, 1978).

printing-press speech acts (hereinafter called 'written speech acts').[7] As Eisenstein and others have demonstrated, the affordances of printing press ICIs differ from those of an oral ICI, but also from those of handwritten ICIs, in particular with regard to the need for systematicity and abstraction.[8] Scholarship on the history of information confirms that writing and printing gave rise to abstract thought,[9] rather than this being a feature of the human mind in splendid isolation. Writing affords 'distantiation': between author and text, between text and reader, and between meaning and text – both in time and in space. This is how text enabled societies to organise themselves into larger communities (distantiation in space) while planning ahead for a larger timespan (distantiation in time).[10] The relationship with the shift from nomadic to sedentary societies is telling; to move from hunting and gathering (very small groups) to cultivating land and cattle (larger groupings) required storing food, drink and seeds, which, in turn, required counting and planning to make sure that the delay between harvesting and sowing did not leave people starving.[11] Writing affords the externalisation of collective memory that can also serve as a repository of the rules a society lives by, while the proliferation of identical printed copies of text afforded the enactment of statutory laws meant to bind all subjects.[12] The rise of modern positive law over the course of five or six centuries is thus tied up with the possibility of enacting written legal statutes that have legal effect for all those who share the relevant jurisdiction, or with the possibility to write treatises or restatements of law (in common law jurisdictions) and with the ability of courts to stay within a line of reasoning traced from past written decisions while simultaneously anticipating the implications for future case law.

B. The Affordances of the Technology of Cartography: The Spatiality of the Modern State

Modern positive law, however, is not only the fruit of the ICI of the printing press; it is also closely aligned with the emergence of jurisdiction and territory, and their

[7] See s III below for further elaboration of speech act theory.

[8] EL Eisenstein, *The Printing Revolution in Early Modern Europe*, 2nd edn (Cambridge, Cambridge University Press, 2012); SA Baron, EN Lindquist and EF Shevlin *Agent of Change: Print Culture Studies after Elizabeth L Eisenstein* (Amherst, University of Massachusetts Press, 2007); C O'Donnell, 'An Analysis of the History and Development of the Printing Press as Critique of Technological Determinism' (2022) 1 *Communications Undergraduate Journal* 8, http://cujournal.ie/article/id/11/; D Bawden and L Robinson, 'A Distant Mirror?; The Internet and the Printing Press' (2000) 52 *Aslib Proceedings* 51.

[9] J Gleick, *The Information: A History, a Theory, a Flood* (London, Fourth Estate, 2011).

[10] P Ricoeur, 'The Model of the Text: Meaningful Action Considered as a Text' (1973) 5 *New Literary History* 91.

[11] P Lévy, *Les Technologies de l'intelligence: L'avenir de La Pensée à l'ère Informatique* (Paris, La Découverte, 1990).

[12] Hildebrandt, *Smart Technologies and the End(s) of Law* (n 2).

culmination in the concept of sovereignty. To grasp the rise of positive law, we need to invoke the affordances of yet another technology that explains the emergence of internal and external sovereignty.[13] First, it is interesting to note that the concept of jurisdiction preceded the concept of territory. Whereas jurisdiction appeared in the early fourteenth century, referring to the scope of administrative power, territory appeared a century later, referring to land under a specific jurisdiction (of a town or state).[14] Jurisdiction determined the reach of governmental power, which could be based on *ratione personae* (clergy fell under the powers of the pope), *ratione materiae* (marriage fell within the powers of the Catholic church) or *ratione territoriae* (whoever lived on a particular stretch of land fell under the powers of a particular lord). Second, we must note how jurisdictions initially overlapped and competed, and did not depend on the idea of a sovereign state. Berman and Glenn both saliently described the rise of the state's monopolistic claims of territorial jurisdiction versus all other kinds of jurisdiction,[15] culminating in the birth of the sovereign state as an entity that combines protection against external interventions with complete and highest internal power, thus allowing the idea of external and internal sovereignty to crystallise as two sides of the same coin. This raises the salient question of why the reach and scope of jurisdiction shifted towards territory as an exclusive way to 'ground' the exercise of governmental power. Instead of looking for answers in the political, economic or even ecological domain, I will dig a bit deeper by asking what technology may have afforded this shift. In his seminal work, Ford highlighted how the technology of cartography introduced a new type of spatiality, as it enabled mapping of the surface of the earth by drawing lines and thus dividing it in mutually exclusive enclosed spaces.[16] The latter facilitated (i) a shift from authority based on family to one based on land; (ii) providing unambiguous boundaries for the exercise of such authority; (iii) creating an abstract spatiality that does not depend on the specific texture or habitation of the land that is demarcated; and thus (iv) basically mapping a series of bounded empty spaces that cover the entire surface of the earth (with the exception of the high seas). Cartography thus afforded the kind of abstraction that is characteristic of modern statehood, where the sovereign is an office, an empty place,[17] rather than a person, as famously

[13] M Hildebrandt, 'Extraterritorial Jurisdiction to Enforce in Cyberspace? Bodin, Schmitt, Grotius in Cyberspace' (2013) 63 *University of Toronto Law Journal* 196.

[14] 'Jurisdiction' (*Chambers 21st Century Dictionary*) www.chambers.co.uk/search/?query=jurisdiction&title=21st; 'Territory' (*Chambers 21st Century Dictionary*) www.chambers.co.uk/search/?query=territory&title=21st. See also the relevant literature referred to in Hildebrandt, 'Extraterritorial Jurisdiction to Enforce in Cyberspace?' (n 13).

[15] H Berman, *Law and Revolution: The Formation of the Western Legal Tradition* (Cambridge, MA, Harvard University Press, 1983); HP Glenn, *Legal Traditions of the World* (Oxford, Oxford University Press, 2007).

[16] RT Ford, 'A History of Jurisdiction' (1999) 97 *Michigan Law Review* 843.

[17] C Lefort, *Democracy and Political Theory* (New York, Wiley, 1991).

described by Kantorowicz in *The King's Two Bodies*.[18] Here, again, we see that abstraction is not a human invention, based on the genius of a single person or a superior civilisation, but an affordance of a specific technology. Just as writing enabled mathematics and abstract thought, cartography enabled an abstract notion of jurisdiction that is tied to a territory but simultaneously open to any political programme or mandate. This is not to suggest technological determinism; an affordance enables and constrains. Depending on how it does this, it induces or inhibits, enforces or precludes.

