# 2. Between the editors

## Kieron O'Hara (KOH) and Mireille Hildebrandt (MH)

## INTRODUCTION

This chapter contains a crossing of swords and thoughts between the editors, who come from different disciplinary backgrounds and different philosophical traditions, but nevertheless occupy much common ground. The conversation is too short to enable the cutting edge of Occam's razor (pun intended), but refers to other work with more extensive argumentation. We agree on a great deal. In particular, we share a precautionary approach that requires proactive consideration of how one's experimental business models or progressive politics may impact others. However, as the reader will see, at that point we part company! The ensuing dialogue has been illuminating for us, and hopefully will whet the reader's appetite for the excellent chapters that follow.

## THE ONLIFE WORLD

**KOH: The Place of Privacy in Digital Modernity**

There are lots of myths about technology, but since those myths are often held dear by policy-makers and inspirational for technologists, it behoves us to take them seriously. In particular, I think that the myths of modernity can help explain why privacy was taken relatively seriously in the final quarter of the twentieth century, but is now seen rather as the embarrassing uncle at a wedding. We have to invite him, but we'll make sure he doesn't give a speech.

Privacy did not loom large in pre-modern thought. Let's concentrate on three aspects of privacy – the ability to associate without interference, the ability to make decisions without interference and the records made of one's past. In the pre-modern world, association was often imposed rather than chosen. In decision-making, practice and tradition were important,

and a justification for doing something was often that 'this is what we have always done', not 'this is what I want to do'. Archives were often based on memory or arbitrary records; what was recorded depended on who was doing the recording (cf. Krogness 2011 for a detailed example).

Hence, in the pre-modern world, there was little need for a privacy framework. Instead of privacy, the individual had (arbitrary, inconsistent and unprotected) obscurity, with no entitlement to concealment or a private space, but equally the reach of the state and other authorities was relatively feeble and partial. The result was a world in which individuals were not always legible to the state or to authorities, in the sense of Scott (1998).

The key value espoused in the modernity myth is individuality, as opposed to pre-modern values of hierarchy and social roles. The Enlightenment brought us new sources of authority grounded in human capacities, particularly reason; individuals became more important as political entities; liberty became an ideal; and self-interest, happiness and human nature became part of the political psychologists' toolkit (O'Hara 2010).

Individuality expressed itself through autonomous choice. Democratic processes developed, and free markets were newly theorized. Arranged marriages were superseded by romantic love. The social contract is based upon choice, which is the foundation for any contractual arrangement. In the conditions of modernity, the world presents itself to the individual, who then makes choices from the range it offers.

Where individuality is expressed through choice, privacy is central. Authentic choices require autonomous individuals; romantic relationships require intimacy; Locke identified a translation away from common dominion towards private ownership as vital for a free and prosperous society. Privacy is essential for autonomy, intimacy and private property, and is therefore baked into the ideals of modernity, which helps explain the admittedly gradual move through the twentieth century toward the provision of a principled legal, regulatory and rights-based privacy framework.

The moderns are toying with a new myth, a variant on the old which I call digital modernity (O'Hara 2018). Individuality remains its chief value, but its means of expression is different. Instead of a world presented to an individual to select the aspects he or she prefers, in digital modernity data is used to personalize the world around the individual's preferences.

Digital modernity consists, we might say, of a shift in tense. The pre-modern world was *eternal*, traditions and institutions conceived as changeless (even though they weren't). Analogue modernity put the emphasis on the *present*: current preferences are paramount, so that,

as Henry Ford said, history is bunk. Digital modernity, on the other hand, brings us systems which can 'read' the state of a digital avatar, and provides the goods that the individual *would* have chosen if he or she possessed total knowledge about choices and future happiness; tense shifts again, to the *subjunctive*.

In this subjunctive world, association is mediated by recommender systems; apps are now routinely used to suggest people to date, marry, go to bed with, befriend, employ, or suck up to because they will be valuable for our careers. Decision-making is anticipated, and the choices individuals would make are made apparent to them. The curated archives characteristic of modernity are increasingly being superseded by large-scale, open, searchable information spaces, whose data is increasingly straightforward to discover and link to data from other sources.

With digital modernity, privacy not only loses its pivotal position, it becomes a hindrance. The provision of personalized services is only possible to the extent that the individual is transparent to the provider. In the subjunctive world, privacy is not only not a route to the expression of individuality – it stands in its way.

## MH: From Digital Modernity to an Onli*fe* World

As O'Hara points out, privacy is connected with the idea of individual autonomy. However, other than O'Hara implies, autonomy should not be reduced to individual choice, as utilitarian policy-makers would have it. In point of fact, I would argue that framing our autonomy as such, invites both nudge theory and machine learning to come up with clever choice architectures that diminish our agency instead of enhancing it – whether in the service of a benevolent administration that wishes to coax us into its image of a 'good' citizen, or in the service of a benign service provider that claims to help us by offering what best suits our inferred preferences. As should be clear by now, benevolence and benign intent are not enough. We need the Rule of Law and a vigilant democracy to ensure that the choice architectures we face are not meant to manipulate us by playing on our first order preferences (Frankfurt 1971). We have come to a point where the digital modernity that O'Hara describes moves from the separate spheres of offline and online to an integrated onli*fe* world that thrives on behavioural data, meant to pre-empt our intent before we become aware of it.

My analysis in *The End(s)* has been focused on developing a vocabulary that circumvents the myths that have been created around big data, artificial intelligence (AI) and e.g. the Internet of Things (IoT). Instead, I have proposed to think in terms of a *distributed big data space*, a subliminal

data-driven *digital unconscious* and a new type of *mindless distributed agency* that feeds on what O'Hara ingeniously frames as the *tense of the subjunctive*. This refers to the subliminal operations of microtargeting in advertising, price discrimination, recommender systems, search and political influencing, but also to those of the cloud-driven architectures of the Internet of Things that connect our vacuum cleaner robot with its service provider, the black box of our smart car with the insurance company and a plethora of wearables with data brokers and the health care industry (directly or indirectly).

Other than O'Hara I do not believe that microtargeting as used by commercial platforms is meant to provide us with personalized services. The current economic incentives force platforms to compete in manipulating our inferred preferences to increase market share in economic and political markets, by making us click on ads or memes that further their clout. Our personal preferences are nurtured, rerouted, multiplied, produced and eradicated in a high dimensional information ecosphere that is not merely about smart homes (fridges) or clothes (say, socks), but about the linkability of IoT output with inferences gained from social networks, search engines and data brokers. This enables a novel (by now familiar) type of 'newsfeed' (from search engine indexing to YouTube ranking and Twitter threading), that incentivizes fake news whenever this provides a competitive advantage, in turn creating both market failures and a fragmented democratic discourse.

