ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DEPARTMENT OF LEGAL STUDIES

VOL. 3
ISSUE 2
2018

UNIVERSITY OF BOLOGNA LAW REVIEW

ARTICLES AND ESSAYS

CONFERENCE PAPERS

AlmaDLJournals
Open Access Scientific Journals
by AlmaDL University of Bologna Digital Library

E-ISSN 2531 – 6133

UBLR Graphic Layout Team

UNIVERSITY OF BOLOGNA LAW REVIEW

GENERAL INFORMATION. The University of Bologna Law Review is a student-run, peer-reviewed, open access journal published by the University of Bologna, Department of Legal Studies. Financial support is officially provided by Cleary Gottlieb Steen & Hamilton LLP. The Journal is published twice a year (all year around). Publication number ISSN 2531-6133. The Journal is hosted and mantained by ASDD-AlmaDL.

ADDRESS. University of Bologna, Department of Legal Studies, Via Zamboni 27/29, 40126, Bologna, Italy.

SUBMISSIONS. The University of Bologna Law Review accepts articles, essays, book reviews, and case notes. Authors can submit their manuscripts via email to bolognalawreview@unibo.it, via ExpressO, or via website. https://bolognalawreview.unibo.it/about/submissions

SYSTEM OF CITATION. The University of Bologna Law Review follows The Bluebook: A Uniform System of Citation (20th Edition), copyright by The Columbia Law Review Association, The Harvard Law Review Association, the University of Pennsylvania Law Review, and the Yale Law Journal.

INTERNET ADDRESS: www.bolognalawreview.unibo.it

ADVISORY BOARD

HONORARY BOARD

EDITORIAL BOARD

TABLE OF CONTENTS

Vol. 3 Issue 2

ARTICLES & ESSAYS

CONFERENCE PAPERS

 https://doi.org/10.6092/issn.2531-6133/8467

Magistrates Training: Why to Crave for More Creative Cities and Judges?

GILSON JACOBSEN & JOÃO BATISTA LAZZARI

TABLE OF CONTENTS: 1. Introduction; 2. Challenges for the Judiciary and Training of Magistrates; 3. Urban Development; 4. Judicial Creativity; 5. Final Considerations.

ABSTRACT: This study seeks to identify the contemporary challenges of the judiciary and the need for training of judges focused on skills aimed at resolving these adversities. To demonstrate this approach, it points out the importance of judicial creativity in face of the disorderly urban development with the exclusion of the poorest people. The study concludes that the Magistrate's Judicial Schools for Training and Improvement have the role of establishing training activities that combine legal techniques with knowledge of management, socioeconomics and creativity. The paper also encourages socio-judiciary research programs and exchanges with universities, so that judges are encouraged to enroll in Master and Doctoral courses, and possibly attend a second graduation.

KEYWORDS: *Magistracy; Formation; Competencies; Creativity; Urban Development*

https://doi.org/10.6092/issn.2531-6133/8467

1. INTRODUCTION

The purpose of this article is to demonstrate that there is - or at least must exist - a relationship between the development of cities and the judges who live and work there, especially in these times which involve complex and great challenges to be faced by all, especially by the Judiciary, which primarily resolves social conflicts, reconciles the parties or says how the legal system should be applied in each case.

More than this, this work faces the burning theme of judicial creativity and the humanistic and pragmatic formation of magistrates, trying to understand if this is something that should be sought in these times when even more creativity is charged from the cities.

Therefore, the study is structured into three topics. The first provides a brief notion of some challenges faced by the Judiciary in recent times and the skills that magistrates develop in training. The second investigates how the idea of urbanism was raised and discusses some challenges also faced in relation to urban development. The third identifies any relationship that may exist between the cities and the judges nowadays. After all, people believe that a judge must be one who is active in his community, so that he can know it better and thus give fairer judgments. More than that, the third topic deals with the issue of judicial creativity, thematic that comes back to approach the theme of cities, since much is proclaimed nowadays, that cities, in addition to sustainable, must also be creative.

In the end, what is really going to be discussed is how to select and train more creative judges in these times when even from the cities, creativity is expected.

The research, data treatment and drafting of this research report are based on the deductive method,[1] and the techniques used are those from the

[†] Gilson Jacobsen is Doctor in Legal Science by Universidade do Vale do Itajaí – UNIVALI (Brazil); Doctor in Public Law from the University of Perugia / Italy. He is currently attending a post-Doctorate in Constitutional Law at the University of Bologna, Italy. Federal Judge in Brazil. João Batista Lazzari is Doctor in Legal Science by Universidade do Vale do Itajaí-UNIVALI (Brazil); Doctor in Public Law from the University of Perugia (Italy). He is currently attending a post-Doctorate in Constitutional Law at the University of Bologna, Italy. Federal Judge in Brazil.

[1] "DEDUCTIVE METHOD: logical basis of the scientific research dynamics that consists in establishing a general formulation, and then pick up the phenomenon parts in order to sustain the

https://doi.org/10.6092/issn.2531-6133/8467

referent,[2] from categories[3] and from the operational concepts,[4] with bibliographic research referenced at the end.

2. CHALLENGES FOR THE JUDICIARY AND THE TRAINING OF MAGISTRATES

Nobody else can ignore, considering the social and political transformations of this 21st century beginning, that we live in a risk society. It is because we live surrounded by risks that accumulate and of all order - ecological, financial, military, terrorist, biochemical, informational ones.[5]

According to Barroso[6], unemployment, underemployment and the informal work have made our streets sad and dangerous places. This is because the state seems to have forgotten people, caring little about their projects and dreams.

There is, moreover, a current trend to reclassify the poverty, "the most extreme and problematic sediment of social inequality" in the words of Bauman,[7] as a law and order problem, requiring measures to deal with the criminals.

However, any statistical relationship between poverty and chronic unemployment with crime does not justify treating poverty as a criminal

general formulation." (*see* CESAR LUIZ PASOLD, METODOLOGIA DE PESQUISA JURIDICA: TEORIA E PRÁTICA 86 (12th ed. 2011)).

[2] "REFERENT**:** prior explanation of the motive, objective and desired product, delimiting the thematic scope and approach to an intellectual activity, especially for a research." (see PASOLD, Cesar Luiz. Metodologia da Pesquisa Jurídica: Teoria e Prática. p. 209).

[3] "CATEGORY**:** Strategic word or phrase to the elaboration and/or the expression of an idea." (*see* PASOLD, Cesar Luiz. Metodologia da Pesquisa Jurídica: Teoria e Prática. p. 197).

[4] "OPERATIONAL CONCEPT [COP]: Established or proposed definition for a word or expression, with the purpose that such a definition be accepted for the purposes of the ideas set forth. " (*see* PASOLD, Cesar Luiz. Metodologia da Pesquisa Jurídica: Teoria e Prática, p. 198).

[5] *See* Arthur Bueno, *Diálogo com Ulrich Beck, in* SOCIEDADE DE RISCO - RUMO A UMA OUTRA MODERNIDADE [LIVING IN THE RISK SOCIETY, AN INTERVIEW WITH ULRICH BECK - TOWARDS ANOTHER MODERNITY] 361 (Ulrich Beck ed., Sebastião Nascimento trans., 1st ed. 2010).

[6] LUIS ROBERTO BARROSO, O NOVO DIREITO CONSTITUCIONAL BRASILEIRO - CONTRIBUIÇÕES PARA A CONSTRUÇÃO TEÓRICA E PRÁTICA DA JURISDIÇÃO CONSTITUCIONAL NO BRASIL [THE NEW BRAZILIAN CONSTITUTIONAL LAW - CONTRIBUTIONS FOR THE THEORETICAL AND PRACTICAL CONSTRUCTION OF THE CONSTITUTIONAL JURISDICTION IN BRAZIL] 102-103 (2012).

[7] *See* ZYGMUNT BAUMAN, DANOS COLATERAIS - DESIGUALDADES SOCIAIS NUMA ERA GLOBAL [COLLATERAL DAMAGE: SOCIAL INEQUALITIES IN A GLOBAL ERA] 10 (Carlos Alberto Medeiros trans., 2013).

https://doi.org/10.6092/issn.2531-6133/8467

problem. On the contrary it shows the need to treat juvenile delinquency as a social problem.[8]

As we have seen, in social phenomenon roots there is a combination of consumerist life philosophy and lack of opportunity for the poor.

Looking only at São Paulo (Brazil) there are 522,000 people living in the so-called *risk areas*, which are those unfit for the urban settlement.[9] There are also speeches about the amazing phenomenon of *shanty towns of the world*, with the poor being used as a reservoir of labor and treated as socially excluded.[10]

To begin to change this picture it seems necessary to break with the legalism tradition and seek legal professionals who have a holistic concept of reality.[11] This is the great challenge. Thus "the problem . . . . is not the lack of normativity, but the absence of a proper reading, from its own logic, the new legal regime, inspired by a truly Citizen Constitution ".[12]

On the other hand, the Judiciary Power growth seen in recent years is not a phenomenon limited to Brazil, as it also occurs in Italy and in almost all contemporary democracies.[13]

Indeed, in Italy, as Facchi[14] observes, there is the perception that the immediate effects of scientific and social transformations often escape from the Legislative Power control and the courts assume the task of capturing or understand the social issues and formalize or translate them into new rights or new forms of guardianship. In addition the Judiciary no longer operates alone, imprisoned in the realm of law, but increasingly requires assistance or extra juridical specialized knowledge because of the complexity of issues which it deals with. Judicial decisions often assume a political role, with public visibility that exposes the judges to external relations and influences. This accentuates the interaction and reciprocal influence between society and legal institutions.

---

8 *Id.* at 10, 11.

9 *See* JOSÉ RENATO NALINI, DIREITOS QUE A CIDADE ESQUECEU, [RIGHTS THAT THE CITY HAVE FORGOTTEN], 26 (2011).

10 *Id.* at 46-76.

11 *Id.* at 137.

12 *Id*. at 138.

13 *See* CARLO GUARNIERI, LA GIUSTIZIA IN ITALIA [JUSTICE IN ITALY] (2nd ed. 2011).

14 Alessandra Facchi, *Diritti, in* DIRITTO COME QUESTIONE SOCIALE [LAW AS A SOCIAL QUESTION] 82 (Emilio Santoro et. al. eds., 2010).

https://doi.org/10.6092/issn.2531-6133/8467

However, as Faria[15] points out, the political and economic systems react and tend to counteract the judiciary's position, usually with loss of autonomy on the part of the latter. On the other hand, when courts are burdened with functions that are not their own and it results in collisions with other Powers, the society feels the effects of speed loss, coherence and quality of the judicial services, leading to denial of justice, especially for people of lower income.

In the second quarter of 2011, Cunha[16] stated that the Index of confidence in Justice - (hereinafter ICJBrasil)[17] was 5.6 points, on a scale that ranges from zero to ten. Already in the second half of 2013, ICJBrasil was 5.1.[18] The results follow a tendency of Judiciary's poor judgment as a public service provider. Nevertheless, regarding the behavioral questions, most of the interviewees stated that they would seek the Judiciary to resolve their eventual conflicts.[19]

Even economic globalization, according to Faria, calls into question the juridical and judicial structures exclusivity of a state that has always been settled: in the division and balance of powers; principles of sovereignty and territoriality; in the distinction between the public and the private, between individual and collective interest. Everything is under the pallium of positive law, which always wanted to be a logical-formal system of abstract, clear and precise standards. However, a Power that loses decision-making autonomy,

---

[15] José Eduardo Faria, *A crise do Judiciário no Brasil: notas para discussão [The Crisis of the Judiciary in Brazil: Notes for Discussion], in* JURISDIÇÃO E DIREITOS FUNDAMENTAIS [JURISDICTION AND FUNDAMENTAL RIGHTS] 30 (Ingo Wolfgang Sarlet ed., 2006).

[16] Luciana Gross Cunha et al. *Por que devemos confiar no Judiciário?.* RELATÓRIO ICJBRASIL - 2° SEMESTRE DE 2013 - 172 (2014). http://bibliotecadigital.fgv.br/dspace/handle/10438/11575.

[17] "The Index of confidence in Brazilian Justice - ICJBrasil - is a statistical survey of qualitative nature, carried out in seven Brazilian states, based on a population representative sample. Its objective is to systematically monitor the population's sentiment in relation to Brazilian Judiciary. To portray the trust of the citizen in an institution means to identify if the citizen believes that this institution fulfills its function with quality, if this is done in a way that benefits of its performance are greater than its costs and if this institution is taken into account in the day-to-day life of ordinary citizens. In this sense, ICJBrasil is composed of two sub-indexes: (i) a perception sub-index, by which the public's opinion on Justice and the manner in which it renders the public service is measured; and (ii) a behavior sub-index, by which it tries to identify if the population uses the Judiciary to solve certain conflicts. Under the coordination of Prof. Luciana Gross Cunha, ICJBrasil is published quarterly, through her reports, by FGV RIGHT SP." FGV RIGHT SP. ÍNDICE DE CONFIANÇA NA JUSTIÇA BRASILEIRA [INDEX OF CONFIDENCE IN BRAZILIAN JUSTICE] - ICJBrasil.

[18] Cunha et al., *supra* note 16, at 11.

[19] *Id.* at 173.

https://doi.org/10.6092/issn.2531-6133/8467

and an order threatening its ability to program behaviors, choices and decisions emerges before this new globalized scenario.[20]

In any case, the Judiciary does not necessarily leave the scene, although it may lose its adjudicative monopoly on certain areas and matters. In fact, its future depends on how it will behave in the face of: a) social exclusion often generated by globalization; b) its increasing presence at the center of political discussions, having to assume more and more the role of conflict manager and, for this reason, increasingly difficult decisions; c) socioeconomic requirements of efficiency and prediction of its courts; and d) expectations generated by the creation and installation of special state and federal courts, which were created precisely to "make it possible for the population's expressive contingents to access the courts".[21]

Faced with this reality, the Schools of Judiciary have a fundamental role, which is to develop and implement training programs directed toward the development of competencies identified with this new world scenario, so that the judges have the creativity expected and required to deal with the new social challenges of today.

Thus, this study defends that the programmatic content of educational actions that integrate the initial and continuous formation would stimulate the magistrates to know the social reality in which they are inserted and to have creativity for solutions that can promote social peace. Socio-juridical research programs and exchanges with national and international institutions aimed at the production and dissemination of scientific knowledge must follow this same line.

It is also essential to demonstrate the importance of judicial creativity in coping with one of the major social disorders of the present, such as disordered urban development and exclusion of the poorest people.

[20] Faria, *supra* note 15: notas para discussão [notes for discussion]. p. 33.
[21] *Id.* at 40-43.

https://doi.org/10.6092/issn.2531-6133/8467

3. URBAN DEVELOPMENT

To dwell, according to Choay,[22] "is the occupation by which man has access to being, letting things arise around him, rooting himself."

The industrial revolution and the social modernization brought new airs and gave a new aspect to the urban spaces of the nineteenth century, with many and brief contacts, but few real meetings between people, as in the train stations that appeared then, full of strangers. Something similar to the anonymity that is felt today when walking through our great cities..[23]

However, sociologists at the University of Chicago conducted modern urban studies of their own city, which began after World War I and during the 1930s. This would give rise to other important social research on cities in the contemporary world.[24] It was soon realized that several institutions linked to the city, such as the family, the church, and the courts of justice were also worthy of study. Moreover, it was necessary to study the new organizational forms that emerged as a result of urbanism. It is that a great and important change that urbanism brought was the growing division of labor, subverting some traditional types of social organization supported, for example, in caste, kinship and ties with the place. With urbanism, a new type of man emerges from the point of view regarding his relation and specialization to work: the clerk, the taxi driver, the policeman, the night watchman, the bartender, the theater actor, the teacher, the reporter, the stockbroker.[25]

The same, and with even greater reason, can be said of the judge, who is the figure with the specialized function of conflict resolution. This is why the judge must be someone inserted in the community, aware of his reality and his values.

Since then, the city has become so much and to such an extent that its ancestral concept no longer seems able to accompany it. It becomes - the city - the point of intersection of several functional concepts, inserted into abstract

[22] FRANÇOISE CHOAY, O URBANISMO: UTOPIAS E REALIDADES, UMA ANTOLOGIA [URBANISM: UTOPIAS AND REALITIES, AN ANTHOLOGY] 38 (Dafne Nascimento Rodrigues trans., 2015).
[23] *See* JÜRGEN HABERMAS, V A NOVA OBSCURIDADE: PEQUENOS ESCRITOS POLÍTICOS [THE NEW DARK: SMALL POLITICAL WRITINGS] 45 (Luiz Repa trans., 1st ed., 2015).
[24] *See, e.g.*, ULF HANNERTZ, EXPLORANDO A CIDADE: EM BUSCA DE UMA ANTROPOLOGIA URBANA 29 (Vera Joscelyne trans., 2015).
[25] *Id.* at 34.

https://doi.org/10.6092/issn.2531-6133/8467

systems, allowing one to question whether the concept of city itself is not outdated.[26]

Distant airports are opposed to commercial buildings without an identity in the centers of cities. There is an absence of functional links in the banks, in the courts, in the administrations of large conglomerates, in the establishments that house editorials and press; finally, in private or public bureaucracies. The own writing in luminous advertisements reveals something different from that formal language of architecture.

What is now perceived is that urban life is replete, more and more, with what Habermas calls *non-configurable systemic contexts*, with urban agglomerations that do not recall the idea of a city that inhabits one's memory or heart.[27]

There is a separation between the places of residence and work. Physical contacts become close, however, social contacts become increasingly cold and distant.[28]

In fact, before the urban explosion people grew up in environments where everyone knew and recognized each other throughout their lives. With this, people's sense of identity was closely related to the community they belonged to, to the real knowledge that some people had of others.[29]

Today, people are always following the clock and traffic signs. There is, however, a stress and a permanent irritation in transit. Outside of vehicles, that contrast between physical proximity and social distance increases reserve and often flows into solitude. Thus, launched into the heterogeneity of the city, the urban inhabitant "comes to accept instability and insecurity as normal, an experience that adds something to its cosmopolitanism and sophistication. No single group has its total loyalty".[30]

---

[26] HABERMAS, *supra* note 23, at 56-57.
[27] *Id.* at 58.
[28] *See* HANNERTZ, *supra* note 24, at 72.
[29] *See* RICHARD WILKINSON & KATE PICKETT, O NÍVEL: POR QUE UMA SOCIEDADE MAIS IGUALITÁRIA É MELHOR PARA TODOS [THE SPIRIT LEVEL: WHY EQUALITY IS BETTER FOR EVERYONE] 85 (Marilene Tombini trans., 2015).
[30] *See* HANNERTZ, *supra* note 24, at 73.

https://doi.org/10.6092/issn.2531-6133/8467

The inhabitant of the city, after all, passes through many jobs, neighborhoods and various interests throughout life. In doing so, he doesn't commit much to other people and, because of the constant rush, he does not acquire a vision of the whole complexity of his community. This helps to make him insecure about his own interests and vulnerable even to the pressures of advertisements, which explains to some extent why collective behavior in the city is often unpredictable.[31]

The city dweller "tends to formal justice and a thoughtless harshness".[32] People's own sense of identity is drifting in mass society.[33]

It seems that the era of tradition is over, "undermined by the impulse of values and individualistic aspirations".[34]

In Bauman's view, "the new individualism, the fading of human bonds and the loss of solidarity are engraved on one side of the coin that brings the effigy of globalization on the other side".[35]

The most disturbing phenomenon of contemporary urbanism, however, is one that opens the kind of frontier that grows most: that of the urban frontiers that the rich raise to exclude the poor. These are the exclusive urbanizations, which some call exclusive neighborhoods, others call them gated communities, but they end up being neither neighborhoods nor communities.[36]

Alphaville, on the outskirts of São Paulo (Brazil), and Nordelta, near Buenos Aires (Argentina) are emblematic examples of gated communities because they represent the tendencies of the new middle classes to erect walls in the eagerness to save their exclusivity and their comfort in front of other

---

31 *Id.*

32 *Id.* at 74.

