

The Virtuality of Territorial Borders

Mireille Hildebrandt*

1. Introduction

Mitch Kapor – and many before him – proposed that architecture is politics (and politics is architecture). Whereas Kapor’s architecture referred to the architecture (the multidimensional structure) of complex computing systems,¹ earlier references to architecture often referred to the architecture of buildings, cities or physical landscapes.² This contribution builds on my earlier work, in which I investigated the history and constitution of both territory and jurisdiction,³ republished in the impressive volume put together by Ruti Sela and Maayan Amir on ‘Extraterritorialities in Occupied Worlds’.⁴ I will assume in this follow-up article that data-driven hyperconnected computing systems as well as political institutions and jurisdictional borders are ‘architectures’, each in their own way, with far-reaching political implications. Readers looking for an in-depth discussion of the underlying argument should study my previous article; an iteration of the entire argument would take up more space than allotted for this article, though I will briefly revisit the argument in Section 4.1.

The architectures of political institutions and jurisdictional borders implicate the idea – if not the possibility – of ‘the political’ itself,⁵ seen as a realm where individual citizens are free to debate and enact the public good, protected by the constitution of a collective legal subject capable of terrorizing external and internal subjects that threaten life, limb or property (enemy states and criminals).⁶ As Connolly and Elden have demonstrated, the notion of ‘territory’ does not only originate from notions such as ‘terroir’ (land), but also from ‘terrorize’ (threaten, intimidate),⁷ connecting external vigilance against other states with the monopoly of violence that constitutes the power of police.⁸ As discussed in my earlier work, it is such – stately – terror that provides safety and freedom for those within a territory, enabling the constitution of a

* Appointed as Tenured Research Professor of ‘Interfacing Law and Technology’ by the Research Council of Vrije Universiteit Brussel at the research group for Law Science Technology and Society (LSTS), and part-time Full Professor of Smart Environments, Data Protection and the Rule of Law at the Science Faculty of Radboud University, Nijmegen. Email: mireille.hildebrandt@vub.ac.be.

1 Kapor wrote about computer system architecture as politics, referring to the architecture of the internet protocols that have enabled unprecedented types of communication and information exchange across geographical borders, see ‘Mitch Kapor’s Blog » Blog Archive » Architecture is Politics (and Politics is Architecture)’, available at <<http://blog.kapor.com/index9cd7.html?p=29>>. Lessig wrote about computer code as architecture, calling it one form of regulation, similar to but different from law, L. Lessig, *Code and other laws of cyberspace* (1999).

2 Notably U. Beck, *Democracy without Enemies* (1998), p. 115, who wrote ‘architecture is politics with bricks and mortar’, and L. Winner, *The whale and the reactor: a search for limits in an age of high technology* (1986), who famously argued that artifacts have politics, without succumbing to technological determinism. On the relationship between law, technology and normativity see Chapter 8 in M. Hildebrandt, *Smart Technologies and the End(s) of Law. Novel Entanglements of Law and Technology* (2015).

3 M. Hildebrandt, ‘Extraterritorial jurisdiction to enforce in cyberspace? Bodin, Schmitt, Grotius in cyberspace’, (2013) 63 *University of Toronto Law Journal*, no. 2, pp. 196-224.

4 R. Sela & M. Amir (eds.), *Extraterritorialities in Occupied Worlds* (2016).

5 The distinction between ‘politics’ and ‘the political’ stems from C. Lefort, *The Political Forms of Modern Society: Bureaucracy, Democracy, Totalitarianism* (1986). In a democracy, ‘the political’ assumes the institution of a symbolic order that enables ambiguity and thereby novelty, referring to what Arendt called ‘action’ as opposed to labour and work, cf. H. Arendt, *The Human Condition* (1958).

6 The idea that politics is constituted by the threat of such brutal force has found its most articulate expression in C. Schmitt, *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (2006). It is, however, not unthinkable that the threat of brutal force is also a precondition for the realm of Lefort’s indeterminate democracy and Arendt’s realm of action. See Hildebrandt (2013), supra note 3.

7 W.E. Connolly, *The Ethos of Pluralization* (1995). Cf. S. Elden, *Terror and Territory* (2009).

8 On the power of police: M.D. Dubber, *The Police Power. Patriarchy and the Foundations of American Government* (2005).

symbolic order that fosters novelty and uncertainty without succumbing to the existential anxiety that would come from having to defend oneself against both internal and external enemies (think of failed states).

This brings me to the notion of ‘extraterritorial’ – or even ‘exterritory’ – that is crucial to the work of Ruti Sela and Maayan Amir, notably when they sought refuge in extraterritorial waters to reinvent a political sphere that brings together instead of setting apart.⁹ Their art thereby generates its own politics, carving new paths by imagining an extraterritorial state that violates the law of the excluded middle that institutes the Westphalian order of contiguous sovereign states.¹⁰ My aim is to ‘use’ their art as a provocation that helps to revisit the mutual constitution of individual and collective subjects, by refusing to take such constitution for granted, notably in the era of data-driven, hyperconnected computer system architectures. In the end this boils down to the question of *how to re-actualize the boundaries of jurisdiction, once territory loses its hold*.

In the second section I engage with Sela’s and Amir’s art work, specifically the work *Image Blockade*.¹¹ I discuss the mutual implications of art, science and politics in terms of the modern geometrical perspective and the concomitant assumptions of visual, mathematical and political representation. These mutual implications will raise the issue of competing perspectives and the disruption of the view from nowhere as a given angle to ground territorial jurisdiction. In the third section such disruption, as provoked by the work of Sela and Amir, will be used to explore the borders of the individual subject, the rise of the multitude and the constitution of collective subjects. This leads us to the fourth section, where – taking architecture as politics seriously – the issue of territorial jurisdiction is taken up as an affordance of – among others – the rise of cartography and the printing press. The fifth section confronts the transformation of the architecture that roots ‘the political’ (cartography and the printing press), by investigating the spatialities of cyberspace and the novel virtual worlds that form the emerging onlife world. This section compares the operation of the rule of law at the level of international law, to see what this can teach us about the cyberspatial disruption that ignores and negates the protection offered by territorial jurisdictional boundaries. Obviously, international law is informed by the Westphalian system of mutually exclusive national jurisdictions (internal sovereignty) and builds on the discrete collective subjects (external sovereignty) that depend on this mutually exclusiveness (internal and external sovereignty are two sides of the same coin). This leads us to the final section, which raises the question of whether ‘speaking law to power’ is possible in a world of overlapping jurisdictions that are no longer constituted by mutually exclusive territorial boundaries. This is a rearticulation of the question of *how to re-actualize the boundaries of jurisdiction, once territory loses its hold*.

9 See information on the initial project: <<https://exterritory.wordpress.com/background/>> (last visited 27 March 2017).

10 Though it has been argued that the idea of mutually exclusive jurisdiction is a 19th-century reconstruction of sovereignty, rather than a 17th-century invention, e.g. S. Elden, *The Birth of Territory* (2013), p. 310.

