2017

Affording Fundamental Rights

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Affording Fundamental Rights: A Provocation Inspired by Mireille Hildebrandt

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Mireille Hildebrandt's *Smart Technologies and the End(s) of Law* (2015) raises questions for law that are best characterized as meta-institutional. This review essay considers the implications of Hildebrandt's work for the conceptualization of fundamental rights. One consequence of the shift to a world in which smart digital technologies continually, immanently mediate and preempt our beliefs and choices is that legal discourses about fundamental rights are revealed to be incomplete along a dimension that we have simply failed to recognize. To remain effective in the digital age, rights discourse requires extension into the register of affordances.

Mireille Hildebrandt's *Smart Technologies and the End(s) of Law* (2015) is a warning shot across the bow to legal thinkers striving to adapt existing legal systems to the challenges of networked digital technologies. Hildebrandt argues, among other things, that such technologies systematically threaten what have come to be understood as fundamental rights to privacy and self-determination (88-102), and that the complex construction known as the "rule of law" cannot serve as an effective guarantor of those and other fundamental human rights and freedoms in the digital age. According to Hildebrandt (176-81), the constituent elements of the "rule of law" are rooted in the technology of the printed word and particularly in the ways that printing facilitates stability, replication, deliberation, and universal application. Smart digital technologies systematically undermine those elements, producing operational results that are inconsistent with the root premises of modern Western systems of legal thought (181-83).

From the standpoint of technology studies, the book might be seen as an intervention in the ongoing debate about the extent to which outcomes are technologically determined, and as substantially upping the ante in that debate. In addition to considering whether technologies have politics, we must now consider whether (some) technologies leave room for humans to practice politics at all.[1] To map the complex relationships between the technical and the social in networked digital spaces—or what Hildebrandt calls the onli*f*e world (41-42)—we must move beyond conceptions of the sociotechnical toward new conceptions designed to describe processes that operate on cognitive and perhaps even neurological levels.

From the standpoint of legal scholarship, the book raises different questions that are best characterized as meta-institutional: to the extent that legal discourse and practice incorporate assumptions about the antecedent technical and architectural conditions of human freedom and democratic self-government, how might we do a better job of

* Mark Claster Mamolen Professor of Law and Technology, Georgetown Law. This review essay benefited from discussion at a Philosophers' Reading Panel organized by Mireille Hildebrandt in connection with the 2016 Conference on Privacy and Data Protection in Brussels. I thank Professor Hildebrandt for organizing the panel and inviting me to present, and for her editorial feedback. Thanks also to Paul Ohm for his helpful comments on an earlier draft and to Apeksha Vora for research assistance.

[1] The first question is Langdon Winner's. See Langdon Winner, The Whale and the Reactor: A Search for Limits in an Age of High Technology 19-39 (1986).

developing new forms of discourse and practice predicated on the fact that those conditions have changed? And, on a deeper (and more disturbing) level, if what we understand as the hallmarks of legitimacy in legal reasoning and decisionmaking are themselves technologically embedded, how might we reinvent legal reasoning and decisionmaking to correspond to the new technical realities without, at the same time, sacrificing democratic legitimacy? If, as Hildebrandt argues (160-61), law and technology together constitute regimes of veridiction—which is to say that particular technological conditions provide the assumed background against which law both conceives and fulfills (or fails to fulfill) its assigned functions—then in the future, approaching the ideal of democratic self-government by means of a system of law will require different vernaculars, institutions, and practices.

I. From Post-Phenomenology to Deep Configuration

Hildebrandt situates her work within the emerging tradition of post-phenomenology in technology studies. Post-phenomenological analysis explores the ways that tools shape perceptions of reality by imposing their own implicit heuristics.[2] Methodologically speaking, that approach challenges strict constructivist approaches to technology, which operate on the premise that technologies are nearly or entirely malleable by the social and cultural systems within which they are situated.[3] The post-phenomenological approach holds that that can never be entirely so. Even as we are busy configuring our tools, they are also busy configuring us.