33 *See* WILKINSON, PICKETT, *supra* note 29, at 85.

34 GILLES LIPOVETSKY, O IMPÉRIO DO EFÊMERO: A MODA E SEU DESTINO NAS SOCIEDADES MODERNAS [THE EPHEMERAL EMPIRE: FASHION AND ITS FATE IN MODERN SOCIETIES] 317 (Maria Lucia Machado trans., 2009)

35 ZYGMUNT BAUMAN, MEDO LÍQUIDO [LIQUID FEAR] 189 (Carlos Alberto Medeiros trans., 2008).

36 *See* JOSEP MARIA MONTANER & ZAIDA MUXÍ MARTINEZ, ARQUITECTURA Y POLÍTICA: ENSAIOS PARA MUNDOS ALTERNATIVOS [ARCHITECTURE & POLICY: ESSAYS FOR ALTERNATIVE WORLDS] 88 (Frederico Bonaldo trans., 2014).

https://doi.org/10.6092/issn.2531-6133/8467

people who are left excluded and discriminated. In practice, 20% of planet's inhabitants seek to defend themselves from misery of other 80%.[37]

As a result, the public and the civil culture gradually fade away, giving rise to spatial fragments replete with social segregation between elites and the excluded. Not just an increasingly urban world, but a world of walls, with their coldness, separations and inequalities.[38]

It happens that unequal societies are also, as a rule, unhealthy societies. And this is related to the chronic stress of the population.[39] This is true even for murder rates, often many times higher in more unequal societies, being evident that the effects of this inequality are not restricted to the less favored people. On the contrary, they affect the vast majority of population.[40]

However, the problems that society faces today are so complex and urgent that they do not fall within the scope of just one discipline or profession.[41] From the risks and disasters viewpoint, the tough experience reveals that "a nuclear catastrophe at any place can be a nuclear catastrophe in all places".[42] One of the worst examples of this occurred thirty years ago in Chernobyl, now a ghost town, because it has been abandoned in haste and forever.

Other cities are connected, because the world is connected.[43]

They are times of gigantic scale and enormous complexity,[44] in which the emerging reality is new and surprising.[45]

In 1800, only 3% of the world's population lived in cities. However, since 2007, the world is faced with a radical new reality: People who live in cities are already a majority compared to those who live in the countryside. It is

---

37 *Id.* at 89.
38 *Id.* at 89-91.
39 *See* WILKINSON, PICKETT, *supra* note 29, p. 133.
40 *Id.* at 224.
41 *See* KIM VINCENTE, HOMENS E MÁQUINAS [HUMAN FACTOR: REVOLUTIONIZING THE WAY WE LIVE WITH TECHNOLOGY] 14 (Maria Inês Duque Estrada trans., 2006).
42 *Id.* at 14.
43 *Id.* at 40.
44 *See* FRANS DE WAAL, A ERA DA EMPATIA: LIÇÕES DA NATUREZA PARA UMA SOCIEDADE MAIS GENTIL [THE EMPATHY ERA: NATURE LESSONS FOR A GENTLER SOCIETY] 45 (Rejane Rubino trans., 2010)
45 *See* ERVIN LASZLO, UM SALTO QUANTICO NO CEREBO GLOBAL: COMO O NOVO PARADIGMA CIENTÍFICO PODE MUDAR A NÓS E O NOSSO MUNDO [QUANTUM SHIFT IN THE GLOBAL BRAIN] 11 (Newton Roberval Eichemberg trans., 2012).

https://doi.org/10.6092/issn.2531-6133/8467

estimated that by 2050 the inhabitants of the cities correspond to three quarters of the world population.[46]

In this urban and unequal planet, 280 million people live in megacities. In fact, until 1950, the only megacity in the world was New York. However, in 1996 there were already sixteen megacities in the world, and by 2025 there will be more than twenty-five megacities, many of them located outside of developed countries.[47]

The great global challenge, both for governments and for the society, will be to review the standards of comfort as well as the taste of urban life, with an excess of cars and emission of gases[48]. Hence the great concern of sustainable urbanism with transportation corridors and their commitment to integrate public transport technology - subway, tram, bus - with the density and multiple use of the surrounding soil.[49]

But perhaps this alone is not enough in the face of the inequality generated by poverty.

There is a need to seek new solutions for cities. Therefore, it is no surprise that there are people who try to plan cities in dialogue with people and, often, with the trace of an anti-modernism or with a touch of something banal.[50]

It occurs that the urban perception generated by cities in people is not always easily readable. Therefore, despite the goals of city builders, whether they have a more progressive ideology or a more culturalist bias, their intentions must appear and be decipherable by the inhabitants and "only the experience of the city can do it".[51]

As for the coexistence between people of different classes or between nationals and foreigners - a great challenge being faced by many European

[46] *See* CARLOS LEITE AND JULIANA DI CESARE MARQUES AWAD, CIDADES SUSTENTÁVEIS CIDADES INTELIGENTES: DESENVOLVIMENTO SUSTENTÁVEL NUM PLANETA URBANO [SUSTAINABLE CITIES SMART CITIES: SUSTAINABLE DEVELOPMENT ON AN URBAN PLANET] 20 (2012).
[47] *Id.* at 22-23.
[48] *Id.* at 23.
[49] *See* DOUGLAS FARR, URBANISMO SUSTENTÁVEL: DESENHO URBANO COM A NATUREZA [SUSTAINABLE URBANISM: URBAN DESIGN WITH NATURE] 34 (2014).
[50] *See* HABERMAS, *supra* note 23, pp. 59-60.
[51] CHOAY, *supra* note 22, p. 49.

https://doi.org/10.6092/issn.2531-6133/8467

cities, in the face of the influx of thousands of immigrants from Africa, who risk crossing the Mediterranean Sea aboard precarious vessels - it is important to know that it is possible to be different and yet live together. It is possible to "learn the art of living with difference, respecting, preserving the diversity of one and accepting the diversity of another. It is possible to do this every day, imperceptibly, in the city".[52]

Cities, therefore, should promote meetings among their inhabitants always remembering that a very important source of social integration is the very sense of gratification that one reaches when it manages to satisfy the needs of others. This, which for many seems a mystery, because of all explanation above, only occurs or is only reached in an egalitarian community.[53] The more egalitarian societies tend to be more creative, which also helps to reduce their ecological footprint, as they contribute to the emergence of so-called "weightless" sectors of the economy, thanks to continuous and rapid advances technology, a combination of high standards of living and low resource consumption and emissions.[54]

For that, it is not enough to stay on the level of ideas or discourses. It is necessary to start for action, an integrative action that truly brings people together and gives them a sense of acceptance and belonging to urban and social space.[55] In this regard, modern societies will depend more and more on their ability to be creative, adaptable, inventive, well informed and flexible.

However, this can only be achieved in populations accustomed to work together and respect themselves as equals, and they depend on a change in the priorities and values of all: without so much consumption, ostentation and search for status.[56]

In this context, the reality of the unfortunate occupation of cities at the beginning of this century, the inevitable question emerges: what can be expected from the magistrates' action to appease the distress of millions of

[52] ZYGMUT BAUMAN, CONFIANÇA E MEDO NA CIDADE. [CONFIDENCE AND FEAR IN THE CITY] 89 (Eliana Aguiar trans., 2009).
[53] *See* WILKINSON, PICKETT, *supra* note 29, p. 259.
[54] *Id.* at 274.
[55] *See* CHOAY, *supra* note 22, p. 55.
[56] *See* WILKINSON, PICKETT, *supra* note 29, p. 323.

https://doi.org/10.6092/issn.2531-6133/8467

human beings who are deprived of their fundamental right to dwell and live in dignity in urban spaces?

There is no magical nor easily noticeable solution to this serious problem, but judicial creativity is expected to at least give specific answers. We will further develop this in the next section.

4. JUDICIAL CREATIVITY

Currently, the role assigned to the Judiciary requires judges to adopt a new posture, challenging them to exercise their creative powers in light of the values extracted from the Constitution.[57]

Thirty years ago, Boaventura de Souza Santos advocated that the new generations of judges "shall be equipped with a vast and diversified knowledge (economic, sociological, political one) about society in general and on justice administration in particular".[58] The feeling today is that all the exclusively legal learning obtained in the Faculties of Law - the legal text, legal hermeneutics, precedents, jurisprudence, legal doctrine - seems insufficient to the jurist and the judge in the face of the complexity of the questions to which they must respond to. It is why, "since formalism has been irreversibly dismantled along with the positivist methodology of law study, legal doctrine is seeking refuge in other areas of knowledge".[59]

Originally from a conception of jurisdiction as an activity that only promotes conflict resolution, it has evolved into a current one, in which it plays a guarantor role of fundamental rights "and implementer of counter majority

[57] *See* NELSON JULIANO SCHAEFER MARTINS, PODERAS DO JUIZ NO PROCESSO CIVIL 41-42 (2004).
[58] Boaventura de Souza Santos, *Introdução à sociologia da administração da justiça [Introduction to the Sociology of the Administration of Justice]*, 37 REVISTA DE PROCESSO, 10-11 (2014), http://revistadostribunais.com.br/.
[59] Daniel W. Lang Wang, *Introdução [Introduction], in:* CONSTITUIÇÃO E POLÍTICA NA DEMOCRACIA: APROXIMAÇÕES ENTRE DIREITO E CIÊNCIA POLÍTICA [CONSTITUTION AND POLITICS IN DEMOCRACY: APPROXIMATIONS BETWEEN LAW AND POLITICAL SCIENCE] 16 (2013).

https://doi.org/10.6092/issn.2531-6133/8467

spaces for minorities that did not get a voice in the institutionalized policy arenas".[60]

For a long time the role of the judge was neglected, because it was seen as a mere applicator or replicator of the norms dictated by others, much to Montesquieu's conception, for whom the judge should be only "the mouth of the law" (" Bouche de la loi "). It was believed that it would be enough to change the rules to automatically obtain better justice. Only recently it has become widely recognized that judges play a fundamental role in the administration of justice. [61]

Therefore, the stereotype of a judge distant from society, who transcends ordinary individuals as if he were a superhuman being, must be left behind. In fact, this idea of a demigod judge, according to Silva Santos, "is due to the behavior of the magistrates themselves who voluntarily or even unconsciously, given the quantity and nature of the work they perform, inclose themselves in their offices and distance themselves from the society to which they belong".[62]

The jud1icial body must therefore be aware of the importance of its role as a social peacemaker, from "being a mere enforcer of the law, far from the reality that surrounds it".[63]

It so happens that the present-day judge cannot be content to play the role of a bureaucrat. Rather, he must seek to act much more as a social analyst in the face of the complexity and challenges of the new times, which is expected, after all, from every jurist.[64]

---

[60] Dierle Nunes, *Uma breve provocação aos processualistas: o processualismo constitucional democrático [A Brief Provocation to Proceduralists: Democratic Constitutional Processualism], in:* 40 ANOS DA TEORIA GERAL DO PROCESSO NO BRASIL: PASSADO, PRESENTE E FUTURO [40 YEARS OF THE GENERAL THEORY OF PROCESS IN BRAZIL: PAST, PRESENT AND FUTURE] 222 (2013).
[61] *See* GUARNIERI, *supra* note 13, p. 7-8.
[62] Bruno Henrique Silva Santos, *O magistrado cidadão e a legitimação social da justiça [The Citizen Magistrate and the Social Legitimization of Justice], in:* CURSO MODULAR DE ADMINISTRAÇÃO DA JUSTIÇA: PLANEJAMENTO ESTRATÉGICO [MODULAR COURSE OF ADMINISTRATION OF JUSTICE: STRATEGIC PLANNING] 102 (2012).
[63] Arlete Inês Aurelli, *Função social da jurisdição e do processo [Social Function of Jurisdiction and Procedure], in* 40 ANOS DA TEORIA GERAL DO PROCESSO NO BRASIL: PASSADO, PRESENTE E FUTURO [40 YEARS OF THE GENERAL THEORY OF PROCESS IN BRAZIL: PAST, PRESENT AND FUTURE] 128 (Camilo Zufelato & Flávio Luiz Yarshell eds., 2013).
[64] *See* UMBERTO VINCENTI, DIRITTO E MENZOGNA: La questione della giustizia in Italia [THE QUESTION OF JUSTICE IN ITALY]19 (2013).

https://doi.org/10.6092/issn.2531-6133/8467

Additionally, the judge can't take a chance on the path of divination, which, according to Calamandrei, "is not a matter of the jurist, who serves to certainty, not to hope; and that in studying the laws he must try to understand them and to put them in the clear, as they are, with all their contingent cruelties and also with those contradictions and with those illogisms"[65] typical of the "urgency of events that created them".[66]

The truth, however, according to Vincenti,[67] is that academics have often deceived students with a false right/ right that does not exist, as if justice were in the judicial bureaucracy, with their rites and praxes, which often hide and even supplant the justice that is sought to achieve.

According to Cambi, "postmodern law, contrary to modern law, is not content with judicial passivity, betting on the transformative will guided by the inter-social activity of responsible production of inclusive social justice projects (proactivity in the protection of relevant social interests)".[68]

As Prado affirms and demonstrates,[69] the legal world is gradually recognizing the value of emotion in the act of deciding, without leaving aside rationality, in a slow and gradual communion, in the act of judging, between thinking and feeling.[70]

However, conservatism still inhabits the judiciary domes, which finds shelter in a culture that reveres the norm and ends up passing off the social, economic and political contingencies, according to Sadek, who says:

> Reality and unforeseeable circumstances threaten the dogma and tradition. Hence the hard work of these judiciary sectors relies on positivist normativism, to focus on the form and its commitment to

[65] PIERO CALAMANDREI, ESTUDOS DE DIREITO PROCESSUAL NA ITÁLIA [STUDIES OF PROCEDURAL LAW IN ITALY] 120 (Karina Fumberg trans., 1941).
[66] *Id.*
[67] VINCENTI, *supra* note 64, p. 28.
[68] EDUARDO CAMBI, PROCESSUAL NEOCONSTITUCIONALISMO E NEOPROCESSUALISMO: DIREITOS FUNDAMENTAIS, POLÍTICAS PÚBLICAS E PROTAGONISMO JUDICIÁRIO [NEOCONSTITUTIONALISM AND NEOPROCESSALISM: FUNDAMENTAL RIGHTS, PUBLIC POLICIES AND JUDICIAL PROTAGONISM] 246 (2016).
[69] LÍDIA REIS DE ALMEIDA PRADO, O JUIZ E A EMOÇÃO: ASPECTOS DA LÓGICA DA DECISÃO JUDICIAL [JUDGE AND EMOTION: ASPECTS OF JUDICIAL DECISION LOGIC] 122 (2013).
[70] *Id.* at 123.

https://doi.org/10.6092/issn.2531-6133/8467

> curb the different, the creative, the new, in the end, the reflexes of the real in the legal.[71]

Despite this, there is no way to hinder the freed space for interpretation and creative power of judges. Therefore, Sadek concludes,[72] over the years there has been an increase in the percentage of judiciary members who move away from conservative positions, more attentive to economic and social consequences than merely to positivist normativism. The result is a less formalistic justice and more committed to the pacification of parties and with more viable solutions.

Ataide Junior[73] also makes reference to the need for a *new judge*, who, in addition to his technical training, also enjoys an interdisciplinary training that allows him to know the social, economic and even psychological reality related to the deal.[74]

Hence Bedaque realizes that "legislative changes are insufficient to give effect to the process if they do not find interpreters in a position to understand them . . . .".[75]

Thus, as noted by Gomes, "the judge, today, besides applying the law to specific cases, also has an indirect function to interpret our legal system and, with creativity, decide the cases according to the circumstances that are implemented";[76] as already pointed out before, "when interpreting, magistrates begin to create juridical norms, which are not properly norms per se, but judicial decisions that will serve to the same purpose." They do so

---

71 Maria Tereza Aina Sadek, *O Judiciário e seus desafios [The Judiciary and its Challenges]*, *in* IMPASSES E APORIAS DO DIREITO CONTEMPORÂNEO: ESTUDOS EM HOMENAGEM A JOSÉ EDUARDO FARIA [IMPASSES AND APORIAS OF CONTEMPORARY LAW: STUDIES IN HOMAGE TO JOSÉ EDUARDO FARIA] 91, 93 (Emerson Ribeiro Fabiani ed., 2011).

72 *Id.* at 93.

73 VICENTE DE PAULA ATAIDE JUNIOR, O NOVO JUIZ E A ADMINISTRAÇÃO DA JUSTIÇA: REPENSANDO A SELEÇÃO, A FORMAÇÃO E A AVALIAÇÃO DOS MAGISTRADOS NO BRASIL [THE NEW JUDGE AND THE JUSTICE ADMINISTRATION: RETHINKING THE SELECTION, TRAINING AND EVALUATION OF MAGISTRATES IN BRAZIL] 69-72 (2006).

74 *Id.*

75 José Roberto dos Santos Bedaque, *Juiz, processo e justiça [Judge, process and justice]*, *in* ATIVISMO JUDICIAL E GARANTISMO PROCESSUAL [Judicial activism and procedural guaranty] 111, 139 (Fredie Didier Jr. et al. eds., 2013).