The *subjunctive tense* that rules our environment enables pre-emption, though whether it does cannot be tested, precisely because whatever was pre-empted did not occur. In terms of *The End(s)*, this *subjunctive tense* connects with the double mutual anticipation that characterizes human interaction. Being a human person means that I am forever – intuitively – anticipating how others anticipate me, noting that 'I' and 'me' seem to refer to the same person, but the 'I' actually does the referring and the 'me' is its object. This curious way of interacting, which is constitutive of the human subject as a reflective animal, depends on the grammatical first person that enables us to face the world from the inside out (consciousness) and to simultaneously face our self from the outside in (self-consciousness).

Awareness of the self is thus based on awareness of others, both individual and institutional others, whom we recognize as similar types of subjects, forever anticipating how they are anticipated. That is where I speak of *mutual double anticipation*. Dennett (2009) has framed double anticipation in terms of our taking the intentional stance, assuming that others have good reason to act as they do, and in *The End(s)* I have suggested that the onli*fe* world requires that we take a modulated intentional

stance towards environments that turn onli*fe* in the particular sense of forever anticipating us. To restore our capabilities, we need to anticipate that anticipation, facing the mindless distributed agency of our data-driven environment.

In point of fact, to develop our autonomy (which is not given), it becomes pivotal to intuitively grasp how we are being anticipated by what mindless agency. We need to be able to answer questions such as: 'what if I were to share my location data or my energy usage data or my eating habits with whom, how will it affect the reconfiguration of the choices I am presented with?' We thus need to re-engage the *subjunctive tense* from our own, first person, perspective.

## LEGAL PROTECTION BY DESIGN

**MH: From Text-Driven to Data- and Code-Driven Legal Protection?**

In *The End(s)* I develop the concept of 'legal protection by design' (LPbD) (p. 214):

> The argument is that without LPbD we face the end of law as we know it, though – paradoxically – engaging with LPbD will inevitably end the hegemony of modern law as we know it. There is no way back, we can only move forward. However, we have different options; either law turns into administration or techno-regulation, or it re-asserts its 'regime of veridiction' in novel ways.

In chapter 8, where I trace the technological embodiment of law, demonstrating that there is no such thing as technologically neutral law, I extensively argue that modern law as we know it is text-driven (without as yet using that term). In many ways the concept of 'text-driven law' is more interesting than that of data- or code-driven law. The latter refer to various types of 'legal tech', whether based on machine learning or e.g. blockchain.[1] Such 'legal tech' is so obviously different from the prevailing legal paradigm that naming them is the least of our worries. However, to come to terms with 'legal tech' we must first come to terms with the implicit assumptions and undertheorized affordances of 'traditional' modern law.

Above, O'Hara observes that previous ICIs basically afforded people opacity, as it were 'by accident':

> Hence, in the pre-modern world, there was little need for a privacy framework. Instead of privacy, the individual had (arbitrary, inconsistent and unprotected) obscurity, with no entitlement to concealment or a private space, but equally the reach of the state or other authorities was relatively feeble and partial.

By coining modern positive law as text-driven law, I argue that O'Hara's modern world had little need for LPbD. Instead of being protected by LPbD, the modern subject enjoyed (arbitrary, inconsistent and unprotected) obscurity based on the fact that stone walls, the inaccessibility of the brain and other physical barriers offer good enough protection against invasive behaviours, next to the text-driven legal protection offered by modern positive law. However, once law has to operate in an environment that is saturated with pre-emptive tech, capable of capturing and inferring what goes on behind stone walls, inside the brain and within social relationships, text-driven protection may no longer suffice. We may have to embed the legal normativity of human rights into the architecture of the novel information and communication infrastructure (ICI) to achieve the practical effectiveness of legal protection in the era of data-driven 'anywares'.

*The End(s)* explains that LPbD should not be confused with techno-regulation, as this is contingent upon a regulatory paradigm, based on a behaviourist, external perspective on law-as-regulation. With the advent of 'legal tech', notably code-driven versions of 'compliance by design' (e.g. smart regulation based on blockchain technologies (Wright and De Filippi 2015)), some proponents explicitly refer to such 'tech' as enabling human behaviour to be 'legal by design' (LbD) (Lippe, Katz, and Jackson 2015). This enables me to mark the difference between LPbD and LbD and the urgent need to consider the difference while rethinking their relationship.

LbD is what Brownsword (2016) calls 'technological management'. As an instrument to achieve policy goals, it may be far more efficient and in the short term possibly also more effective than law. This is due to (1) the fact that the legislator is not involved, so things can move faster and (2) legal safeguards will not necessarily be considered when designing LbD, so again things can move fast without taking into account all kinds of public goods and individual rights and freedoms. According to Brownsword, LbD is not law, because it is no longer possible to disobey the rules that are imposed. Though we have a duty to obey the law, such duty only makes sense if we are able to ignore its imperatives. If not, we are under a rule of discipline or administration.

LPbD, on the other hand, ensures (*The End(s)*, p. 218):

> that the technological normativity that regulates our lives: first, is compatible with enacted law, or even initiated by the democratic legislator; second, can be resisted; and third, may be contested in a court of law. This is what differentiates LPbD from techno-regulation. ... The 'resistability' requirement rules out deterministic environments, and the contestability requirement rules out invisible regulation.

This raises two types of questions. The first concerns who will decide, based on what values and what wisdom, when we can safely rely on LbD (better framed as compliance by design, as it is unclear in what sense this is law), and how such LbD solutions can be embedded in a broader framework of LPbD. The second type of question concerns when we require what kind of LPbD. *The End(s)* is not a handbook or a catalogue of practical policy solutions, but I hope that it raises these questions in a way that gives direction to the answers.

**KOH: Whose Norms? Which ICI?**

The distinction raised between LbD and LPbD is crucial, and I'm grateful to Hildebrandt for bringing it out. It draws attention to a particular mindset that focuses on ends rather than means – the same mindset that valorizes the use of data in policy (not that it shouldn't be used, but there are other things to do than measure the outcomes), and looks to utilitarian calculation of consequences. It's a common enough position: 'we want people to behave in accordance with norm X, so why not make it impossible for people not to behave in accordance with X?' One reason is that doing what you have to is very different from following a norm, and what Brownsword calls 'technological management' is more likely to result in atrophied norms than wonderful behaviour. 'Legal by design' is a truly scary concept (unless it means 'anything goes', which is awful in a different way).