Not all technologies are created equal, however. Some exert especially deep structural effects on our thinking. So, for example, Lewis Mumford explored the effects of clock time on Western thought, arguing that the clock pervasively reshaped both rhythms of daily life and habits of thought after its own model.[4] More recently, some commentators have argued that the networked digital communications technologies that make up the Internet, with their ability to collapse spaces and compress time, are producing a comparable shift.[5] Joseph Weizenbaum used the term "intellectual technology" to describe the effects of technologies like the clock and the Internet,[6] although the term may be something of a misnomer because the patterns of thought and behavior inculcated by such technologies are not deliberately chosen but rather so deeply embedded in habit and accepted practice as to be nearly invisible. In a sense, then, the effect of an intellectual technology parallels that of a scientific paradigm shift: like a paradigm shift, an intellectual technology structures the field of social activity and defines its horizons of possibility.[7] Vast swaths of social activity move according to the patterns and rhythms that intellectual technologies impose.

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[2] Don Ihde, Postphenomenology: Essays in the Postmodern Context (1993); Peter-Paul Verbeek, What Things Do: Philosophical Reflections on Technology, Agency, and Design (2005).

[3] See, e.g., Wiebe Bijker et al., The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology (1987).

[4] Lewis Mumford, Technics and Civilization 12-18 (1963).

[5] Nicholas Carr, The Shallows: What the Internet Is Doing to Our Brains (rev. ed. 2011); Joseph Weizenbaum, Computer Power and Human Reason: From Judgment to Calculation (1976).

[6] Weizenbaum, supra note 5, at 17-38.

[7] See generally Thomas S. Kuhn, The Structure of Scientific Revolutions (2d ed. 1970).

I suspect that Hildebrandt would agree with the characterization of networked digital communications technologies as intellectual technologies, but the Internet is only a forerunner of the types of technological processes with which she is concerned, and her argument goes farther. Smart digital technologies do not simply structure our habitual patterns of thought and practice but augment and supplant them seamlessly, altering the very possibility for exercise of (what we understand as) thought, choice, and reason. This is so, she argues (88-102), both because smart technologies operate continually and immanently and because they are designed to learn, producing outcomes that their designers did not directly specify.

If that is right—and Hildebrandt's discussion is quite convincing—then it seems that smart digital technologies are radically different in kind from other technologies, and the mainstream of technology studies must learn to contend with their difference and their power. Bromides about the primacy of social shaping will not suffice. Social shaping remains present, of course, in the particularities of implementation (a point to which I will return below), but in addition to tracing the contours of sociotechnical processes, we must now learn to identify and explore the "cogito-technical" or even "neurotechnical" processes that the technologies themselves produce, and trace those processes operating on individual and social levels.

Turning back to the question of politics, one might perhaps conclude that handing over processes of learning and choosing to smart environments entails a politics of a sort (and that the technologies may perhaps then proceed to develop a politics of their own along lines that we cannot foresee), but if we are not all to become paranoid *Terminator* fantasists, we will need to do better. We must learn new methods of forming and parsing questions about the politics of smart digital technologies, and of making normative and prescriptive choices that bite effectively on their operation in real-time. The remainder of this review essay explores one particular subgroup of issues, which has to do with the way that fundamental rights are described and understood.

II. Fundamental Rights Three Ways

One consequence of understanding smart digital technologies in the way that Hildebrandt describes—as continually, immanently mediating and preempting our beliefs and choices—is that legal discourses about fundamental rights are revealed to be incomplete along a dimension that we have simply failed to recognize (because we have not needed to do so). Rights discourse requires extension into a different register, without which it has little chance of remaining effective in the digital age.

A. Rights as/and Liberties

The most traditional kind of discourse about fundamental rights consists of taxonomies of the various civil and political or social and economic freedoms to which people should be entitled. That is the discourse of the leading human rights instruments, which consist for the most part of relatively simple, aspirational statements, and it is the customary vernacular of contemporary human rights institutions charged with

administering those instruments.[8] The taxonomic approach to elaborating fundamental rights in turn gives rise to taxonomies of violations and corresponding protocols for responses by the international community. Because rights can come into conflict with one another and also with legitimate public goods, it also gives rise to the mediating concept of proportionality, which comes into play in determining the extent to which rights may be curtailed or infringed.[9]

