Text-Driven Jurisdiction in Cyberspace

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Introduction

In this paper 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*. In the face of the code- and data-driven nature of cyberspace I will discuss modern positive law as based on a text-driven jurisdiction and the main argument of the paper 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 the first section, 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 the second section, I explore the scope of written legal speech acts, integrating speech act theory and philosophy of technology, explaining 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 the third section, I discuss the new challenges of competing territorial jurisdictions that claim legal powers outside their territory, coupled by the 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 which affordances of cartography and the printing press we need to preserve in cyberspace 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.

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 mode of existence of ‘jurisdiction’. 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 since my research into the implications of data-driven environments for the law,¹ and more specifically for the integration of AI into legal practice and legal research.² Legal theory and philosophy of law have been a child of their time, recounting narratives about the nature of law and the rule of law that assume a text-driven infrastructure. This assumption has been, however, 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 paper 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* and on the other hand it offers protection against arbitrary use of the *ius puniendi* by the state. Other than 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,³ weaving the *file rouge* of legal certainty through both types of protection, rejecting the separation between law, morality and politics, while nevertheless highlighting the distinctive performative role of law in ‘modern’ society, as well as the system of 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

¹ Mireille Hildebrandt, *Smart Technologies and the End(s) of Law. Novel Entanglements of Law and Technology* (Edward Elgar 2015).

² Mireille Hildebrandt, ‘A Philosophy of Technology for Computational Law’ (LawArXiv 2020) <<https://osf.io/preprints/lawarxiv/7eykj/>> accessed 7 December 2020.

³ Gustav Radbruch, ‘Legal Philosophy’, *The Legal Philosophies of Lask, Radbruch, and Dabin* (Reprint 2014, Harvard University Press 2014) <<https://www.degruyter.com/view/product/252229>> accessed 28 June 2017; Mireille Hildebrandt, ‘Radbruch’s Rechtsstaat and Schmitt’s Legal Order: Legalism, Legality, and the Institution of Law’ (2015) 2 *Critical Analysis of Law* <<http://cal.library.utoronto.ca/index.php/cal/article/view/22514>> accessed 24 March 2015.

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formal and sociological positivism,⁴ which also clarifies why acknowledging the emphasis on positive law does not imply legal positivism. 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.

The affordances of the technology of the printing press: rule by law

In this paper 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, that is in *manuscript (hand written) and printing-press speech acts* (from hereon called ‘written speech acts’).⁵ As Eisenstein and others have demonstrated, the affordances of printing press ICIs differ from those of an oral ICI, but also from hand written ICIs, in particular with regard to the need for systematicity and abstraction.⁶ Scholarship on the history of information confirms that writing and printing gave rise to abstract thought,⁷ 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).⁸ 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, thus imposing the need to do some counting and planning to make sure that the *delay* between harvesting and sowing does not leave people starving.⁹ Writing affords to externalise a 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.¹⁰ The rise of modern positive law over the course of five or six centuries, is thus tied up with the possibility to enact 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.

⁴ Ronald Dworkin, *Law's Empire* (Fontana 1991); Jeremy Waldron, ‘The Rule of Law’ in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Summer 2020, Metaphysics Research Lab, Stanford University 2020) <<https://plato.stanford.edu/archives/sum2020/entries/rule-of-law/>> accessed 3 May 2020; HLA Hart, *The Concept of Law* (Clarendon Press 1994); Hans Kelsen, *Pure Theory of Law* (Lawbook Exchange 2005); John Austin and W (ed) Rumble, *The Province of Jurisprudence Determined* (Cambridge University Press 1995).

⁵ See below, section ‘Criminal law legality and the reach of written speech acts’ for further elaboration of speech act theory.

⁶ Elizabeth L Eisenstein, *The Printing Revolution in Early Modern Europe* (2nd edn, Cambridge University Press 2012) <<http://ebooks.cambridge.org/ref/id/CBO9781139197038>> accessed 2 May 2019.

⁷ James Gleick, *THE INFORMATION: A HISTORY, A THEORY, A FLOOD* (First Edition edition, Pantheon 2010).

⁸ Paul Ricoeur, ‘The Model of the Text: Meaningful Action Considered as a Text’ (1973) 5 *New Literary History* 91.