C. Democracy and the Rule of Law as Technological Affordances

If cartography enabled the rise of territorial jurisdiction as we know it, and if the printing press enabled the rise of a rule *by* law within the abstract space of territorial jurisdiction, we may wonder which technologies enabled democracy and the rule *of* law. Clearly, the system of international law that emerged from the rise of the contiguous mapping of sovereign states builds on the principle of non-intervention as core to external sovereignty, thus also instituting quasi-absolute powers for internal sovereignty.[19] It is up to the sovereign to decide how its population is governed, even though the proliferation of printed text privileges rule by way of written rules as this affords reaching a larger population or a population that is distributed throughout a large territory. The non-intervention principle implies that those subject to territorial jurisdiction come to depend on the whims of their sovereign, but, due to the abstract nature of sovereignty, this, in turn, generates theoretical reflection upon the nature of government – giving rise to the idea of the social contract in its various modulations (Hobbes, Locke, Rousseau),[20] as well as new ideas about the nature of democracy, aristocracy, monarchy and tyranny (Montesquieu).[21] So, the same abstraction that shaped the sovereign state also allowed for the idea of an internal division of sovereignty, shaping the institution of the state as a system of countervailing powers. Rule *by* law is a rule by a person who holds the office of the sovereign, using legal rules to govern the people without, however, being bound by those rules, thus making the subjects of the sovereign dependent upon the abilities and intent of an actual person. Rule *of* law is the reign of *the office of* sovereignty, based on a system of rules and relationships that operate at different levels, with meta-rules that constrain which rules can be enacted and enforced.[22] Rule *of* law provides for a written or unwritten

[18] EH Kantorowicz, *The King's Two Bodies: A Study in Mediaeval Political Theology* (Princeton, Princeton University Press, 1957).

[19] J Bodin, *Bodin: On Sovereignty* (JH Franklin ed, Cambridge, Cambridge University Press, 1992).

[20] C Friend, 'Social Contract Theory', *Internet Encyclopedia of Philosophy*, www.iep.utm.edu/soc-cont/.

[21] Waldron (n 5).

[22] Hart (n 5), distinguishing between primary and secondary rules.

constitution that restricts the powers of the sovereign, even if the person that holds the office of the sovereign is democratically chosen by a majority. Under the rule of law, the office of the sovereign and whoever holds that office are bound by the law.

Returning to the notion of the empty place of the sovereign, Lefort says:[23]

> This model reveals the revolutionary and unprecedented feature of democracy. The locus of power becomes an empty place. There is no need to dwell on the details of the institutional apparatus. The important point is that this apparatus prevents governments from appropriating power for their own ends, from incorporating it into themselves. The exercise of power is subject to the procedures of periodical redistributions. It represents the outcome of a controlled contest with permanent rules. This phenomenon implies an institutionalization of conflict. The locus of power is an empty place, it cannot be occupied – it is such that no individual and no group can be consubstantial with it – and it cannot be represented.

In a sense, modern types of democracy and the rule of law are affordances of both cartography (which provides the empty space to rule a population, marking clear borders between who is and who is not within a particular jurisdiction) and the printing press (which results in a corpus of written legal norms that require interpretation and systemisation) – thus constituting a *demos* (based on territorial jurisdiction rather than kinship or other loyalties) and a text-driven jurisdiction that invites the contestation of written legal norms due to the distantiation between those who enact the law and those who are subjected to its imperatives.

III. Criminal Law Legality and the Reach of Written Speech Acts

A. The Missing Link between Speech Act Theory and Modern Positive Law

Speech act theory has focused on the act of speaking and taken little notice of the fundamentally different affordances of oral and written speech acts. The theory builds on the idea that *speaking* is a form of *acting*. As such it was first developed by Austin in *How to Do Things with Words*.[24] Austin spoke of performative speech acts (or performatives) whenever an 'utterance' *does what it says*, such as when a civil servant declares a couple husband and wife. The nature of such 'performatives' is not *causal for* but *constitutive of* its effect; the civil servant does not cause the marriage, but nevertheless brings it about. Note that – at least in civil law jurisdictions – this is not even correct, because marriage is only validly

[23] Lefort (n 17) 17.

[24] JL Austin, *How to Do Things with Words*, 2nd edn (Cambridge, MA, Harvard University Press, 1975).

constituted once it has been registered in the civil registry; it requires a written rather than 'merely' an oral speech act. Searle further developed speech act theory by introducing the concepts of institutional and brute facts. Where a table or a stone are considered brute facts, 'marriage' or 'contract' are considered institutional facts, being the result of performative speech acts.[25] This is not to say that if one intends one's words to have a certain effect they will therefore do so. Speech act theory is closely connected with a pragmatist understanding of the meaning of language, emphasising Wittgenstein's point that meaning is constituted in use and depends on a shared background consisting of hidden assumptions, mutual beliefs and a joint practice that grounds the use and thereby the meaning of words and more generally of human action.[26] Whether a speech act has performative effect depends on such a shared background. Taking Wittgenstein seriously, we should understand speech act theory as a theory on *language usage* rather than *speech* (including both written and spoken language use), and, taking philosophy of technology seriously, it seems important to trace the impact of the technologies of the word on the nature and the reach of *written speech* acts.[27] For the sake of simplicity, I will, as indicated, continue to refer to speech acts also when they entail language usage other than speech in the narrow sense of oral utterances, bringing together both written and spoken language use under the heading of speech acts.

Defining written language usage as a written speech act is especially relevant for modern positive law, which can be framed as fundamentally text-driven. Even Austin, though most of his examples concern oral performatives, used the example of a written will to explain the idea of a speech act that must be written down to 'count as' a performative act – that is, to have the intended legal effect. Despite his friendship with Herbert Hart,[28] who seems to have had a major influence on his *How to Do Things with Words*, Austin refrained from a more in-depth analysis of written performatives and how they differ from oral ones. This also goes for the incorporation of speech act theory into legal theory by MacCormick, who was more concerned with the shift from informal to formal norms than with

[25] JR Searle, *Speech Acts: An Essay in the Philosophy of Language* (Cambridge, Cambridge University Press, 1969); JR Searle, *The Construction of Social Reality* (New York, The Free Press, 1995). Searle built on GEM Anscombe, 'On Brute Facts' (1958) 18 *Analysis* 69, and I would side with Anscombe rather than with Searle in highlighting the relative nature of brute facts; whether a fact is qualified as brute or institutional depends on how it relates to other 'facts' and to the context of the 'utterance'.