Hildebrandt's statement of LPbD, quoted by herself, is unobjectionable from this point of view, with resistance and legal contest written in. Will this work? What form should it take, if it is to be feasible?

I tend toward a sceptical view of life. So vast and complex is the totality of our interactions that the effects of innovations are for all practical purposes unknowable. So connected are we that a small change here will create all sorts of unintended ripples over there. A.O. Hirschmann (1991) laughed at conservative thinkers complaining that innovation will have the opposite effect from that intended, or if not, will fail to produce any change at all, or, if it does produce the intended effect, will produce lots of less desirable changes as well. These can't all be true, he correctly said, but they are all possible, and most importantly policy-makers cannot rule any of them out. This insight doesn't prevent innovation, but it strongly suggests that the risk of innovation is lowest when the current state is lowest in value. In other words, if it ain't broke, don't fix it (see my final contribution to this chapter for more).

This impacts on LPbD (and LbD for that matter) at the invocation of design. Designing is what is hardest to do, particularly in open and global

environments at scale. We design a system to facilitate conversation and free speech, and we end up with fake news and Russian Twitter bots drowning out more desirable discourse.

But why is design necessary? Let's revisit Hildebrandt's three characteristics of LPbD. First, the tech needs to be compatible with enacted law. Yes of course, and if it is not compatible, the job of the state is to prosecute, rather as the European Courts are increasingly doing to the tech giants. Let us gloss over the possibility of the democratic legislator initiating anything technological, a terrible-sounding prospect. Second, the tech can be resisted. In other words, the environment is not deterministic, so I can do something other than the nerds intended. Excellent.

Third, most importantly, I can test the technology's norms in court. But what measure do I test them against? If I am allowed to show that I am harmed in my own terms, which might, for example, include a violation of what Nissenbaum (2010), in a great conservative text, called contextual integrity (a concept which applies more widely than privacy, of course), then we start to see how a digital common law might grow up, which requires no design beyond a consideration of what people feel is harmful and more importantly no specification (or anticipation) of the norms that should be embedded in the information and communication infrastructure (ICI) from a European Commissioner or an 'Ethics Tsar' or some other grey panjandrum in a suit.

We would then have a chance at least of preserving the valuable applications of technology while cracking down on the pernicious ones. It may be that this is the sort of structure that Hildebrandt is thinking of, but it seems to me that the key thing here is transparency rather than design. Let someone else embed the values in the tech, but make sure they are accountable for the evils that they do.

## DATA, KNOWLEDGE AND INFORMATION

### KOH: Bullshit 2.0

There is an oft-cited hierarchy of representative structures, represented as a pyramid with data at the bottom (uninterpreted symbols), information above it (interpreted data), knowledge above that (actionable information) and wisdom at the top (practical reason, Aristotle's *phronesis*). This is nearer PowerPoint than philosophy, but it has been influential. It is missing a layer, however: something which has many names, of which the pithiest is *bullshit*.

Perhaps surprisingly, bullshit has been the topic of some philosophical analysis. Frankfurt (2005) discussed it in the context of everyday life,

where he characterized it as discourse that was purporting falsely to be an attempt to tell the truth. The difference between lying and bullshit, for Frankfurt, is that the liar is attempting not to tell the truth, to tell a falsehood, whereas the bullshitter doesn't really care whether what he says is true or false. He says what he feels it is appropriate, and valuable for his purposes, to say.

Bullshit is spread consciously almost everywhere, where it helps fertilize all sorts of interactions. It is produced to achieve a particular goal – an utterance or ritual of some kind is needed, and the bullshitter provides it, whether or not it corresponds to reality. Chat-up lines, corporate mission statements, advertisements, political speeches, the writhing around of footballers in mock pain following a tackle – all these are familiar types of bullshit. The 45th President of the United States is an artist in the medium.

The problem for data-driven agency is that so much data is also bullshit. We fill in forms which purport to mean something, about our work patterns, or our birthday, or about our satisfaction with a website, and we fill in whatever will make the pop-up go away or preserves our privacy. That's fine, it's a ritual, until others interpret this as a statement about what work we have done, or when we were born, or whether we enjoyed the online experience.

Performance data are inherently bullshit, since to understand a performance management system is to be incentivized to game it. Academics publish all sorts of guff because we are paid to publish. There is even a literature on the least publishable unit, i.e. the quantum of information that will make up a respectable academic paper (Broad 1981). Privacy policies are a species of bullshit because although they are contracts, they are designed to be unread.

Bullshit can also be produced unconsciously, where the properties of data – what we might call its social life – are not appreciated or understood. Data does not just magically appear as a faithful reflection of reality, sitting in an abstract, Platonic heaven. It is crafted, built, created, argued about, paid for, compromised over, resisted and economized on. As with sausages, its fans should probably avoid watching it being made.

What about big data – how much of that is big bullshit? It's a pressing question, because much of what gets done is done via the analysis of lots of it. It is often held by policy-makers and commentators as sacrosanct because machine learning merely shows us the significant correlations, $N$ = all (as Mayer-Schönberger and Cukier [2013] put it), and all the bullshit will come out in the wash. I wonder how good their washing powder might be.

**MH: The Missing Link in Humbug 2.0 is Agency (572)**

In 2005, in his booklet on human bullshit, Harry Frankfurt (the same Frankfurt who treated the world to the distinction between first and second order preferences in 1971), saliently wrote:

> The realms of advertising and of public relations, and the nowadays closely related realm of politics, are replete with instances of bullshit so unmitigated that they can serve among the most indisputable and classic paradigms of the concept. And in these realms there are exquisitely sophisticated craftsmen who with the help of advanced and demanding techniques of market research, of public opinion polling, of psychological testing, and so forth dedicate themselves tirelessly to getting every word and image they produce exactly right.

Digital data is a trace of, an imprint from or a representation of something 'out there' in the 'real world'. Raw data is an oxymoron, there is no such thing (Gitelman 2013). Digital data is the result of hard work, just think of the need for hardware devices capable of capturing behavioural data online or offline, via e.g. cookies or other online tracking software, sensors and RFID systems, or smart energy meters; human experts that label and curate data; data scientists who develop feature spaces and other ways of sorting and qualifying data as one type rather than another.

Data – to be productive – assumes active gathering and curation, or capture as Agre (1994) coined it. This is always based on background knowledge, a context and a purpose. Whether data is information actually depends on the knowledge background that enables a human or machine agent to sort and curate it (Marcus 2018). The same applies to defining a machine-readable task that tells a machine learning system what 'counts as success'. This, in turn, is closely related to the choice of a performance metric that specifies even more precisely which variables determines the accuracy of the system's output (against what 'ground truth'?) (Mitchell 1997).