76 GUSTAVO GONÇALVES GOMES, JUIZ PARTICIPATIVO: MEIO DEMOCRÁTICO DE CONDUÇÃO DO PROCESSO [PARTICIPATIVE JUDGE: DEMOCRATIC METHOD OF CONDUCTING THE PROCESS] 120 (2014).

https://doi.org/10.6092/issn.2531-6133/8467

precisely because the system of rules is not something complete and self-sufficient.[77]

Nonetheless, the freedom of interpretation should be performed with care and caution, so that judges do not fail taking subjective decisions, with violation of legal certainty and the risk of committing injustices. That is why, in this task, they are never exempt from justifying their decisions.[78]

Gomes clarifies what this challenge imposed by the new times is for a participatory judge:

> There are concrete situations in which denotes a certain degree of indeterminacy of legal concepts involved. There are other situations in which, given the lack of specific rules governing the matter, the Judiciary is unable to resolve the deal by classic subsuntive method. In these cases, it is admitted the use of creativity, by judicial magistrates, in situations in which the judge, not being able to escape from deciding, must develop creative initiatives with the scope to seek the most appropriate solution to demand.[79]

After identifying some examples of expressions with vague and indeterminate concepts typical of our days (hypossuficient, social function of the contract, reasonable duration of the process, public interest), the cited author stresses the importance of judicial creativity: "Judicial creativity is, therefore, a great ally of the modern procedural system, in that it allows us to have much wider judicial decisions and to effectively translate the reality of the case, especially in situations where ordinary legislation proves insufficient for the demand solution."[80]

Regarding the judges' creative role, Pinho and Cortês consider it "imperative that the judge be equipped with new ways of acting with greater flexibility in the adequacy of decisions to the reality of the case.[81] They further

---

[77] *See* JOSÉ ANTONIO SAVARIS, UMA TEORIA DA DECISÃO JUDICIAL DA PREVIDÊNCIA SOCIAL: CONTRIBUTO PARA SUPERAÇÃO DA PRÁTICA UTILITARISTA [A THEORY OF THE JUDICIAL DECISION OF THE SOCIAL SECURITY: CONTRIBUTION TO OVERCOMING THE UTILITARIAN PRACTICE] 230 (2011).

[78] *See* GOMES, *supra* note 76, p. 121.

[79] *Id.* at 123.

[80] *Id.* at 124.

[81] Humberto Dalla Bernardina de Pinho, Victor Augusto Vilani Cortès , *As Medidas Estruturantes e a Efetividade das Decisões Judiciais no Ordenamento Jurídico Brasileiro [The Structuring Measures and Effectiveness of Judicial Decisions in the Brazilian Legal System]*, 13 REVISTA ELETRÔNICA DE DIREITO PROCESSUAL [ELECTRONIC JOURNAL OF PROCEDURAL LAW] – REDP, 237 (2014), http://www.redp.com.br/.

https://doi.org/10.6092/issn.2531-6133/8467

add “However, only new 'procedural' weapons are not enough, it is required that judges’ mentality also changes. . . . ."[82]

Barroso also comes to the conclusion that ". . . . abstract formulas of law and judicial discretion no longer bring all the answers”, precisely because the legal paradigm which in modernity had already passed from the law to the judge, "is now transferred to the concrete case for the best solution, unique to the problem to be solved”.[83]

Hence the feeling is that the Judiciary occupies all fields and that sentencing no longer entails applying the law or saying what is right but implies a decision. The judge, now fit with values and will, no longer finds gaps and voids in the law. On the contrary, he always has the answer. Thus, the judicial protection is now presented as an appeal to the third decision.[84]

According to Mitidiero, the judge is no longer tied to a legality agenda, since "The agenda of contemporary law is ‘juridicity’, which automatically points to the idea of justice".[85] In fact, the Brazilian Constitution of 1988 does not lead the judge to a strict legality.[86]

In the judge’s case, the difficulty lies in the fact that "he looks back to facts necessarily passed, but decides at present with a horizon of future".[87]

The judge of a new time should also facilitate the emergence of novelty by facilitating the emergence of new things he is facilitating creativity. This, moreover, is another facet of leadership, which consists "more of creating conditions than of transmitting instructions; it is to use the power of authority to enable, strengthen and empower others".[88]

However, it is clear that in order to have such judges, with these multifaceted attributes, it is necessary for the Judiciary and society itself to

[82] *Id.* at 237.
[83] BARROSO, *supra* note 6, p. 103.
[84] *See* NATALINO IRTI, DIRITTO SENZA VERITÀ [RIGHT WITHOUT TRUTH] 70 (2011).
[85] DANIEL MITIDIERO, COLABORAÇÃO NO PROCESSO CIVIL: PRESSUPOSTOS SOCIAIS, LÓGICOS E ÉTICOS [COLLABORATION IN CIVIL PROCEDURE: SOCIAL, LOGICAL AND ETHICAL ASSUMPTIONS] 43, 43-44 (2nd ed. 2011).
[86] *Id.* at 66.
[87] José de Faria Costa, *O direito, a justiça e a terceira pessoa [The Law, Justice and the Third Person]*, *in* O DIREITO E O FUTURO: O FUTURO E O DIREITO [THE RIGHT AND THE FUTURE: THE FUTURE AND THE RIGHT] 510 (Antônio José Avelãs Nunes & Jacinto Nelson de Miranda Coutinho eds., 2008).
[88] FRITJOF CAPRA, AS CONEXÕES OCULTAS: CIÊNCIA PARA UMA VIDA SUSTENTÁVEL [The Hidden Connections: Science for a Sustainable Life] 132 (Marcelo Brandão Cipolla trans., 2005).

https://doi.org/10.6092/issn.2531-6133/8467

invest on what Nalini[89] calls the *integral formation* of judges, since in Brazil, preparing judges is not a function of the university. In this sense, integral formation is subdivided into previous training, initial training and continuing training.

Grangeia,[90] in fact, emphasizes the importance of the Professional Masters in Judiciary, with its multidisciplinary characteristic, and praises the fact that a professional master's degree focuses on solving problems, and that its dissertation, in the end, represents a solution project for problems related to the Judiciary.

All taking Garapon to the following counterpoints and weights:

> . . . . the judge has passed, in recent years, from the position of guardian of the temple to that of *researcher of law*. Where will the judge find in turn his references to resolve these issues? In the law? It is in decline. In his own subjectivity? It is unacceptable. In his conscience? Who will control it? In a reasonable and transparent adaptation of the principles that underlie our right? Perhaps, since redouble the rigor and intellectual honesty. Judge can no longer claim exclusively positivist legitimacy in a context that no more is. In order to be considered a censor of ethics in others, he must answer for his own ethics . . . . [91]

In short, this new and more creative judge who is being treated, or judge of the new times - who is not born ready and who, for this very reason, requires an integral formation - is no longer the judge who only judges, nor the judge who only reproduces or repeats the letter of the law, but the judge capable of managing, leading, who knows how to communicate, open to technological innovations and, mainly, committed to reality.[92]

---

[89] José Renato Nalini, *A formação do juiz brasileiro [The Formation of the Brazilian Judge]*, *in* FORMAÇÃO JURÍDICA [LEGAL TRAINING] 143 (José Renato Nalini ed., 2nd ed. 1999).

[90] MARCOS ALAOR DINIZ GRANGEIA, ESCOLA NACIONAL DE FORMAÇÃO E APERFEIÇOAMENTO DE MAGISTRADOS, A CRISE DE GESTÃO DO PODER JUDICIÁRIO: O PROBLEMA, AS CONSEQUÊNCIAS E OS POSSÍVEIS CAMINHOS PARA A SOLUÇÃO [NATIONAL SCHOOL FOR THE TRAINING AND IMPROVEMENT OF MAGISTRATES, THE CRISIS OF MANAGEMENT OF THE JUDICIARY: THE PROBLEM, THE CONSEQUENCES AND THE POSSIBLE PATHS TO THE SOLUTION] 25-26 (2013).

[91] ANTOINE GARAPON, O JUIZ E A DEMOCRACIA: O GUARDIÃO DAS PROMESSAS 253-54 (Maria Luiza de Caravalho trans.) (1999).

[92] *See* Maria Tereza Aina Sadek, *Justiça: novas perspectivas [Justice: New Perspectives]*, *in* CURSO MODULAR DE ADMINISTRAÇÃO DA JUSTIÇA: PLANEJAMENTO ESTRÁTEGICO [MODULAR COURSE OF

https://doi.org/10.6092/issn.2531-6133/8467

5. FINAL CONSIDERATIONS

As we have seen, in the face of social and political transformations of the contemporary world, judges should be able to resolve conflicts on the basis of legal techniques coupled with management and social-economic knowledge and judicial creativity, which is the responsibility of the Judicial Schools of Training and improvement of magistrates.

However, these training actions should be complemented, as much as possible, by encouraging socio-legal research programs and exchanges with the academic world so that judges are encouraged to enroll in Master and Doctoral courses, and possibly attend a second graduation (Administration, Psychology, Economics, Social Sciences, Accounting, Computer Science, Anthropology, etc.), without prejudice to their daily activities as magistrates.

Finally, it is suggested that the competences developed in training actions should undergo periodic revisions in order to identify areas of social vulnerability that demand the judiciary efficient performance in favor of a more balanced and fair society.

ADMINISTRATION OF JUSTICE: STRATEGIC PLANNING] (Luiz Fernando Wowk Penteado & Vera Lúcia Feil Ponciano eds., 2012).

 https://doi.org/10.6092/issn.2531-6133/8655

Use of the Local Law Advantage in the Restructuring of European Sovereign Bonds

LEE C. BUCHHEIT & G. MITU GULATI†

TABLE OF CONTENTS: 1. The Local Law Advantage; 2. Greece 2012; 3. Ex Post Facto Laws and Sovereign Debt Workouts.

ABSTRACT: Emerging market sovereigns issue bonds in the international capital markets governed by a foreign legal regime such as the law of England or New York State. European sovereigns, however, have been able to issue bonds governed by the issuer's own law. In the event of a future financial crisis, this gives European sovereign issuers the ability to pass local legislation that will facilitate an eventual restructuring of their bonds -- the "local law advantage." Greece did this in 2012 as part of a restructuring of €206 billion of Greek Government bonds. The validity of the revisions to Greek law enacted in 2012 by the Greek Parliament has been upheld in multiple judicial challenges (in Greece, Germany, Austria and before the European Court of Human Rights), as well in a major ICSID arbitration. This raises the question of whether other European sovereigns enjoying the local law advantage over their bonds can, in an emergency, rely on the power of their own legislatures to amend local law in order to facilitate a future restructuring of those instruments.

KEYWORDS: *Sovereign Debt*;*Greek Restructuringt*; *Local Law Advantage*; *Collective Action Clauses*

https://doi.org/10.6092/issn.2531-6133/8655

1. THE LOCAL LAW ADVANTAGE

When emerging market sovereigns issue bonds in international capital markets, those bonds are governed by foreign law, normally the law of England or the State of New York. The reason is simple: allowing a sovereign bond to be governed by the sovereign's *own* law places the investor at the mercy of the local legislature. If the local law changes in a manner that impairs the performance of a local law bond or facilitates its restructuring, even judges in New York and England must respect that change.[1] We shall refer to this as the "local law advantage" that a sovereign enjoys over a bond governed by its own law. In contrast, a sovereign bond governed by a foreign law will be beyond the mischievous reach of the country's legislature. Sovereigns can (and occasionally do) attempt to pass laws - normally in the nature of capital controls - which purport to interfere with the performance of foreign currency-denominated bonds, but these enactments rarely provide the issuer with a legal defense to the performance of the instrument in a foreign court.[2]

Unlike their emerging market counterparts, European sovereigns have generally been able to issue bonds governed by their own laws. Investors seem to have more confidence that a developed country will not attempt to change its law in a manner that may injure holders of the sovereign's debt instruments.[3] To do so, the argument goes, would be suicidal for a country that must regularly refinance its debt from the capital markets with the support of foreign investors.

---

† Partner at Cleary Gottlieb Steen & Hamilton LLP and Professor of Law at Duke University Law School (USA), respectively.

1 *See* New York City Bar, *Governing Law in Sovereign Debt-Lessons from the Greek Crisis and Argentina Dispute of 2012*, Committee on Foreign & Comparative Law, Feb. 2013, at page 7, summary point 3. http://www2.nycbar.org/pdf/report/uploads/20072390-GoverningLawinSovereignDebt.pdf.

2 *See* Lee C. Buchheit & Elena S. Daly, *Contracts in a Time of Capital Controls*, 30 Butterworths J. int'l banking and fin. law, 489 (2015).

3 Michael Bradley, Elisabeth de Fontenay, Irving Arturo de Lira Salvatierra & Mitu Gulati, *Pricing Sovereign Debt: Foreign versus Local Parameters*, 24 Eur. Fin. Mgmt. 261 (2018), https://onlinelibrary.wiley.com/doi/full/10.1111/eufm.12161 (analyzing the pricing differential between sovereign bonds governed by local laws versus foreign laws).

https://doi.org/10.6092/issn.2531-6133/8655

2. GREECE 2012

When the Greek sovereign debt crisis erupted in the spring of 2010, the official sector (the EU and the IMF) elected to lend Greece the money needed to repay maturing Greek Government Bonds (hereinafter GGBs) in full and on time. A similar policy was later followed in the bailouts for Ireland, Portugal and Cyprus. The problem was that Greece's debt stock was obviously unsustainable. In the early morning of October 27, 2011, the official sector actors therefore careened from their prior position of forbidding Greece from restructuring *any* of its debt to a new position *commanding* Greece to restructure *all* of the GGBs left in the hands of private sector investors with at least a 50% principal haircut. Having decreed the result, however, the official sector did not confide the method by which that result was to be achieved. Greece was given five months to complete the debt restructuring or face default and a possible exit from the Eurozone.

For the prior two years, GGB holders saw Greece's official sector sponsors lend Greece the money needed to repay maturing GGBs. Senior public officials such as the President of the European Central Bank and his deputies issued regular assurances, stating that there never would be a sovereign debt restructuring in the Eurozone (which the market understandably heard as an assurance that all Eurozone sovereign bonds would be paid in full).[4] The market could thus literally smell the official sector's fear of bringing a messy Argentina-style debt crisis to the belly of Europe. In the face of this, a significant number of GGB holders would probably have called the official sector's bluff by declining to restructure their GGBs. After the tens of billions of euros already sunk in bailing out Greece, Ireland and Portugal, would the official sector really risk a collapse by allowing Greece to default on holdout GGBs? The question of the hour was therefore how to minimize the size of the anticipated holdout creditor population in a savage restructuring of GGBs.

[4] For analyses of these events, see Paul Blustein, Laid Low: Inside the Crisis that Overwhelmed Europe and the IMF (2016); *see also* Ashoka Mody, EuroTragedy: A Drama in Nine Acts (2018).

https://doi.org/10.6092/issn.2531-6133/8655

Greece enjoyed a significant local law advantage with respect to its bond indebtedness.[5] Approximately 93% of GGBs were governed by Greek law. To facilitate the debt restructuring, the Greek Parliament passed a law on February 23rd, 2012[6] that effectively homogenized the holders of Greek-law governed GGBs into a single class for purposes of voting on a debt restructuring. If holders of at least 50% in aggregate principal amount of the Greek law-governed GGBs voted either in favor or against the proposed amendment, and at least two-thirds of the principal amount voted to accept the terms of a debt restructuring, their decision would bind all other holders of those instruments. The law thus embodied the notion of supermajority creditor control of the process, very much along the lines of the class voting mechanism prescribed in domestic insolvency regimes for corporate debtors.

In choosing to retrofit a class voting mechanism on the holders of Greek law-governed GGBs, the Greek Parliament made a restrained use of its local law advantage. Parliament could, for example, have attempted to impose directly the financial terms of the restructuring by legislative fiat, rather than by allowing the affected creditors to vote on the measure. Such a thermonuclear use of the local law advantage would not have been supported by Greece's official sector sponsors. Moreover, the members of the Euro-area had already endorsed the use of a creditor class voting mechanism as a method for dealing with future sovereign debt crises in Europe.[7]

---

[5] *See* Lee C. Buchheit & G. Mitu Gulati, *How to Restructure Greek Debt*, May 7, 2010 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1603304.

[6] Nomos (2012:4050) Κανόνες τροποποιήσεως τίτλων, εκδόσεως ή εγγυήσεως του Ελληνικού Δημοσίου με συμφωνία των Ομολογιούχων [Greek Bondholder Act], 2012.

[7] On November 28, 2010, the finance ministers of the larger European countries released a document bearing the caption 'Statement by the Eurogroup'. It contained the following paragraph:

> In order to facilitate this process [the restructuring of the private sector indebtedness of an insolvent euro area Member State], standardized and identical collective action clauses (CACs) will be included, in such a way as to preserve market liquidity, in the terms and conditions of all new euro-area government bonds starting in June 2013. Those CACs would be consistent with those common under UK and US law after the G10 report on CACs, including aggregation clauses allowing all debt securities issued by a Member State to be considered together in negotiations. This would enable the creditors to pass a qualified majority decision agreeing to a legally binding change to the terms of payment (standstill, extension of the maturity, interest-rate cut and/or haircut) in the event that the debtor is unable to pay.

https://doi.org/10.6092/issn.2531-6133/8655

It worked. The necessary supermajority of creditors approved the restructuring in March 2012 and accordingly there were no holdouts among the universe of Greek law-governed GGBs. Thirty-six series of GGBs were governed by English law, each with its own collective action clause. The required bondholder supermajority consent to join the restructuring was obtained for 17 of these series of English law GGBs. Holdout creditors had acquired blocking positions in the other series. Approximately 97% of the eligible debt stock was covered by the restructuring.[8]

Parliament's action was subsequently challenged in Greek, German and Austrian courts, as well as in a major arbitration commenced under one of Greece's bilateral investment treaties.[9] The action was also challenged in proceedings before the European Court of Human Rights.[10] None of these legal challenges prospered.[11]

3. EX POST FACTO LAWS AND SOVEREIGN DEBT WORKOUTS

The retroactive implementation of a class voting mechanism on the holders of Greek law-governed GGBs was not undertaken lightly. It represented perhaps the mildest possible use of Greece's local law advantage over the Greek law-governed debt stock consistent with the need to ensure that a transaction -- if broadly supported by a supermajority of similarly-situated creditors -- could not be undermined by a holdout minority. The Greek authorities and their official sector

Eurogroup Ministers, *Statement by the Eurogroup* (Nov. 28, 2010). This statement was repeated verbatim in the Euro Summit, *Conclusions of the Heads of State or Government of the Euro Area of 11 March 2011* (Mar. 11, 2011). http://www.consilium.europa.eu/media/21423/20110311-conclusions-of-the-heads-of-state-or-government-of-the-euro-area-of-11-march-2011-en.pdf.

[8] *See* Jeromin Zettelmeyer, Christoph Trebesch & Mitu Gulati, *The Greek Debt Restructuring: An autopsy*, 28 Econ. Pol'y 513 (2013).

[9] For a discussion and thorough analysis of these legal challenges see, Sebastian Grund, *Enforcing Sovereign Debt in Court -- A Comparative Analysis of Litigation and Arbitration Following the Greek Debt Restructuring of 2012*, 1 U. Vienna L. Rev. 34 (2017).

[10] Mamatas and others v. Greece (application nos. 63066/14, 64297/14 and 66106/14), Eur. Ct. H.R. (2016). *See* European Court of Human Rights Press Release, *Judgements and Decisions of 21 July 2016*, ECHR 255(2016).

[11] *See* Sebastian Grund, *Restructuring Government Debt Under Local Law: The Greek Case and Implications for Investor Protection in Europe*, 12 Cap. Mkts L. J., 253, 273 (2017) ("Five years after Greece implemented the biggest sovereign debt restructuring in history, European courts and international tribunals have finally vindicated its legal decision.").

https://doi.org/10.6092/issn.2531-6133/8655

partners were acutely aware that passing any law with retroactive effect, often referred to as an ex post facto law, is generally undesirable.