11 R. Sela & M. Amir, *Image Blockade*, 2015, video 38:20 min. <<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/ILE4YW>>. This work is referred to in the introduction of this special issue, as written by the artists (R. Sela & M. Amir, ‘Representing Extraterritorial Images’, (2017) 13 *Utrecht Law Review*, no. 2, <http://doi.org/10.18352/ulr.379>, pp. 7-12). They describe the work at more length as follows: ‘In September 2014, veterans of Israel’s elite army intelligence unit called ‘8200’, many of whom were still on active reserve duty, signed a letter publicly addressing the State’s political and military leaders and declaring their refusal to continue taking exploitative action against Palestinians in order to maintain military control of the occupied territories. Though they were refusing to continue their military service in order to instigate a policy change, the signatories were still committed to upholding national security and therefore adhered to censorship laws and did not reveal their identity. As a consequence, all media interviews with them were performed with their faces obscured. *Image Blockade* documents an experiment initiated in collaboration with neuroscientists at the Weizmann Institute of Science. The subjects of the experiment consisted of two groups: other veterans of the 8200 intelligence unit and a random control group. The participants had their brain activity scanned using MRI technology while watching clips from media interviews with the dissidents. These reports had been approved for broadcast by military censors, but we inserted additional information that most likely would not have passed the military censor. The subjects of the experiment were asked to identify which clips had been altered and what would or would not have been censored. Each participant’s brain activity was measured while viewing the interviews. The work explores issues of censorship, the various conventions of image restraints through which it is mediated while examining how involvement in a system of secrecy and in blocking information influences the visual and auditory cortices. More than a scientific inquiry, we use the situation to reflect on issues of insubordination, forms of interrogation and of mediation of testimony, legal and illegal violence and its connections to trying to restrict the power of the image. Also conceptually, as the censorship forbids revealing 8200 faces, we were interested in the different meanings that arise from the choice to instead show the 8200 brains’ activity, this in a way using their brain as a mask.’

2. Art, science and politics: representation, presentation, re-presentation

2.1. Geometrical perspectives in art and science and geography

The conference that inspired this special issue of the *Utrecht Law Review* addressed representation in its title,¹² thus taking the ‘classical’ point of view regarding art, science and democratic legitimacy. The idea that art re-presents or mirrors reality instead of presenting its own reality stems from the ‘discovery’ of the linear perspective in Renaissance Europe. Architect Filippo Brunelleschi (1377-1446) elaborated a way to depict objects in relation to a vanishing point, based on the fact that they shrink depending on their position and distance from the eye. Perspective – in this sense – was enabled by a geometrical take on *how we see*, challenging painters to adopt methods that re-enact this particular perspective in their work. Interestingly, geometrical methods also informed early modern science, as notably and subtly described by Vico (1668–1744), who already warned against reducing human knowledge to what can be understood based on geometrical deduction and construction. The quest for objectivity that is inherent in the geometrical method (taking a third-person perspective on what an individual may perceive and know) returns in the rise of cartography as grounded in the so-called birds-eye perspective that places geographical *topoi* in relation to each other from a helicopter perspective. As with the geometrical perspective in art and science, this afforded a representation of the world in a structured way, thus enabling individual persons to navigate their world in a new manner, with a new kind of oversight, allowing one to position oneself on the surface of the earth and to estimate one’s relation to other entities on this surface (cities, roads, rivers, lakes, seas and various types of land). As any roboticist can tell you, mapping one’s environment is crucial for navigation, for mobility. Not only to direct our movements and to stay on course, but also to prevent us from stumbling over and running into other objects. Especially where these objects are subjects capable of moving themselves, mobility is a major challenge. On another scale, once geographical mapping enhanced our navigational toolkit (together with, most notably, the compass), our understanding of the world and our ability to seek control over demarcated lands was radically altered.

One of the reasons why the art of Sela and Amir disturbs our grasp of reality, is that it refuses to supply a map.¹³ It avoids *representation*, disrupting our sense of place, instead *presenting* us with a variety of points of view without providing the overview. In a sense, their art extraterritorializes our sense of place, shifting perspective from inside to outside before telling us about the borders that are crossed, and without telling us right from wrong. Instead they leave it up to us – the spectators – to come to terms with the confusion of territory, the terror of violence and the external view of the conventional borders that constitute our understanding of reality. This move from representation to presentation, refusing to merely reiterate what has been presented before, may be a chance, an opportunity, an occasion to re-view traditional perspectives on territory, sovereignty and jurisdiction. Instead of confirming these core tenets of our world order, the artists undermine them by depriving us from the vanishing points of both international and municipal law.

2.2. Representing reality: what kind of loyalty to whose reality?

Before taking up the challenge of the disruption of the bond between internal and external sovereignty, we need to linger briefly on the relationship between a representation and what is represented. A geometrical perspective assumes distancing oneself from any of the objects, entities or subjects crowding a space, it suggests an effort of decentralization – though one could also argue that the vanishing point, the bird’s position or the axioms of a mathematical theory become the new centre. It is critical to admit that the geometrical perspective is not a passive, neutral description of reality but a productive reconfiguration of

12 ‘Representations of the (Extra)territorial’, International Conference 22-23 April 2016 at Utrecht University (the Netherlands).

13 I kindly ask the reader to check out the video installations that this article was asked to engage with, see note 11, *supra*. See also C. Ryngaert, ‘Representations of the (Extra)territorial: Theoretical and visual perspectives’, (2017) 13 *Utrecht Law Review*, no. 2, <http://doi.org/10.18352/ulr.378>, pp. 1-6.

our perception and cognition of reality.^{14,15} Not any reconfiguration, but one that enables us to navigate our world. This implies that representation requires a kind of loyalty to the reality we seek to describe, to map and to put into perspective. Which cartography we employ depends on the flight of the bird, what mathematical theory we will demonstrate may depend on the level of abstraction (how many and which axioms we accept). This also raises the issue of whose reality we aim to configure: that of Europe, Africa, Japan, that of Euclidian or Euler's mathematics, that of the medieval *populus christianus* or renaissance art? Despite the fact that representation may decentre and objectify, we must still establish the position that enables this and clarify how this position shapes the perspective taken. There is – in terms of Thomas Nagel – no 'view from nowhere'.¹⁶ Perhaps the most pivotal rendering of the relationship between the vanishing point of renaissance painting and architecture can be found in the work of Escher, whose brain teasers make us walk up on stairs that unequivocally take us to the ground floor.¹⁷