What is information for me may be noise for you; what is noise today may be information tomorrow. Knowledge refers to what an agent knows about the world, it is a complex web of interrelated assumptions, presumptions, experience, reasonings and institutionalized 'ways of seeing things'. I will avoid the term truth as it has religious overtones. Knowledge and information determine how we navigate the world (Brooks 2018), whether in the physical sense of not bumping into a wall, a tree or car, or in the institutional sense of not gaining access to education, employment, or in the sense of not understanding the language or habits of our fellows and thereby standing on their toes or rubbing their hair the wrong way.

Surviving and flourishing depends on having adequate knowledge and that includes recognizing relevant information when it becomes available.

This goes for individual agents but also for institutions. Wisdom is about not merely *knowing* to do the right thing, but actually doing it and learning from the consequences. There is no pyramid. Everything counts simultaneously, though that does not mean it is all the same.

The missing link here is agency. Data can be stored and manipulated but to become information and to build knowledge we need to figure out who is/are the agent(s). There is no information or knowledge that is not agent-dependent. Just like there is no agent that is not environment-dependent. That is what both knowledge and information are about: the survival and the flourishing of an agent, and of agents that share a particular environment.

## AFFORDANCES

### MH: Situating Agency

The linkages between data, knowledge and information are dependent on the agents that process the data, work with the knowledge and share or hide information. Gibson's (1986) concept of an 'affordance' is the vanishing point of *The End(s)* (Hildebrandt 2017, Calo 2017, Diver 2018). One of the most salient descriptions of the crucial importance of the idea of 'affordances' for the law has recently been written under the heading of 'Law as a User: Design, Affordance, and the Technological Mediation of Norms' by Laurence Diver. Though I am wary of the use of 'user', I will follow his line of argument, also in relation to LPbD (above) and the previous theme on 'knowledge, data and information'.

Diver traces the provenance of the term 'affordance' to psychology, human-computer interaction (HCI), and science and technology studies (STS). My own use of the term, however, derives from a salient concurrence with insights from philosophy of technology, notably those of one of its founding fathers, Don Ihde (1993, 1990). Both Ihde's postphenomenological work and Gibson's understanding of 'affordances' frame perception and action as simultaneously agent- and environment-dependent. More specifically, Ihde shows how technologies mediate both human perception and action, which highlights the importance of tracing the 'affordances' of technologies in terms of what they enable and how they constrain. Affordances are not, however, properties inherent in a technology per se, but relational 'properties' that are inherently agent-dependent.

Diver observes that theories on affordance and law basically do two things. First, they 'explain how the technologies which embody law have affected its development', e.g. understanding law as an affordance of, say,

the printing press. Second, they may depict 'law as an affordance per se', which Diver interprets as law having specific affordances for those under its jurisdiction. In recent work (Hildebrandt 2017), I have embraced both positions: law has certain affordances, which are in part constituted by the affordances of the technologies that embody law (e.g. the ICI of the printing press). I agree with Bertolotti and Magnani (2016) that institutions, just like physical objects, have specific affordances for the human agents that interact with them. As these affordances are core to the constitution of society it is crucial to figure out how they are enabled or constrained by the prevailing ICI.

Though Diver seems to reject the second use of affordance, because Gibson highlighted affordances as part of a material or physical environment, it may actually fit well with Diver's proposal to frame the relationship between law and its embodiment in terms of law as a user of such embodiment. Though the ICI that grounds the law is much more than an instrument in the neutralist sense (where subject and instrument are separate and independent things), we could see both the printing press and upcoming data- and code-driven architectures as instruments in the relational and pluralist sense that I advocate in chapter 8 of *The End(s)*.

If we acknowledge that instruments co-constitute their users (Dewey 1916), we can accept that text-driven law is an affordance of the printing press, while also accepting that printed text is its instrument. This – as Diver hopes – enables 'law as a user' to formulate specific requirements for the ICI that must be seen as its instrument. From that perspective, LPbD would focus on the affordances that should be designed into this instrument, whether it is text-, data- or code-driven.

**KOH: . . . But Are All the Agents That Matter Present at the Table?**

The nexus that Hildebrandt reveals between agency, technology and the law is important, and valuable in curbing the hegemonic tendencies of both legal and technological thinkers. The law is constrained/facilitated in part by the technology and agents of the day, technology ditto by agents and law, and agents ditto by law and technology. We can't really understand any of these without the others. But can we turn this essentially descriptive schema into something that is going to help us (or, perhaps more accurately, help *me* understand where LPbD is going to go)?

Hildebrandt objects to the term 'user' – I agree. 'Participant' is far more polite, and I would venture to suggest more accurate too (Shadbolt et al. 2019). But who are the participants, the afforders and affordees?

I'm driven here by Edmund Burke's critique of social contract theory, and one of the attractions of Hildebrandt's mention of affordance is that

it reveals to us the absurdities of the social contract. A contract is a type of legal arrangement that assumes a whole set of pre-existing practices, including promising, forgiving, shaming, compensating and cooperating, and also assumes the existence of a legitimate authority (the state) which will ultimately guarantee the contract. Contract relies on a whole set of affordances from society, its practices and its institutions, and surely on pain of fatal circularity can't simultaneously act as guarantor for all those things.

Be that as it may, Burke's critique focuses on the institutions and allegiances whose affordances are vital for refining the agent's world and its limits. To that end, Burke rejected the transactional social contract: 'the state ought not to be considered as nothing better than a partnership agreement in a trade of pepper and coffee, calico or tobacco, or some other such low concern, to be taken up for a little temporary interest, and to be dissolved by the fancy of the parties'. Rather, society

> is a partnership in all science; a partnership in all art; a partnership in every virtue, and in all perfection. As the ends of such a partnership cannot be obtained in many generations, it becomes a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born. (1968, 194–5, and cf. Scruton 2017a, 44–53)

This vision of a thread through history is eloquently descriptive of the needs of those protected and nurtured by the law; we respect our forebears, and we wish to make a future for our children, in a society that we expect to change but that we would find legible to us far into the future. We might borrow Hegel's term *Sittlichkeit* to describe what we mean, a moral and social order that persists through time and generations. And because of the timescales involved, institutions are the only things in which our trust can be reposed to maintain that order.

So when we talk of affordances, are we extending the range of reference generously into the past and the future? Or are we speaking only of the interactions that take place in some vague interval we dub the present? It's not clear yet that we are being expansive enough – we must preserve some semblance of the law as a textual matter, even as we think about how to incorporate code (and I certainly agree with Hildebrandt that that is a vital task). We must do this, just as the law has preserved elements of its spoken antecedents, with physical courtrooms, *habeas corpus*, oral testimony, and in many cultures the adversarial trial, while slowly accepting the affordances of written (and then printed) elements, and letting them be accreted over its time-honoured (to use an apposite phrase) practices.