⁹ Pierre Lévy, *Les Technologies de l'intelligence. L'avenir de La Pensée à l'ère Informatique* (La Découverte 1990).

¹⁰ Hildebrandt, *Smart Technologies and the End(s) of Law. Novel Entanglements of Law and Technology* (n 1).

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 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.¹¹ First, it is interesting the note that the concept of jurisdiction preceded the concept of territory. Whereas jurisdiction appeared in the early 14th 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). Jurisdiction determined the reach of governmental power, which could be based on *ratione personae* (clergy fell under the powers of the pope), on *ratione materiae* (marriage fell within the powers of the catholic church) or on a *ratione territoriae* (whoever lived on a particular stretch of land fell under the powers of a particular lord). Second, we must note how that jurisdictions 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,¹² 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. So how come the reach and scope of jurisdiction shifted towards territory as an exclusive way to 'ground' the exercise of governmental power? What technology may have afforded this shift? In his seminal work, Ford has highlighted how the technology of cartography introduced a new type of spatiality, as it enabled to map the surface of the earth by drawing lines and thus dividing it in mutually exclusive enclosed spaces.¹³ The latter facilitated (1) a shift from authority based on family to one based on land, (2) providing unambiguous boundaries for the exercise of such authority, (3) creating an abstract spatiality that does not depend on the specific texture or habitation of the land that is demarcated, thus (4) 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,¹⁴ rather than a person, as seminally described by Kantorowicz in his *The King's Two Bodies*.¹⁵ 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 like 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 program or mandate. Which is not to suggest technological determinism; an affordance enables and constrains; depending on how it does this it induces or inhibits, enforces or precludes.

Democracy and the rule of law as technological affordances

¹¹ Mireille Hildebrandt, 'Extraterritorial Jurisdiction to Enforce in Cyberspace? Bodin, Schmitt, Grotius in Cyberspace' (2013) 63 University of Toronto Law Journal 196.

¹² Harold Berman, *Law and Revolution. The Formation of the Western Legal Tradition* (Harvard University Press 1983); H Patrick Glenn, *Legal Traditions of the World* (Oxford University Press 2007).

¹³ Richard T Ford, 'A History of Jurisdiction' (1999) 97 Michigan Law Review 843.

¹⁴ Claude Lefort, *Democracy and Political Theory* (John Wiley & Sons 1991).

¹⁵ Ernst H Kantorowicz, *The King's Two Bodies. A Study in Mediaeval Political Theology* (Princeton University Press 1957).

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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.¹⁶ It is up to the sovereign to decide how its population is governed, even though the proliferation of printed text privileges a 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 precisely the abstract nature of sovereignty also generates theoretical reflection upon the nature of government – giving rise to the idea of the social contract in its various modulations (Hobbes, Locke, Rousseau),¹⁷ as well as new ideas about the nature of democracy, aristocracy, monarchy and tyranny (Montesquieu).¹⁸ 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. Whereas rule *by law* is a rule by persons, making people dependent upon the abilities and intent of a concrete person, rule *of law* is the reign of a system of rules and relationships that operate at different levels, with meta rules that constrain what rules can be enacted and enforced.¹⁹ Rule *of law* provides for a written or unwritten constitution that restricts the powers of the sovereign, even if the sovereign is democratically chosen by a majority. Returning to the notion of the empty place of the sovereign, let's quote Lefort:²⁰

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 (that provides the empty space to rule a population, marking clear borders between who is and who is not within a particular jurisdiction) and of the printing press (that results in a corpus of written legal norms that require interpretation and systemisation) – thus

¹⁶ Jean Bodin, *Bodin: On Sovereignty* (Julian H Franklin ed, Cambridge University Press 1992).

¹⁷ Celeste Friend, 'Social Contract Theory', *Internet Encyclopedia of Philosophy* <<https://iep.utm.edu/soc-cont/>> accessed 26 March 2021.

¹⁸ Waldron (n 4).

¹⁹ Hart (n 4). Distinguishing between primary and secondary rules.

²⁰ Lefort (n 14). At 17.

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.