2.3. Democracy thrives on agonistic re-presentation of a multifocal reality

The issue of representation returns, of course, in political discourse. Democratic theory is often if not always justified in terms of representation. Either as a matter of aggregation of given opinion (proportional representation), as a matter of deliberation (public reason as a road to an enlightened representation), and/or as a matter of participation (enabling different voices to present their positions, until a shared representation of the common life has been constructed).¹⁸ This view of democracy depends, however, on the Westphalian cartography of the political landscape. It assumes collective subjects that are free to decide on their own version of the common life, unhindered by other collective subjects (internal sovereignty and the principle of non-intervention), while respecting a similar right for other collective subjects (external sovereignty, again constituted by the principle of non-intervention). Here we run into the constitution of borders, the dividing lines between the collective subjects that 'make' our world order and determine the 'we' of a democratic polity. I will return to this point below. For now, following up on the idea of representation, we have to make up our minds on how political representation relates to bird's eye perspectives, mathematical deduction and the vanishing points they share with the geometrical perspective in the arts. Once we understand that these perspectives are not neutral, but require a positioning of their vanishing point (painting), assumptions (cartography) or axioms (maths), it becomes crucial that these vanishing points are in tune with the collective that orients itself on them. This is – again – not merely a matter of effectiveness or correctness but also a matter of loyalties and the willingness to take the point of view of others. Mouffe's agonistic reinterpretation of democratic theory,¹⁹ and Dewey's dynamic understanding of democratic publics,²⁰ may help us to comprehend that the presentation of different voices, perspectives, concerns, understanding and fears must be confronted, if we wish to articulate a representation that creates room to address them. Our shared reality is necessarily multifocal and our ability to rise above our situatedness in time, space and overlapping webs of meaning should not be understood as denying or ignoring the gravitational force of our own subjective outlook. On the contrary, the multitude of our embodied and embedded positions is the iterative, agonistic starting point of any robust collective subject. Representation (taking the observer's position) depends on presentation (as the observer presents her representation), and cannot – therefore – be taken for granted.

14 On the Eurocentrism of the usual world map, see e.g. <<http://sc2218.wikifoundry.com/page/Eurocentrism+in+World+Maps>> (last visited 27 March 2017), and e.g. G. Henderson & M. Waterstone (eds.), *Geographic Thought* (2008). See also E. Cresci, 'Google Maps Accused of Deleting Palestine – but the Truth Is More Complicated', *The Guardian*, 10 August 2016, available at <<https://www.theguardian.com/technology/2016/aug/10/google-maps-accused-remove-palestine>> (last visited 27 March 2017).

15 On the geometry of the political: Elden (2013), supra note 10, pp. 290-321 and Elden (2009), supra note 7.

16 T. Nagel, *The view from nowhere* (1986).

17 See the WIKI: Math and the Art of MC Escher: <http://mathstat.slu.edu/escher/index.php/Depth_and_Perspective> (last visited 27 March 2017).

18 M. Hildebrandt & S. Gutwirth, '(Re)presentation, pTA citizens' juries and the jury trial', (2007) 3 *Utrecht Law Review*, no. 1, <<http://doi.org/10.18352/ulr.35>>, pp. 24-40.

19 C. Mouffe, 'Deliberative Democracy or Agonistic Pluralism', Department of Political Science, Institute for Advanced Studies, Vienna (2000).

20 J. Dewey, *The public & its problems* (1927).

3. Extraterritorial representations: the war of images

3.1. Illusions of transparency between image and calculation

Again, before moving into the territory of jurisdiction, let me connect with the art project that informs this article, to highlight the extent to which individual human subjects are co-constituted by the technologies they employ. My argument will be that current technologies challenge this constitution, thereby also challenging the constitution of a collective subject (notably the nation state).

In their work *Image Blockade*, the artists show the brain behaviours of 8200 Israeli secret elite intelligence unit veterans. Instead of merely asking them how they feel about fellow veterans who signed a letter of refusal, their response was measured by means of brain imaging technologies, conducted by neuroscientists at the Weizman Institute of Science. In *Bomb Magazine* Maayan Amir and Ruti Sela explain:²¹

‘We sought to raise questions concerning the ways sensory regions are activated differently in light of one’s involvement in a system of state secrecy and devotion to maintain national security. To an extent, we also wished not only to look at the participating subjects as witnesses of their experiences, but also to ask how the senses themselves testify.’

An interesting question here is what is representing what, or who is representing what, or what is representing whom? Secret services are about making transparent what remains hidden in the process of conspiring against national security; for that reason, secret services are not transparent about their own operations. This requires a deeply ingrained professional loyalty of its employees, willing to keep secret what is deemed classified, in order to protect fellow employees as well as the nation. I understand the art project as an investigation of how this loyalty affects their perception, and of how their brains help to reconfigure their reality. This, however, must not end up as an opposition between what veterans say they feel and what – according to the brain images – they ‘really’ feel. ‘[T]he senses themselves testify’²² to nothing; rather, their brain behaviours leave a machine-readable print, which is subsequently interpreted by algorithms and/or human observers. It may seem as if the mind of these veterans is made transparent in the process of imaging their brains, but this would naïvely assume that we are our brains. It eradicates the role of the observer in articulating what the brains actually ‘do’ and her (the observer’s) role in how this must be related to the loyalties of the veteran. Apart from that, brain imaging is based on calculations, on computational mediation. The images are not an unmediated view of the reality of the brain. Therefore, the transparency it offers must be scrutinized, confronted with alternative visualizations, and with the own point of view of the human participant.²³

3.2. The virtual reality of the brain

The artists show that our brains can be ‘read’ by computational machines, providing a virtual image of what our brains ‘do’ while we talk about things we may want to keep a secret. The image is virtual in the sense that it is mediated by a computing system, there is no way to observe these behaviours with the naked human eye. Similarly, our brains can be tricked into experiencing a ‘virtual reality’ (VR) based on VR wearables or, for instance, flight simulators that manage to manipulate our brain behaviours such that we enter an artificial world that can easily be mistaken for the ‘real’ one.²⁴ Such VR is now used to train pilots, surgeons, and military personnel, or employed for entertainment.

We should not forget, however, that our brains are continuously producing the reality we need in order to test the output of this type of simulation machines; we do not want the pilot to crash the plane or the

21 T. Heiman, ‘Exterritory. The space of politics’, an interview with Maayan Amir and Ruti Sela in *Bomb Magazine*, 27 April 2015, <<http://bombmagazine.org/article/0563415/exterritory>> (last visited 27 March 2017).

22 Ibid. (the quotation refers to the text that has just been cited above).

23 Taking into account that even the ‘own view’ cannot be ‘measured’ without mediation, see e.g. K.F. MacDorman et al., ‘Does Japan Really Have Robot Mania? Comparing Attitudes by Implicit and Explicit Measures’, (2008) 23 *AI & SOCIETY*, no. 4, pp. 485-510.

24 This – productive – mistake has drawbacks, known as ‘virtual reality sickness’ or ‘cybersickness’, see B. Allen et al., ‘Visual 3D motion acuity predicts discomfort in 3D stereoscopic environments’, (2016) 13 *Entertainment Computing*, pp. 1-9.

surgeon to damage parts of the brain when removing a tumour. The reality our brains create, *together with* and *as a part of* our body, is also a virtual reality. While navigating our world we are continuously testing this – our – virtual reality, and this is what makes us smart. Our reality thus resides on the cusp of the virtual reality we produce and the resistance we encounter when testing it.