Hildebrandt approvingly cites work that 'frame[s] perception and action as simultaneously agent- and environment-dependent'. I don't disagree,

but do those agents include the dead and the unborn? Does the environment include its history? And can we determine effectively enough the 'affordances that should be designed into' the ICI of LPbD, or should we take a step back and let the common law do its work of discovering those affordances unaided?

## THE DIGITAL UNCONSCIOUS

### KOH: Meaning and Power

In 2014 there was a flurry of indignation around an experiment using social media data. Academics from Cornell in cooperation with Facebook 'manipulated the emotions' of 689,003 social networkers, adjusting their newsfeeds so that expressions of emotions or sentiment were filtered. Result: those who received more negative stories were more likely to write a negative story themselves, and those blessed with happy news responded with unconfined joy. Or rather, the number of positive words they used increased by 0.06 per cent relative to a control. The authors proudly announced, 'the results show emotional contagion'. The intrusion, they claimed, was minimal and proportional. The contagion was pretty minimal too (O'Hara 2015).

Such events seem to demonstrate our powerlessness – mere data points to be pushed around in the ongoing quest to remove the last vestiges of unpredictability from the world. But more, I think, is going on than that. The experiment seemed to conflate the people and the data – the researchers tracked the vocabulary of users' posts, which seems a relatively remote proxy for emotional state. Did they prove more than that the vocabulary we use is conditioned by the vocabulary of others? That is hardly news. But maybe no-one cares about such fine distinctions nowadays. Indeed, one could be forgiven for wondering whether the real value to Facebook of the experiment was the boost to its share price (which rose 8 per cent over the next month), by feeding the myth of its omnipotence.

All coordination systems need feedback about the states of the things they are coordinating, and any system that is dealing with people – be it a government, social network or big data cruncher – needs to find out what those in its charge are doing. But people are disorganized, complex and have their own agendas, producing, in Kant's phrase, 'the crooked timber of humanity [from which] no straight thing can ever be made'. So, recalling Scott once more, governments and big data need to render us legible to them, so they can read what we do (1998). This means straightening that timber, cramming our infinitely variable behaviour into the insensitive but

tractable confines of categories and concepts. If a few beams crack, then no problem – Leviathan doesn't mind the odd splinter.

Indeed, if behavioural psychology backed up by loads of data can show that certain correlations occur under laboratory conditions, the temptation for paternalistic policy-makers is to reproduce the laboratory conditions in the world. So whereas the purpose of government might, once, have been to make me happier, so much easier if its aim was to get me to publish more positive words. This has two advantages. We know how to do it. And it is verifiable. 'Did you make the people happier?' 'Sure we did – look at all the positive words they posted. They are 2.3 per cent happier. Vote for me!'

But legibility is asymmetric. We are legible to the algorithms, but the algorithms are not legible to us. Algorithms are a classic technocratic way of avoiding politics, threatening a blander world. Maybe that's a good thing – but we should be debating it. Where to start? Transparency about the algorithms being used? Transparency is no good unless we have some compensating agency and can do something about what is revealed. Increase awareness that the data is only one of a plurality of indicators of human potential? Or do we need a playful class of politicians, scientists, financiers, businessmen, entrepreneurs and artists enjoying the act of creation and putting content before the public, taking a risk and not simply doing what the algorithms say.

**MH: Digital Unconscious and Human Agency**

Human autonomy is not absolute or independent as rational choice theory assumes, but neither is it predictably irrational as nudge theory and behavioural economics would have us believe. This is precisely why microtargeting is so disruptive; it works – but not as professed by those who stand to gain from others' belief in its magic.

In *The End(s)* I proposed thinking in terms of a *distributed big data space* that nourishes data-driven infrastructures and applications, turning into a *digital unconscious* that continuously reconfigures our choice architecture. The best way to understand this is to think of AB testing, which enables websites to continuously update their interface (and computational back-end system), based on surreptitiously gained feedback from their visitors. Note that while interfaces may seem user-friendly contraptions meant 'to improve the user experience', for all practical purposes they are meant to increase click behaviours to enlarge advertising revenues. Interfaces hide as much as they facilitate, or maybe more (Kittler 1997). As research seems to confirm, this induces a preference for more extreme and less nuanced content, which in turn generates confusion and fragmentation of public

discourse, affording a tactics of 'paralyze and polarize' (Tufekci 2018) rather than gaining control over individual minds. This is largely a matter of bots (online software scripts) that interfere in public debate by means of automated scripts, collaborating in the form of botnets (coordinated bots operating across platforms and devices) to disrupt public discourse (Howard, Woolley, and Calo 2018).

Microtargeting suggests that individual persons can be targeted in a surgical manner, eliciting the kind of behaviour that is wished for. Here O'Hara paints the bigger picture:

> if behavioural psychology backed up by loads of data can show that certain correlations occur under laboratory conditions, the temptation for paternalistic policy-makers is to reproduce the laboratory conditions in the world. So, whereas the purpose of government might, once, have been to make me happier, so much easier if its aim was to get me to publish more positive words.

Whereas microtargeting may have surgical effects in theory, and even in a laboratory, its accuracy in real life depends on reductive metrics. These 'fantastic' metrics serve as proxies for real life effects, which are, however, far more complex and far less predictable than nudge theory's alignment with machine learning suggests.

This does not stop the new digital unconscious from affecting human agency. It does so in two ways. First, though it may not actually operate with the surgical precision that is claimed for it, political parties, journalists and tech platforms may believe it does and base numerous decisions on this belief. This goes for decisions on spending (investing huge parts of their budgets to enabling or using microtargeting), decisions on what kind of content to write and disseminate (tweet-like messages, single-issue targeting, prioritizing of negative and/or radical content), decisions on face-to-face interaction with voters (downsizing investment of time and people in such interaction) and decisions on investing time in public debate with adversaries (restricting time and effort to prepare and actually conduct such debate). All this has major consequences for the quality and the integrity of political discourse and democratic resilience. Second, though microtargeting sounds very precise, it is based on statistics and is often operated by means of bots and botnets that enable the automation, amplification and subversion of political expression, including deliberate targeting with fake news. Even if this may not persuade anybody of anything, it will nevertheless fragment and disrupt individual and societal trust in political parties, journalism, tech platforms and political discourse in general, due to the confusion about who is lying about what.