Over the years, the taxonomies commonly found in the major human rights instruments have engendered various critiques. Three in particular are worth noting here. First, critics of a liberty-centered approach to rights discourse observe that framing rights as liberties does not necessarily guarantee the actual enjoyment of those liberties as a practical matter. That charge has particular force where social and economic rights are concerned, but exercising fundamental civil and political rights also requires resources and capabilities that may be out of reach for many, particularly (but not only) in the world's least developed countries.[10] Second, some argue that the traditional form of human rights discourse in fact privileges culturally specific formulations of human wellbeing that are (among other things) liberal and individualist rather than more communally oriented.[11] Some such critiques have been deployed as apologias for civil and political repression—for example, arguments about religious freedom advanced as justification for the subordination of women. Even so, the observation that individualist formulations do not necessarily capture everything that there is to say about rights is an important one. Third, many scholars have noted that the state-centered language of human rights instruments and institutions does not address or even recognize the extent to which powerful corporate entities can exert sovereignty over human wellbeing.[12] The second form of rights discourse, which concerns capabilities, and the nascent third form, which concerns structural conditions, advance thinking about each of these problems.

B. Rights as/and Capabilities

The critique of rights conceived as liberties engendered the second form of rights discourse, which concerns the necessary requirements for human beings and human societies to flourish. Thinkers and practitioners affiliated with the capabilities approach to human development point out that human wellbeing requires both sufficient access to essential resources and development of the capabilities necessary to function fully and to

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[8] See, e.g., International Covenant on Civil & Political Rights, Dec. 16, 1966, 999 U.N.T.S. 172; International Covenant on Economic, Social & Cultural Rights, Dec. 16, 1966, 993 U.N.T.S. 3; Universal Declaration of Human Rights, G.A. Res. 217 (III) A, U.N. Doc. A/RES/217(III) (Dec. 10, 1948); Human Rights—Handbook for Parliamentarians, United Nations (2016), http://www.ohchr.org/Documents/Publications/HandbookParliamentarians.pdf.

[9] See generally Proportionality and the Rule of Law: Rights, Justification, Reasoning (Grant Huscroft et al. eds., 2014).

[10] For two very different expressions of this view, see Amartya Sen, Development as Freedom (1999); Eric A. Posner, Human Welfare, Not Human Rights, 108 Colum. L. Rev. 1758, 1767-79 (2008).

[11] See generally Alison Dundes Renteln, International Human Rights: Universalism Versus Relativism (1990).

[12] See, e.g., Chris Jochnick, Confronting the Impunity of Non-State Actors: New Fields for the Promotion of Human Rights, 21 Hum. Rts. Q. 56 (1999); David Kinley & Junko Tadaki, From Talk to Walk: The Emergence of Human Rights Responsibilities for Corporations at International Law, 44 Va. J. Int'l L. 931 (2004).

pursue individual and political self-determination. Although the precise relationship between "rights" and "capabilities" is contested, because many components of human flourishing are goals pursued collectively, the capabilities approach envisions a human rights agenda as having important communal dimensions.[13] For the same reason, this approach also draws attention to the central role that resource distribution—both within and across societies—plays in human wellbeing.

Notably for my purposes here, even as they answer the charges that an understanding of fundamental rights cannot be based solely on liberties and/or formulated solely in individualist terms, capabilities theorists have differed over how a capabilities-based theory of fundamental rights ought to be expressed. Some, including most prominently Martha Nussbaum, emulate the discourse of /rights-conceived-as-liberties/, developing lists of the centrally important capabilities.[14] That method reflects allegiance to the liberal individualist tradition from which the discourse of /rights-conceived as-liberties/ originated, although it also departs from that tradition in some important ways. A second, welfarist strand of thinking connects more directly to a radical democratic politics emanating from the postcolonial/global south. Its adherents, including most prominently Amartya Sen, are more concerned with the flexibility to pursue locally appropriate policies than with making lists, and more concerned with respecting local variations in the forms of self-determination than with fidelity to a single, overarching vision of the good life.[15]

One might understand the tensions between Aristotelian and welfarist conceptions of capabilities for human flourishing, and more abstractly between different conceptions of the relationship between rights and capabilities, as contests over how best to go about developing a fully articulated discourse of /rights-conceived-as-capabilities/ that would command the same respect as, and assume equal place with, the discourse of /rights-conceived-as-liberties/ on the world stage. In part the continuing obstacles to the capabilities project are political and reflect both global geopolitical imbalances and the influence of private economic power, but the methodological issue is also important.[16] In a sense this is the problem of the master's tools and the master's house restated: will it be sufficient for the discourse of /rights-conceived-as-capabilities/ to emulate the structure and method of the discourse of /rights-conceived-as-liberties/, or does it need to be different?