[26] L Wittgenstein, *Philosophical Investigations: The German Text, with a Revised English Translation*, 3rd edn (GEM Anscombe trans, Malden, Blackwell, 2003); Ricoeur (n 10); C Taylor, *The Language Animal: The Full Shape of the Human Linguistic Capacity* (Cambridge, MA, Belknap Press, 2016); EA Di Paolo, EC Cuffari and H de Jaegher, *Linguistic Bodies: The Continuity between Life and Language* (Cambridge, MA, MIT Press, 2018); CS Peirce, *Pragmatism as a Principle and Method of Right Thinking: The 1903 Harvard Lectures on Pragmatism* (PA Turrisi ed, Albany, State University of New York Press, 1997).

[27] On the nature of written as opposed to oral speech acts, see notably B Fraenkel, 'Actes écrits, actes oraux: la performativité à l'épreuve de l'écriture' [2006] *Études de communication* 69; P Henttonen, *Records, Rules and Speech Acts: Archival Principles and Preservation of Speech Acts* (Tampere, Tampere University Press, 2007).

[28] Fraenkel (n 27) 7.

the underlying technological infrastructure that induced the externalisation of implicit norms, and thus made possible the formalisation of legal norms we now take for granted. As Henttonen notes, in his work on the cusp of archival theory and speech act theory:[29]

> [A] clear shortcoming in the speech act theory is that it does not say much about the contextual information needed for understanding a speech act. This is perhaps a consequence of the largely oral focus of Austin and Searle: in oral communication the speaker and the hearer usually share the same context, which partially hides the context's significance. When it comes to writing, the opposite is often true.

Both Anscombe and MacCormick paid detailed attention to the background knowledge that is implied in speech acts. They did so in terms of the context that is assumed when navigating institutional facts, highlighting the fact that in normal circumstances such tacit knowledge need not be specified. Curiously, however, in law, this knowledge is made explicit. For instance, when describing legal powers, MacCormick describes the background information that must be in place for a specific legal speech act to actually have the intended performative effect:[30]

> (a) Which person or persons, having (b) What general capacity or particular position (c) Subject to what required circumstances, and (d) In the absence of what vitiating circumstances (e) By what special procedures or formalities, and (f) By what act (g) In respect of what if any other persons (h) Having what general capacity (i) In respect of what thing or activity, Can bring about the designed legal outcome.

These kinds of questions demonstrate that legal systems are highly complex animals and depend on intricate stipulations of legal powers that ultimately depend on a meta-rule of recognition that is constitutive of such order, sealing the political order to its legal institution. As a legal positivist, MacCormick was very much aware of the role of the state in instituting, executing and terminating legal institutional facts, but he somehow overlooks the most obvious question: why modern law is a written law, and how that relates to the rise of the sovereign state. This question is pivotal for the development of the state's *ius puniendi*.

Modern positive law has both written and unwritten performatives, that is, utterances that have legal effect. These performatives are intimately connected with *institutional facts*, such as a criminal offence, criminal intent, justification and excuse, and with the *sources of law*, such as the Constitution, the criminal code, the powers of the public prosecutor and police officers, case law, the criminal law legality principle and the presumption of innocence. As Fraenkel explains,[31] other than with oral performatives, written legal performatives have two dimensions that coincide in oral speech acts: (i) the moment of their

[29] Henttonen (n 27) 31.

[30] Anscombe (n 25); N MacCormick, 'Norms, Institutions, and Institutional Facts' (1998) 17 *Law and Philosophy* 301, 341.

[31] Fraenkel (n 27).

utterance (their inscription and enactment); and (ii) the moment of reading (being addressed by a legal norm). The distinction between these moments is enabled by the enduring availability of what was uttered in the form of identical textual embodiment (whether a written judgment or statute). Precisely because the normative force of written legal performatives endures long beyond the moment of enactment, based on an external memory, or on tertiary retention as Stiegler would have it,[32] the context of interpretation will shift over the course of time and space, thus requiring explicit attention to underlying assumptions and tacit background knowledge. It is the written nature of legal speech acts that explains – in part – the nature of modern positive law as a complex system of interacting legal norms. It explains why the background knowledge that defines the scope of a legal power must be made explicit in fine-grained detail, and also clarifies how modern positive law affords so much complexity, as this is required to bridge the distantiation in time and space that is typical for written legal performatives and enabled by means of the granular specification of written legal performatives. Fraenkel indeed argues that modern positive law is necessarily contingent upon the specific performativity of *written* speech acts, highlighting that: (i) the disentanglement between the (legal) person who performs a legal speech act and its sedimentation in text provides for a richer and more adaptive resource for those under its jurisdiction;[33] (ii) the exposition of the provenance of an utterance by tracing it to the relevant sovereign power asserts its binding character and thus provides for modern law's complex, hierarchical and systematic character (eg distinguishing between primary and secondary norms);[34] and (iii) the continuity of the interpretation of legal performatives requires hard work when the context of utterance is distant and different from the context of 'reading', which, in turn, requires courts to insert themselves in a practice of respecting legitimate expectations based on past decisions while anticipating the impact of their judgement on future determinations.[35]

It is thus the written nature of legal speech acts that accounts for the sophistication and complexity of internal sovereignty and the concomitant powers of the

[32] B Stiegler, 'Die Aufklaerung in the Age of Philosophical Engineering' in M Hildebrandt, K O'Hara and M Waidner (eds), *Digital Enlightenment Forum Yearbook 2013: The Value of Personal Data* (Amsterdam, IOS Press, 2013).

[33] Fraenkel (n 27) 9–10, basing her analysis on Reinach's phenomenology: see J DuBois and B Smith, 'Adolf Reinach', *The Stanford Encyclopedia of Philosophy* (Fall edn, 2018) www.plato.stanford.edu/archives/fall2018/entries/reinach/.

[34] Fraenkel does not refer to primary and secondary norms, though she claims to base the aspect of what she calls 'exposition' on Hart's positivism and the need for binding legal text to trace its provenance to the sovereign; she actually refers to Hobbes, which seems more convincing: Fraenkel (n 27) 10. To the extent that her point is about the kind of complexity and systematicity that written performatives generate and require, I believe that the distinction between Hart's primary and secondary rules is pivotal.