Human agency is not given, it can be diminished and broken, subverted and overdetermined. A digital unconscious that targets our human

unconscious and messes with it, requires redesign to disable such tricks. We cannot expect those who profit from current microtargeting to instigate such redesign. Here we need stringent redress, capable of imposing compliance – combining 'by design' solutions that target the architecture of a rough digital unconscious with practical and effective law enforcement.

# THE MODE OF EXISTENCE OF MODERN POSITIVE LAW

### MH: Novel Entanglements of Law and Technology

*The End(s)* has been written for a broad audience, including lawyers, philosophers of law and technology, computer scientists and citizens interested in the implications of the new onli*fe* world they have come to depend on. One of the aims of the book is to highlight the importance of law and the Rule of Law, foregrounding the crucial importance of practical and effective legal protection.

Modern, positive law, *The End(s)* argues, is an affordance of printed text – as modern law is fundamentally text-driven. Based on research into the technologies of the word (Ong 1982), the script and the printing press (Eisenstein 2005), one can conclude that text-driven ICIs have specific affordances for human agents, such as sequential processing of information, systematization in the form of tables of content and of indexes that provide an overview over the content of printed books. As printed text enables authors (legislatures and courts) to reach readers (those under its jurisdiction) beyond the immediacy of face-to-face encounters a triple 'distantiation' takes place, between (1) text and author, (2) author and reader and (3) text and meaning. Apart from extending the reach of the legislator, this triggers a need for iterant interpretation, that can never be taken for granted (Ricoeur 1976, Lévy 1990), and thus generates iterant contestation. This affordance is core to modern positive law, culminating in the Rule of Law. Contestation is what offers legal protection.

Law's performative nature, the so-called 'force of law' (Derrida 1990), is deeply connected with its text-driven nature. Speech act theory shows that law does not depend on propositional logic, but on performative speech acts (MacCormick 2007), such as 'I declare thee husband and wife' or 'husband and husband' or 'wife and wife', depending on what positive law affords. Such declaration has legal effect, e.g. as to inheritance, authority over children or shared assets. In the world we share, such legal effect makes a difference. Legal effect is not a matter of brute force, logical

deduction or mechanical application; instead it creates institutional facts (a marriage, a university diploma, the competence to sell one's house). In that sense, law is constitutive of our shared lifeworld.

Computer code may be self-executing, enabling compliance by design. Some may believe that turns behaviours into 'legal by design'. As argued above, this is not the case; if you cannot disobey the law it does not qualify as law. Nevertheless, data-driven cyberphysical applications may take a plethora of decisions that surreptitiously reconfigure our environment. If we do not engage with this challenge, the ensuing choice architectures may overrule text-driven law and the legal protection it affords.

Modern law exists as rooted in text. Its *mode of existence* is text-driven. To the extent that the world that law aims to constitute and regulate is no longer text-driven, lawyers will have to get their act together. Law's *mode of existence* will change, either by (1) understanding code-driven regulation as law, by (2) reducing the role of law in favour of data-driven decision-making, or (3) by envisaging and developing *legal protection by design*.

**KOH: Getting Their Act Together**

Many characteristically wise words here from Hildebrandt, and I disagree with very little, nothing until the final paragraph. And even then, I'm only not sure. Lawyers will certainly have to get their act together – as, for that matter, will businesspeople, politicians and those in many other arenas for cooperation and the resolution of conflict – in the face of data-driven decisions. Hildebrandt gives us three choices: do they exhaust the possibilities? (Spoiler alert: I don't know).

Law does indeed exist in text, and in oral argument, and in physical space. A witness not only has to present her evidence, she has to do it at a certain time in a certain place. A jury needs to be present, except when it doesn't. Even a judge might have to be kept in ignorance of aspects of the cases over which she presides (e.g. if an offer to settle is made and rejected). Law inhabits the spaces into which it is invited, and it may come into the world of data-driven agency, perhaps as LPbD, perhaps as a type of common law. The problem I foresee with LPbD, as I noted earlier, is that law is often discovered through its collision with the reality of a dispute. The law as remedy, the extrapolation of justice from the relief of the injured, keeps it anchored in our quotidian lives, and away from the abstractions that look good on parchment but are meaningless in a concrete context.

What do the relevant contexts look like? Well, in many of them, we are the playthings of the platforms, as with the Cornell experiment described

earlier. Facebook's manipulation was odious to many, as evinced by the loud response, and we need a way of understanding this outrage as a genuine harm for which a remedy is appropriate.

In other areas, however, we need to understand the type of social life afforded by the platforms. I have recently been writing about *social machines* (Shadbolt et al. 2019), computer-mediated interactions enabling communities to respond to modern problems, e.g. of transport, such as Waze,[2] a navigation app which uses community-derived real-time data about incidents such as traffic jams and accidents; crime, such as BlueServo,[3] which crowdsources policing on the Texas-Mexico border, and Onde Tem Tiroteio (Where the Shootouts Are),[4] which uses a network of a million people combining social networking platforms with a special purpose app to provide real-time information about shootings and gang-related crime in Brazil; or health, to enable those suffering from a particular health care problem to pool resources and to offer support and advice to fellow sufferers, such as PatientsLikeMe,[5] or curetogether.[6] Social machines are important enterprises in a connected world; we need to see what does and doesn't help them flourish, and respond when necessary – but this can't simply be programmed in in advance, not least because not all social machines are socially beneficial.

A final thought is the importance of the idea of a data trust (O'Hara 2019). There are many different and not always consistent ideas of what this kind of trust can and should do and be, but the idea that data about one is held in trust, so that, even though one might not be the legal owner/rights-holder of the data one might be the equitable owner. Meanwhile, the data controller would have a fiduciary duty to manage the data for the benefit of the equitable owners (i.e. the data subjects). How this is implemented in law, if it needs to be implemented at all, is a moot point – it could not be a trust in the common law and equity sense (O'Hara 2019) – but, like a standard property trust, the aim is to give everyone confidence that the system works for them, and not for a remote other. The point of law is to drive a wedge between power and authority, and data trusts may be another means of doing that.