The Greek Parliament's decision was subsequently validated as a matter of Greek and European law. This raises the question of why other European sovereigns - whose debt is wholly or principally governed by the sovereign's own law - cannot follow the Greek precedent should circumstances ever require a restructuring of their bonds? Is anything else needed, over and above the local law advantage enjoyed by most Euro-area sovereigns, to facilitate an orderly restructuring of sovereign debt in Europe? In effect, does the Greek precedent obviate the need for any other measures to facilitate future sovereign debt restructurings in Europe?[12]

Our view is that any use of the local law advantage by a European sovereign should only be considered as a last resort and, even then, only if a crisis erupts before an orderly debt restructuring mechanism can be put in place. Our reasons are:

1) Ex post facto laws are disfavored in all legal regimes for the obvious reason that they erode the fundamental premise that contracts will be enforced as written.

2) Any public suggestion that members of the Euro-area expect to rely on ex post facto laws as the principal tool to facilitate future sovereign debt restructurings could restrict European sovereigns from borrowing under their own laws. Investors should logically begin insisting on the use of a foreign law for

[12] This question has come up recently in the context of proposals for Euro area sovereigns to switch from the type of CACs that were adopted in January 2013 to a more restructuring friendly version. The 2013 version required approvals both from creditors in each individual bond and on an aggregated basis across the bonds for modifications to payment terms to be binding on all the bondholders. The proposed 2018 version would allow for binding modifications to occur so long as a single aggregated approval threshold was met across all the bonds with these CACs These two types of CACs are sometimes referred to as "dual limbed" and "single limbed". *See* Antonia E. Stolper & Sean Dougherty, *Collective Action Clauses: How the Argentina Litigation Changed the Sovereign Debt Markets*, 12 Cap. Mkts. L. J. 239 (2017). As of this writing, the proposals to move to the latter form of CACs have been fiercely resisted by a subset of countries concerned about negative market reactions. *See* Jan Strupczewski, *EU Leaders to Boost Bailout Fund Role, But Duck Talks on Deposit Insurance*, Reuters (June 26, 2018).

https://doi.org/10.6092/issn.2531-6133/8655

European sovereign bonds[13] or they might begin charging a basis point penalty for the continued use of local law.[14]

3) It is true that Greece survived the legal challenges to its 2012 legislative retrofit of a class voting mechanism on the local law debt stock. A common theme in those decisions is, however, a perception that Greece acted with considerable restraint and under absolute necessity. That same latitude may not be shown if the member state concerned had the opportunity to put in place a forward-looking mechanism to ensure an orderly debt restructuring but simply neglected to do so.[15]

4) Each member State will have its own constitutional constraints on the ability of the government to interfere with private property. The Greek Constitution, for example, provides that no one shall be deprived of property "except for public benefit" (Article 17), subject to the power of the State "to consolidate social peace and protect the general interest" (Article 106). Not every constitution may offer similar flexibility.

5) Since 2013, all European sovereign bonds have incorporated an aggregated CAC (that is, a contractual provision that mimics, with certain exceptions, the class voting mechanism of corporate insolvency regimes). If a crisis were to occur during the next decade or so, however, only a portion of the bonds of the afflicted sovereign will contain such clauses. In such a situation, what would be the relationship between bonds *with* CACs and those with*out* CACs? There are two options. The local legislature could pass a law

- retrofitting a new class voting mechanism over the entire debt stock (effectively ignoring the presence of CACs in some of the bonds), or

[13] Following the action of the Greek Parliament in February 2012, for example, the Hellenic Republic has been forced to designate English law as the governing law of its international bond issues.
[14] For empirical illustrations of this dynamic, see Marcus Chamon, Julian Schumacher & Christoph Trebesch, *Foreign Law Bonds: Can They Reduce Sovereign Borrowing Costs* (ECB Working Paper No. 2162, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3200256.
[15] For a prior discussion of this question, see also Lee C. Buchheit & Mitu Gulati, *Sovereign Debt Restructuring in Europe*, 9 Global Pol'y (Special Issue) 65 (2018), https://onlinelibrary.wiley.com/doi/abs/10.1111/1758-5899.12531.

https://doi.org/10.6092/issn.2531-6133/8655

- imposing a class voting regime only on the bonds that do *not* contain CACs (relying on the CACs in the bonds containing the clauses to facilitate the restructuring of those series).

In either case, were the retrofit voting mechanism to be more liberal (in terms, for example, of the voting thresholds required to approve a debt restructuring) than the corresponding features of the contractual CACs, this might forfeit judicial sympathy in a future legal challenge by an aggrieved bondholder.

 https://doi.org/10.6092/issn.2531-6133/8670

Artificial Intelligence Policy: a Primer and Roadmap

RYAN CALO[†]

ABSTRACT: Talk of artificial intelligence is everywhere. People marvel at the capacity of machines to translate any language and master any game. Others condemn the use of secret algorithms to sentence criminal defendants or recoil at the prospect of machines gunning for blue, pink, and white-collar jobs. Some worry aloud that artificial intelligence will be humankind's "final invention."

This essay, prepared in connection with UC Davis Law Review's 50th anniversary symposium, explains why AI is suddenly on everyone's mind and provides a roadmap to the major policy questions AI raises. The essay is designed to help policymakers, investors, technologists, scholars, and students understand the contemporary policy environment around AI at least well enough to initiate their own exploration.

Topics covered include: justice and equity, use of force, safety and certification, privacy (including data parity) and taxation and displacement of labor. In addition to these topics, the essay will touch briefly on a selection of broader systemic questions: institutional configuration and expertise, investment and procurement, removing hurdles to accountability and correcting mental models of AI.

KEYWORDS: *Artificial Intelligence; Law; Policy; Ethics; Governance*

EDITORIAL NOTE

This essay is reprinted with author permission from Volume 51 of the UC Davis Law Review.

https://doi.org/10.6092/issn.2531-6133/8670

1. INTRODUCTION

The year is 2017 and talk of artificial intelligence (hereinafter AI) is everywhere. People marvel at the capacity of machines to translate any language and master any game.[1] Others condemn the use of secret algorithms to sentence criminal defendants[2] or recoil at the prospect of machines gunning for blue, pink, and white-collar jobs.[3] Some worry aloud that AI will be humankind's "final invention."[4]

The attention we pay to AI today is hardly new: looking back twenty, forty, or even a hundred years, one encounters similar hopes and concerns around AI systems and the robots they inhabit. Batya Friedman and Helen Nissenbaum wrote Bias in Computer Systems, a framework for evaluating and responding to machines that discriminate unfairly, in 1996.[5] The 1980 New York Times headline "A Robot Is After Your Job" could as easily appear in September 2017.[6]

The field of AI itself dates back at least to the 1950s, when John McCarthy and others coined the term one summer at Dartmouth College, and the concepts underlying AI go back generations earlier to the ideas of Charles Babbage, Ada

---

† Lane Powell and D. Wayne Gittinger Associate Professor, University of Washington School of Law (USA).

1 *See, e.g.*, Cade Metz, *In a Huge Breakthrough, Google's AI Beats a Top Player at the Game of Go*, WIRED (Jan. 27, 2016), https://www.wired.com/2016/01/in-a-huge-breakthrough-googles-ai-beats-a-top-player-at-the-game-of-go (reporting how after decades of work, Google's AI finally beat the top human player in the game of Go, a 2,500-year-old game of strategy and intuition exponentially more complex than chess).

2 *See, e.g.*, CATHY O'NEIL, WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY 27 (2016) (comparing such algorithms to weapons of mass destruction for contributing to and sustaining toxic recidivism cycles); *see also*. Julia Angwin et al., *Machine Bias*, PROPUBLICA (May 23, 2016), https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing (discussing errors algorithms make when generating risk-assessment scores).

3 *See, e.g.*, MARTIN FORD, RISE OF THE ROBOTS: TECHNOLOGY AND THE THREAT OF A JOBLESS FUTURE xvi (2015) (predicting that machines' role will evolve from that of the worker's tool to the worker itself).

4 JAMES BARRAT, OUR FINAL INVENTION: ARTIFICIAL INTELLIGENCE AND THE END OF THE HUMAN ERA 5 (2013) ("Our species is going to mortally struggle with this problem.").

5 Batya Friedman & Helen Nissenbaum, *Bias in Computer Systems*, 14 ACM TRANSACTIONS ON INFO. SYS, Jul. 1996, at. 330.

6 Harley Shaiken, *A Robot Is After Your Job; New Technology Isn't a Panacea*, N.Y. TIMES, Sept. 3, 1980, at 19. For an excellent timeline of coverage of robots displacing labor, see generally Louis Anslow, *Robots Have Been About to Take All the Jobs for More than 200 Years*, TIMELINE (May 16, 2016), https://timeline.com/robots-have-been-about-to-take-all-the-jobs-for-more-than-200-years-5c9c08a2f41d.

https://doi.org/10.6092/issn.2531-6133/8670

Lovelace, and Alan Turing.[7] Although there have been significant developments and refinements, nearly every technique we use today — including the biologically-inspired neural nets at the core of the practical AI breakthroughs currently making headlines — was developed decades ago by researchers in the United States, Canada, and elsewhere.[8]

If the terminology, constituent techniques, and hopes and fears around AI are not new, what exactly is? At least two differences characterize the present climate. First, as is widely remarked, a vast increase in computational power and access to training data has led to practical breakthroughs in machine learning, a singularly important branch of AI.[9] These breakthroughs underpin recent successes across a variety of applied domains, from diagnosing precancerous moles to driving a vehicle, and dramatize the potential of AI for both good and ill.

Second, policymakers are finally paying close attention. In 1960, when John F. Kennedy was elected, there were calls for him to hold a conference around robots and labor.[10] He declined.[11] Later there were calls to form a Federal Automation Commission.[12] None was formed. A search revealed no hearings on AI in the House or Senate until, within months of one another in 2016, the House Energy and Commerce Committee held a hearing on Advanced Robotics (robots with AI) and the Senate Joint Economic Committee held the "first ever hearing focused solely on artificial intelligence."[13] That same year, the Obama White

---

7 *See* Selmer Bringsjord, David Ferrucci & Paul Bello, *Creativity, the Turing Test, and the (Better) Lovelace Test*, 11 MINDS & MACHINES 3, 5 (2000); *see also* PETER STONE ET AL., STANFORD UNIV., ARTIFICIAL INTELLIGENCE AND LIFE IN 2030: REPORT OF THE 2015 STUDY PANEL 50 (2016), https://ai100.stanford.edu/sites/default/files/ai_100_report_0831fnl.pdf.

8 *See* STONE ET AL., *supra* note 7, at 50-51; Will Knight, *Facebook Heads to Canada for the Next Big AI Breakthrough*, MIT TECH. REV. (Sept. 15, 2017), https://www.technologyreview.com/s/608858/facebook-heads-to-canada-for-the-next-big-ai-breakthrough (discussing leading figures and breakthroughs with connections to Canada).

9 *See, e.g.*, STONE ET AL., *supra* note 7, at 14; *see also* EXEC. OFF. OF THE PRESIDENT & NAT'L SCI. & TECH. COUNCIL, PREPARING FOR THE FUTURE OF ARTIFICIAL INTELLIGENCE 6 (2016).

10 *See* Anslow, *supra* note 6.

11 He did, however, give a speech on the necessity of "effective and vigorous government leadership" to help solve the "problems of automation." Senator John F. Kennedy, Remarks at the AFL-CIO Convention (June 7, 1960).

12 *See* Anslow, *supra* note 6.

13 Press Release, Sen. Ted Cruz, Sen. Cruz Chairs First Congressional Hearing on Artificial Intelligence (Nov. 30, 2016), https://www.cruz.senate.gov/?p=press_release&id=2902; *see also The Transformative Impact of Robots and Automation: Hearing Before the J. Econ. Comm.*, 114th Cong. (2016).

https://doi.org/10.6092/issn.2531-6133/8670

House held several workshops on AI and published three official reports detailing its findings.[14] Formal policymaking around AI abroad is, if anything, more advanced: the governments of Japan and the European Union have proposed or formed official commissions around robots and AI in recent years.[15]

This essay, prepared in connection with the UC Davis Law Review's Fiftieth Anniversary symposium, *Future-Proofing Law: From rDNA to Robots*, is my attempt at introducing the AI policy debate to recent audiences, as well as offering a conceptual organization for existing participants. The Essay is designed to help policymakers, investors, scholars, and students understand the contemporary policy environment around AI and the key challenges it presents. These include:

- justice and equity;

- use of force;

- safety and certification;

- privacy and power; and

- taxation and displacement of labor.

In addition to these topics, the Essay will touch briefly on a selection of broader systemic questions:

- institutional configuration and expertise;

- investment and procurement;

- removing hurdles to accountability; and

- correcting flawed mental models of AI.

In each instance, the Essay endeavors to give sufficient detail to describe the challenge without prejudging the policy outcome. This Essay is meant to be a roadmap, not the road itself. Its primary goal is to point the new entrant toward a

14 *See, e.g.*, NAT'L SCI. & TECH. COUNCIL, *supra* note 9, at 12.

15 *See* Iina Lietzen, *Robots: Legal Affairs Committee Calls for EU-Wide Rules*, EUR. PARL. NEWS (Jan. 12, 2017),http://www.europarl.europa.eu/news/en/news-room/20170110IPR57613/robots-legal-affairs-committee-calls-for-eu-wide-rules; Press Release, Japan Ministry of Econ., Trade & Indus., Robotics Policy Office Is to Be Established in METI (July 1, 2015), http://www.meti.go.jp/english/press/2015/0701_01.html.

https://doi.org/10.6092/issn.2531-6133/8670

wider debate and equip them with the context for further exploration and research.

I am a law professor with no formal training in AI. But my long-standing engagement with AI has provided me with a front row seat to many of the recent efforts to assess and channel the impact of AI on society.[16] I am familiar with the burgeoning literature and commentary on this topic and have reached out to individuals in the field to get their sense of what is important. That said, I certainly would not suggest that the inventory of policy questions I identify here is somehow a matter of consensus. I do not speak for the AI policy community as a whole. Rather, the views that follow are idiosyncratic and reflect, in the end, one scholar's interpretation of a complex landscape.[17]

The remainder of the Essay proceeds as follows. Part I offers a short background on AI and defends the terminology of policy over comparable terms such as ethics and governance. Part II lays out the key policy concerns of AI as of this writing. Part III addresses the oddly tenacious and prevalent fear that AI poses an existential threat to humanity — a concern that, if true, would seem to dwarf all other policy concerns. A final section concludes.

2. BACKGROUND

2.1. WHAT IS AI?

There is no straightforward, consensus definition of AI. AI is best understood as a set of techniques aimed at approximating some aspect of human or animal cognition using machines. Early theorists conceived of symbolic systems — the

16 For example, I hosted the first White House workshop on AI policy, participated as an expert in the inaugural panel of the Stanford AI 100 study, organized AI workshops for the National Science Foundation, the Department of Homeland Security, and the National Academy of Sciences, advised AI Now and FAT*, and co-founded the We Robot conference.

17 Earlier AI pioneer Herbert Simon argues that it is the duty of people who study a new technology to offer their interpretations regarding its likely effects on society. Herbert Simon, The Shape of Automation for Men and Management vii (1965). But: "Such interpretations should be, of course, the beginning and not the end of public discussion." I vehemently agree. For another interpretation, focusing on careers in AI policy, see Miles Brundage, *Guide to Working in AI Policy and Strategy*, 80,000 HOURS (2017), https://80000hours.org/articles/ai-policy-guide.

https://doi.org/10.6092/issn.2531-6133/8670

organization of abstract symbols using logical rules — as the most fruitful path toward computers that can "think."[18] However, the approach of building a reasoning machine upon which to scaffold all other cognitive tasks, as originally envisioned by Turing and others, did not deliver upon initial expectations. What seems possible in theory has yet to yield many viable applications in practice.[19]

Some blame an over-commitment to symbolic systems relative to other available techniques (e.g., reinforcement learning) for the dwindling of research funding in the late 1980s known as the "AI Winter."[20] Regardless, as limitations to the capacity of "good old fashioned AI" to deliver practical applications became apparent, researchers pursued a variety of other approaches to approximating cognition grounded in the analysis and manipulation of real world data.[21] An important consequence of the shift was that researchers began to try to solve specific problems or master particular "domains," such as converting speech to text or playing chess, instead of pursuing a holistic intelligence capable of performing every cognitive task within one system.[22]

All manner of AI techniques see study and use today. Much of the contemporary excitement around AI, however, flows from the enormous promise of a particular set of techniques known collectively as machine learning.[23] Machine learning (hereinafter ML) refers to the capacity of a system to improve its performance at a task over time.[24] Often this task involves recognizing patterns in datasets, although ML outputs can include everything from translating languages and diagnosing precancerous moles to grasping objects or helping to drive a car. As alluded to above, most every technique that underpins ML has been

18 STONE ET AL., *supra* note 7, at 51.

19 *Id.*

20 *Id.*; *see also* NAT'L SCI. & TECH. COUNCIL, *supra* note 9, at 25.

21 *See* STONE ET AL., *supra* note 7, at 51.

22 *Id.* at 6-9. Originally the community drew a distinction between "weak" or "narrow" AI, designed to solve a single problem like chess, and "strong" AI with human-like capabilities across the boards. Today the term strong AI has given way to terms like artificial general intelligence ("AGI"), which refer to systems that can accomplish tasks in more than one domain without necessarily mastering all cognitive tasks.

23 *See* NAT'L SCI. & TECH. COUNCIL, *supra* note 9, at 8.

24 *See* Harry Surden, *Machine Learning and Law*, 89 WASH. L. REV. 87, 88 (2014).

https://doi.org/10.6092/issn.2531-6133/8670

around for decades. The recent explosion of efficacy comes from a combination of much faster computers and much more data.[25]

In other words, AI is an umbrella term, comprised by many different techniques. Today's cutting-edge practitioners tend to emphasize approaches such as deep learning within ML that leverage many-layered structures to extract features from enormous data sets in service of practical tasks requiring pattern recognition, or use other techniques to similar effect.[26] As we will see, these general features of contemporary AI — the shift toward practical applications, for example, and the reliance on data — also inform our policy questions.

2.2. WHERE IS AI DEVELOPED AND DEPLOYED?

Development of AI is most advanced within industry, academia, and the military.[27] Industry in particular is taking the lead on AI, with tech companies hiring away top scientists from universities and leveraging unparalleled access to enormous computational power and voluminous, timely data.[28] This was not always the case: as with many technologies, AI had its origins in academic research catalyzed by considerable military funding.[29] But industry has long held a significant role. The AI Winter gave way to the present AI Spring in part thanks to the continued efforts of researchers who once worked at Xerox Park and Bell Labs. Even today, much of the AI research occurring at firms is happening in research departments structurally insulated, to some degree, from the demands of the company's bottom line. Still, it is worth noting that as few as seven for profit institutions — Google, Facebook, IBM, Amazon, Microsoft, Apple, and Baidu in China —

25 *See* STONE ET AL., *supra* note 7, at 51.