3.3. The border of the sovereign subject

Phenomenology has a long history of paying attention to our situated and embodied existence, building on Husserl and Merleau-Ponty, further developed with respect to our technological environment by Ihde and, for instance, Stiegler.²⁵ One way of framing these insights is to refute the conventional understanding of the self as something that is contained within our ‘skinbag’, as Clark coined it.²⁶ Clark’s analysis of the boundaries of our mind is all the more interesting as it comes from a mind steeped in the modern tradition of physicalism. His point is that the self is actually extended whenever we outsource part of our cognition to the technologies we employ; these tools become part of who and what we are, thus reconfiguring the borders of the human subject. For a postphenomenologist such as Ihde this is a trivial observation, because what makes us human is our ability to make and handle tools that shape both our environment and our selves: technology reinvents us while we invent it.²⁷ The point should be which technologies reconfigure us how, and whether currently emerging technologies confirm or negate how we wish to develop as selves and societies. Looking at selves this way requires us to reorient our understanding of the sovereign subject. First, the human subject does not precede society and its technological backbone. Rather, both are constituted and shaped by the technological infrastructure that reigns. Second, unless we succumb to technological determinism, we are capable of resetting, discarding or transforming our technological infrastructure even if this is no small feat. Third, the self does not stop where the skin ends. Even if this may be the case for plants, humans are in a persistent process of border-making and these borders depend on the habits we develop, question and change. In turn, these habits are induced, enforced, inhibited or overruled by the technologies we use. The reading mind, as neuroscientific research has shown, develops its particular habits of abstract thought while interacting with the technologies of the word.²⁸ We cannot take for granted that novel information and communication infrastructures, such as those employing data-driven intelligence, have the same ‘affordances’ as those of the script, cartography and the printing press. This entails that these novel technological infrastructures will change the habits of our minds and thus our selves.

If selves are best understood as co-constituted by the tools they employ, it makes sense to investigate what this means for the collective subject of a particular jurisdiction. That is, if the self is no longer seen as having fixed borders (the skin), we have to revise our understanding of territorial borders for collective subjects too. We may have to admit that these types of borders are connected with the affordances of cartographic technologies that are running out of steam and will be increasingly replaced by those of internet-related technologies that disrupt distance in both time and space, thus also disrupting ‘traditional’ makings of collective subjects, based on territorially bounded mutually exclusive states. This is not to suggest that collective subjects can do without borders, but rather to emphasize that the dynamic constitution of those borders will increasingly digress from the geographical concept of territorial borders. It is also to raise the spectre of a multitude without collective subjects such as territorial states, instead bound together by shifting assemblages of networked individuals that thrive on ephemeral loyalties *managed by* a data-driven environment.

25 E. Husserl, *The Crisis of European Sciences and Transcendental Phenomenology; an Introduction to Phenomenological Philosophy* (1970); M. Merleau-Ponty, *Phénoménologie de la perception* (1945); D. Ihde, *Technology and the lifeworld: from garden to earth* (1990); B. Stiegler, ‘Die Aufklärung in the Age of Philosophical Engineering’, in M. Hildebrandt et al. (eds.), *The Value of Personal Data. Digital Enlightenment Forum Yearbook 2013* (2013).

26 A. Clark, *Natural-Born Cyborgs. Minds, Technologies, and the Future of Human Intelligence* (2003).

27 D. Ihde, *Ironic Technics* (2008) and D. Ihde, *Technology and the lifeworld: from garden to earth* (1990).

28 On neuroscientific research in the reading brain: M. Wolf, *Proust and the Squid: The Story and Science of the Reading Brain* (2008). On the technologies of the word: W. Ong, *Orality and Literacy: The Technologizing of the Word* (1982). On the relationship between script and abstract thought: J. Gleick, *The information: a history, a theory, a flood* (2010).

4. The making of jurisdiction and the border of the virtual world

4.1. Territory defined in terms of jurisdiction, terroir and terror²⁹

There are those who believe that a collective subject can only exist on the basis of territorial jurisdiction. In previous work I have argued that territorial jurisdiction is a historical artefact, closely aligned with (1) the ‘invention’ of the monopoly of violence, (2) the proliferation of written text as a result of the widespread employment of movable type (the printing press), and (3) modern cartography. In his magnificent work on the Western Legal Tradition, Harold Berman traced the roots of the modern state in the rise of the Roman Catholic Church from the 11th century onwards.³⁰ The idea of a unilateral competence to legislate rather than merely adjudicate stems from Pope Gregory VII, who promulgated the *Dictatus Papae* in 1075 – thereby seizing power and instauring a new type of monopolistic jurisdiction. This jurisdiction was not at all territorial, but firmly grounded in either the content (*ratione materiae*) or in the subordination of the clergy (*ratione personae*). Based on these, a new type of jurisdiction was consolidated regarding the *populus christianus*, without necessarily infringing upon the rights of landlords, kings or emperors (though the mere fact that land-based jurisdiction overlapped with the jurisdiction claimed by the church caused major conflict). In the same period the so-called peace or truce of god was promulgated and consolidated, which – according to Berman – prepared the way for a monopoly of violence against feudal vigilance. As printed text proliferated with the uptake of the movable type, *it became possible to address a public that is removed in time or space*. The distantiation between author and reader that is inherent in written text, and scaled extraordinarily with printed text, enabled a ruler to ‘rule over’ a far more extensive population. In combination with an emergent monopoly of violence, written law grounded the rise of territorial polities with clear and simple geographical borders, capable of terrorizing those within its jurisdiction into obedience, as long as the sovereign could offer protection against external and internal violence (enemies and criminals). For this reason Connolly and Elden trace the concept of territory to terror, in addition to the more common derivation of terroir.³¹

The curious amalgam of terrorizing the outside (safeguarding external sovereignty between states) and the inside (safeguarding internal sovereignty) was made easy, if not possible, by the modern invention of cartography. As Ford has described in his *Law’s Territory, A History of Jurisdiction* ‘the rigidly mapped territories within which formally defined legal powers are exercised by formally organized governmental institutions’ are a recent invention,³² contingent on the modern, scientific demarcation of distinct territories that do not overlap and leave no gaps. Ford detects four dimensions in territorial jurisdiction that correlate with the affordances of cartographic mapping: (1) territorial demarcation overrules personal status, (2) it creates *abstract boundaries, that define an empty space*, thus (3) producing an inside and an outside that enables exclusive control over the inside, in turn (4) resulting in a gapless map of contiguous jurisdictional territories. This entails that there is no inside that is not an outside and, crucially, that subjects and objects cannot be in more than one ‘inside’. Jurisdiction as-we-know-it, therefore, is made and not given. This may sound trivial to some, but the point here is *how* it has been made and *by which means*. I am not referring to military achievements, but to the underlying cognitive extensions (maps) that enabled a world order of contiguous sovereign states.

We should not be surprised that a linear geometric perspective that divides people and things by ‘keeping’ them in mutually exclusive territories runs into problems in the era of an internet that, instead, enables real-time groupings across any and all kinds of borders, creating dizzying network effects, while nourishing both mobility and reconfigurations of various types of alignment. To sustain or reinvent world order, jurisdiction

29 This section builds on M. Hildebrandt, ‘Extraterritorial jurisdiction to enforce in cyberspace? Bodin, Schmitt, Grotius in cyberspace’, (2013) 63 *University of Toronto Law Journal*, no. 2, pp. 196-224.