## CONSERVATISM AND THE QUEST TO PRESERVE PLURALITY AND NATALITY

### KOH: Reading Hildebrandt from an Oakeshottian Perspective

Cards on the table: my philosophical position is conservative in the Burkean tradition (not the current horrendous American mangling of the

term, applying it to anyone on the right of politics). Burkean conservatism problematizes change, from which it follows that conservatives in different cultures will often believe different things; for instance, in the US, a conservative would believe that a written constitution is essential for liberty, while in the UK, a conservative would think the opposite. Conservatives in Tehran or Beijing would have different ideas again, perhaps not being too bothered by liberty as a value. There is no contradiction in this; societies are different, their histories, settled states, trajectories of change and political standards divergent, their contexts *sui generis*. Unlike most other ideologies, conservatism is not defined with reference to particular ends (such as equality, liberty, free markets or the environment). Of course, conservatives can support these ends (personally, I approve of all but the first of these), but conservative support for them is contingent on their being already embedded in a society. I defend Britain's ancient liberties, not (as liberals do) because they are liberties, but because they are *ancient*. Conservatism, *qua* ideology, pursues no end, other than the continued functioning of a society along lines agreeable to its members (O'Hara 2011).

Conservatism, I believe, is primarily an epistemological position, rooted in the philosophical scepticism of Montaigne and Burke. The essential conservative position can be boiled down to two principles defensible using the resources of public reason (O'Hara 2011). The *knowledge principle* says that society is too complex, interconnected, reflexive and dynamic to be fully described by theory, so that the outcome of any policy intervention or innovation cannot be predicted with confidence. There will be unintended consequences, and the rationalist innovator cannot be sure either that the intended consequences will be realized. The *change principle* says that it follows that any innovation will bring risk (as indeed will stasis). In particular, the rationalist innovator, concerned with righting a wrong or pursuing an opportunity, is blind to the ways in which current practices and innovations implicitly support valuable and valued social interactions, often hidden by familiarity of practice and the absence of evidence. Hence the innovator typically undervalues current institutions. The risk of change is therefore, all things being equal, higher than the innovator's (imperfect) models maintain, and so the burden of proof on the innovator should be greater than ends-focused ideologies generally maintain. Change is more acceptable, and more likely, when a nation, society or culture is troubled, because the risk of change is lower. We should be more accepting of change in Syria, say, than in a peaceful Scandinavian country. Unfortunately, radicals tend to abound in settled, tranquil places, where they are left alone in comfort to theorize, and which they ungratefully wish to disrupt.

Conservatism does not rule out change, but takes its risks seriously. Neither does conservatism predict that change will necessarily be bad, only that the innovator understates the risks, and cannot ensure they will be avoided. *Some* innovations doubtless work very well; we just don't know in advance which ones. Change, when it comes, should be incremental, reversible where possible, and rigorously evaluated.

Note that these two principles don't determine what policies a conservative should pursue. A conservative might have supported Brexit, for instance, because the EU's alien institutional structures and foundations in civil/Roman law have undermined British Parliamentary sovereignty and common law. But equally, another might have opposed it because British politics, society and economics have been deeply shaped by its membership of the EU since 1973, and it cannot be disentangled without risking major harm and instability. A third conservative might (and, I would argue, should) have deplored the use of a referendum, a constitutional concept foreign to the United Kingdom.

Essential is a mutual understanding of the connections forged by a political culture; politics expresses a first-person plural (as Scruton [2005, 2017b, 2017c] puts it), a 'we' determined by pre-political loyalties. A government is 'our' government, and a land is 'our' land. Fashionable politics focuses on inclusion, but politics needs also to encompass exclusion; the trick is to exclude humanely and wisely. As Arendt (1958) argued, we need a common world, a shared human world of institutions and practices which furnishes a durable context for our interaction, collaboration and dispute, which implies some closure to outsiders. This follows from the knowledge principle; when politics is based on pre-political loyalties, the polity will be marked by predictability, stability, legibility and understanding. It will also be valued more highly, and so the risks of change will be correspondingly higher. Conservatism, in these terms of understanding and value, is fundamentally phenomenological, concerned with the *Lebenswelt* of a political culture described relative to human purposes, rather than scientific and social scientific abstractions. The *Lebenswelt* persists through time, as Burke forcefully argued, including history and a continuous thread to the future. Cultures are essentially shared, not only with the living, but with the dead and the not-yet-born, via the enduring institutions that Hegel gathered under the term *Sittlichkeit*.

It is often assumed that data describe the world. No, they are part of the world, and inform our future action. The future cannot be predicted, only imagined. Innovators deal in imaginaries, and the skill of a Zuckerberg or a Schmidt is to make a technological imaginary appear inevitable (I am grateful to an unpublished paper by Susan Halford for the importance of this point). How do we resist this technodeterminism? The radical response

is to generate competing imaginaries, but these fall equally foul of the knowledge principle and the change principle. The conservative response is to restore focus on the advantages of the present. As Hildebrandt's *The End(s)* presents history at an inflection point, she defends our plural society with an agonistic reading, accepting, even welcoming conflict between future imaginaries. Yet in its scope, scale and ambition, *The End(s)* reminds me of Michael Oakeshott's *On Human Conduct* (1975), and in many ways updates that statement of liberal conservatism for the twenty-first century. Oakeshott's themes of human behaviour, civil association and modernity's challenges to individuality are revisited in Hildebrandt's work. Both books focus on individual human decision-making and action, the use and purpose of law for constraining action, and the role of the law and the state in creating the circumstances for autonomous, authentic, free individuals to flourish. Resistance to the innovator can involve beating her at her own game, by creating a more persuasive (but equally subjective) imaginary, in a robust world that welcomes diversity and plurality. This, I think, is Hildebrandt's preferred direction. Or we could run with Oakeshott, and demand to know the source of legitimacy of such imaginaries (spoiler alert: there is none, other than public agreement), and work to preserve our common and shared understanding.

**MH: The Quest to Preserve Plurality and Natality**

My co-editor finds that '[c]onservatism, qua ideology, pursues no end, other than the continued functioning of a society along lines agreeable to its members'. The problem is that its members may disagree about what is agreeable to them and about whether the current functioning is agreeable at all. We must also note that such disagreement may be distributed depending on who wins and who loses. This is where equality (the only value O'Hara does not approve of) comes in and where liberty itself raises questions such as 'whose liberty?' at the cost of 'whose security?' As Jeremy Waldron (2003) famously observed, the trade-off between liberty and security may well involve a trade-off where some are forced to give up part of their liberties to provide others with security. Protecting society against revolutionary change may in point of fact require its members to intervene against a 'continued functioning' that favours the few at the cost of the many and the same goes for a 'continued functioning' that favours a dominant majority at the cost of one or more minorities that have no way to survive in a dignified way.