[35] Fraenkel refers to Dworkin's famous image of the chain novel that ties the author of a judgment to both previous and subsequent judgments, taking into account the intent of previous authors, the legitimate expectations of the parties and the need to generalise the ratio decidendi to potentially unforeseeable future decisions: Fraenkel (n 27) 11.

state, including the institution and configuration of the *ius puniendi*, which, in turn, includes the intricate organisation of legal protection against a state's potentially arbitrary deployment of that same *ius puniendi*. The brute power to punish is not necessarily constrained in a foreseeable manner. However, once this power becomes a legal power, based on written legal speech acts that define and thereby limit its material and territorial scope, those subject to it can contest the interventions of criminal justice authorities by contesting the interpretation of the law that is implied in those interventions. The double instrumentality of the rule of law referred to above (conferring powers while limiting them, and protecting against the unlawful action of one's fellows in a way that also protects against the state overstepping its lawfully attributed powers) thus depends on the contestability that is enabled by written legal performatives. The latter can then be developed and sustained in the stable context of internal sovereignty (in turn enabled by the specific spatiality afforded by cartography). This stable context of internal sovereignty, which grounds territorial jurisdiction, positive law and effective legal protection, is now challenged by the novel spatiality of cyberspace.

B. Criminal Law Legality, *Demos* and Jurisdiction

The novel spatiality of cyberspace is directly related to the difference between the kind of cybernetics (steering capacity) that defines cyberspace on the one hand and that of the printing press and cartography on the other hand. Whereas printed text induces sequential, diachronic processing of information, the Internet and the World Wide Web induce random, synchronic processing; and whereas cartography induced stable geographical boundaries that instituted mutually exclusive physical spaces, the Internet and the World Wide Web induce flexible and dynamic boundaries that institute a simultaneity of overlapping spaces, where neither the boundaries nor the spaces are limited to geographical, physical space. Before the emergence of cyberspace, context was dependent on one's actual place in a given three-dimensional space (school, home, hospital, shop); in cyberspace, such location no longer defines context because one can easily move from one context to another while remaining in the same physical place (working from home, remote health monitoring, shopping online). By default, cyberspatial context is not geographically defined and thus not contained within national boundaries, raising complex issues of jurisdiction where principles of territory, personality and effects doctrine do not solve problems, but rather create them. If context is what enables the performative effect of written legal speech acts, then the loss of an identifiable context may disable the kind of legal protection offered by modern positive law.

As discussed extensively in previous work,[36] the cross-border nature of cybercrime implies a double challenge. First, cybercrimes can be committed by a

[36] Hildebrandt, 'Extraterritorial Jurisdiction to Enforce in Cyberspace?' (n 13); M Hildebrandt, 'The Virtuality of Territorial Borders' (2017) 13(2) *Utrecht Law Review* 13.

person physically located in one territory with major effects in one or more other territories. Second, this has resulted in many attempts to establish extraterritorial jurisdiction at the material, investigative and enforcement level. Both types of cross-border effects challenge the monopolistic nature of national jurisdiction in the realm of criminal law.

Above, I have argued that speech act theory must be further developed to face the particular characteristics of written legal speech acts. Only after acknowledging their reach as constitutive of a specific type of legal protection and thus their relationship with Beccaria's legality principle (*nullum crimen, nulla poena sine lege*) can we begin to understand the challenges of consolidating legal effect and thus legal protection in cyberspace. This goes especially for the legality requirements that inform criminal investigation and criminal procedure, including the presumption of innocence and the right to a fair trial, which offer legal protection against arbitrary or disproportional use of criminal investigation by states. Here again, it is the double instrumentality of the rule of law that must be preserved and possibly reinvented; both the protection against cyber-related crime and the protection against illegitimate use of the state's legal powers largely depend on a territorial jurisdiction that constitutes the *demos* that hosts the context for law's performative effect. In the next section, on competing jurisdictions, I will pay more detailed attention to the issues of *ne bis in idem* and overlapping investigative powers.

Beccaria's advocacy of substantive and procedural criminal law legality principles is often hailed as part of a utilitarian criminal law theory. Instead, I would like to explore the relevance of his social contract theory for the notion of territorial jurisdiction and the protection it offers by way of the rule of law. As David Young has argued,[37] there are good arguments to ignore attempts to put Beccaria in a box of either retributivism (based on a strict interpretation of Kant's categorical imperative) or utilitarian calculus (even if Bentham lauded Beccaria as one of his own). According to Young, Beccaria grounded his seminal work on criminal law and criminal procedure in a type of contract theory that understands individual human beings and human society as interdependent, explaining punishment as being based on a 'social contract' that is based on an irrevocable respect for both the law and individual agency – even if the agent is considered a criminal: 'There is no liberty whenever the law in some cases permits a man to cease to be a person and to become a thing.'[38] According to Young:

> [Beccaria] thought of people not as units of pleasurable and painful sensations whose purpose is simply to maximize social happiness, but rather as responsible bearers of rights, as beings who, by virtue of being human, can make certain claims which no consideration of utility can override.[39]

[37] DB Young, 'Cesare Beccaria: Utilitarian or Retributivist?' (1983) 11 *Journal of Criminal Justice* 317.

[38] ibid 321, quoting C Beccaria, *An Essay on Crimes and Punishments. By the Marquis Beccaria of Milan. With a Commentary by M de Voltaire. A New Edition Corrected* (Farmington Hills, Gale ECCO Print Editions, 2010) ch 20, p 79.

[39] Young (n 37) 321.

This is particularly interesting as Beccaria also noted that individuals may be forced to serve under a social contract that diminishes them as a person while allowing others to profit from their misery. In this case, Beccaria suggests that if a social contract is not such that it can be understood as being in the interest of each and every citizen, its violation by those on the downside might not justify punishment. In terms of written legal speech act theory, this is a seminal argument; one could reframe it as stating that the unwritten social contract that informs the law of a sovereign state should always be *reconstructable* in such a way that it can claim adherence by each and every person who is subject to its jurisdiction.[40] Social contract theory actually emerged when written law started proliferating, demanding an implied philosophy to make sense of the myriad detailed written speech acts (legislation, administrative decisions, judgments). Contract theory in point of fact emerged around the same time as Montesquieu's plea for a system of countervailing powers, long before representative, deliberative and participatory democracy-as-we-know-it came into its own. Though Montesquieu did not adhere to social contract theory, his argument was based on keen attention to the implied philosophy of different types of government and how they can or cannot protect against arbitrary punishment. Criminal law and criminal procedure are constituted by a plethora of written legal speech acts that must be understood against a background of shared assumptions and mutual beliefs. Both criminal law legality principles demand that written legal speech acts be comprehensible as articulations of the integrity of the law, achieving both coherence for the totality of criminal law performatives and equal concern and respect for each and every citizen. If either coherence or respect for individual agency dissolves, the social contract becomes brittle – precisely because ultimately it does not depend on brute force or mechanical application, but on the shared world of institutional facts we need to navigate.