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[13] See generally Martha C. Nussbaum, Capabilities and Human Rights, 66 Fordham L. Rev. 273, 292-300 (1997); Polly Vizard et al., Introduction: The Capability Approach and Human Rights, 12 J. Hum. Devel. & Capabilities 1 (2011).

[14] Martha C. Nussbaum, Creating Capabilities: The Human Development Approach 31-36 (2011).

[15] Sen, supra note 10; Amartya Sen, Elements of a Theory of Human Rights, 32 Phil. & Pub. Aff. 315-56 (2004).

[16] Outside the academic realm, differences over the proper way to understand and assess capabilities play out more concretely in the ongoing debates over what standards ought to be used in the United Nations' annual Human Development Reports and in measuring progress toward the various iterations of its development goals. Capabilities thinkers participating in those projects have been concerned chiefly with the methodological tyranny of utilitarianism, but the practical relationship between capabilities and rights is a recurring minor theme. See, e.g., Sakiko Fukuda-Parr & Alicia Yamin, The Power of Numbers: A Critical Review of MDG Targets for Human Development and Human Rights, 56 Development 58 (2013); Sakiko Fukuda-Parr, The Metrics of Human Rights: Complementarities of the Human Development and Capabilities Approach, 12 J. Hum. Devel. & Capabilities 73 (2011).

Importantly, however, capabilities discourse still remains relatively insensitive to sociotechnical issues. Discussions of material agency revolve around equal access to information and property ownership, but typically do not address the material environment's constraints and affordances.[17] Development discourse, for its part, has come to rely heavily on data-intensive measurement practices, and has been relatively insensitive to privacy and other concerns that may arise as a result of collection, dissemination, and use of data from and about the subjects of development efforts.[18] As we will now see, taking affordances seriously does not simply require an extension of the discourse of /rights-conceived-as-capabilities/, but rather requires an entirely different way of understanding and describing fundamental human entitlements.

C. A Thought Experiment

Consider four imaginary (or not-so-imaginary) countries, each of which formally recognizes for all citizens the fundamental right of freedom of association.

The first country enacts a law prohibiting gatherings of more than twenty persons and requiring that anyone who attends a public gathering present identification papers. The result is a situation that is readily intelligible within contemporary human rights discourse as a violation of citizens' associational rights. Prohibitions on and surveillance of public gatherings are familiar tools of civil and political repression, and are universally understood as such.

The second country is one in which many citizens lack the means to enjoy the rights of freedom of association as a practical matter. The living quarters available to those citizens are located in remote and far-flung neighborhoods from which travel to the public spaces in urban centers is expensive, and from which travel to public spaces located in well-to-do suburban or exurban enclaves is logistically infeasible. In any event, the need to earn a living wage precludes the leisure time required to gather for pleasure or political protest. This situation presents facts of the sort with which the capabilities approach is concerned. If there is a violation here, it inheres in the background conditions of distributional inequality that prevent equal enjoyment of the civil and political freedoms necessary for human flourishing.

In the third country, the laws of physics and the properties of the only available building material simply do not permit the construction of any spaces larger than three meters square. The resulting architecture is hivelike: it affords essentially no scope for large-scale public gatherings. And yet it is difficult to think of that architecture as presenting a human rights violation because other architectures are simply impossible to imagine. The immutable, nonnegotiable physical constraints and affordances of the hive become part of the background against which rights discourse takes place.

In the fourth country, there are two types of building materials. The first, substantially less expensive than the second, has conductive properties that facilitate the capture and recording of sounds and conversations. The country constructs its public

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[17] See Julie E. Cohen, Configuring the Networked Self: Law, Code, and the Play of Everyday Practice 226-29 (2012).