But I would go further, as I believe that the very values that must be preserved (or conserved if you wish) are those that allow for change. This highlights Arendt's (1958) discussion of 'natality' as pivotal for both

human society and the individual person and raises pertinent issues on the cusp of the conservation as well as the reinvention of the 'modern tradition'. This 'modern tradition' indeed thrives on institutions, such as democratic practices, courts and the Rule of Law. These institutions, however, cannot be taken for granted; they require iterant reconstruction in the face of an era built on 'innovative' ICIs and disruptive business models. Other than aficionados of innovation assume, I do not think that just any change will do, or that change should be goal in itself. The questions we urgently need to ask are: (1) what change is required to preserve our relative autonomy and the institutions that enable it? and (2) what must be preserved to afford the freedom to change as core to human agency? If that turns me into a conservative, I am fine; if it labels me as a radical thinker, I am good. The interplay between change and preservation must be discussed in the light of concrete threats to human agency, acknowledging that even to sustain 'continued functioning' may demand either intervention or preservation and more likely both. While also acknowledging that sometimes 'continued functioning' is unacceptable and should be resisted, reversed and transformed. In the case of this book the need for change and preservation will depend on how *the technologies of the subjunctive tense* disrupt capabilities, redistribute risk, obstruct access to justice or otherwise change what we need to preserve. And the 'need to preserve' is not a matter of individual or aggregated preferences. This 'need' cannot depend on a utilitarian calculus that takes human agency for granted; it concerns the extent to which the ICI itself still affords such agency.

Maryanne Wolf (2008, 4) writes about 'the reading brain' in a way that 'celebrates the vastness of our accomplishment as the species that reads, records, and goes beyond what went before, and directs our attention to what is important to preserve'. Based on cultural-historical but foremost on biological and cognitive research into the reading brain, she concludes that (Wolf 2008, 17):

> Within that context, the generative capacity of reading parallels the fundamental plasticity in the circuit wiring of our brains: both permit us to go beyond the particulars of the given. The rich associations, inferences, and insights emerging from this capacity allow, and indeed invite, us to reach beyond the specific content of what we read to form new thoughts. In this sense reading both reflects and reenacts the brain's capacity for cognitive breakthroughs.

This, I have argued in *The End(s)*, is what must be preserved. There, I may be accused of conservatism. But I do not argue for the preservation of the reading brain because it is part of the continued functioning of society. Instead, I argue for such preservation to the extent that it

affords us the generative capacity that enhances our agency: our ability to imagine futures while assessing our past; our ability to think along genuinely new lines while still being rooted in older paths; our ability to leap into futures unthinkable to previous generations. And if the latter means entering an era that moves beyond the reading brain we cannot just stand by and – as proper Oakeshottian conservatives – restrict ourselves to incremental responses to whatever ICI develops. Precisely because, as O'Hara writes, the burden of proof should be on the innovator, we cannot sit still and accept whatever 'the innovators' provide us with. Other than O'Hara suggests, this does not leave us with the choice of either resisting 'innovation' or accepting it (hoping the common law will address eventual harm after the fact). It will require a precautionary approach that includes assessments of what new technological infrastructures do to our mind, self and society (Mead and Morris 1962), and it may require re-articulation of text-driven norms in the data- and code-driven environment we face.

'We', however, are not determined by prepolitical loyalties. We are the people that has reinvented itself as constitutive of a political order that is based on democratic participation within the bounds of the Rule of Law. 'We' are not a natural, organic or holistic clan that is bound by kinship, geography or by the subjection to an absolute sovereign. 'We' are the result of an artificial construction, a complex web of speech acts, that institutes what Dworkin has framed as a government that is bound to treat each of its citizens with 'equal respect and concern'. This 'we' cannot be taken for granted, and its iterant institution is partly contingent upon the ICI of the printing press and the resulting 'reading brain'. This ICI generates the plurality 'we' need to foster, precisely because the 'we' is not given, and cannot be assumed to agree on which 'continued functioning' must be preserved. My inspiration here comes from a number of political theorists, legal philosophers and continental as well as Anglo-American philosophers that highlight the need for plurality, agonism and the institutional checks and balances to sustain them, from Dewey (1927) and Radbruch (2006) to Austin (1975), Winch (1958) and MacCormick (2007), from Wittgenstein and Anscombe (2003), Taylor (1995) and Arendt (1958) to Ricoeur (1976) and Mouffe (2000), who weaves many of these strands together.

O'Hara rightly warns against the assumption that LPbD could actually foresee the changes brought about by its well-intended design. However, LPbD – other than techno-regulation – is a *response* to innovative applications that intend to change our *Lebenswelt*, often aiming to disrupt markets while breaking the legal norms that hold together the fabric of human society. And even the unintended consequences of search engines, cloud robotics and social networks disrupt, twist and reconfigure our lifeworld.

LPbD requires that, instead of either rejecting or embracing this type of innovation, we step in to constrain potentially negative implications. To do this we don't have to assume perfect knowledge of the future, but neither should we assume a general scepticism regarding our ability to foresee the consequences of innovation. One could even claim that LPbD will often ensure that 'change, when it comes, should be incremental, reversible where possible, and rigorously evaluated' (O'Hara, above). The point is that such 'change' does not just 'come', but is actively organized by those hoping to benefit (while often framing the unintended consequences for others as collateral damage). LPbD is based on the position that if such change has indirect effects on the redistribution of risk and opportunities it should be co-decided by those who will suffer the consequences, it should include ways to resist its lure and it should not rule out practical and effective access to a court of law.

Finally, the *Lebenswelt* is not – as e.g. Schmitt (1993) portrayed it – a concrete ordering that must be protected against normative claims or activist intervention (Hildebrandt 2015). The *Lebenswelt* is neither a given nor static. Ihde's (1990) postphenomenological analysis of technological mediation demonstrates the extent to which the *Lebenswelt* is an affordance of the prevalent ICI; the text-driven *Lebenswelt* that some of us have been familiar with is already transforming into a data- and code-driven onli*fe* world. If we want to preserve some of the core affordances of the text-driven *Lebenswelt* we will have to work hard to integrate them into the architecture of the onli*fe* world. That is a matter of design, and it is precisely LPbD that should make sure that such design is not monopolized by technology developers and the boards of directors of Big Tech.

So, I may run with Oakeshott insofar as he challenges the legitimacy of technology developers and Big Tech platforms that transform the life-world of others, but that is just the beginning. The new onli*fe* world may hold promise, and if it does, we need to make sure it does so in a way that enables plurality and natality based on effective respect for fundamental human rights and freedoms. This, clearly, is no small feat.

## NOTES

1. See my ERC Advanced Grant project on 'Counting as a Human Being in the Era of Computational Law' (CoHuBiCoL): <www.cohubicol.com>.
2. <www.waze.com/>.
3. <www.blueservo.net/>.
4. <www.ondetemtiroteio.com.br/>.
5. <www.patientslikeme.com/>.
6. <http://curetogether.com/>.

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