Written legal performatives create a vast and complex web, invoking authority while consolidating meaning based on adversarial debate. This web is contained within the boundaries of a territorial jurisdiction that restricts the scope of such performatives to a population within reasonably clear national borders. Thus, the ICIs of the printing press and cartography afforded a specific type of criminal law legality, both in the sense of generating the kind of contestation that is inherent in a system that requires iterant interpretation and in the sense of providing for closure in a way that is foreseeable and sufficiently robust, within the context of a *demos* that is constituted by territorial jurisdiction. Though the idea of closure should not be reduced to sovereign imperatives, to be 'practical and effective', written performatives require the support of a sovereign state. It is important to acknowledge that if the reach of written speech acts were global or undefined, this could not have been achieved, precisely because the vastly different background

[40] On reconstructive theory, see, eg F Vandenberghe, *What's Critical about Critical Realism? Essays in Reconstructive Social Theory* (Abingdon, Routledge, 2014).

knowledge, assumptions and mutual beliefs would create *anomia* rather than justice, legal certainty and purposiveness.

IV. Competing Jurisdictions

A. Jurisdictions of Choice?

In their important work on *Rethinking the Jurisprudence of Cyberspace*,[41] Reed and Murray speak of 'competing normativities' as a core challenge to the rule of law in cyberspace. The cross-border 'nature' of cyberspace enables a continued 'workflow' of deterritorialisation and reterritorialisation,[42] based on the material affordances of the Internet's global pipeline, its Transmission Control and Internet Protocols (TCP/IP), the World Wide Web's Hypertext Transfer Protocol (HTTP),[43] topped by cloud servers, virtual platforms, application programming interfaces (APIs) and a whole range of applications, including those of the Internet of Things. By enabling both natural and legal persons to trade, steal and target seamlessly across national borders without them actually crossing any physical border, cyberspace generates a diversity of claims for extraterritorial jurisdiction that in turn generate a new type of pluralism as to applicable law and competent courts. As states grasp cross-border jurisdiction based on a variety of legally relevant leads (subject matter, effects, personality, territory), cyberspace results in legal and natural persons facing a potentially contradictory set of legal obligations which they cannot possibly all comply with. I believe Reed and Murray are right in arguing that this seems to overrule many of the assumptions that underly the monopolistic claims of territorial jurisdiction, which grounds both positive law and the rule of law. I would not agree that this creates a new kind of freedom to choose one's jurisdiction depending on individual preferences, or an individualised law based on an on-the-spot and temporary 'community' of those who decide to comply with the same legal norm. Though I have no doubt that some of the big players at the global level are capable of cherry picking the rules they abide

[41] C Reed and A Murray, *Rethinking the Jurisprudence of Cyberspace* (Cheltenham, Edward Elgar, 2018); M Hildebrandt, 'Book Review: Chris Reed and Andrew Murray, Rethinking the Jurisprudence of Cyberspace' (2020) 83 *MLR* 690.

[42] W de Been, P Arora and M Hildebrandt (eds), *Crossroads in New Media, Identity and Law: The Shape of Diversity to Come* (Basingstoke, Palgrave MacMillan, 2015); J Goldsmith and T Wu, *Who Controls the Internet? Illusions of a Borderless World* (New York, Oxford University Press, 2006); ML Mueller, 'The New Cyber-Conservatism: Goldsmith/Wu and the Premature Triumphalism of the Territorial Nation-State: A Review of Goldsmith and Wu's "Who Controls the Internet? Illusions of a Borderless World"' (Internet Governance Project, 16 June 2006) www.internetgovernance.org/pdf/MM-goldsmithWu.pdf; JE Cohen, 'Cyberspace As/And Space' (2007) 107 *Columbia Law Review* 210.

[43] ML Mueller, *Networks and States: The Global Politics of Internet Governance* (Cambridge, MA, MIT Press, 2010); ML Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace*, 2nd edn (Cambridge, MA, MIT Press, 2004).

by, most of us cannot afford such a luxury. More to the point, switching from one social contract to another based on their perceived benefits ignores the nature of a social contract as an implied philosophy that secures the integrity and robustness of a legal system.[44] Hopping from one jurisdiction to another to avoid sharing the costs that create the benefits will result in the anomia referred to at the end of the previous section; it will taint the performative effect of written legal norms and disrupt both legal certainty and justice. This is not only because it comes across as unjust to reap benefits everywhere without sharing cost anywhere (think tax havens), but also because justice and legal certainty are about the foreseeability inherent in equal treatment which requires a stable understanding of whose treatment we should compare with. The latter defines and is defined by the *demos*.

B. *Ne bis in idem* and Overlapping Investigatory Powers

Reed and Murray largely focus on private law jurisdiction. In the case of criminal law, competing jurisdictions may jeopardise the principle of *ne bis in idem* insofar as states do not recognise one another's convictions as relevant for their *ius puniendi*. They may also jeopardise the legality principle insofar as both the articulation and the interpretation of specific criminal offences often differ between states, making it hard to foresee whether the consequences of one's actions will trigger criminal liability in another – competing – jurisdiction. In the case of criminal law, the big players that engage in criminalised conduct may be other states or hacker communities aligned with them, as well as powerful actors that operate in global darknets. In both cases, the ICIs that enable those rogue actors call for supraterritorial or transnational legal powers for justice authorities. This can easily undermine the content, the boundaries and the constitutive context of the social contract, even though precisely in the case of criminalisation the tacit dimensions of the social contract are key. In civil law jurisdictions, the legality principle entails that criminalisation requires written legal speech acts of the legislature to ensure legal certainty and to restrict the potential scope of criminal offences (prohibition of analogous reasoning and limited use of extensive interpretation). For the same reason, criminal law is deemed to be a critical part of the two sides of the sovereignty coin: the *ius puniendi* is seen as more closely connected with the ethos of those sharing jurisdiction (internal sovereignty determines what action is qualified as criminal) and criminalisation is seen as an attribute of sovereign states (external sovereignty rejects criminal justice interventions from other states as to material, procedural or enforcement jurisdiction). The moral blame that is often inherent in criminalisation requires a shared acuity as to what is morally acceptable and what is not, as well as a shared sense of what kinds of investigative powers or sanctions may be expected when the social contract

[44] Dworkin, *Law's Empire* (n 5); C Taylor, *Philosophical Arguments* (Cambridge, MA, Harvard University Press, 1995).