Criminal law legality and the reach of written speech acts

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 his *How to do things with words*.²¹ 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 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 and ‘marriage’ or ‘contract’ are considered institutional facts, being the result of performative speech acts.²² This is not to say that if one intends one’s words to have a certain effect they will therefor 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.²³ Whether a speech act has performative effect depends on such a shared background. Taking Wittgenstein seriously it may be better to understand speech act theory as a theory on *language usage* rather than *speech*, and, taking philosophy of technology

²¹ JL Austin, *How to Do Things with Words* (2nd edn, Harvard University Press 1975).

²² John R Searle, *Speech Acts, an Essay in the Philosophy of Language* (1969); John Searle, *The Construction of Social Reality* (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 how it relates to other ‘facts’ and to the context of the ‘utterance’.

²³ Ludwig Wittgenstein and GEM Anscombe, *Philosophical Investigations : The German Text, with a Revised English Translation*, vol 3rd (Blackwell Pub 2003); Ricoeur (n 8); Charles Taylor, *The Language Animal: The Full Shape of the Human Linguistic Capacity* (Belknap Press: An Imprint of Harvard University Press 2016); Ezequiel A Di Paolo, Elena Clare Cuffari and Hanne de Jaegher, *Linguistic Bodies: The Continuity Between Life and Language* (2018); Charles S Peirce and Patricia Ann Tursi, *Pragmatism as a Principle and Method of Right Thinking : The 1903 Harvard Lectures on Pragmatism* (State University of New York Press 1997). See also Ricoeur (n 8).

seriously, it seems important to trace the impact of the technologies of the word on the nature and the reach of written speech acts.²⁴

This 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,²⁵ 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 bent on the shift from informal to formal norms than to 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:²⁶

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 specific legal speech act to actually have the intended performative effect:²⁷ ‘(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 an ultimate meta-rule of recognition that is constitutive of such order, sealing the political order to its legal institution. As a legal positivist MacCormick is very much aware of the role of the state in instituting, executing and terminating legal institutional facts, but he somehow overlooks the most obvious

²⁴ On the nature of written as opposed to oral speech acts see notably Beatrice Fraenkel, ‘Actes écrits, actes oraux : la performativité à l’épreuve de l’écriture’ [2006] *Études de communication. langages, information, médiations* 69. and Pekka Henttonen, *Records, Rules and Speech Acts. Archival Principles and Preservation of Speech Acts* (Tampere University Press 2007).

²⁵ Fraenkel (n 24). at 7.

²⁶ Henttonen (n 24). at 31.

²⁷ Anscombe (n 22); Neil MacCormick, *Institutions of Law: An Essay in Legal Theory* (Oxford University Press 2007).

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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 marriage, contract, property and with the *sources of law*, such as the Constitution, legislation, decisions of public administrative bodies, case law, fundamental principles and customary law. As Fraenkel explains,²⁸ other than with oral performatives, written legal performatives have two dimensions that coincide in oral speech acts: (1) the moment of their utterance (their inscription and enactment) and (2) 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 judgement 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,²⁹ the context of interpretation will be shifting in the course of time and space, 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 why modern positive law affords the kind of complexity it harbours, as this is enabled by the explicit specification of written legal performatives. Fraenkel indeed argues that modern positive law is necessarily contingent upon the specific performativity of *written* speech acts, highlighting: (1) that 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,³⁰ (2) that 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 (e.g. distinguishing between primary and secondary norms),³¹ and (3) that 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

²⁸ Fraenkel (n 24).

²⁹ Bernard Stiegler, 'Die Aufklärung in the Age of Philosophical Engineering' in Mireille Hildebrandt, Kieron O'Hara and Michael Waidner (eds), *The Value of Personal Data. Digital Enlightenment Forum Yearbook2013* (IOS Press 2013) <<http://www2012.wwwconference.org/documents/Stiegler-www2012-keynote.pdf>>.

³⁰ Fraenkel (at 9-10) bases her analysis on Reinach's phenomenology, see James DuBois and Barry Smith, 'Adolf Reinach' in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Fall 2018, Metaphysics Research Lab, Stanford University 2018) <<https://plato.stanford.edu/archives/fall2018/entries/reinach/>> accessed 19 October 2020.

³¹ Fraenkel (at 10) 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. 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.

legitimate expectations based on past decisions while anticipating the impact of their judgement on future determinations.³²

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 state, including the institution and configuration of the *ius puniendi* that in turn includes the intricate organisation of legal protection against a state's potentially arbitrary deployment of the *ius puniendi*. The double instrumentality of the rule of law referred to above basically depends on the level of abstraction that is enabled by written legal performatives, developed 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 challenged by the novel spatiality of cyberspace.