30 H. Berman, *Law and Revolution. The Formation of the Western Legal Tradition* (1983).

31 See note 7, *supra*.

32 R.T. Ford, ‘A History of Jurisdiction’, (1999) 97 *Michigan Law Review*, no. 4, pp. 843-930.

will have to be re-made, raising the issue of the borders of the virtual world, which – in turn – begs the question of what is a virtual world.

The term virtual is used in a myriad of ways, though most often in contrast to ‘real’ in the sense of ‘physical’. The term ‘virtual reality’ indicates a reality that is produced by means of software to create an alternative world in which people can immerse themselves (online gaming, the worldwide web, online social networks, cyberspace in general), or an augmentation of the physical world by means of extra layers of information that can be easily accessed (e.g. Google Glass). By now, the so-called virtual world has penetrated, enhanced, reduced and mutated the physical world so drastically that it should be clear that the virtual and the physical worlds interpenetrate and disrupt each other semi-permanently. Think of smart grids, self-driving cars, cloud robotics, 3D-printing and military drones.

It makes sense, therefore, to redefine what we mean by virtual, seeking its meaning in contrast to what is actual instead of opposing it to what is real. Building on Deleuze and Lévy,³³ virtual refers to something that is real, but not yet actualized, taking into account that actualization can take place in different ways, depending on the interactions with an environment. A seed of an oak, for instance, is a virtual oak. It is real in the sense that it contains the potential to develop into an oak tree, and not the potential to develop into a birch. It is, however, not an actual oak and whether and how it will actualize into an oak tree will depend on where the seed finds itself (the terroir, the climate, the weather, other seeds, plants or trees taking its food or sunlight). Deleuze and Lévy oppose the notions of virtual and actual (both of which they view as real), to the notions of possible and real. In their vocabulary, what is possible is not yet real, but its realization is not a creative process – it is merely a matter of changing its status from possible to real. For instance, a deterministic computer program may prepare a possible decision. Once the decision is produced it is real, but due to its determined nature there is no process of actualization, no creative process; the decision is ‘merely’ realized.³⁴ The process of actualisation can be reverse engineered by way of a thought experiment, which entails seeking the question or problem to which the actual is an answer. This is the process of virtualisation. In the context of this paper the idea of virtualization is critical for the issue of borders. The idea of a jurisdictional border is a virtual reality, whereas a concrete, territorial jurisdictional border is an actual reality. This concrete border results from a particular process of actualization – which depends on a number of concrete interactions between those involved in ‘making’ a specific jurisdiction. Actualization and virtualization are – as far as human reality is concerned – closely linked with institutionalization. Whereas a tree cannot turn back and become a seed, human institutions such as money, contract or marriage mediate between a process of virtualization (which institutes the idea of money that informs the meaning and thus the reality of monetary transactions) and actualization (which enables buying goods, setting or agreeing on a price, lending and borrowing money or even seeking interest). If we view the idea of the boundary of a jurisdiction as a virtual reality, we may reinvent its actualization beyond the current actualisations, which are determined by geographical demarcation. In the light of cyberspatial disruptions of territorial space, this is what we may have to learn: jurisdictional borders must be actualized in tune with the networked spatiality of the onlife world. The question is whether this is possible, or whether this networked spatiality incapacitates the virtuality of jurisdictional borders, leaving us with a multitude of individuals – or even individuals – no longer capable of forming stable collective subjects.³⁵

4.2. The making of the freedom of the high seas: passage or property

Cyberspace has been likened to Grotius’ high seas, and his *Mare Liberum* (the freedom of the high seas) has inspired the potential of a *Cyberspace Liberum*. Grotius depicted the high seas as an unregulable space not amenable to appropriation (in Grotius’ terms: occupation). Interestingly, Grotius argued that the high

33 G. Deleuze, *Difference and repetition* (1994). P. Lévy, *Becoming Virtual. Reality in the Digital Age* (1998).

34 It would be interesting to investigate what this means for machine learning, which may indeed involve a process of actualization, depending on what type of machine learning is at stake (supervised, unsupervised) and on the way the input data has been collected, cleansed and structured.

35 On data-driven societies as assemblages of individuals see G. Deleuze, ‘Postscript on the societies of control’, (1992) 59 *October*, pp. 3-7. M. Hildebrandt, ‘Profile Transparency by Design: Re-enabling Double Contingency’, in M. Hildebrandt & E. de Vries (eds.) *Privacy, Due Process and the Computational Turn: The Philosophy of Law Meets the Philosophy of Technology* (2013).

seas resist being an object of either private or public property while also arguing that they should not be monopolized by individual states. This curious amalgam of descriptive and prescriptive argumentation returns in the writings of early cyberspace exceptionalists,³⁶ who claimed that the technical architecture of the internet cannot and should not become the object of national or international regulation. In both cases this may be related to the fact that even if the description is correct, attempts to occupy (parts of) either the high seas or the internet could disrupt the landscape of sovereign states to the point where such occupation becomes possible. If the nature of sovereignty is transformed, the meaning of an occupation will also change. It may be precisely this transformation that calls for resistance. Grotius claimed that the high seas must be seen as a passage, enabling a world order of contiguous sovereign states engaged in free trade, thus nourishing interdependence and mutual flourishing. The eschatological overtones in Grotius' high expectations of a free world trade return in the writings of the cyber utopians: the internet will connect people across national borders, enabling a new type of free intercourse and a new type of freedom to disseminate and access information.

4.3. The borders of the high seas and those of virtual worlds

In her seminal text on cyberspace(s), Julie Cohen commences by observing that both exceptionalists and non-exceptionalists perceive cyberspace (or the virtual world) as a separate place. This, she finds, flies in the face of the experienced spatiality of cyberspace, that is 'neither separate from real space nor simply a continuation of it'.³⁷ Her next move is to dig deeper into the idea that human agency is space-bound, an idea that has been used to defend territorial borders as necessarily defining jurisdiction, also in cyberspace. Cohen, however, finds that:³⁸

'To say that humans reason spatially is not to say that we are placebound, or property-bound, but simply to say that we are embodied, situated beings, who comprehend even disembodied communications through the filter of embodied, situated experience.'

In one stroke she accepts cognitive psychology's findings on the spatiality of human action and perception (to navigate the world we must be aware of what things and subjects we may run into, and orient ourselves to decide where we are heading), while nevertheless rejecting that this entails being bound to one place or being committed to private or public property (which entails exclusive control over an identifiable good). Finally, Cohen concludes that the issue is not what kind of (separate) space cyberspace is, but how the networked character of what we call cyberspace interacts with our embodied space, and whether and how this requires regulation (and, by whom).