26 *Id.* at 14-15; *see also* NAT'L SCI. AND TECH. COUNCIL, *supra* note 9, at 9-10.

27 There are other private organizations and public labs with considerable acumen in AI, including the Allen Institute for AI and the Stanford Research Institute (hereinafter SRI).

28 *See* Jordan Pearson, *Uber's AI Hub in Pittsburgh Gutted a University Lab — Now It's in Toronto*, VICE MOTHERBOARD (May 9, 2017), https://motherboard.vice.com/en_us/article/3dxkej/ubers-ai-hub-in-pittsburgh-gutted-a-university-lab-now-its-in-toronto (reporting concerns over whether Uber will become a "parasite draining brainpower (and taxpayer-funded research) from public institutions").

29 See Joseph Weizenbaum, Computer Power and Human Reason: From Judgment to Calculation 271-272 (1976) (discussing funding sources for AI research).

https://doi.org/10.6092/issn.2531-6133/8670

seemingly hold AI capabilities that vastly outstrip all other institutions as of this writing.[30]

AI is deployed across a wide variety of devices and settings. How wide depends on whom you ask. Some would characterize spam filters that leverage ML or simple chat bots on social media — programmed to, for instance, reply to posts about climate change by denying its basis in science — as AI.[31] Others would limit the term to highly complex instantiations such as the Defense Advanced Research Project Agency's (hereinafter DARPA) Cognitive Assistant that Learns and Organizes [32] or the guidance software of a fully driverless car. We might also draw a distinction between disembodied AI, which acquires, processes, and outputs information as data, and robotics or other cyber-physical systems, which leverage AI to act physically upon the world. Indeed, there is reason to believe the law will treat these two categories differently.[33]

Regardless, many of the devices and services we access today — from iPhone autocorrect to Google Images — leverage trained pattern recognition systems or complex algorithms that a generous definition of AI might encompass.[34] The discussion that follows does not assume a minimal threshold of AI complexity but focuses instead on what is different about contemporary AI from previous or constituent technologies such as computers and the Internet.

---

30 *Cf.* Vinod Iyengar, *Why AI Consolidation Will Create the Worst Monopoly in U.S. History*, TECHCRUNCH (Aug. 24, 2016), https://techcrunch.com/2016/08/24/why-ai-consolidation-will-create-the-worst-monopoly-in-us-history (explaining how these major technology companies have made a practice of acquiring most every promising AI startup); *see also* QUORA, *What Companies Are Winning the Race for Artificial Intelligence?*, FORBES (Feb. 24, 2017), https://www.forbes.com/sites/quora/2017/02/24/what-companies-are-winning-the-race-for-artificial-intelligence/#2af852e6f5cd. There have been efforts to democratize AI, including the heavily funded but non-profit OpenAI. *See* OPENAI, https://openai.com/about (last visited Oct. 18, 2017).

31 *See* Clay Dillow, *Tired of Repetitive Arguing About Climate Change, Scientist Makes a Bot to Argue for Him*, POPULAR SCI. (Nov. 3, 2010), http://www.popsci.com/science/article/2010-11/twitter-chatbot-trolls-web-tweeting-science-climate-change-deniers.

32 *Cognitive Assistant that Learns and Organizes*, SRI INT'L, http://www.ai.sri.com/project/CALO (last visited Oct. 18, 2017). No relation.

33 *See* Ryan Calo, *Robotics and the Lessons of Cyberlaw*, 103 CALIF. L. REV. 513, 532 (2015) [hereinafter Calo, *Robotics*].

34 *See* Matthew Hutson, *Our Bots, Ourselves*, ATLANTIC, Mar. 2017, at 28, 28-29.

https://doi.org/10.6092/issn.2531-6133/8670

2.3. WHY AI "POLICY"?

That AI lacks a stable, consensus definition or instantiation complicates efforts to develop an appropriate policy infrastructure. We might question the very utility of the word "policy" in describing societal efforts to channel AI in the public interest. There are other terms in circulation. A new initiative anchored by MIT's Media Lab and Harvard University's Berkman Klein Center for Internet and Society, for instance, refers to itself as the "Ethics and Governance of Artificial Intelligence Fund."[35] Perhaps these are better words. Or perhaps it makes no difference, in the end, what labels we use as long as the task is to explore and channel AI's social impacts and our work is nuanced and rigorous.

This Essay uses the term policy deliberately for several reasons. First, there are issues with the alternatives. The study and practice of ethics is of vital importance, of course, and AI presents unique and important ethical questions. Several efforts are underway, within industry, academia, and other organizations, to sort out the ethics of AI.[36] But these efforts likely cannot substitute for policymaking. Ethics as a construct is notoriously malleable and contested: both Kant and Bentham get to say "should."[37] Policy — in the sense of official policy, at least — has a degree of finality once promulgated.[38] Moreover, even assuming moral consensus, ethics lacks a hard enforcement mechanism. A handful of companies dominate the emerging AI industry.[39] They are going to prefer ethical standards over binding rules for the obvious reason that no tangible penalties attach to changing or disregarding ethics should the necessity arise.

---

35 *See Ethics and Governance of Artificial Intelligence*, MASS. INST. OF TECH. SCH. OF ARCHITECTURE & PLANNING, (l Oct. 15, 2017.

36 *See e.g.*, IEEE, ETHICALLY ALIGNED DESIGN: A VISION FOR PRIORITIZING HUMAN WELLBEING WITH ARTIFICIAL INTELLIGENCE AND AUTONOMOUS SYSTEMS 2 (Dec. 13, 2016), . *Id.* at 125.

37 *See* José de Sousa e Brito, *Derecho, Deber y Utilidad: de Bentham a Kant y de Mill a Aristóteles [Right, Duty, and Utility: From Bentham to Kant and from Mill to Aristotle]*, 17 REVISTA IBEROAMERICANA DE ESTUDIOS UTILITARISTAS [IBERO-AMERICAN MAGAZINE OF UTILITARIAN STUDIES] 91, 91-92 (2010).

38 Law has, in H.L.A. Hart's terminology, a "rule of recognition." H.L.A. HART, THE CONCEPT OF LAW 100 (Joseph Raz et al. eds., 3rd ed. 2012).

39 *See* Hutson, *supra* note 34.

https://doi.org/10.6092/issn.2531-6133/8670

Indeed, the unfolding development of a professional ethics of AI, while at one level welcome and even necessary, merits ongoing attention.[40] History is replete with examples of new industries forming ethical codes of conduct, only to have those codes invalidated by the federal government (the Department of Justice or Federal Trade Commission) as a restraint on trade. The National Society of Professional Engineers (hereinafter NSPE) alone has been the subject of litigation across several decades. In the 1970s, the DOJ sued the NSPE for establishing a "canon of ethics" that prohibited certain bidding practices; in the 1990s, the Federal Trade Commision sued the NSPE for restricting advertising practices.[41] The ethical codes of structural engineers have also been the subject of complaints, as have the codes of numerous other industries.[42] Will AI engineers fare differently? This is not to say that companies or groups should avoid ethical principles, only that we should pay attention to the composition and motivation of the authors of such principles, as well as their likely effects on markets and on society.

The term "governance" has its attractions. Like policy, governance is a flexible term that can accommodate many modalities and structures. Perhaps too flexible: it is not entirely clear what is being governed and by whom. Regardless, governance carries its own intellectual baggage — baggage that, like "ethics," is complicated by the industry's dominance of AI development and application. Setting aside the specific associations with "corporate governance,"[43] much contemporary governance literature embeds the claim

---

40 *See* Romain Dillet, *Apple Joins Amazon, Facebook, Google, IBM and Microsoft in AI Initiative*, TECHCRUNCH (Jan. 27, 2017), https://techcrunch.com/2017/01/27/apple-joins-amazon-facebook-google-ibm-and-microsoft-in-ai-initiative. My own interactions with the Partnership on AI, which has a diverse board of industry and civil society, suggests that participants are genuinely interested in channeling AI toward the social good.

41 *See* Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679 (1978); *In re* Nat'l Soc'y of Prof'l Eng'rs, 116 F.T.C. 787 (1993), 1993 WL 13009653.

42 *See In re* Structural Eng'rs Ass'n of N. Cal., 112 F.T.C. 530 (1989), 1989 WL 1126789, at *1 (invalidating code of ethics); *see, e.g.*, *In re* Conn. Chiropractic Ass'n, 114 F.T.C. 708, 712 (1991) (invalidating the ethical code of chiropractors); *In re* Am. Med. Ass'n, 94 F.T.C. 701 (1979), 1979 WL 199033, at *6 (invalidating the ethical guidelines of doctors), amended by *In re* Am. Med. Ass'n, 114 F.T.C. 575 (1991).

43 Brian R. Cheffins, *The History of Corporate Governance*, *in* THE OXFORD HANDBOOK OF CORPORATE GOVERNANCE 46 (Douglas Michael Wright et al. eds., 2013).

https://doi.org/10.6092/issn.2531-6133/8670

that authority will or should devolve to actors other than the state.[44] While it is true that invoking the term governance can help insulate technologies from overt government interference — as in the case of Internet governance through non-governmental bodies such as the Internet Corporation for Assigned Names and Numbers (hereinafter ICANN) and the Internet Engineering Task Force (hereinafter IETF)[45] — the governance model also resists official policy by tacitly devolving responsibility to industry from the state.[46]

Meanwhile, several aspects of policy recommend it. Policy admits of the possibility of new laws, but does not require them. It may not be wise or even feasible to pass general laws about AI at this early stage, whereas it is very likely wise and timely to plan for AI's effects on society — including through the development of expertise, the investigation of AI's current and likely social impacts, and perhaps smaller changes to appropriate doctrines and laws in response to AI's positive and negative affordances.[47] Industry may seek to influence public policy, but it is not its role ultimately to set it. Policy conveys the necessity of exploration and planning, the finality of law, and the primacy of public interest without definitely endorsing or rejecting regulatory intervention. For these reasons, I have consciously chosen it as my frame.

3. KEY QUESTIONS FOR AI POLICY

This Part turns to the main goal of the Essay: a roadmap to the various challenges that AI poses for policymakers. It starts with discrete challenges, in the sense of

44 *See* Roderick A.W. Rhodes, *The New Governance: Governing Without Government*, 44 POL. STUD. 652, 657 (1996); *see also* WENDY BROWN, UNDOING THE DEMOS: NEOLIBERALISM'S STEALTH REVOLUTION 122-123 (2015) (noting that "almost all scholars and definitions converge on the idea that governance" involves "networked, integrated, cooperative, partnered, disseminated, and at least partly self-organized" control).

45 The United States government stood up both ICANN and IETF, but today they run largely interdependent of state control as non-profits.

46 *Supra* note 44 and accompanying text.

47 *See e.g.*, Rebecca Wexler, *Life, Liberty, and Trade Secrets: Intellectual Property in the Criminal Justice System*, 70 STAN. L. REV. (2018) (arguing *inter alia* for a clarification that companies may not invoke trade secret law to avoid scrutiny of their AI or algorithmic systems by criminal defendants).

https://doi.org/10.6092/issn.2531-6133/8670

specific domains where attention is warranted, and then discusses some general questions that tend to cut across domains. For the most part, the Essay avoids getting into detail about specific laws or doctrines that require reexamination and instead emphasize questions of overall strategy and planning.

The primary purpose of this Part is to give newer entrants to the AI policy world — whether from government, industry, media, academia, or otherwise — a general sense of what kinds of questions the community is asking and why. A secondary purpose is to help bring cohesion to this multifaceted and growing field. The inventory hopes to provide a roadmap for individuals and institutions to the various policy questions that arguably require their attention. The Essay tees up questions; it does not purport to answer them.

A limitation of virtually any taxonomic approach is the need to articulate criteria for inclusion — why are some questions on this list and not others?[48] Expert's opinions may vary on the stops they would include in a roadmap of key policy issues, and I welcome critique. There are several places where I draw distinctions or parallels that are not represented elsewhere in the literature, with which others may disagree. Ultimately this represents but one informed scholar's take on a complex and dynamic area of study.

3.1. JUSTICE AND EQUITY

Perhaps the most visible and developed area of AI policy to date involves the capacity of algorithms or trained systems to reflect human values such as fairness, accountability, and transparency ("FAT").[49] This topic is the subject of considerable study, including an established but accelerating literature on

48 *Cf.* Ryan Calo, *The Boundaries of Privacy Harm*, 86 IND. L.J. 1132, 1139-1142 (2011) (critiquing Daniel Solove's taxonomy of privacy). If I have an articulable criterion for inclusion, it is sustained attention by academics and policymakers. Some version of the questions in this Part appear in the social scientific literature, in the White House reports on AI, in the Stanford AI 100 report, in the latest U.S. Robotics Roadmap, in the Senate hearing on AI, in the research wish list of the Partnership on AI, and in the various important public and private workshops such as AI Now, FAT/ML, and We Robot.

49 *See e.g.*, KATE CRAWFORD ET AL., THE AI NOW REPORT: THE SOCIAL AND ECONOMIC IMPLICATIONS OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN THE NEAR TERM 6-8, July 7, 2016; *Thematic Pillars*, PARTNERSHIP ON AI, (l Oct. 14, 2017).

https://doi.org/10.6092/issn.2531-6133/8670

technological due process and at least one annual conference on the design of FAT systems.[50] The topic is also potentially quite broad, encompassing both the prospect of bias in AI-enabled features or products as well as the use of AI in making material decisions regarding financial, health, and even liberty outcomes. In service of teasing out specific policy issues, the Essay separates "applied inequality" from "consequential decision-making" while acknowledging the considerable overlap.

3.1.1. INEQUALITY IN APPLICATION

By inequality in application, I mean to refer to a particular set of problems involving the design and deployment of AI that works well for everyone. The examples here include everything from a camera that cautions against taking a Taiwanese-American blogger's picture because the software believes she is blinking,[51] to an image recognition system that characterizes an African American couple as gorillas,[52] to a translation engine that associates the role of engineer with being male and the role of nurse with being female.[53] These scenarios can be policy relevant in their own right, as when African Americans fail to see opportunities on Facebook due to the platform's (now discontinued) discriminatory allowances,[54] or when Asian Americans pay more for test preparation due to a price discriminatory algorithm.[55] They can also hold downstream policy ramifications, as when a person of Taiwanese descent has

---

50 FAIRNESS, ACCOUNTABILITY, AND TRANSPARENCY IN MACHINE LEARNING, FAT/ML, http://www.fatml.org (last visited Oct. 14, 2017). *See also infra*, note 63 (discussing the term "technological due process").

51 *See* Adam Rose, *Are Face-Detection Cameras Racist?*, TIME (Jan. 22, 2010), http://content.time.com/time/business/article/0,8599,1954643,00.html.

52 *See* Jessica Guynn, *Google Photos Labeled Black People "Gorillas,"* USA TODAY (July 1, 2015), https://www.usatoday.com/story/tech/2015/07/01/google-apologizes-after-photos-identify-black-people-as-gorillas/29567465.

53 Aylin Caliskan et al., Semantics Derived Automatically from Language Corpora Contain Human-Like Biases, 356 Science 183, 183-184 (2017).

54 *See* Julia Angwin & Terry Parris JR., *Facebook Lets Advertisers Exclude Users by Race*, PROPUBLICA (Oct. 28, 2016), https://www.propublica.org/article/facebook-lets-advertisers-exclude-users-by-race.

55 *See also* Julia Angwin & Terry Parris, *The Tiger Mom Tax: Asians Are Nearly Twice as Likely to Get a Higher Price from Princeton Review*, PROPUBLICA (Sept. 1, 2015), https://www.propublica.org/article/asians-nearly-twice-as-likely-to-get-higher-price-from-princeton-review.

https://doi.org/10.6092/issn.2531-6133/8670

trouble renewing a passport,[56] or a young woman in Turkey researching international opportunities in higher education finds only references to nursing.[57]

There are a variety of reasons why AI systems might not work well for certain populations. For example, the designs may be using models trained on data where a particular demographic is underrepresented and hence not well reflected. More white faces in the training set of an image recognition AI means the system performs best for Caucasians.[58] There are also systems that are selectively applied to the marginalized populations. To illustrate, police use "heat maps" that purport to predict areas of future criminal activity to determine where to patrol but in fact lead to disproportionate harassment of African Americans.[59] Yet police do not routinely turn such techniques inward to predict which officers are likely to engage in excessive force.[60] Nor do investment firms initiate transactions on the basis of machine learning that they cannot explain to wealthy, sophisticated investors.[61]

The policy questions here are at least twofold. First, what constitutes best practice in minimizing discriminatory bias and by what mechanism (antidiscrimination laws, consumer protection, industry standards) does society incentivize development and adoption of best practice?[62] And second, how do we ensure that the risks and benefits of AI are evenly distributed across society? Each

---

56 *See* Seline Cheng, *An Algorithm Rejected an Asian Man's Passport Photo for Having "Closed Eyes,"* QUARTZ (Dec. 7, 2016), https://qz.com/857122/an-algorithm-rejected-an-asian-mans-passport-photo-for-having-closed-eyes.

57 *See* Adam Hadhazy , *Biased Bots: Artificial-Intelligence Systems Echo Human Prejudices*, PRINCETON UNIV. (Apr. 18, 2017), https://www.princeton.edu/news/2017/04/18/biased-bots-artificial-intelligence-systems-echo-human-prejudices ("Turkish uses a gender-neutral, third person pronoun, 'o.' Plugged into the online translation service Google Translate, however, the Turkish sentences 'o bir doktor' and 'o bir hemşire' are translated into English as 'he is a doctor' and 'she is a nurse.'"). *See generally* Caliskan et al., *supra* note 53 (discussing gender bias within certain computer systems occupations).

58 *See* Rose, *supra* note 51 (discussing performance and race in the context of camera software).

59 *See* Jessica Saunders et al., *Predictions Put into Practice: A Quasi Experimental Evaluation of Chicago's Predictive Policing Pilot*, 12 J. EXPERIMENTAL CRIMINOLOGY 347, 350-51 (2016).

60 *See* Kate Crawford & Ryan Calo, *There Is a Blind Spot in AI Research*, 538 NATURE 311, 311-312 (2016).

61 *Id.*; *see also* Will Knight, *The Financial World Wants to Open AI's Black Boxes*, MIT TECH. REV. (Apr. 13, 2017), https://www.technologyreview.com/s/604122/the-financial-world-wants-to-open-ais-black-boxes.

62 *See e.g.*, Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671, 730-732 (2016) (discussing the strengths and weaknesses of employing antidiscrimination laws in the context of data mining).

https://doi.org/10.6092/issn.2531-6133/8670

set of questions is already occupying considerable resources and attention, including within the industries that build AI into their products, and yet few would dispute we have a long way to go before resolving them.