Criminal law legality, demos and jurisdiction

The novel spatiality of cyber space is directly related to the difference between the kind of cybernetics (steering capacity) that defines cyber space 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 cyber space, context was dependent on one's actual place in a given three-dimensional space (school, home, hospital, shop); in cyber space 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, than the loss of an identifiable context may disable the kind of legal protection offered by modern positive 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 criminal law 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 especially goes for the legality requirements that inform criminal

³² Fraenkel (at 11) refers to Dworkin's famous image of the chain novel that ties the author of a judgement to both previous and subsequent judgements, 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.

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investigation and criminal procedure, including the presumption of innocence and the right to a fair trial that 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.

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,³³ 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 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'. 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.'³⁴ 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 of 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.³⁵ 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, judgements). Contract theory in point of fact emerged long before representative, deliberative and participatory democracy-as-we-know-it came into its own, around the same time as Montesquieu's plea for a system of countervailing powers. 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

³³ David B Young, 'Cesare Beccaria: Utilitarian or Retributivist?' (1983) 11 *Journal of Criminal Justice* 317.

³⁴ Young (n 33); Cesare Beccaria, *An Essay on Crimes and Punishments. By the Marquis Beccaria of Milan. With a Commentary by M. de Voltaire. A New Edition Corrected.* (Gale ECCO, Print Editions 2010). Young at 321, Beccaria Chapter 20, p. 79.

³⁵ On reconstructive theory see e.g. Frédéric Vandenberghe, *What's Critical About Critical Realism?* (1st edition, Routledge 2014).

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

Competing jurisdictions

Jurisdictions of choice?

In their salient work on *Rethinking the Jurisprudence of Cyberspace*,³⁶ 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 deterritorialization and reterritorialization,³⁷ 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

³⁶ Chris Reed and Andrew Murray, *Rethinking the Jurisprudence of Cyberspace* (Edward Elgar Pub 2018); Mireille Hildebrandt, ‘Chris Reed and Andrew Murray, *Rethinking the Jurisprudence of Cyberspace*, Cheltenham: Edward Elgar, 2018, 256 Pp, Hb £72.00.’ n/a The Modern Law Review <<https://onlinelibrary.wiley.com/doi/abs/10.1111/1468-2230.12491>> accessed 19 December 2019.

³⁷ Wouter de Been, Payal Arora and Mireille Hildebrandt (eds), *Crossroads in New Media, Identity and Law: The Shape of Diversity to Come* (2015th edition, AIAA 2015); Jack Goldsmith and Tim Wu, *Who Controls the Internet?: Illusions of a Borderless World* (Oxford University Press, USA 2008); Milton 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. Paper IGP06-003*, June 2006) <<http://internetgovernance.org/pdf/MM-goldsmithWu.pdf>>; Julie E Cohen, ‘Cyberspace As/And Space’ (2007) 107 Columbia Law Review 210.

protocol (http),³⁸ 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 persons and legal persons to seamlessly trade, steal and target across national borders without them actually crossing any physical border, cyberspace generates a diversity of claims for extra-territorial 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 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 by, most of us cannot afford such 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.³⁹ 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. 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 and requires a stable understanding of whose treatment we should compare with. The latter defines and is defined by the *demos*.

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 not be seen as a given community but as a historical artefact that combines Tönnies' *Gemeinschaft* and *Gesellschaft* as dimensions of a partly 'organically grown' (*gemeinschaftlich*) and a partly deliberately constructed (*gesellschaftlich*) artificial society.⁴⁰ Neither justice nor legal certainty 'work' if the equality relates to some today and to 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

³⁸ Milton L Mueller, *Networks and States: The Global Politics of Internet Governance* (The MIT Press 2010); Milton L Mueller, *Ruling the Root: Internet Governance and the Taming of Cyberspace* (New e edition, MIT Press 2004).

³⁹ Dworkin (n 4); Charles Taylor, *Philosophical Arguments* (Harvard University Press 1995).