[18] See Linnet Taylor, Data Subjects or Data Citizens? Addressing the Global Regulatory Challenge of Big Data, in Information, Freedom and Property: The Philosophy of Law Meets the Philosophy of Technology 81-105 (Mireille Hildebrandt & Bibi van den Berg eds., 2016).

spaces using the less expensive material. We would need more facts to evaluate the decision completely—for example, perhaps the costs of the second material are so extreme that the state cannot afford to use them, or perhaps the second material would produce severely adverse environmental effects. Assuming no such facts, might one argue that the state has an affirmative obligation to select the second material? To frame that choice as implicating fundamental rights requires a different vernacular for rights discourse than either of the two already mentioned—a discourse that recognizes the central role of sociotechnical configuration in affording and constraining the freedoms and capabilities that people in fact enjoy.

D. Rights as/and Affordances

Fundamental rights are made available, or not, partly by the content and institutional structure of the applicable legal regime and partly by patterns of resource distribution that enable people to attain the capabilities to enjoy fundamental freedoms, but also partly by the constraints and affordances of the physical environment. We are learning now that the relevant constraints and affordances include both those directly affecting human behavior in physical space and those governing flows of information.

Until relatively recently, rights discourse has operated with a set of unstated and often unexamined assumptions about the built environment's properties—assumptions both about constraint (e.g., the physical impossibility of universal surveillance) and about lack of constraint (e.g., the open-ended possibilities for construction of gathering spaces). Advances in networked digital communication and information processing have drawn those assumptions into question. The affordances of networked digital technologies for both expression and control of expression, and for both anonymity and enhanced surveillance, have prompted the United Nations to commission a series of special investigations and reports,[19] but there does not yet seem to be any serious discussion about how to construct a vernacular for rights discourse that would incorporate notions of constraint and affordance as core conceptual building blocks.

The problem here is parallel to the one that capabilities discourse has surfaced, but it resides in the realm of the sociotechnical rather than the socioeconomic: When our background assumptions about the constraints and affordances embedded in the physical environment fail to hold, what then? We can choose to tolerate a basic level of hypocrisy around the conditions of possibility for, e.g., speech or surveillance (as is the case with rights discourse that ignores the problem of capabilities in an era of vast and growing

[19] Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism, Fifth Annual Report, General Assembly, U.N. Doc. A/70/371 (Sept. 18, 2015) (by Ben Emmerson); Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, Human Rights Council, U.N. Doc. A/HRC/29/32 (May 22, 2015) (by David Kaye); Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism, General Assembly, U.N. Doc. A/69/397 (Sept. 23, 2014) (by Ben Emmerson); Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, Human Rights Council, U.N. Doc. A/HRC/23/40 (Apr. 17, 2013) (by Frank La Rue); Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, Human Rights Council, U.N. Doc. A/HRC/17/27 (May 16, 2011) (by Frank La Rue); Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism, Human Rights Council, U.N. Doc. A/HRC/13/37 (Dec. 28, 2009) (by Martin Scheinin).

economic inequality), or we can expand the frame of reference of rights discourse to encompass the architectural. As has been the case for capabilities, moreover, discussion of sociotechnical considerations that is framed in terms of enabling conditions for /rights-conceived-as-liberties/ will be open to the charge that it is vague and overinclusive.[20] Answering that charge requires developing a separate and distinct discourse of /rights-conceived-as-affordances/.

Questions about affordances for fundamental rights cannot simply be subsumed into capabilities discourse. Though still emerging, the discourse of /rights-conceived-as-capabilities/ has different types of concerns and operates in a correspondingly different register. To define a right in terms of capability is to specify a minimum threshold (of material wellbeing, literacy, or some other good) below which people cannot as a practical matter enjoy the civil and political rights they are presumed to possess. By contrast, if we are concerned with architecture, the conversation becomes one about the ways that enjoyment of fundamental rights is informed by systemic tolerances and prohibitions. Matters requiring attention include both the actions that are required—e.g., presenting a credential to gain access to a particular space—and the range of actions that are permitted—e.g., the ability to gain access using a credential that is authenticated but anonymized, or to move about that space without generating granular, identity-linked traces.