3.1.2. CONSEQUENTIAL DECISION-MAKING

Closely related, but distinct in my view, is the question of how to design systems that make or help make consequential decisions about people. The question is distinct from unequal application in general in that consequential decision-making, especially by government, often takes place against a backdrop of procedural rules or other guarantees of process.[63] For example, in the United States, the Constitution guarantees due process and equal protection by the government,[64] and European Union citizens have the right to request that consequential decisions by private firms involve a human (current) as well as a right of explanation for adverse decisions by a machine (pending).[65] Despite these representations, participants in the criminal justice system are already using algorithms to determine whom to police, whom to parole, and how long a defendant should stay in prison.[66]

There are three distinct facets to a thorough exploration of the role of AI in consequential decision-making. The first involves cataloguing the objectives and values that procedures and processes are trying to advance in a particular context. Without a thorough understanding of what it is that laws, norms, and other safeguards are trying to achieve, we cannot assess whether existing systems

---

63 *See generally* Danielle Keats Citron, *Technological Due Process*, 85 WASH. U. L. REV. 1249 (2007-2008) (arguing that AI decision-making jeopardizes constitutional procedural due process guarantees and advocating instead for a new "technological due process").

64 *See* Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 110 (2014); *see also* Barocas & Selbst, *supra* note 62.

65 *See* Bryce Goodman & Seth Flaxman, *European Union Regulations on Algorithmic Decision-Making and a "Right to Explanation"*, 38 AI MAGAZINE, at 1 (2017), https://arxiv.org/pdf/1606.08813.pdf.

66 *See* Saunders et al., *supra* note 59 (discussing heat zones in predictive policing); Angwin et al., *supra* note 2 (discussing the use of algorithmically-generated risk scores in criminal sentencing); *see also* JOSEPH WALKER, *State Parole Boards Use Software to Decide Which Inmates to Release*, WALL STREET JOURNAL (Oct. 11, 2013), https://www.wsj.com/articles/state-parole-boards-use-software-to-decide-which-inmates-to-release-1381542427.

https://doi.org/10.6092/issn.2531-6133/8670

are adequate let alone design new systems that are.[67] This task is further complicated by the tradeoffs and tensions inherent in such safeguards, as when the Federal Rules of Civil Procedure call simultaneously for a "just, speedy, and inexpensive" proceeding[68] or where the Sixth Amendment lays out labor-intensive conditions for a fair criminal trial that also has to occur quickly.[69]

The second facet involves determining which of these objectives and values can and should be imported into the context of machines. Deep learning, as a technique, may be effective in establishing correlation but unable to yield or articulate a causal mechanism.[70] AI here can say what will happen but not why. If so, the outputs of multi-layer neural nets may be inappropriate affiants for warrants, bad witnesses in court, or poor bases for judicial determinations of fact.[71] Notions such as prosecutorial discretion, the rule of lenity,[72] and executive pardon may not admit of mechanization at all. Certain decisions, such as the decision to take an individual off life support, raise fundamental concerns over human dignity and thus perhaps cannot be made even by objectively well-designed machines.[73]

A third facet involves the design and vetting of consequential decision-making systems in practice. There is widespread consensus that such systems

---

67 *See generally* Citron, *supra* note 63 (discussing the goals of technological due process); Crawford & Schultz, *supra* note 64 (discussing due process and Big Data); Joshua A. Kroll et al., *Accountable Algorithms*, 165 U. PA. L. REV. 633 (2017) (arguing that current decision-making processes have not kept up with technology).

68 FED. R. CIV. P. 1. I owe this point to my colleague Elizabeth Porter.

69 U.S. CONST. amend. VI (requiring that a defendant be allowed to be presented with nature and cause of the accusations, to be confronted with the witnesses against him, to compel favorable witnesses, and to have the assistance of counsel, all as part of a speedy and public trial).

70 *See* Jason Millar & Ian Kerr, *Delegation, Relinquishment, and Responsibility: The Prospect of Expert Robots*, *in* ROBOT LAW 102, 126 (Ryan Calo et al. eds., 2015).

71 *Id.*; Michael L. Rich, *Machine Learning, Automated Suspicion Algorithms, and the Fourth Amendment*, 164 U. Pa. L. REV. 871, 877-879 (2016) (discussing emerging technologies' interactions with current Fourth Amendment jurisprudence). *See generally* Andrea Roth, *Machine Testimony*, 126 YALE L.J. 1972 (2017) (discussing machines as witnesses).

72 The rule of lenity requires courts to construe criminal statutes narrowly, even where legislative intent appears to militate toward a broader reading. *E.g.*, McBoyle v. United States, 283 U.S. 25, 26-27 (1931) (declining to extend a stolen vehicle statute to stolen airplanes). For an example of a discussion of the limits of translating laws into machine code, *see* Harry Surden & Mary-Anne Williams, *Technological Opacity, Predictability, and Self-Driving Cars*, 38 CARDOZO L. REV. 121, 162-163 (2016).

73 *See* James H. Moor, *Are There Decisions Computers Should Never Make?*, 1 NATURE & SYSTEM 217, 226 (1979).. This concern is also reflected *infra* in Part II.B concerning the use of force.

https://doi.org/10.6092/issn.2531-6133/8670

should be fair, accountable, and transparent.[74] However, other values — such as efficiency — are less well developed. The overall efficiency of an AI-enabled justice system, as distinct from its fairness or accuracy in the individual case, constitutes an important omission. As the saying goes, "justice delayed is justice denied": we should not aim as a society to hold a perfectly fair, accountable, and transparent process for only a handful of people a year.

Interestingly, the value tensions inherent in processual guarantees seem to find analogs, if imperfect ones, in the machine learning literature around performance tradeoffs.[75] Several researchers have measured how making a system more transparent or less biased can decrease its accuracy overall.[76] More obviously than efficiency, accuracy is an important dimension of fairness: we would not think of rolling a die to determine sentence length as fair, even if it is transparent to participants and unbiased as to demographics. The policy challenge involves how to manage these tradeoffs, either by designing techno-social systems that somehow maximize for all values, or by embracing a particular tradeoff in a way society is prepared to recognize as valid. The end game of designing systems that reflect justice and equity will involve very considerable, interdisciplinary efforts and is likely to prove a defining policy issue of our time.

3.2. USE OF FORCE

A special case of AI-enabled decision-making involves the decision to use force. As alluded to above, there are decisions — particularly involving the deliberate taking of life — that policymakers may decide never to commit exclusively to machines. Such is the gist of many debates regarding the development and deployment of autonomous weapons.[77] International consensus holds that people

74 *Supra* notes 49–50 and accompanying text.

75 *See Jon Kleinberg et al., Inherent Trade-Offs in the Fair Determination of Risk Scores*, 2017 Proc. Innovations Theoretical Computer Sci. 2, available at https://arxiv.org/abs/1609.05807.

76 *Id.* at 1.

77 Note that force is deployed in more contexts than military conflict. We might also ask after the propriety of the domestic use of force by border patrols, police, or even private security guards. For a discussion of these issues, see Elizabeth E. Joh, *Policing Police Robots*, 64 UCLA L. Rev. Discourse 516 (2016).

https://doi.org/10.6092/issn.2531-6133/8670

should never give up "meaningful human control" over a kill decision.[78] Yet debate lingers as to the meaning and scope of meaningful human control. Is monitoring enough? Target selection? And does the prescription extend to defensive systems as well, or only to offensive tactics and weapons? None of these important questions appear settled.[79]

There is also the question of who bears responsibility for the choices of machines. The automation of weapons may seem desirable in some circumstances or even inevitable.[80] It seems unlikely, for example, that the United States military would permit its military rivals to have faster or more flexible response capabilities than its own whatever their control mechanism.[81] Regardless, establishing a consensus around meaningful human control would not obviate all inquiry into responsibility in the event of a mistake or war crime. Some uses of AI presuppose human decision but nevertheless implicate deep questions of policy and ethics — as when the intelligence community leverages algorithms to select targets for remotely operated drone strikes.[82] And there are concerns that soldiers will be placed into the loop for the sole purpose of absorbing liability for wrongdoing, as anthropologist Madeline Clare Elish argues.[83] Thus, policymakers must work toward a framework for responsibility around AI and force that is fair and satisfactory to all stakeholders.

---

78 *See* HEATHER M. ROFF & RICHARD MOYES, MEANINGFUL HUMAN CONTROL, ARTIFICIAL INTELLIGENCE AND AUTONOMOUS WEAPONS, Apr. 16, 2016, *available at* http://www.article36.org/wp-content/uploads/2016/04/MHC-AI-and-AWS-FINAL.pdf.

79 *See, e.g.*, Rebecca Crootof, *A Meaningful Floor for "Meaningful Human Control,"* 30 TEMP. INT'L & COMP. L.J. 53, 54 (2016) ("[T]here is no consensus as to what 'meaningful human control' actually requires.").

80 Kenneth Anderson and Matthew Waxman in particular have made important contributions to the realpolitik of AI weapons. *See, e.g.*, Kenneth Andersn & Matthew Waxman, *Law and Ethics for Autonomous Weapon Systems: Why a Ban Won't Work and How the Laws of War Can*, HOOVER INST. (Apr. 9, 2013), available at http://www.hoover.org/research/law-and-ethics-autonomous-weapon-systems-why-ban-wont-work-and-how-laws-war-can (arguing that automated weapons are both desirable and inevitable).

81 *Id.*

82 *See generally* John Naughton, *Death by Drone Strike, Dished Out by Algorithm*, THE GUARDIAN (Feb. 21, 2016), ("General Michael Hayden, a former director of both the CIA and the NSA, said this: 'We kill people based on metadata.'").

83 Madeleine Claire Elish, *Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction* 1 (Mar. 20, 2016) (Columbia Univ. & Data & Soc'y Inst., We Robot 2016 Working Paper), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2757236; *see also* Madeleine Claire Elish & Tim Hwang, *When Your Self-Driving Car Crashes, You Could Still Be the One Who Gets Sued*, QUARTZ (July 25, 2015), (applying this same reasoning to drivers of automatic cars).

https://doi.org/10.6092/issn.2531-6133/8670

3.3. SAFETY AND CERTIFICATION

As the preceding section demonstrates, AI systems do more than process information and assist officials to make decisions of consequence. Many systems — such as the software that controls an airplane on autopilot or a fully driverless car — exert direct and physical control over objects in the human environment. Others provide sensitive services that, when performed by people, require training and certification. These applications raise additional questions concerning the standards to which AI systems are held and the procedures and techniques available to ensure those standards are being met.[84]

3.3.1. SETTING AND VALIDATING SAFETY THRESHOLDS

Robots and other cyber-physical systems have to be safe. The question is how safe, and how do we know. In a wide variety of contexts, from commercial aviation to food safety, regulatory agencies set specific safety standards and lay out requirements for how those standards must be met. Such requirements do not exist for many robots.

Members of Congress and others have argued that we should embrace, for instance, driverless cars, to the extent that robots are or become safer drivers than humans.[85] However, "safer than humans" seems like an inadequate standard by which to vet any given autonomous system. Must the system be safer than humans unaided or humans assisted by cutting-edge safety features? Must the system be safer than humans overall or across all driving conditions? And just *how much* safer must driverless cars be than people before we tolerate or incentivize them? These are ultimately difficult questions not of technology but of policy.[86]

---

[84] *See* Henrik I. Christensen & al., FROM INTERNET TO ROBOTICS: A ROADMAP FOR US ROBOTICS 105-109, Nov. 7, 2016, http://jacobsschool.ucsd.edu/uploads/docs/2016/roadmap3-final-2b.pdf; *see also* STONE ET AL., *supra* note 7, at 42.

[85] *See, e.g.*, *Self-Driving Vehicle Legislation: Hearing Before the Subcomm. on Digital Commerce & Consumer Prot. of the H. Comm. on Energy & Commerce*, 115th Cong. (2017) (providing the opening statement of Rep. Greg Walden, Chairman, Subcomm. on Digital Commerce and Consumer Protection).

[86] *See generally* GUIDO CALABRESI, THE COSTS OF ACCIDENTS: A LEGAL AND ECONOMIC ANALYSIS (1970) (discussing different policies of adjudicating accident law).

https://doi.org/10.6092/issn.2531-6133/8670

Even assuming policymakers set satisfactory safety thresholds for driverless cars, drone delivery, and other instantiations of AI, we need to determine a proper and acceptable means of verifying that these standards are met. This process has an institutional or "who" component, as in, who does the testing (e.g., government testing, third-party independent certification, and self-certification by industry). It also has a technical or "how" component, as in, what are the testing methods (e.g., unit testing, fault-injection, virtualization, and supervision).[87] Local and international standards can be a starting point, but considerable work remains — especially as new potential applications and settings arise. For example, we might resolve safety thresholds for drone delivery or warehouse retrieval only to revisit the question anew for sidewalk delivery and fast food preparation.

There are further complications still. Some systems, such as high speed trading algorithms that can destabilize the stock market or cognitive radio systems that can interfere with emergency communications, may hold the potential, alone or in combination, to cause serious indirect harm.[88] Others may engage in harmful acts such as disinformation that simultaneously implicate free speech concerns.[89] Policymakers must determine what kinds of non-physical or indirect harms rise to the level that regulatory standards are required. Courts have a role in setting safety policy in the United States though the imposition of liability. It turns out that AI — especially AI that displays emergent properties — may pose challenges for civil liability.[90] Courts or regulators must address this misalignment. And markets also have a role, for instance, through the availability and conditions of insurance.[91]

---

87 *Cf.* Bryant Walker Smith, *How Governments Can Promote Automated Driving*, 47 N.M. L. REV. 99, 101 (2017) (discussing different avenues through which government can promote automated driving and prepare community conditions to facilitate seamless integration of driverless cars once they become road-worthy).

88 *See* Ryan Calo THE CASE FOR A FEDERAL ROBOTICS COMMISSION 9-10 (2014), https://www.brookings.edu/research/the-case-for-a-federal-robotics-commission/ [hereinafter CALO, COMMISSION].

89 *See e.g.*, Bence Kollanyi et al. BENCE KOLLANYI ET AL., *Bots and Automation over Twitter during the Second U.S Presidential Debate* (Oct. 19, 2016), http://comprop.oii.ox.ac.uk/wpcontent/uploads/sites/89/2016/10/Data-Memo-Second-Presidential-Debate.pdf.

90 *See* Calo, *Robotics*, *supra* note 33, at 538-45.

91 For an overview, see Andrea Bertolini et al., *On Robots and Insurance*, 8 INT'L J. SOC. ROBOTICS 381,

https://doi.org/10.6092/issn.2531-6133/8670

3.3.2. CERTIFICATION

A closely related policy question arises where AI performs a task that, when done by a human, requires evidence of specialized skill or training.[92] In some contexts, society has seemed comfortable thus far dispensing with the formal requirement of certification when technology can be shown to be capable through supervised use. This is true of the autopilot modes of airplanes, which do not have to attend flight school. The question is open with respect to vehicles.[93] But what of technology under development today, such as autonomous surgical robots, the very value of which turns on bringing skills into an environment where no one has them? And how do we think about systems that purport to dispense legal, health, or financial advice, which requires adherence to complex fiduciary and other duties pegged to human judgment? Surgeons and lawyers must complete medical or law school and pass boards or bars. This approach may or may not serve an environment rich in AI, a dynamic that is already unfolding as the Food and Drug Administration works to classify downloadable mobile apps as medical devices[94] and other apps to dispute parking tickets.[95]

3.3.3. CYBERSECURITY

Finally, it is becoming increasingly clear that AI complicates an already intractable cybersecurity landscape.[96] First, as alluded to above, AI increasingly acts directly and even physically on the World.[97] When a malicious party gains

381 (2016) (discussing the need for adaptations in the insurance industry to respond to robotics).

92 CHRISTENSEN ET AL., *supra* note 84, at 105.

93 *See* MARK HARRIS, *Will You Need a New License to Operate a Self-Driving Car?*, IEEE SPECTRUM (Mar. 2, 2015), (discussing the current unsettled state of licensing schemes for "passengers" of driverless cars).

94 *See* MEGAN MOLTENI, *Wellness Apps Evade the FDA, Only to Land in Court*, WIRED (Apr. 3, 2017).

95 *See* AREZOU REZVANI, *'Robot Lawyer' Makes the Case Against Parking Tickets*, NPR (Jan. 16, 2017).

96 *See generally* GREG ALLEN & TANIEL CHAN, ARTIFICIAL INTELLIGENCE AND NATIONAL SECURITY (2017) (discussing ways of advancing policy on AI and national security).

97 *See supra* Part II.B.

https://doi.org/10.6092/issn.2531-6133/8670

access to a cyber-physical system, suddenly bones instead of bits are on the line.[98] Second, ML and other AI techniques have the potential to alter both the offensive and defensive capabilities around cybersecurity, as dramatized by a recent competition held by DARPA where AI agents attacked and defended a network autonomously.[99] AI itself creates a new attack surface in the sense that ML and other techniques can be coopted purposefully to trick the system — an area known as adversarial machine learning. New threat models, standards, and techniques must be developed to address the new challenges of securing information and physical infrastructures.

3.4. PRIVACY AND POWER

Over the past decade, the discourse around privacy has shifted perceptibly.[100] What started out as a conversation about individual control over personal information has evolved into a conversation around the power of information more generally (i.e., the control institutions have over consumers and citizens by virtue of possessing so much information about them).[101] The acceleration of AI , which is intimately tied to the availability of data, will play a significant role in this evolving conversation in at least two ways: (1) the problem of pattern recognition and (2) the problem of data parity. Note that unlike some of the policy questions discussed above, which envision the consequential deployment of imperfect AI, the privacy questions that follow assume AI that is performing its assigned tasks only too well.

---

98 *See* Ryan Calo, *Open Robotics*, 70 MD. L. REV. 571, 593-601 (2011) (discussing how robots have the ability to cause physical damage and injury).

99 *See Cyber Grand Challenge*, DEF CON 24, https://www.defcon.org/html/defcon-24/dc-24-cgc.html (last visited Sept. 18, 2017); *see also* DARPA, *"Mayhem" Declared Preliminary Winner of Historic Cyber Grand Challenge*, DEF. ADVANCED RES. PROJECTS AGENCY (Aug. 4, 2016), https://www.darpa.mil/news-events/2016-08-04.

100 The flagship privacy law workshop — Privacy Law Scholars Conference — recently celebrated its tenth anniversary, although of course privacy discourse goes back much further.

101 *See, e.g.*, Neil M. Richards, *The Dangers of Surveillance*, 126 HARV. L. REV. 1934, 1952-58 (2013) (providing examples of how institutions have used surveillance to blackmail, persuade, and sort people into categories).

https://doi.org/10.6092/issn.2531-6133/8670

3.4.1. THE PROBLEM OF PATTERN RECOGNITION

The capacity of AI to recognize patterns people cannot themselves detect threatens to eviscerate the already unstable boundary between what is public and what is private.[102] AI is increasingly able to derive the intimate from the available. This means that freely shared information of apparent innocence — where you ate lunch, for example, or what you bought at the grocery store — can lead to insights of a deeply sensitive nature. With enough data about you and the population at large, firms, governments, and other institutions with access to AI will one day make guesses about you that you cannot imagine —what you like, whom you love, what you have done.[103]

Several serious policy challenges follow. The first set of challenges involves the acceleration of an existing trend around information extraction. Consumers will have next to no ability to appreciate the consequences of sharing information. This is a well-understood problem in privacy scholarship.[104] The community has addressed these challenges to privacy management under several labels, from databases to big data.[105] In that the *entire purpose* of AI is to spot patterns people cannot, however, the issue is rapidly coming to a head. Perhaps the mainstreaming of AI technology will increase the pressure on policymakers to step in and protect consumers. Perhaps not. Researchers are, at any rate, already exploring various alternatives to the status quo: fighting fire with fire by putting AI in the hands of consumers, for example, or abandoning notice and choice altogether in favor of rules and standards.[106] Whatever path we take should bear in

---

102 *Cf.* Margot E. Kaminski et al., *Averting Robot Eyes*, 76 MD. L. REV. 983 (2017) (explaining the sensory capabilities of robots with limited AI).