Following Cohen, my starting point for examining the borders of cyberspace is the simple but easily overlooked fact that cyberspace is always experienced by embodied and situated individuals. This entails that online interactions have consequences in the embodied world, meaning they can affect reputation, employability, creditworthiness, energy usage, health-risk assessment etcetera. Indeed, the current interpenetration of cyberspace and the physical world generates a myriad of connections and interactions between cyberspatial entities and the institutions that crowd our offline world. The concept of institution, here, does not refer to a formal type of organisation, but to the sociological concept of a consolidated and identifiable pattern of interactions that constitutes a conglomerate of mutual expectations and co-determines our action-potential.³⁹ Institutions in that sense give meaning to our actions by allowing us

36 D.G. Post, 'Anarchy State and the Internet', (1995) *Journal of Online Law*, Article 3, available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=943456> (last visited 27 March 2017), but see J. Goldsmith & T. Wu, *Who Controls the Internet? Illusions of a Borderless World* (2008), H. Holland, 'The Failure of the Rule of Law in Cyberspace? Reorienting the Normative Debate on Borders and Territorial Sovereignty', (2005) 24 *The John Marshall Journal of Information Technology & Privacy Law*, no. 1, and M.L. Mueller, *Networks and States: The Global Politics of Internet Governance* (2010).

37 J.E. Cohen, 'Cyberspace As/And Space', (2007) 107 *Columbia Law Review*, no. 1, p. 213.

38 Ibid.

39 E.g. F. Rojas, 'Institutions', *Oxford Bibliographies* (Oxford Index, 26 August 2013), <<http://www.oxfordbibliographies.com/display/id/obo-9780199756384-0132>> (last visited 27 March 2017).

to anticipate how others will ‘read’ them and what consequences they will probably have. Think of the institutions of employment, marriage, credit, healthcare, insurance, science, education and literature, which all give meaning to our interactions by constraining as well as enabling them. An action (getting married, taking a job, borrowing money) ‘counts’ as a certain kind of action based on such institutions. If registered in the civil registry marriage will also have legal effect, for instance, reconfiguring the liability of either partner as that of a couple. Institutions, closely aligned with speech acts and acts of writing, thus create amalgams of consolidated legitimate expectations, shaping the future, providing foreseeability and – if a legal institution – legal certainty. A jurisdictional border institutes the jurisdiction it demarcates and as such it is an institution, depending on an assemblage of language games that make sure we all understand the consequences of crossing such a border (entering or leaving a specific jurisdiction). This, however, is less clear when crossing the non-territorial borders of cyberspace. Whether it functions as an extended or disruptive market place, library or public square, its computational backbone and data-driven applications continuously interrupt and transform the risks, the opportunities and indeed *the capabilities* of its users, irrespective of their geolocation. In fact, the term ‘user’ seems out of place for an infrastructure that is not only *used by* citizens and consumers but also *uses them*, notably their behavioural and posted or submitted data. In the meantime, the immersive character of chatting, email, search, gaming, watching and uploading videos etcetera invites terms like ‘inhabitant’ or ‘participant’. Interestingly, we have no problem accepting that a person may simultaneously *use* different appliances, and *participate* in different practices in the course of time, whereas we may be less aware that people actually *inhabit* different spaces at the same time when simultaneously participating in different practices. This is, however, what the hybrid spatiality of cyberspace affords, as it is mixed up in our physical and institutional environment. Clearly we can collapse distance in time and physical space, inhabiting different spaces, speaking with others on the other side of the world, conducting professional activities while at home, connecting with friends of friends of friends of colleagues of colleagues or even colleagues of friends of colleagues – etcetera. While crisscrossing the dynamic borders of cyberspace, our embodied existence is not only inextricably wound up with a number of consolidated institutional arrangements (as in the offline world), but is now also inexorably tied up with unforeseeable network effects (across cyberspatial contexts). Indeed, speaking of an offline world is becoming an increasingly invidious or precarious description, an anachronism oblivious of the computational operations that take place behind the surface of screens and things, and blind to the hyperconnectivity that drives the internet. In the context of an EU initiative on concept-re-engineering, the hybridization of online and offline has been coined as generating an onlife world,⁴⁰ hoping to better capture the manner in which hyperconnectivity and its computational backbone animate everyday life as well as its architecture. Another way of putting this would be to say that the onlife world thrives on mobile, polymorphous and multiple borders that are reconfigured under our feet as it were. Obviously this will have prodigious consequences for the force, the viability and the reliability of jurisdictional borders.

The challenge, thus, concerns the impact of a networked spatiality on a jurisdictional landscape grounded in contiguous territories with cartographically enabled borders. If the virtual (non-physical) world is not a separate place, but already integrated in a new – onlife – world, the question is how borders can be constructed that protect from and against aggressive others within and without those borders. If networked borders have a tendency to be ephemeral, mobile and polymorphous, they may not ‘hold’ or stick, creating havoc for those who depend on the onlife world, plunging them into interminable negotiations, a succession of failed states and a mutation in the distinction between war, crime and piracy.

Let me briefly return to Grotius’ freedom of the high seas, justified by the notion of a passage, interconnecting sovereign states situated on different continents, enabling the benefits of economic exchange that would supposedly result in worldwide welfare. The notion of a passage fits with the geographic demarcation of the high seas as an inbetween that separates and connects land. However, once the internet anchors (and disrupts) our physical and institutional world it becomes hard to envisage it as a passage. The

40 L. Floridi (ed.), *The Onlife Manifesto – Being Human in a Hyperconnected Era* (2014).

online world now shapes and constitutes the capillaries of the onlife world, turning into something like the sewage system, the electricity grid or the air we breathe, rather than a passage. We may employ it to cross old-school borders, but unlike the high seas, cyberspace is not inbetween but anywhere and everywhere. This is where cyberspace differs fundamentally from the high seas and where the metaphor of Grotius' *Mare Liberum* runs out of steam. The world order that was based on contiguous geographical territories, interrupted by the passage of oceans, must now reckon with the disruptive nature of dynamic, mobile, polymorphous and somewhat ephemeral borders of networked spatialities.

5. The rule of law in networked spatialities?

5.1. The legal subject outside its territory

In his magnificent work on *The figure of the migrant* Thomas Nail announces that:⁴¹

[r]ather than view human migration as the exception to the rule of political fixity and citizenship, this book reinterprets the history of political power from the perspective of the movement that defines the migrant.'

Nail notes that the migrant is usually seen from the perspective of sedentary life, turning the migrant into a secondary, deviant figure. Concomitantly, he argues, the migrant is perceived from the perspective of the state and defined in terms of the technologies of enclosure, which place the migrant outside the realm of belonging. Nail goes on to develop the building blocks for a theory of 'kinopolitics', highlighting the state's potential for territorial, political, legal and economic expulsion. Enclosure – perhaps paradoxically – opens the door to expulsion of whomever and whatever is not welcome on the inside. In the era of contiguous territory-based states, this problem is mitigated by subjecting all those inside the enclosure to the reign (and thus the protection) of their sovereign. The sovereign cannot dispose of them at will, because this would expulse them into the territory of another state that is under no obligation to accept them. Even if this system was far from perfect, for instance allowing the sovereign to abuse or neglect its own subjects instead of expulsing them, it offered a clear-cut division between one's own jurisdiction (based on nationality and/or residence) and foreign jurisdiction.