is violated. Imposing punishment where such moral sensitivity is absent would create uncertainty, fear and cynicism. For criminal law to be legitimate and effective, those subject to the criminal law need to share a context that sensitises them to relevant expectations. For instance, the Cybercrime Convention imposes a catalogue of legal obligations on the contracting states to criminalise specific types of cybercrime, to attribute relevant investigative powers and to enforce the law by way of dedicated sanctions.[45] Although it does not impose extraterritorial jurisdiction to enforce,[46] it does call for mutual collaboration between criminal justice authorities, and some states have given themselves the legal power to engage in cross-border hacking whenever it is unclear where the relevant servers are actually located. Some have even argued that the territoriality principle is respected as long as hacking is done from a computing system in the investigating state.[47] These kinds of developments may disrupt the strong connection between sovereignty, *demos* and the legitimacy of criminal law interventions – even more so than in the case of a private law disconnect. Though the Cybercrime Convention requires respect for *ne bis in idem* and legality,[48] written legal speech acts only 'work' if they are embedded in the situated expectations of an identifiable *demos*.

C. Jurisdiction, *Demos* and Community

As we have seen above, cartography and the printing press afforded the constitution of a new type of *demos*, that is, the population that inhabits a defined territory. This *demos* should be seen not as a given community, but as a historical artefact that combines Tönnies's *Gemeinschaft* and *Gesellschaft* as dimensions of a

[45] Budapest Convention on Cybercrime (European Treaty Series No 185).

[46] Some may argue that the Cybercrime Convention, Art 18 (on production orders) may be interpreted as encouraging states to assume extraterritorial jurisdiction to enforce. However, as the Cybercrime Convention Committee's (T-CY) Ad-hoc Sub-group on Jurisdiction and Transborder Access to Data stated, 'Private sector entities may also be formally requested to comply with search, seizure and production orders under the laws of the States in which they operate'; and '[s]uch formal requests are not covered by Article 32 Budapest Convention but provisions on domestic powers, such as search and seizure (Article 19) or production orders (Article 18) – if the request is related to a criminal investigation': T-CY, 'Transborder Access and Jurisdiction: What are the Options?' (Council of Europe, 2012) 44, fn 91. This confirms that there is no imposition on Member States to assume extraterritorial jurisdiction to enforce, even if some parties may grasp such jurisdiction, and even if the T-CY's Guidance Notes on Arts 32 and 18 may be read as encouraging the Parties to 'grasp' such enforcement jurisdiction. See Cybercrime Convention Committee, 'T-CY Guidance Note #3: Transborder Access to Data (Article 32)' (Council of Europe, 2014); Cybercrime Convention Committee, 'T-CY Guidance Note #10: Production Orders for Subscriber Information (Article 18 Budapest Convention)' (Council of Europe, 2017).

[47] J Goldsmith, 'The Internet and the Legitimacy of Remote Cross-Border Searches' (2001) *University of Chicago Legal Forum* 103, 108.

[48] The Cybercrime Convention, Art 15 requires that parties provide for adequate protection of rights and liberties, 'including rights arising pursuant to obligations it has undertaken under the 1950 Council of Europe Convention for the Protection of Human Rights and Fundamental Freedoms [and] the 1966 United Nations International Covenant on Civil and Political Rights'. See also the Explanatory Report to the Convention on Cybercrime, paras 145–48. Art 4 of Protocol 7 to the ECHR provides the right not to be tried or punished twice for the same offence.

partly 'organically grown' (*gemeinschaftlich*) and a partly deliberately constructed (*gesellschaftlich*) artificial society.[49] Neither justice nor legal certainty 'works' if the equality relates to some today and others tomorrow, depending on what offers the greater advantage. The notion of a *demos* is not about romantic communitarianism, but about the conditions of possibility of a shared institutional world that integrates continuity and discontinuity, stability and dynamics, analogy and disanalogy, *Gemeinschaft* and *Gesellschaft*. Such a shared institutional world depends on the artificial construction of a population based not on kinship or local proximity, but on the exclusive territorial jurisdiction of the state, which creates an interpretive community based on the multi-interpretability of text, taking into account the spatial and temporal distantiation between a written legal speech act and its performative effect. Based on such distantiation, I would argue that the difference between *Gemeinschaft* (usually translated as community) and *Gesellschaft* (usually translated as society) is aligned with that between orality and text; the kind of community that is afforded by oral interaction differs from that afforded by text, due to the difference in scope and scale afforded by face-to-face communication on the one hand and text on the other. However, modern states afford and depend on a plethora of communities (based on, amongst others, location, family, education, employment and profession), while simultaneously creating and sustaining the institutional backbone that supports legitimate expectations between citizens who may never meet. In that sense, *Gemeinschaft* and *Gesellschaft* are dimensions of the *demos* rather than separate entities. What is key here is the role of the state as a means to achieve justice and legal certainty within an artificially created, heterogeneous *demos*[50] that instantiates a dedicated configuration of *Gemeinschaft* and *Gesellschaft*, countering on the one hand a moralisation of criminalisation based on one community imposing its moral beliefs on all others and on the other hand an instrumentalisation of the criminal law that mistakes a utilitarian calculus for legitimate criminalisation. If cyberspaces disrupt the notion of a *demos* as a point of reference for both justice and legal certainty, some will cynically reap the benefits by escaping the reach of relevant jurisdictions while others with no such refuge will pay the price.

D. The Force of Law and the Force of Technology

There is another issue when discussing competing jurisdictions. One could argue that positive law's monopolistic claims are now countered from an altogether

[49] J Harris (ed), *Tönnies: Community and Civil Society* (Cambridge, Cambridge University Press, 2010); E Hobsbawm and T Ranger (eds), *The Invention of Tradition*, Canto edn (Cambridge, Cambridge University Press, 1992).