103 *See e.g.*, KASHMIR HILL, *How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did*, FORBES (Feb. 16, 2012).
Tal Z. Zarsky has been a particularly close student of this phenomenon. *See generally* Tal Z. Zarsky, *Transparent Predictions*, 2013 U. ILL. L. REV. 1503 (2013) (describing the types of trends and behaviors governments strive to predict with collected data).

104 *See* Daniel J. Solove, *Privacy Self-Management and the Consent Dilemma*, 126 HARV. L. REV. 1880, 1889-93 (2013).

105 *See* Daniel J. Solove, *Privacy and Power: Computer Databases and Metaphors for Information Privacy*, 53 STAN. L. REV. 1393, 1424-28 (2001); Tal Z. Zarsky, *Incompatible: The GDPR in the Age of Big Data*, 47 SETON HALL L. REV. 995, 1003-09 (2017).

106 For example, Decide.com was an artificially intelligent tool to help consumers decide when to purchase products and services. Decide.com was eventually acquired by eBay. *See generally* JOHN COOK, *eBay Acquires Decide.com, Shopping Research Site Will Shut Down Sept. 30*, GEEKWIRE (Sept. 6, 2013).

https://doi.org/10.6092/issn.2531-6133/8670

mind the many ways powerful firms can subvert and end run consumer interventions and the unlikelihood that consumers will keep up in a technological arms race.

Consumer privacy is under siege. Citizens, meanwhile, will have next to no ability to resist or reform surveillance.[107] Two doctrines in particular interact poorly with the new affordances of AI, both related to the reasonable expectation of privacy standard embedded in American constitutional law. Firstly, the interpretation of the Fourth Amendment by the courts that citizens enjoy no reasonable expectation of privacy in public or from a public vantage does not seem long for this world.[108] If everyone in public can be identified through facial recognition, and if the "public" habits of individuals or groups permit AI to derive private facts, then citizens will have little choice but to convey information to a government bent on public surveillance. Secondly, and related, the interpretation by the courts that individuals have no reasonable expectation of privacy in (non-content) information they convey to a third party, such as the telephone company, will continue to come under strain.[109]

Here is an area where grappling with legal doctrine seems inevitable. Courts are policymakers of a kind and the judiciary is already responding to these new realities by requiring warrants or probable cause in contexts involving public movements or third-party information. For example, in *United States v. Jones*, the Supreme Court required a warrant for officers to affix a GPS to a defendant's vehicle for the purpose of continuous monitoring. Five Justices in *Jones* articulated a concern over law enforcement's ability to derive intimate information from public travel over time.[110] There is a case before the Court at the time of writing

---

107 *See generally* Ryan Calo, *Can Americans Resist Surveillance?*, 83 U. CHI. L. REV. 23 (2016) (analyzing the different methods American citizens can take to reform government surveillance and the associated challenges).

108 *See* Joel Reidenberg, *Privacy in Public*, 69 U. MIAMI L. REV. 141, 143-47 (2014).

109 Courts and statutes tend to recognize that the content of a message such as an email deserves greater protection than the non-content that accompanies the message, that is, where it is going, whether it is encrypted, whether it contains attachments, and so on. *Cf.* Riley v. California, 134 S. Ct. 2473 (2014) (invalidating the warrantless search and seizure of a mobile phone incident to arrest).

110 *See* United States v. Jones, 565 U.S. 400, 415-17, 428-31 (2012).

https://doi.org/10.6092/issn.2531-6133/8670

concerning the ability of police to demand historic location data about citizens from their mobile phone provider.[111]

On the other hand, in the dog-sniffing case *Florida v. Jardines*, the Court also reaffirmed the principle that individuals have no reasonable expectation of privacy in contraband such as illegal drugs.[112] Thus, in theory, even if the courts resolve to recognize a reasonable expectation of privacy in public and in information conveyed to a third party, courts might still permit the government to leverage AI to search exclusively for illegal activity. Indeed, some argue that AI is not a search at all given that no human need to access the data unless or until the AI identifies something unlawful.[113] Even discounting the likely false positives, a reasonable question for law and policy is whether we want to live in a society with perfect enforcement.[114]

The second set of policy challenges involves not what information states and firms collect, but the way highly granular information gets deployed. Again, the privacy conversation has evolved to focus not on the capacity of the individual to protect their data, but on the power over an individual or group that comes from knowing so much about them. For example, firms can manipulate other market participants through a fine-tuned understanding of the individual and collective cognitive limitations of consumers.[115] Bots can gain our confidences to extract personal information.[116] Politicians and political operatives can micro-target messages, including misleading ones, in an effort to sway aggregate public attention.[117] All of these capacities are dramatically enhanced by the ability of AI

111 Carpenter v. United States, 819 F.3d 880, 886 (6th Cir. 2016), *cert. granted*, 137 S. Ct. 2211 (2017).
112 *See* Florida v. Jardines, 569 U.S. 1, 8-9 (2013).
113 *See, e.g.*, Orin S. Kerr, *Searches and Seizures in a Digital World*, 119 HARV. L. REV. 531, 551 (2005) (arguing that a search does not occur until information is presented on a screen for a human to see, as opposed to simply being processed by the computer or transferred to a hard drive).
114 *See* Christina M. Mulligan, *Perfect Enforcement of Law: When to Limit and When to Use Technology*, 14 RICH. J. L. & TECH., no. 4, 2008, at 78-102.
115 *See* Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, 1001-02 (2014) [hereinafter Calo, *Digital Market Manipulation*].
116 *See* Ian R. Kerr, *Bots, Babes, and the Californication of Commerce*, 1 U. OTTAWA L. & TECH. J. 284, 312–17 (2004) (presciently describing the role of chat bots in online commerce).
117 Ira S. Rubenstein, *Voter Privacy in the Age of Big Data*, 2014(5) WIS. L. REV. 861, 866–67 (2014).

https://doi.org/10.6092/issn.2531-6133/8670

to detect patterns in a complex world. Thus, a distinct area of study is the best law and policy infrastructure for a world of such exquisite and hyper-targeted control.

3.4.2. THE DATA PARITY PROBLEM

The data-intensive nature of machine learning, the technique yielding the most powerful applications of AI at the moment, has ramifications that are distinct from the pattern recognition problem. Simply put, the greater access to data a firm has, the better positioned it is to solve difficult problems with ML. As Amanda Levendowski explores, ML practitioners have essentially three options in securing sufficient data.[118] They can build the databases themselves, they can buy the data, or they can use "low friction" alternatives such as content in the public domain.[119] The last option carries perils for bias discussed above. The first two are avenues largely available to big firms or institutions such as Facebook or the military.

The reality that a handful of large entities (literally, fewer than a human has fingers) possess orders of magnitude more data than anyone else leads to a policy question around data parity. Smaller firms will have trouble entering and competing in the marketplace.[120] Industry research labs will come to outstrip public labs or universities, to the extent they do not already. Accordingly, cutting-edge AI practitioners will face even greater incentives to enter the private sphere, and ML applications will bend systematically toward the goals of profit-driven companies and not society at large. Companies will possess not only more and better information but a monopoly on its serious analysis.

Why label the question of asymmetric access to data a "privacy" question? I do so because privacy ultimately governs the set of responsible policy outcomes that arise in response to the data parity problem. Firms will, and already do, invoke consumer privacy as a rationale for not permitting access to their data.

---

118 *See* Amanda Levendowski, *How Copyright Law Can Fix Artificial Intelligence's Implicit Bias Problem*, 93 WASH. L. REV. (forthcoming 2018) (manuscript at 23, 27-32), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3024938.

119 *Id.*

120 *Id.* at 26 (attributing this in part to the fact that larger firms have access to much more data).

https://doi.org/10.6092/issn.2531-6133/8670

This is partly why the AI policy community must maintain a healthy dose of skepticism toward "ethical codes of conduct" developed by industry.[121] Such codes are likely to contain a principle of privacy that, unless carefully crafted, operates to help shield the company from an obligation to share training data with other stakeholders.

A related question involves access to citizen data held by the government. Governments possess an immense amount of information; data that citizens are obligated to provide to the state forms the backbone of the contemporary data broker industry.[122] Firms big and small, as well as university and other researchers, may be able to access government data on comparable terms. But there are policy challenges here as well. Governments can and sometimes should place limits and conditions around sharing data.[123] In the United States at least, this means carefully crafting policies to avoid constitutional scrutiny as infringements on speech. The government cannot pick and choose with impunity the sorts of uses to which private actors place data released by the state.[124] At the same time, governments may be able to put sensible restrictions in place before compelling citizens to release private data.

To be clear: I do not think society should run roughshod over privacy in its pursuit of data parity. Indeed, I present this issue as a key policy challenge precisely because I believe we need mechanisms by which to achieve a greater measure of data parity without sacrificing personal or collective privacy. Some within academia and industry are already working on methods — including differential privacy and federated training — that seek to minimize the privacy impact of granting broader access to data-intensive systems.[125] The hard policy

---

121 *See supra* Part I.

122 *See* Jan Whittington et al., *Push, Pull, and Spill: A Transdisciplinary Case Study in Municipal Open Government*, 30 BERKELEY TECH. L.J. 1899, 1904 (2015).

123 *Cf.* Julia Powles & Hal Hodson, *Google DeepMind and Healthcare in An Age of Algorithms*, HEALTH TECH. (Mar. 16, 2017), https://link.springer.com/article/10.1007%2Fs12553-017-0179-1 (outlining an incident where Google Deepmind accessed sensitive patient information, and what the British government could do to minimize that access).

124 *See* Sorrell v. IMS Health Inc., 564 U.S. 552, 579-80 (2011).

125 *See* James Vincent, *Google Is Testing a New Way of Training its AI Algorithms Directly on Your Phone*, VERGE (Apr. 10, 2017), https://www.theverge.com/2017/4/10/15241492/google-ai-user-data-federated-learning; *see also* Cynthia Dwork, *Differential Privacy*, *in* AUTOMATA, LANGUAGES AND PROGRAMMING 1, 2-3 (Michele Bugliesi et al. eds., 2007),

https://doi.org/10.6092/issn.2531-6133/8670

question is how to incentivize technical, legal, social, and other interventions that safeguard privacy even as AI is democratized.

3.5. TAXATION AND DISPLACEMENT OF LABOR

A common concern, especially in public discourse, is that AI will displace jobs by mastering tasks currently performed by people.[126] The classic example is the truck driver: many have observed that self-driving vehicles could obviate, or at least radically transform, this very common role. Machines have been replacing people since the Industrial Revolution (which posed its own challenges for society). The difference, many suppose, is twofold: first, the process of automation will be much faster, and second, very few sectors will remain untouched by AI's contemporary and anticipated capabilities.[127] This would widen the populations that could feel AI's impact and limit the efficacy of temporary unemployment benefits or retraining.

In its exploration of AI's impact on America, the Obama White House specifically inquired into the impact of AI on the job force and issued a report recommending a thicker social safety net to manage the upcoming disruption.[128] Some predict that new jobs will arise even as old ones fall away, or that AI will often improve the day to day of workers by permitting them to focus on more rewarding tasks involving judgment and creativity with which AI struggles.[129] Others explore the eventual need for a universal basic income, presumably underwritten by gains in productivity for automation, so that even those displaced entirely by AI have access to resources.[130] Still others wisely call for more

https://link.springer.com/content/pdf/10.1007%2F11787006.pdf [https://doi.org/10.1007/11787006_1].

126 *See, e.g.*, FORD, *supra* note 3 ("[M]achines themselves are turning into workers . . . .").

127 *See* ERIK BRYNJOLFSSON & ANDREW MCAFEE, THE SECOND MACHINE AGE: WORK, PROGRESS, AND PROSPERITY IN A TIME OF BRILLIANT TECHNOLOGIES 126–28 (2014).

128 *See* EXEC. OFFICE OF THE PRESIDENT, ARTIFICIAL INTELLIGENCE, AUTOMATION, AND THE ECONOMY 35-42 (2016), https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/Artificial-Intelligence-Automation-Economy.PDF.

129 *See* BRYNJOLFSSON & MCAFEE, *supra* note 127, at 134-38.

130 Queena Kim, *As Our Jobs Are Automated, Some Say We'll Need a Guaranteed Basic Income*, NPR WEEKEND EDITION (Sept. 24, 2016), http://www.npr.org/2016/09/24/495186758/as-our-jobs-are-automated-some-say-well-need-a-guaranteed-basic-income.

https://doi.org/10.6092/issn.2531-6133/8670

and better information specific to automation so as to be able to better predict and scope the effects of AI.[131]

In addition to assessing impact and addressing displacement, policymakers will have to think through the effects of AI on the public fisc. Taxation is a highly complex policy domain that touches upon virtually all aspects of society; AI is no exception. Robots do not pay taxes, as the IRS once remarked in letter.[132] Bill Gates, Jr. thinks they should.[133] Others warn that a tax on automation amounts to a tax on innovation and progress.[134] Ultimately, federal and state policymakers will have to figure out how to keep the lights on in the absence of, for instance, the bulk of today's income taxes.

3.6. CROSS-CUTTING QUESTIONS (SELECTED)

The preceding list of questions is scarcely exhaustive as to consequences of AI for law and policy. Notably missing is any systemic review of the ways AI challenges existing legal doctrines. For example, that AI is capable of generating spontaneous speech or content raises doctrinal questions around the limits of the First Amendment as well as the contours of intellectual property.[135] Below, this Essay discusses the prospect that AI will wake up and kill us, which, if true, would seem to render every other policy context moot.[136] But the preceding inventory does cover most of the common big picture policy questions that tend to dominant serious discourse around AI.

---

131 I am thinking particularly of the ongoing work of Robert Seamans at NYU Stern. *E.g.*, Robert Seamans, *We Won't Even Know If a Robot Takes Your Job*, FORBES (Jan. 11, 2017), https://www.forbes.com/sites/washingtonbytes/2017/01/11/we-wont-even-know-if-a-robot-takes-your-job/#36c2a0894bc5.

132 *Treasury Responds to Suggestion that Robots Pay Income Tax*, 25 TAX NOTES 20 (1984) ("[I]nanimate objects are not required to file income tax returns.").

133 *See* Kevin J. Delaney, *The Robot that Takes Your Job Should Pay Taxes, Says Bill Gates*, QUARTZ (Feb. 17, 2017), https://qz.com/911968/bill-gates-the-robot-that-takes-your-job-'should-pay-taxes.

134 Steve Cousins, *Is a "Robot Tax" Really an "Innovation Penalty"?*, TECHCRUNCH (Apr. 22, 2017), https://techcrunch.com/2017/04/22/save-the-robots-from-taxes.

135 RONALD COLLINS & DAVID SKOVER, ROBOTICA: SPEECH RIGHTS AND ARTIFICIAL INTELLIGENCE (2018); *see* Annemarie Bridy, *Coding Creativity: Copyright and the Artificially Intelligent Author*, 5 STAN. TECH. L. REV. 5, 21–27 (2012); James Grimmelmann, *Copyright for Literate Robots*, 101 IOWA L. REV. 657, 670 (2016).

136 *Infra* Part III.

https://doi.org/10.6092/issn.2531-6133/8670

In addition to these specific policy contexts such as privacy, labor, or the use of force, recurrent issues arise that cut across domains. I have selected a few here that deserve greater attention: determining the best institutional configuration for governing AI, investing collective resources in AI that benefit individuals and society, addressing hurdles to AI accountability, and addressing our tendency to anthropomorphize technologies such as AI. I will discuss each of these systemic questions briefly in turn.

3.6.1. INSTITUTIONAL CONFIGURATION AND EXPERTISE

The prospect that AI presents individual or systemic risk, while simultaneously promising enormous potential benefits to people and society if responsibly deployed, presents policymakers with an acute challenge around the best institutional configuration for channeling AI. Today AI policy is done, if at all, by piecemeal approach; federal agencies, states, cities, and other government units tackle issues that most relate to them in isolation. There are advantages to this approach similar to the advantages of experimentation inherent in federalism — the approach is sensitive to differences across contexts and preserves room for experimentation.[137] But some see the piecemeal approach as problematic, calling, for instance, for a kind of FDA for algorithms to vet every system with a serious potential to cause harm.[138]

AI prefigures into a common, but I think misguided, observation about the relationship between law and technology. The public sees law as too slow to catch up to technologic innovation. Sometimes it is true that particular laws or regulations become long outdated as technology moves beyond where it was when the law was passed. For example, the Electronic Communications Privacy Act ("ECPA"), passed in 1986, interacts poorly with a post Internet environment in part because of ECPA's assumptions about how electronic communications would

137 New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (articulating the classic concept that states serve as laboratories of democracy).
138 *E.g.*, Andrew Tutt, *An FDA for Algorithms*, 69 ADMIN. L. REV. 83, 91, 104-06 (2017).

https://doi.org/10.6092/issn.2531-6133/8670

work.[139] But this is hardly inevitable, and often political. The Federal Trade Commission has continued in its mission of protecting markets and consumers unabated, in part because it enforces a standard — that of unfair and deceptive practice — that is largely neutral as to technology.[140] In other contexts, agencies have passed new rules or interpreted rules differently to address new techniques and practices.

The better-grounded observation is that government lacks the requisite expertise to manage society in such a deeply technically-mediated world.[141] Government bodies are slow to hire up and face steep competition from industry. When the State does not have its own experts, it must either rely on the self-interested word of private firms (or their proxies) or experience a paralysis of decision and action that ill-serves innovation.[142] Thus, one overarching policy challenge is how best to introduce expertise about AI and robotics into all branches and levels of government so they can make better decisions with greater confidence.

The solution could involve new advisory bodies, such as an official Federal Advisory Committee on Artificial Intelligence with an existing department or even a standalone Federal Robotics Commission.[143] Or it could involve resuscitating the Office of Technology Assessment, building out the Congressional Research Service, or growing the Office of Science and Technology Policy. Yet another approach involves each branch hiring its own technical staff at every level. The technical knowledge and affordances of the government — from the ability to test claims in a laboratory to a working understanding of AI in lawmakers and the judiciary — will ultimately affect the government's capacity to generate wise AI policy.

---

139 *See* Orin S. Kerr, *The Next Generation Communications Privacy Act*, 162 U. PA. L. REV. 373, 375, 390 (2014).