In the Westphalian era, the migrant who was not a national nor a resident, lived in the interstices of this clear-cut division, with few rights and even fewer ways of exercising them. The same applied, more or less, to those living in occupied territory – claiming to belong to the land or the people, but at the mercy of another sovereign. In sailing into extraterritorial waters to bring people together with different loyalties, protesting the stalemate in Israeli occupied territories, Ruti Sela and Maayan Amir seem to experiment with a new perspective on the figure of the migrant. The interstices become the 'place' to be, not a mere passage, but the default middle ground where borders can be redefined and protection redistributed. By referring to Hanafi's idea of two extraterritorial nation states (Israeli and Palestinian),⁴² i.e. nation states without internal territorial divisions and with a common capital, they tread untrodden paths and attempt to radically rethink the relationship between state, nation and territory. They call upon the parties to accept that the loyalties of either migrants or residents may be multiple in terms of land, family, estate, language and jurisdiction. In a sense they can be understood as re-thinking the relationship between migration and society, whereby migrancy is not secondary but primary to the formation of societies. Mobility then, is the default, and residency is what requires explanation. If this sounds like nomadism the point is not to romanticize pre-Neolithic nomadic society but to think about how current nomadisms can build and rebuild safe, flourishing and tolerant societies. It raises the question whether we can imagine extraterritorial nations capable of living together within the protection of territorial states that are inclusive while still protecting their people from violence and humiliation; being open without being naïve.

41 T. Nail, *The Figure of the Migrant* (2015), p. 235.

42 T. Heiman, 'Exterritory. The space of politics', *Bomb Magazine*, 27 April 2015, <<http://bombmagazine.org/article/0563415/exterritory>> (last visited 27 March 2017), who quotes Amir and Sela as referring to the work of Sari Hanafi on the idea of an extraterritorial state, e.g. S. Hanafi, 'The broken boundaries of statehood and citizenship', (2003) 2 *borderlands e-journal*, no. 3, <http://www.borderlands.net.au/vol2no3_2003/hanafi_boundaries.htm> (last visited 27 March 2017).

In counterpoint, Peter Sloterdijk has recently claimed that we need territorial states more than ever and cannot open our borders by default. The emergence of international terrorism reinforces, according to Sloterdijk, the need to uphold geographical borders to protect ourselves from being terrorized by those who use violence as a means to publicize their cause.⁴³ Sloterdijk seems to accept that the world order of contiguous territorial states is the only way to institute power as a legitimate authority, capable of terrorizing enemies on the outside and criminals on the inside – thus protecting soft targets from being ripped apart, and – I would add – the powerless from being marginalized as slaves or second-rate citizens, even if they are subjects of another state.⁴⁴ He refers to Arendt, arguing that to enable such protection we need not abolish power but to civilize it, to constitute it as an authority that is constrained by countervailing powers. We need, I would add, to organize a world order that enables one ‘to speak law to power’, whether that is national or international law. The question is whether an onlife world, grounded in a data-driven architecture that has no need for jurisdictional borders, will still *afford* either national or international law.

5.2. Networked, mobile and polymorph borders?

The notion of speaking law to power has been taken from a paper by Jeremy Waldron on ‘The Rule of International Law’.⁴⁵ In a subsequent paper Waldron has further developed his argument that in the playing field of international law, states should not primarily be seen as legal subjects with their own right to the protection of the rule of law, similar to the protection of natural persons within the domain of municipal law:⁴⁶

‘[S]tates are not the bearers of ultimate value. They exist for the sake of human individuals. To use Kant’s terminology, they are not ends in themselves, but means for the nurture, protection, and freedom of those who are ends in themselves.’

States, Waldron argues, are the trustees of their citizens and the rights of the state within the international realm must be seen in that light. States are artificial legal constructions and in the context of international law they must be qualified as agencies or officials rather than subjects of an international rule of law. This involves a difference that makes a difference. Whereas individual citizens are *free to act* as they wish unless the law forbids them, states are only *free to act* in accordance with the tasks attributed to them by law, remaining within the bounds of the constraints stipulated by law. This provides citizens with their *freedom from* unreasonable interferences by the state. This understanding of the rule of law is usually explained in terms of the legality principle (not to be confused with legalism), making sure that the state does not claim a zone of freedom to act outside the constitutional order. It relates to principles such as purpose binding and proportionality that determine the state’s restricted freedom to act, which guarantees citizens a freedom from *unforeseeable* interferences by the state. This last aspect is closely related to the notion of legal certainty ‘that enables people to figure out what is required of them, what the legal consequences of their actions will be, and what they can rely on so far as official action is concerned’.⁴⁷ Legal certainty, meanwhile, does not refer to automated application of unambiguous legal rules, because the requirements of legal certainty must leave room for legal argumentation. This ensures that a legal norm⁴⁸

‘occasions, frames, and facilitates a certain process of reflection and argument, rather than just the mechanical conformity of behaviour to an empirically or even numerically defined requirement.’

43 P. Sloterdijk, ‘Es gibt keine moralische Pflicht zur Selbsterstörung’, interview by Alexander Kissler and Christoph Schwenicke, *Cicero*, 28 January 2016, <<http://cicero.de/berliner-republik/peter-sloterdijk-ueber-merkel-und-die-fluechtlingskrise-es-gibt-keine-moralische>> (last visited 27 March 2017).

44 J. Waldron, ‘The Rule of International Law’, (2006) 30 *Harvard Journal of Law & Public Policy*, no. 1, p. 27, note 28, and J. Waldron, ‘Are Sovereigns Entitled to the Benefit of the International Rule of Law?’, (2011) 22 *European Journal of International Law*, no. 2, pp. 315-43.

45 Waldron (2006), *supra* note 44, p. 27, note 28, referring to R.B. Bider & D.F. Vagts, ‘Speaking Law to Power: Lawyers and Torture’, (2004) 98 *American Journal of International Law*, pp. 689-695.

46 Waldron (2006), *supra* note 44, p. 24.

47 Waldron (2011), *supra* note 44, p. 317.

48 *Ibid.*, p. 337.

This is an important qualification of the meaning and the consequences of legal certainty, notably in relation to the spatiality of cyberspace. If states are to be seen as agencies or officials of the rule of law in the international realm, they have a special role also in that realm to uphold the kind of legal certainty that fits with the legality principle, providing clear guidance on what individual citizens of whatever jurisdiction may expect from their own and other governments when acting in the onlife world. That special role includes duties to legislate (in the form of international treaties) and to submit to adjudication (by means of the institution and recognition of international tribunals). If one's interactions in the hybrid habitat of online and offline networks have consequences that affect the citizens of another jurisdiction, one should expect that the trustee of these citizens (their state) will take action to protect those under its care. Legality requires enabling people to plan their actions by making them aware of potential state interventions, meaning that international law such as the Cybercrime Convention, the Geneva Conventions, international human rights law, humanitarian law, refugee law, and international criminal law, must spell out how states may intervene to redress violations of legal norms across territorial borders. Traditional notions of the effects doctrine and the general prohibition of extraterritorial enforcement jurisdiction may require reconfiguration, taking into account the simultaneity and automation of cause and effect both in terms of temporality and spatiality. Cyber-attacks can be designed and engineered remotely, creating and/or collapsing distance in time and space; they can be conducted by nonhuman agents that run on code that is both highly effective and reasonably unpredictable (based on machine-learning techniques). These nonhuman agents may target nuclear industry, critical infrastructure or transportation hubs – their patrons may employ a virus or drones or a human person willing to commit suicide while conducting the attack. Interestingly, both the suicide attacker and the nonhuman agent have nothing to lose – making it hard to hold on to concepts like legality, as these are meant to take seriously a vulnerable human person who determines her own ends in this shared world.