[50] On the key role of criminal law in the construction of a *demos*, highlighting the artificial and projective nature of law, see M Hildebrandt, 'European Criminal Law and European Identity' (2007) 1 *Criminal Law and Philosophy* 57; M Hildebrandt, 'The Artificial Intelligence of European Union Law' (2020) 21 *German Law Journal* 74.

different angle.[51] A new type of competition comes from the *performative effect* of cross-border, code-driven infrastructures, such as social media, tech platforms, decentralised autonomous organisations (DAOs) anchored in crypto-anarchism, and other iterations of Internet exceptionalisms. This may concern the dark net, where child pornography flourishes, challenging the non-intervention principle that grounds territorial jurisdiction, because justice authorities will seek ways to hack into remote data servers. It may concern the use of autonomous weapons in cross-border conflicts where war has not been declared, challenging the Geneva Conventions by way of targeted killings on foreign territory.[52] It could also refer to industrial espionage and the undermining of elections by way of sophisticated malware capable of disrupting critical infrastructure, inviting further erosion of the principle of non-intervention. Note, though, that the performative effect of these infrastructures, or 'the force of technology', is not a matter of speech acts but rather a new type of 'brute facts'. These brute facts compete with the legal written speech acts of national jurisdiction and international law, or 'the force of law'. What matters is that this force of technology has both a performative and a *normative* effect in the sense of inducing, enforcing, inhibiting or precluding specific behavioural patterns – not in the sense of regularity, but in the sense of these patterns gradually becoming points of reference for mutual expectations, thus developing something like a 'normative force of the factual'.

In the context of law and jurisdiction, this should remind us of public law scholar Jellinek's discussion of the normative force of the factual in his seminal work on the dual nature of the state as both a factual and a legal entity.[53] Jellinek explored what we would now qualify as the performative effect of 'the factual', that is, of habits and customs that generate mutual expectations based on the gravitational force of current states of affairs. He based this 'normative force of the factual' on the psychology of individual minds, and rightly guessed that the performative effect of human interaction can both reinforce and negate the performative effect of legal written norms. His goal was not to play the performative effect of the legal constitution of the state against the factual character of its power and authority, but to highlight the interplay between them. In the same work, Jellinek introduced the 'three elements of statehood' (territory, population and government) that have long since defined statehood in the context of international law,[54] complemented by the recognition of the state as a state by other states and the ability to conduct

[51] Reed and Murray (n 41) make this point in ch 5, where they discuss legal, social and design norms.

[52] On the complexities involved, see A Callamard, 'Use of Armed Drones for Targeted Killings: Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions' (2020) UN Doc A/HRC/44/38.

[53] G Jellinek, *Allgemeine Staatslehre* (Berlin, O Häring, 1905); NB Ladavac, C Bezemek and F Schauer (eds), *The Normative Force of the Factual: Legal Philosophy between Is and Ought* (Cham, Springer, 2019); A Anter (ed), *Die normative Kraft Des Faktischen: Das Staatsverstandnis Georg Jellineks*, 2nd edn (Baden-Baden, Nomos, 2020).

[54] Jellinek (n 53) 381–420.

external relations.[55] It is interesting to see that Jellinek's statehood was focused on internal sovereignty, which, however, critically depends on external sovereignty, notably from the perspective of 'the normative force of the factual'. If a state is not effective in protecting its territory, its population and its monopoly of violence within that territory against interventions by other states, it cannot be qualified as a state – just like a government that fails to enforce its monopoly of violence against militia within its territory cannot be qualified as a state (this is what we would call a failed state). Internal and external sovereignty are mutually constitutive; you cannot have one without the other. The *ius puniendi* itself depends on the monopoly of violence, and thus on the combined force of internal and external sovereignty, because without that it would collapse into private revenge and/or war. Clearly, both the *ius puniendi* and the rule of law itself depend on the combined force of written legal speech acts and the normative force of actual relations of power and authority, sustained by the technological affordances of mutually exclusive territorial jurisdiction.

With the rise of cyberspaces, however, all this seems up for grabs. This is not to deny or ignore that states are becoming more effective and efficient in grasping legal powers within and beyond their borders; rather, it is to acknowledge that big tech companies and global tech platforms are simultaneously grasping powers to regulate human behaviour with little care for territorial jurisdiction, let alone the rule of law. Perhaps the best example here is the 'exposure notification' developed by Apple and Google during the COVID-19 pandemic, enabled by their control over the global market in mobile devices. The notification system allowed public health authorities to develop a national application that allows the combination of proximity tracing via Bluetooth with the matching of those who tested positive. The idea was to contribute to tracing potential infections, helping to at least contain the spread of the disease. What matters here is that Apple and Google wrote the code and held the infrastructure that enabled the notifications; they thus regulated the behaviour of states, defining what data they could and could not access.[56] This was not based on a social contract, international law or democratic legitimation, but on the actual powers of big tech companies to rule by way of their technological platforms and infrastructure. Governments that objected against the limits imposed upon them by the restrictions inherent in the notification system found they had no way to exercise their authority in the realm of public health, as they were dependent on a global infrastructure outside their reach.

[55] Convention on the Rights and Duties of States adopted by the Seventh International Conference of American States (Montevideo, 26 December 1933) 165 LNTS 19, Art 1.

[56] T Sharon, 'Blind-Sided by Privacy? Digital Contact Tracing, the Apple/Google API and Big Tech's Newfound Role as Global Health Policy Makers' (2021) 23 *Ethics and Information Technology* 45; C Newton, 'How Big Tech Is Dictating the Terms of the Coronavirus Response to National Governments' (*The Verge*, 28 April 2020) www.theverge.com/interface/2020/4/28/21238633/apple-germany-contact-tracing-exposure-notification-nhs-shin-bet-australia.

Though it does not make any sense to claim that big tech companies have developed something like sovereignty, which is a very specific legal and factual construct based on exclusive territorial jurisdiction, they do seem to have developed a new type of 'brute jurisdiction' based on the normative force that derives from their control over the new ICI. The prime example in the criminal law realm concerns content moderation, which is based on violations of private companies' terms of service and involves outsourced, low-paid labour that determines what content is actually removed.[57] Though content removal is obviously not punishment in any formal sense, many of the violations constitute criminal offences in many jurisdictions; simultaneously, many criminal offences may be enabled and allowed because they do not violate the terms of service. Whereas the ICI of printed text was deployed by the state to enact written legal speech acts, whose performative effect depends on a shared background and an implied social contract as discussed above, the ICIs of global code- and data-driven infrastructures are not easily brought under the control of states. The content moderation practices referred to above are based on rules that have no democratic legitimation (no *demos* even), due process that is contingent upon whatever suits private corporations and no enforceable presumption of innocence. This is mainly due to the fact that this is not about criminal jurisdiction in the first place; the removal of content and the closing of accounts are private 'punishments' outside the realm of public law, thereby lacking the protection required by constitutional or international human rights in the domain of criminal law. Sometimes not being charged with a criminal offence, though seemingly a good thing, actually restricts the protection that would otherwise be available, whereas the consequences may be similar to those of punishment. Terminology such as 'digital sovereignty' and 'data sovereignty' signals states' keen awareness of the competing 'jurisdiction' of those who develop the code of the new ICIs, but there is no clear road towards gaining such sovereignty. This is not to return to claims of exceptionalism, suggesting that cyberspace is unregulatable, but is an acknowledgement of a new struggle between economic and technological power on the one hand and the public authority of states on the other.