The distributional questions that surround a discourse of /rights-conceived-as-affordances/ also are different than those that attend either liberties or capabilities discourse. Access to information and communications capabilities may, of course, be distributed differentially—and so some kinds of claims about access to networked digital resources ought to figure prominently in formulations of /rights-conceived-as-capabilities/[21]—but other types of questions about networked communication and information processing protocols are systemic, and are centrally concerned with how particular functionalities are achieved. So, for example, if access to credit or employment increasingly is mediated in ways that produce racial or socioeconomic segmentation, the discourse of /rights-conceived-as-liberties/ would highlight the discrimination and the resulting relative disadvantage to disfavored groups; the discourse of /rights-conceived-as-capabilities/ would highlight the disadvantaged groups' diminished access to essential resources and the resulting functional handicap; but the discourse of /rights-conceived-as-affordances/ would focus on the infrastructural configurations that enable market segmentation to proceed and to evade oversight.[22] It also would identify distributional effects that the capabilities discourse does not capture and that relate to the reconfiguration of the networked digital environment to facilitate large-scale data harvesting, which in other work I have likened to the opening of new territories for colonization.[23]

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[20] See, e.g., Robert Sugden, Welfare, Resources, and Capabilities, 31 J. Econ. Lit. 1947 (1993).

[21] For an illustrative list of information-related capabilities, see Lea Bishop Shaver, Defining and Measuring A2K: A Blueprint for an Index of Access to Knowledge, 4 I/S: J.L. & Pol'y Info. Soc'y 235 (2008).

[22] See, e.g., Mary Madden et al., The Class Differential in Privacy Vulnerability (working paper 2016); Pauline T. Kim, Data-Driven Discrimination at Work, 58 Wm. & Mary L. Rev. (forthcoming 2017).

[23] Julie E. Cohen, The Biopolitical Public Domain (working paper 2015).

III. Baby Steps

The project of articulating and protecting /rights-conceived-as-affordances/ requires attention to the kinds of infrastructural and operational details with which the discourses of /rights-conceived-as-liberties/ and /rights-conceived-as-capabilities/ generally have not engaged. Rudimentary efforts to achieve the necessary level of operational granularity appear in statutes and regulations that impose procedural requirements for surveillance by law enforcement, such as the U.S. Wiretap Act, and in European data protection regulations, but neither of those templates has translated well to the socially networked digital era.[24] Articulating a discourse of /rights-conceived-as-affordances/ and developing institutions and practices for operationalizing that discourse requires a vernacular akin to that employed by engineers and technologists who develop and implement system specifications. Yet the project of articulating /rights-conceived-as-affordances/ cannot be a technocratic exercise, but one of thinking in and through language and practice to reimagine the linkages between information flows and human freedom.

As one illustration of the difference that a discourse of /rights-conceived-as-affordances/ might make, consider the debate among European scholars over whether data protection is best understood as a separate fundamental right or as a way of implementing certain aspects of the fundamental right to privacy.[25] The answer is both—and neither. The "right to privacy" is a right articulated within the discourse of /rights-conceived-as-liberties/, but because privacy-related expectations and practices are relational, contextual, and spatial in character, they have never fit particularly well within the implicit parameters of that discourse.[26] The "right to data protection," which is concerned with the conditions under which personal information may be collected, processed, used, and retained, is an entitlement better suited to articulation within the emergent discourse of /rights-conceived-as-affordances/. The seemingly inexorable drift toward consent as a universal legitimating condition mixes apples and oranges; consent is a liberty-based construct, but effective data protection is first and foremost a matter of design.

A different kind of strategy for translating the fundamental right to privacy into a discourse of /rights-conceived-as/affordances/ involves recognizing and naming the *material and/or technical conditions* that afford (or disafford) privacy as a practical matter. So, for example, Hildebrandt's compelling new formulation—"the right to co-determine how we will be read" (102-03)—is a statement of fundamental rights that is framed in terms of affordances, and that encompasses privacy-related considerations.[27]

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[24] See Wiretap Act, 18 U.S.C. §§ 2510-2522; Regulation (EU) 2016/679, of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) 1; Directive 95/46/EC, of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data, 1995 O.J. (L 281) 31.