⁴⁰ Jose Tönnies, *Tönnies: Community and Civil Society* (Cambridge University Press 2010); Eric Hobsbawm, *The Invention of Tradition (Canto) Publisher: Cambridge University Press* (Cambridge University Press 1992).

depends on the artificial construction of a population, not based 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, 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 rather than separate entities. What is key here, however, is the role of the state as a means to achieve justice and legal certainty within an – artificially created, heterogeneous– *demos*. If cyberspaces disrupt the notion of a *demos* as a point of reference for justice and legal certainty, some will cynically reap the benefits while others pay the price.

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 different angle.⁴¹ A new type of competition now 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. It could also refer to industrial espionage and undermining of elections by way of sophisticated malware capable of disrupting critical infrastructure, inviting further erosion of the principle of non-intervention. Let's note 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 that this force of technology is 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

⁴¹ Reed and Murray make this point, notably in chapter 5 on 'normative competition in cyberspace', where they discuss legal, social and design norms, Reed and Murray (n 36).

the state as both a factual and a legal entity.⁴² 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 the current state 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 or 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 both. 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,⁴³ complemented with the recognition as a state by other states and the ability to conduct external relations.⁴⁴ 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; one cannot have the 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 in efficient in grasping legal powers within and beyond their borders; it is rather 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. Maybe the best example here is the exposure notification developed by Apple and Google during the COVID-19 pandemic, based on their control over the global market in mobile devices. The notification system allowed public health authorities to develop a national application that allows to combine proximity tracing via Bluetooth with 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. 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, due to their dependence on a global infrastructure outside their reach. Though it does not make any sense to claim that big

⁴² Nicoletta Bersier Ladavac, Christoph Bezemek and Frederick Schauer (eds), *The Normative Force of the Factual: Legal Philosophy Between Is and Ought* (1st ed. 2019 edition, Springer 2019). Andreas Anter, *Die Normative Kraft Des Faktischen: Das Staatsverständnis Georg Jellineks*: 6 (2020); Georg Jellinek, *Allgemeine Staatslehre* (O Häring 1905) <<http://archive.org/details/allgemeinestaat00jellgoog>> accessed 31 March 2021. P.

⁴³ Georg Jellinek (n 42). at x.

⁴⁴ Montevideo Convention on the Rights and Duties of States, 26 December 1933, 165 LNTS 19, art. I.

tech companies have developed something like sovereignty, which is a very specific legal and factual construct based on exclusive territorial jurisdiction, they seem to have developed a new type of 'brute jurisdiction' based on the normative force that derives from their control over the new ICI. 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. 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 unregulated or unregulable, but an acknowledgement of a new struggle between economic and technological power on the one hand and the public authority of states on the other hand.

Conclusions

Today, much of our critical infrastructure is both computational and interconnected, more precisely our information and communication infrastructure (ICI) is progressively cyberspatial and as such drives traditional critical infrastructure such as utilities (water, gas and electricity, public transport, financial institutions and supply chains) but also determines our access to information (search) and 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* that 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 incompatible written legal speech acts that result from

attempts to grasp material and investigative criminal jurisdiction when dealing with cyber related crime, 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.⁴⁵ Increasingly, computational systems determine our choice architecture, by restricting the kind of choices we have when communicating, searching, reading, being recruited or admitted to educational facilities, being monitored due to fraud detection software or 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 constraint 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 eCommerce, 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 paper 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 in one’s own hand. Another reason is that criminal law is not merely about compensation of harm caused but about the imposition of a fine or detention meant to censure actions considered wrongful.⁴⁶ 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 also being defined by it 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.⁴⁷ 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, however, not 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 (1) be sparse with criminalisation and (2) to be cautious about imposing legal obligations to criminalise. Cyberspatial ‘jurisdiction’, however, may ‘punish and prosecute’ by way of the force of technology, that is the performative effects of the code it deploys. This is not

⁴⁵ Cf. Anscombe’s original article, which inspired Searle’s distinction between brute and institutional facts, see above note 22. 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.

⁴⁶ RA Duff, *Punishment, Communication, and Community* (Oxford University Press 2001).

⁴⁷ M Hildebrandt, ‘European Criminal Law and European Identity’ (2007) 1 Criminal Law and Philosophy 57.

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grounded in any social contract but 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, diminish efficiency but will nevertheless prove resilient and robust in the face of unwarranted and unaccountable brute facts and brute force.

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