To sustain legality and legal certainty in the onlife world we clearly need to rethink *and* to remake jurisdiction. We need to virtualize the actual, territorial, borders to return to the question to which the geographical borders were the answer. We need to actualize new borders that articulate another answer to the same question, adapted to the new onlife world. The notion of 'we' seems pivotal here. 'We' is first a multitude,⁴⁹ not a grand legal subject that can be taken for granted as a given people, or a given nation. As with the figure of the migrant the multitude should be the starting point to understand the *making* of collective subjects, such as nations and states or companies and other associations. Virtualizing territorial borders to gain access to what prompted them is an arduous task, on the cusp of a keen sense of reality and creative imagination. If we get 'the virtual' – the problem for which jurisdictional borders were the solution – wrong, we will not be able to develop an appropriate actualisation. The same goes for getting the new environment right, as this will be the ultimate test for whatever attempt of actualization. Considering that a multitude faces a vertiginous insecurity, as it lacks the kind of stable institutions that offer shelter against the threats of a potentially hostile, dangerous or fundamentally unpredictable environment, we may hypothesize that it is precisely this vertiginous insecurity that calls for the making of a collective subject. The virtual that instigated the construction of jurisdictional borders can best be described as the precipitous uncertainty that is part of the human condition. The question then becomes how to *make* jurisdiction in a networked world with a plethora of shifting and polymorphous borders between various types of groupings, between individuals, between people and things, between institutions and short-lived habits and between categorized digital personae and social graphs. How to establish borders that hold and protect, capable of generating a spatiality that is sufficiently stable to ease the vertiginous insecurity that may otherwise turn the multitude into a self-destructive mob or a merciless Leviathan?

49 P.A. Virno, *A Grammar of the Multitude: For an Analysis of Contemporary Forms of Life* (2004).

6. The end: speaking law to power?

In his *A Grammar of the Multitude* Paolo Virno discusses the distinction between fear and anguish.⁵⁰ Fear has an identifiable object, one fears some concrete danger. Anguish regards a more existential condition that concerns the foundational uncertainty of being human, the awareness of the precipitous unpredictability of the world we face and the future we enter. Virno suggests that jurisdictional borders enable us to focus on fear, to work on the concrete dangers we envisage within the confines of an inside that is *made* reasonably predictable. Anguish looms on the other side of the border, but it can be kept at bay as long as we manage to build collective subjects and – I would add – fabricate legal certainty. Virno believes, however, that we are entering the era of the multitude, bringing existential insecurity back into the heart of the safe haven of nation states. His analysis partly draws on the neomarxist narratives of Hardt and Negri,⁵¹ but even if we do not agree with their post-Fordist vocabulary his insights seem highly relevant to the extraterritorial dimensions of the onlife world. His point is that the distinction between fear and anguish is crumbling due to the unravelling of the distinction between the inside and the outside, and the concomitant disheveling of the concept of the people as the constitutive core of the nation state.

Though Virno, differently from Hobbes, and with Spinoza, does not believe that only a Leviathan can save us, I dare propose that even the idea of the multitude is being eroded by the data-driven architecture of the onlife world. A multitude still consists of *individuals*, whereas our networked life world reconfigures our selves as fluctuating sets of *dividuals* – inferred from the datified traces of intercepted behaviours.⁵² Cyberspace not only allows individuals to become ‘virtual’ migrants in any number of ‘virtual’ communities across geographically demarcated borders, its cybernetic mechanisms reconfigure the online environment in function of infinite series of inferred preferences, inclinations, risks or costs, turning our environment into a contingent adaptive system that mutates in line with the dividuals generated by the omnipresence of inference machines. Above this, the large-scale introduction of so-called cyberphysical systems that generate the novel onlife world,⁵³ further confuses and confounds the individual human subjects that use these systems while they (cyberphysical systems) use them (the humans whose machine-readable behaviours are mined to drive the functionality of these systems). They – we, with our extended minds – are now extended in all directions, with the potential result of disrupting the unity of place, time and action that holds them – us – together. At both ends of the spectrum (the individual human subject and the collective subjects constituted by individual subjects) centrifugal forces vie with attempts to coordinate, reconstitute and architect new collective subjects capable of providing shelter to cultivate a good life. In this sense, extraterritoriality as a temporal space to take a break, to pause, to retreat, is a courageous effort to create distance from the myopic perspectives that still saturate our understanding of jurisdiction. It is also an imaginative step into the outside of contiguously mapped collective subjects.

Nevertheless, Sloterdijk may be right. To protect individuality as well as individuals we may still need something like exclusive jurisdiction. ‘Speaking law to power’ implies two things. On the one hand it is a modulation of ‘speaking truth to power’, referring, however, to the law instead of truth. This indicates that we are not dealing with a multitude turned into a mob, but with individuals that identify with an actual jurisdiction. On the other hand, it refers to addressing power, a Leviathan, taking the position of those subjected to both that power and the law – using the law to contest the powers that be. I dare say that virtualizing territorial borders should not just take us back to the problem of the multitude and the insecurity each individual faces. We should keep in mind that the way in which territorial borders solved this problem basically enabled both modern law and the rule of law. When actualizing new jurisdictional

50 *Ibid.*, pp. 31-35. This is evidently a retake of Heidegger and Kierkegaard, if not Freud and e.g. Gehlen, but relevant here because Virno connects this distinction with national security, which makes it pivotal for understanding the virtuality of territorial borders.

51 Virno actually develops his own, less spectacular, more nuanced and nevertheless more radical understanding of the multitude, steering clear from easy oversimplification and scapegoating.

52 On the concept of a dividual: Deleuze (1992), *supra* note 35; Hildebrandt (2013), *supra* note 35.

53 ‘Cyber-physical systems’ is the new term for what has been called the Internet of Things or Ambient Intelligence, see e.g. S.C. Suh et al. (eds.), *Applied Cyber-Physical Systems* (2014).

borders, we should aim to reinvent a similar system of checks and balances, of countervailing powers, to re-constitute the affordance of speaking law to power. This seems to invalidate the idea of networked, mobile and polymorphous borders, as this in a sense defines a multitude and confirms the vertiginous uncertainty it nourishes. If the spatiality of the onlife world is networked, mobile and polymorphous we need to reinvent jurisdictional boundaries that protect individual citizens against the violence of the ensuing existential insecurity. Perhaps this can be done by reconfiguring the role of territorial borders as part of a more complex, multi-layered set of jurisdictions. The most important task here will be to reinstate legal certainty in the onlife world, as this provides *both* the solidity of legitimate expectations *and* the ambiguity that enables reflection, experimentation and contestation. ■