[25] See, e.g., Gloria Gonzalez Fuster, The Emergence of Personal Data Protection as a Fundamental Right of the EU (2014); Lee A. Bygrave, Data Protection Pursuant to the Right to Privacy in Human Rights Treaties, 6 Int'l J.L. & Info. Tech. 247 (1998); Orla Lynskey, Deconstructing Data Protection: The "Added-Value" of a Right to Data Protection in the EU Legal Order, 63 Int'l & Comp. L.Q. 569 (2014).

[26] For discussion of the misalignment, see Cohen, supra note 17, at 107-26.

[27] As this formulation is intended to suggest (and as capabilities discourse already illustrates), there is no reason to impose a requirement of one-to-one correspondence or to expect such correspondence.

Although we cannot entirely escape the constitutive force-fields generated by our technologies—and hence it would be intellectually dishonest to speak of a right to "determine" our own legibility to other human and non-human actors—we can and should expect to have a say. That expectation in turn can be translated into more concrete requirements relating to transparency, choice parameters, and other operational matters. Similarly, my own construct of "semantic discontinuity," or gaps within the interstices of sociotechnical shaping, addresses the relationship between infrastructure and social shaping in a way that speaks to the spaces left over for self-determination, and that bears on privacy issues.[28]

Both of these formulations offer more than just new kinds of abstract rhetoric about the importance of human freedom. They are ways of directing attention not to the content of laws or the discretion of enforcers, but rather to required sets of sociotechnical conditions. They envision reconfiguring rights discourse all the way down, so that it speaks with effective force to new kinds of material and operational considerations.[29] And in so doing, they point to the need for a complementary set of principles and practices for rethinking the design of material and technical infrastructures from the ground up. An example of what that project might look like is the work by Paul Ohm and Jonathan Frankle on "desirable inefficiency" in the design of digital systems and artifacts, which identifies design practices that conventional, efficiency-driven thinking would disfavor and links those practices to specific regulatory functions and values.[30]

Notably, a discourse of /rights-conceived-as-affordances/ seems likely to lend special rigor to the articulation of a set of rights that often have seemed to sit on the periphery of conventional human rights discourse, and indeed ultimately may reveal those rights to be much more pivotal than has commonly been supposed. Within smart environments, rights to privacy, autonomy, and self-determination—reconceived in terms such as the right to co-determine how we will be read and the right to a baseline level of semantic discontinuity—seem likely to emerge as core protections for fundamental rights in the digital era. At the same time, however, attention to affordances underscores the extent to which privacy, autonomy, and self-determination—rights that the discourse of /rights-conceived–as-liberties/ casts inexorably in individualistic terms—are from a different perspective inherently communal. As a practical matter, securing their enjoyment requires universally-applicable material and operational guarantees.

Because it is addressed to problems of sociotechnical configuration, a discourse of /rights-conceived-as-affordances/ also seems likely to engender a more direct reckoning with the problem of private power. Consider now a fifth country, in which public spaces have been systematically, pervasively privatized. Persons wishing access to those spaces must satisfy privately imposed security requirements and adhere to privately decreed standards of conduct. As a way of enforcing the security requirements, their oral and written communications within those spaces are recorded, monitored, and retained. The result of those restrictions is that freedom of association is substantially diminished. Because contemporary human rights frameworks and institutions have focused principally on abuses of power by sovereign states, however, they are correspondingly

[28] Cohen, supra note 17, at 239-41.
[29] To be clear, such considerations would not be new to experts in information privacy and data protection, but they represent new areas of emphasis for human rights discourse more generally.
[30] Paul Ohm & Jonathan Frankle, Desirable Inefficiency (working paper 2016).

unlikely to identify the situation in the fifth country as presenting a problem within their competence to address.

Concern about the problem of private power is a longstanding theme within human rights scholarship and activism. In the wake of the global economic crisis of 2008 and the Snowden revelations about the U.S.-driven cooptation of privately operated networked communication infrastructures for mass surveillance, such concerns have begun to play a greater role at official levels as well. In 2008, the United Nations Secretary-General appointed a Special Representative to supervise the development of a framework and a set of guiding principles intended to nudge multinational corporations toward behavior more consistent with existing human rights norms.[31] The United Nations also has sponsored a series of special reports dealing with the power of information intermediaries and the threats that counterterrorism efforts pose to fundamental rights and liberties.[32] The principles have no independent legal force, however, and the reports have served only to underscore the extent of the problem.