V. Conclusions

Today, much of our critical infrastructure is both computational and interconnected; more precisely, our information and communication infrastructure is progressively cyberspatial and as such drives traditional critical infrastructure such as utilities (water, gas, electricity, public transport, financial institutions and supply chains), but also determines our access to information (search) and

[57] B Perrigo, 'Inside Facebook's African Sweatshop' (*Time*, 14 February 2022) www.time.com/6147458/facebook-africa-content-moderation-employee-treatment/.

mediates both our local and global communication. The increasing dependence on interconnected, computational ICIs creates potentially catastrophic vulnerabilities while simultaneously enabling mass surveillance and pervasive invisible nudging. This, in turn, triggers cyber-related crimes and cross-border cyber investigations, generating overlapping jurisdictional claims of substantive as well as procedural criminal law, while private companies, individual persons and states develop and deploy computational systems capable of cross-border espionage, distribution of fake news and personalised targeting that may directly 'regulate' the behaviour of citizens of multiple jurisdictions in ways that are at odds with the applicable legal framework.

Having traced how the technologies of cartography and the printing press enabled the Westphalian regime of international law that instituted a system of contiguous, mutually exclusive states firmly grounded in territorial jurisdiction, I have investigated the missing link of speech act theory, namely the different affordances of oral and written speech acts. This has allowed me to trace the crucial importance of written legal speech acts for the constitution of text-driven jurisdiction and the implied philosophy it requires, thus explaining the need for a social contract that forms the unwritten context of a written law that brings together a diverse and artificially constructed *demos* of legal subjects that share jurisdiction. The ambiguity of natural language that is greatly enhanced by the distantiation in time and space of text generates the need for interpretation and the concomitant contestability of written legal speech acts, both of which ground the rule of law as a system of checks and balances around the closure that complements the inherent contestability. It is the artificial nature of the *demos*, which is bounded and bound by the territorial jurisdiction it shares, that prevents the contestation from demolishing the social contract, while nevertheless sustaining both contestation and closure.

The carefully crafted, highly dynamic and never-to-be-taken-for-granted social contract that grounds the rule of law in territorial jurisdiction is now faced with two kinds of foundational challenges: first, the challenge of competing written legal speech acts that result from attempts to grasp material and investigative criminal jurisdiction when dealing with cyber-related crime; and second, the challenge of 'brute jurisdictions' whose performative effect may overrule written legal speech acts, even to the extent of evoking 'the normative force of the factual'.

The performative effect that informs these new 'brute jurisdictions' is fundamentally different from that of written legal speech acts. It is first and foremost a brute fact compared to the institutional facts that result from written legal performatives.[58] Increasingly, computational systems determine our choice of architecture, by restricting the kind of choices we have when communicating,

[58] *cf* Anscombe's original article, which inspired Searle's distinction between brute and institutional facts: Anscombe (n 25). Anscombe rightly understood the distinction as relative. In my own words: whether something is an institutional or a brute fact is the result of the performative effect of how we use language.

searching, reading, being recruited or admitted to educational facilities, being monitored due to fraud detection software, being deprived of unemployment benefits by automated decision systems, or simply when buying things or getting a mortgage. These systems induce or even force us to behave in certain ways that are not agreed as part of a social contract; they may also inhibit or overrule our action potential, often without us even noticing how we are being constrained and nudged. The normative force of the factual here is not only a matter of new kinds of habits and expectations due to the proliferation of the smart phone and video conferencing, search engines and e-commerce, but in the first place a result of *brute technological force* that automates the behaviour of machines that are largely hidden beneath the surface of everyday life.

In this chapter, I have argued that this has major consequences for criminal law jurisdiction. One of the reasons why the EU has limited power (jurisdiction) in the domain of criminal law is due to criminal law's close alignment with sovereignty, as the *ius puniendi* is tied up with the monopoly of violence that prohibits taking the law into one's own hands.[59] Another reason is that criminal law is not merely about compensation of harm caused, but is also about the imposition of a fine or detention meant to censure actions considered wrongful.[60] In a sense, criminal law is closer to the moral backbone of a *demos* than private and public law; it is part of the constitution of the *demos* and the social contract that defines the *demos*, while being defined by the *demos* as criminal law signals indignation about the violation of legal norms that define and sustain the implied philosophy of the law. Thus, punishment aims to negate the negation of such norms to assert and reinforce them. In other work, I have argued that a European criminal law would require and could simultaneously institute a distinct European identity and thus a European *demos*, noting that one can identify with more than one *demos*, and that a *demos* integrates difference rather than necessarily imposing homogeneity.[61] The plurality that enables a person to identify with *more than one demos* and the plurality that is inherent in *one and the same demos* do not, however, mean that anything goes. We cannot go around and cherry pick the jurisdiction that condones our actions, and the plurality of opinion within a *demos* assumes enforceable standards based on shared values. Law is not equivalent with morality; we can disagree on what should be done from our different moral perspectives, but we need closure when it comes down to enforceable law. That is a good reason to (i) be sparse with criminalisation and (ii) be cautious about imposing legal obligations to criminalise. Cyberspatial 'jurisdiction', however, may 'punish and prosecute' by way of the brute force of technology, that is, the performative effects of the code it deploys. This is not grounded in any

[59] Though clearly the EU's *sui generis* distribution of sovereignty between the Union and its Member States is a moving target, with the EU imposing further collaboration and mutual recognition in the context of criminal jurisdiction. On the preconditions and implications, see Hildebrandt, 'European Criminal Law and European Identity' (n 50).

[60] RA Duff, *Punishment, Communication, and Community* (Oxford, Oxford University Press, 2001).

[61] Hildebrandt, 'European Criminal Law and European Identity' (n 50).

social contract but is imposed by, for instance, big tech companies that control the global infrastructure of mobile applications.

As lawyers, we should get our act together. The rule of law is a historical artifact, afforded by specific technologies. To sustain the rule of law, we must figure out what affordances are crucial here and how they fare in code- and data-driven 'jurisdictions'. If we do not get to that point sooner rather than later, the normative force of 'brute jurisdictions' may take over and we may not even remember why countervailing powers slow down innovation and diminish efficiency, but will nevertheless prove resilient and robust in the face of unwarranted and unaccountable brute facts and brute force.