Because networked communication technologies and protocols have predominantly private-sector origins, a discourse of /rights-conceived-as-affordances/ would require a different set of institutional practices and strategies from the outset. It therefore might prove an effective starting point for the project of addressing and defining the human rights obligations of private economic actors.

IV. Not Out of the Woods Yet: Concluding Thoughts on Hildebrandt and the Rule of Law

The ultimate guarantor of fundamental rights, of course, is a shared commitment to the rule of law, and here we must reckon with a second consequence of understanding smart digital technologies as continually, immanently mediating and preempting our beliefs and choices. As Hildebrandt explains (176-81), the constructs of the rule of law upon which we have relied depend from start to finish on the affordances and temporal rhythms of the printed word. Smart digital technologies make pattern-based, personalized decisions rather than principled, generalizable ones, and they don't give reasons for—or even draw attention to—the choices they make. And so the book seems to raise the possibility that perhaps in the digital era we cannot have the rule of law—or fundamental rights—at all.

That argument, however, may prove too much. It doesn't necessarily follow that some other veridical construct—call it "rule of law prime"—could not be developed. Here it becomes important to remember that conceptions of the rule of law are themselves culturally situated. To take one example, consider the running debate among U.S. legal scholars about sources of legitimacy for the modern administrative state. Daniel Ernst's history of the U.S. administrative state traces its origins to a particular conception of what the rule of law ought to entail, rooted in the legal process model and defined in opposition to the European bureaucratic tradition.[33] As modern administrative

[31] See Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, Human Rights Council, U.N. Doc. A/HRC/17/31 (Mar. 21, 2011) (by John Ruggie).
[32] See sources cited supra note 19.
[33] Daniel R. Ernst, Tocqueville's Nightmare: The Administrative State Emerges in America, 1900-40 (2014).

practice has moved steadily away from the legal process model, that shift has prompted renewed scholarly efforts to locate administrative law's legitimating principles.[34] At the same time, it is abundantly clear both that the modern U.S. system works on a pragmatic level and that Europeans do not regard their own regulatory system as lawless.[35]

It is important to remember, as well, that both the rule-of-law ideal and the concrete practices and institutions that attempt to operationalize it are only ever proxies for more substantive questions of justice. So, for example, a strand of critique within the human rights literature paints the contemporary turn to rule-of-law rhetoric as itself a dodge—a way of excusing substantive failures of protection for fundamental rights as long as sufficiently respectable procedures have been followed.[36]

If Hildebrandt is right, what seems to be needed at this point are reforms that move on both institutional and conceptual levels—that produce a different way not only of operationalizing but also of understanding the requirements of a system of justice. Those are large challenges. And yet the project of developing a different form of discourse about fundamental rights provides one example of how such challenges might be approached—not by abandoning ideals, but rather by tethering their formulation more tightly to contemporary material and operational realities.

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[34] On the disintegration of the legal process model of administrative law, see Daniel A. Farber & Anne Joseph O'Connell, The Lost World of Administrative Law, 92 Tex. L. Rev. 1137 (2014), and William H. Simon, The Organizational Premises of Administrative Law, 78 Law & Contemp. Probs. 61 (2015).

[35] See Adrian Vermeule, Bureaucracy and Distrust: Landis, Jaffe and Kagan on the Administrative State, __ Harv. L. Rev. __ (forthcoming 2017); Francesca Bignami, From Expert Administration to Accountability Network: A New Paradigm for Comparative Administrative Law, 59 Am. J. Comp. L. 859 (2011); Francesca Bignami, Comparative Legalism and the Non-Americanization of European Regulatory Styles: The Case of Data Privacy, 59 Am. J. Comp. L. 411 (2011).

[36] Randall Peerenboom, Human Rights and Rule of Law: What's the Relationship?, 36 Geo. J. Int'l L. 809 (2005).