140 *See* Woodrow Hartzog, *Unfair and Deceptive Robots*, 74 MD. L. REV. 785 (2015).

141 *See* CALO, COMMISSION, *supra* note 88, at 4.

142 *Id.* at 2, 6-10 (listing examples of scenarios where a state or federal government had difficulty with new technologies when it lacked expertise).

143 *Id.* at 3; Tom Kranzit, *Updated: Washington's Sen. Cantwell Prepping Bill Calling for AI Committee*, GEEKWIRE (July 10, 2017), https://www.geekwire.com/2017/washingtons-sen-cantwell-reportedly-prepping-bill-calling-ai-committee.

https://doi.org/10.6092/issn.2531-6133/8670

3.6.2. INVESTMENT AND PROCUREMENT

The government possesses a wide variety of means by which to channel AI in the public good. As recognized by the Obama White House, which published a separate report on the topic, one way to shape AI is by investing in it.[144] Investment opportunities include not only basic AI research, which advance the state of computer science and help ensure the United States remains globally competitive, but also support of social scientific research into AI's impacts on society. Policymakers can be strategic about where funds are committed and emphasize, for example, projects with an interdisciplinary research agenda and a vision for the public good.

In addition, and sometimes less well-recognized, the government can influence policy through what it decides to purchase.[145] States are capable of exerting considerable market pressures. Thus, policymakers at all levels ought to be thinking about the qualities and characteristics of the AI-enabled products government will purchase and the companies that create them. Policymakers can also use contract to help ensure best practice around privacy, security, and other values. This can in turn move the entire market toward more responsible practice and benefit society overall.

3.6.3. REMOVING HURDLES TO ACCOUNTABILITY

Many AI systems in use or development today are proprietary, and owners of AI systems have inadequate incentives to open them up to scrutiny. In many contexts, outside analysis is necessary for accountability. For example, in the context of justice and equity, defendants may seek to challenge adverse risk

144 NETWORKING & INFO. TECH. RES. & DEV. SUBCOMM., NAT'L SCI. & TECH. COUNCIL, THE NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH AND DEVELOPMENT STRATEGIC PLAN 15-22 (Oct. 2016), https://obamawhitehouse.archives.gov/sites/default/files/whitehouse_files/microsites/ostp/NSTC/national_ai_rd_strategic_plan.pdf.

145 *See, e.g.*, Smith, *supra* note 87, at 118-19 (discussing procurement in connection with driverless cars); Whittington et al., *supra* note 122, at 1908-09 (discussing procurement in connection with open municipal data).

https://doi.org/10.6092/issn.2531-6133/8670

scores.[146] In the context of safety and certification, third parties seek to verify claims of safety or to evidence a lack of compliance. Several reports, briefs, and research papers have called upon policymakers to remove actual or perceived barriers to accountability, including: (1) trade secret law;[147] (2) the Computer Fraud and Abuse Act;[148] and (3) the anti-circumvention provision of the Digital Millennium Copyright Act.[149] This has led a number of experts to recommend the formal policy step of planning to remove such barriers in order to foster greater accountability for AI.

3.6.4. MENTAL MODELS OF AI

The next and final Part is devoted to a discussion of whether AI is likely to end humanity, itself partly a reflection of the special set of fears that tend to accompany anthropomorphic technology such as AI.[150] Policymakers arguably owe it to their constituents to hold a clear and accurate mental model of AI themselves and may have a role in educating citizens about the technology and its potential effects. Here they face an uphill battle, at least in the United States, due to decades of books, films, television shows, and even plays that depict AI as a threatening substitute for people.[151] That the task is difficult, however, does not discharge policymakers from their responsibilities.

---

146 *See, e.g.*, Loomis v. State, 881 N.W.2d 749, 759 (Wis. 2016) (explaining that although a defendant may not challenge the algorithms themselves, he or she may still review and challenge the resulting scores).

147 *E.g.*, Rebecca Wexler REBECCA WEXLER, *When a Computer Program Keeps You in Jail*, N.Y. TIMES (June 13, 2017), https://www.nytimes.com/2017/06/13/opinion/how-computers-are-harming-criminal-justice.html.

148 *E.g.*, CRAWFORD ET AL., *supra* note 49; STONE ET AL., *supra* note 7.

149 *Id.*

150 *Infra* Part III.

151 There are examples dating back to the origin of the word robot. *See* Danny *78 Years Ago Today, BBC Aired the First Science Fiction Television Program*, SMITHSONIAN (Feb. 11, 2016), https://www.smithsonianmag.com/smart-news/78-years-ago-today-bbc-aired-first-science-fiction-television-program-180958126. There are also examples from the heyday of German silent film, METROPOLIS (Universum Film 1927), and contemporary American cinema, EX MACHINA (Universal Pictures International 2014). But the robot-as-villain narrative is not ubiquitous. Adults in Japan, for instance, grew up reading Astro Boy, a Manga or comic in which the robot is a hero. *Astro Boy [Mighty Atom] (Manga)*, TEZUKA IN ENGLISH, http://tezukainenglish.com/wp/?page_id=138 (last visited Oct. 18, 2017).

https://doi.org/10.6092/issn.2531-6133/8670

At a more granular level, the fact that instantiations of AI — such as Alexa (Echo), Siri, and Cortana, not to mention countless chat bots on a variety of social media platforms — take the form of social agents presents special challenges for policy driven by our hardwired responses to social technology as though it were human.[152] These challenges include the potential to influence children and other vulnerable groups in commercial settings and the prospect of disrupting civic or political discourse[153] or the further diminution of possibilities for solitude through a constant sense of being in the presence of another.[154] Others are concerned about the prospect of intimacy, in all its forms, between people and machines.[155] Whatever the particulars, that even the simplest AI can trigger social and emotional responses in people requires much more study and thought.

4. ON THE AI APOCALYPSE

Some set of readers may feel I have left out a key question: does AI present an existential threat to humanity? If so, perhaps all other discussions constitute the policy equivalent of rearranging deck chairs on the Titanic. Why fix the human world if AI is going to end it?

My own view is that AI does not present an existential threat to humanity, at least not in anything like the foreseeable future. Further, devoting disproportionate attention and resources to the AI apocalypse has the potential to distract policymakers from addressing AI's more immediate harms and challenges, and could discourage investment in research on AI's present social

---

152 *See generally* Kate Darling, *"Who's Johnny?" Anthropomorphic Framing in Human-Robot Interaction, Integration, and Policy*, *in* ROBOT ETHICS 2.0 FROM AUTONOMOUS CARS TO ARTIFICIAL INTELLIGENCE (Patrick Lin et al. eds., 2017).

153 *See* Calo, *Digital Market Manipulation*, *supra* note 115; Kerr, *supra* note 116; Mulligan, *supra* note 114, at P101.

154 *See* Ryan Calo, *People Can Be So Fake: A New Dimension to Privacy and Technology Scholarship*, 114 PENN ST. L. REV. 809, 843-46 (2010).

155 *E.g.*, Noel Sharkey et al., OUR SEXUAL FUTURE WITH ROBOTS: A FOUNDATION FOR RESPONSIBLE ROBOTICS CONSULTATION REPORT 1 (2017), http://responsiblerobotics.org/wp-content/uploads/2017/07/FRR-Consultation-Report-Our-Sexual-Future-with-robots_Final.pdf.

https://doi.org/10.6092/issn.2531-6133/8670

impacts.[156] How much attention to pay to a remote but dire threat is itself a difficult question of policy. If there is *any risk* to humanity then it follows that some thought and debate is worthwhile. But too much attention has real-world consequences.

Entrepreneur Elon Musk, physicist Stephen Hawking, and other famous individuals apparently believe AI represents civilization's greatest threat to date.[157] The most common citation for this proposition is the work of a British speculative philosopher named Nick Bostrom. In *Superintelligence*, Bostrom purports to demonstrate that we are on a path toward developing AI that is both enormously superior to human intelligence and presents a significant danger of turning on its creators.[158] Bostrom, it should be said, does not see a malignant superintelligence as *inevitable.* But he presents the danger as acute enough to merit serious consideration.

A number of prominent voices in AI have convincingly challenged *Superintelligence*'s thesis along several lines.[159] Firstly, they argue that there is simply no path toward machine intelligence that rivals our own across all contexts or domains. Yes, a machine specifically designed to do so can beat any human at chess. But nothing in the current literature around ML, search, reinforcement learning, or any other aspect of AI points the way toward modeling even the intelligence of a lower mammal in full, let alone human intelligence.[160] Some say

---

156 *See generally* Crawford & Calo, *supra* note 60 ("Fears about the future impacts of artificial intelligence are distracting researchers from the real risks of deployed systems . . . .").

157 *Cf.* Sonali Kohli, *Bill Gates Joins Elon Musk and Stephen Hawking in Saying Artificial Intelligence Is Scary*, QUARTZ (Jan. 29, 2015), https://qz.com/335768/bill-gates-joins-elon-musk-and-stephen-hawking-in-saying-artificial-intelligence-is-scary (discussing how many industry juggernauts believe AI poses a threat to mankind).

158 *See generally* NICK BOSTROM, SUPERINTELLIGENCE: PATHS, DANGERS, STRATEGIES (2014) (exploring the "most daunting challenge humanity has ever faced" and assessing how we might best respond).

159 *See* Raffi Khatchadourian, *The Doomsday Invention*, THE NEW YORKER (Nov. 23, 2015), https://www.newyorker.com/magazine/2015/11/23/doomsday-invention-artificial-intelligence-nick-bostrom. In other work, Bostrom argues that we are likely all living in a computer simulation created by our distant descendants. Nick Bostrom, *Are We Living in a Computer Simulation?*, 53 PHIL. Q. 243 (2003). This prior claim raises an interesting paradox: if AI kills everyone in the future, then we cannot be living in a computer simulation created by our decedents. And if we are living in a computer simulation created by our decedents, then AI did not kill everyone. I think it a fair deduction that Professor Bostrom is wrong about something.

160 *See* Erik Sofge, *Why Artificial Intelligence Will Not Obliterate Humanity*, POPULAR SCI. (Mar. 19, 2015),http://www.popsci.com/why-artificial-intelligence-will-not-obliterate-humanity. Australian computer scientist Mary Anne Williams once remarked to me, "We have been doing

https://doi.org/10.6092/issn.2531-6133/8670

this explains why claims of a pending AI apocalypse come almost exclusively from the ranks of individuals such as Musk, Hawking, and Bostrom who lack work experience in the field.[161] Secondly, critics of the AI apocalypse argue that *even if* we were able eventually to create a superintelligence, there is no reason to believe it would be bent on world domination, unless this were for some reason programmed into the system. As Yann LeCun, deep learning pioneer and head of AI at Facebook colorfully puts it: "computers do not have testosterone".[162]

Note that the threat to humanity could come in several forms. The first is that AI wakes up and purposefully kills everyone out of animus or to make more room for itself. This is the stuff of Hollywood movies and books by Daniel Wilson and finds next to no support in the computer science literature (which is why we call it science *fiction*).[163] The second is that AI accidentally kills everyone in the blind pursuit of some arbitrary goal — for example, an irresistibly powerful AI charged with making paperclips destroys the Earth in the process of mining for materials.[164] Fantasy is replete with examples of this scenario as well, from The Sorcerer's Apprentice in Disney's Fantasia to the ill-fated King Midas who demands the wrong blessing.[165] A third is that a very bad individual or group uses AI as part of an attempt to end human life.

Even if you believe the mainstream AI community that we are hundreds of years away from understanding how to create machines capable of formulating

---

artificial intelligence since that term was coined in the 1950s, and today robots are about as smart as insects.".

161 *See* Connie Loizos, *This Famous Roboticist Doesn't Think Elon Musk Understands AI*, TECHCRUNCH (July 19, 2017), https://techcrunch.com/2017/07/19/this-famous-roboticist-doesnt-think-elon-musk-understands-ai (quoting Rodney Brooks as noting that AI alarmists "share a common thread, in that: they don't work in AI themselves").

162 Dave Blanchard, *Musk's Warning Sparks Call for Regulating Artificial Intelligence*, NPR (July 19, 2017), http://www.npr.org/sections/alltechconsidered/2017/07/19/537961841/musks-warning-sparks-call-for-regulating-artificial-intelligence (citing an observation by Yan LeCun that the desire to dominate is not necessarily correlated with intelligence).

163 *See* DANIEL H. WILSON, ROBOPOCALYPSE: A NOVEL (2011). Wilson's book is thrilling in part because Wilson has training in robotics and selectively adds accurate details to lend verisimilitude.

164 *E.g.*, BOSTROM, *supra* note 158, at 123.

165 ARISTOTLE, POLITICS 17 (B. Jowett trans., Oxford, Clarendon Press 1885) (describing Midas' uncontrollable power to turn everything he touched into gold); FANTASIA (Walt Disney Productions 1940) (where an army of magically enchanted brooms ceaselessly fill a cauldron with water and almost drown Mickey Mouse). I owe the analogy to King Midas to Stuart Russell, a prominent computer scientist at UC Berkeley who is among the handful of AI experts to join Musk and others in worrying aloud about AI's capacity to threaten humanity.

https://doi.org/10.6092/issn.2531-6133/8670

an intent to harm, and would not do so anyway, you might be worried about the second and third scenarios. The second argument has its attractions: people can set goals for AI that lead to unintended consequences. Computers do what you tell them to do, as the saying goes, not what you want them to do. But it is also important to consider the characteristics of the system AI doomsayers envision. This system is simultaneously *so primitive* as to perceive a singular goal, such as making paperclips, arbitrarily assigned by a person, and yet *so advanced* as to be capable of outwitting and overpowering the sum total of humanity in pursuit of this goal. I find this combination of qualities unlikely, perhaps on par with the likelihood of a malicious AI bent on purposive world domination.

Perhaps more worrying is the potential that a person or group might use AI in some way to threaten all of society. This is the vision of, for example, Daniel Suarez in his book *Daemon*[166] and has been explored by workshops such as *Bad Actors in AI* at Oxford University.[167] We can imagine, for instance, a malicious actor leveraging AI to compromise nuclear security, using trading algorithms to destabilize the market, or spreading misinformation through AI-enabled micro-targeting to incite violence. The path from malicious activity to existential threat, however, is narrow, and for now the stuff of graphic novels.[168]

Only time can tell us for certain who is wrong and who is right. Although it may not be the mainstream view among AI researchers and practitioners, I have attended several events where established computer scientists and other smart people reflected some version of the doomsday scenario.[169] If there is even a remote chance that AI will wake up and kill us (i.e., if the AI apocalypse is a low

166 DANIEL SUAREZ, DAEMON (2009).

167 *See Bad Actors and Artificial Intelligence Workshop*, THE FUTURE OF HUMANITY INST. (Feb. 24, 2017), https://www.fhi.ox.ac.uk/bad-actors-and-artificial-intelligence-workshop.

168 *See e.g.*, ALAN MOORE, DAVE GIBBONS & JOHN HIGGINS, WATCHMEN 382-90 (1995) (graphically portraying the chaos that ensues after a villain engineers a giant monster cloned from a human brain to destroy New York).

169 *See, e.g.*, *Past Events*, THE FUTURE OF LIFE INST., https://futureoflife.org/past_events (last visited Oct. 18, 2017) (cataloguing past events hosted by the Future of Life Institute, an organization that is devoted to "safeguarding life and developing optimistic visions of the future, including positive ways for humanity to steer its own course considering new technologies and challenges").

https://doi.org/10.6092/issn.2531-6133/8670

probability, high loss problem), then perhaps we should pay some attention to the issue.

The strongest argument against focusing overly on Skynet or HAL in 2017 is the opportunity cost. AI presents numerous pressing challenges to individuals and society in the very short term. The problem is not that AI "will get too smart and take over the world," computer scientist Pedro Domingos writes, "the real problem is that [it's] too stupid and [has] already."[170] By focusing so much energy on a quixotic existential threat, we risk, in information scientist Solon Barocas' words, an AI Policy Winter.

4.1. CONCLUSION

This Essay had two goals. First, it sought to provide a brief primer on AI by defining AI in relation to previous and constituent technologies and by noting the ways the contemporary conversation around AI may be unique. One of the most obvious breaks with the past is the extent and sophistication of the policy response to AI in the United States and around the world. Thus the Essay sought, second, to provide an inventory or roadmap of the serious policy questions that have arisen to date. The purpose of this inventory is to inform AI policymaking, broadly understood, by identifying the issues and developing the questions to the point that readers can initiate their own investigation. The roadmap is idiosyncratic to the author but informed by longstanding participation in AI policy.

AI is remaking aspects of society today and likely to shepherd in much greater changes in the coming years. As this Essay emphasized, the process of societal transformation carries with it many distinct and difficult questions of policy. Even so, there is reason for hope. We have certain advantages over our predecessors. The previous industrial revolutions had their lessons and we have access today to many more policymaking bodies and tools. We have also made

170 PEDRO DOMINGOS, THE MASTER ALGORITHM: HOW THE QUEST FOR THE ULTIMATE LEARNING MACHINE WILL REMAKE OUR WORLD 286 (2015).

https://doi.org/10.6092/issn.2531-6133/8670

interdisciplinary collaboration much more of a standard practice. But perhaps the greatest advantage is timing: AI has managed to capture policymakers' imaginations early enough in its life-cycle that there is hope we can yet channel it toward the public interest. I hope this Essay contributes in some small way to this process.

 https://doi.org/10.6092/issn.2531-6133/8773

Openness in International Investment Law: Too Much of a Good Thing?

JENS HILLEBRAND POHL[†]

TABLE OF CONTENTS: 1. Introduction; 2. The Scope of Application of Substantive Transparency as an Element of Fair and Equitable Treatment; 3. Conceptualizing Transparency as an Emanation of the Rule of Law; 4. Implications.

ABSTRACT: In recent years, investment treaty practice and arbitral case law have increasingly recognized government transparency as an obligation of international investment law. Yet, there could hardly be less of a consensus regarding what level of transparency is required, with case law ranging from one strand requiring "total transparency" to another merely prohibiting "complete lack of transparency". This apparent paradox seems to be about to change. Some of the most recent treaty practice appears to endorse the latter, restrictive interpretation of transparency. How come? This article sets forth two arguments: First, transparency is in part a binary concept, similar to many other familiar and related legal concepts, such as good faith, lack of arbitrariness and due process, and that transparency could thus, without contradiction, be said to be either "total" or "completely lacking" and nothing in between. Second, restrictive case law and the most recent treaty practice refuses to recognize as a legal requirement the concept of transparency as denoting a gradual quality of the law and of the administration of law.

KEYWORDS: *Transparency; Investment Arbitration; Rule of law; Normativity*

https://doi.org/10.6092/issn.2531-6133/8773

1. INTRODUCTION

In the last decade, investment treaty clauses relating to government transparency have become increasingly common, as the proportion of treaties signed with such clauses has grown exponentially. According to U.N.C.T.A.D.,[1] 82% of all treaties with investment provisions signed in 2015 contained transparency clauses, compared to 50% for the first half of the decade, up from 20% in the previous decade and 9% in the period since records started being collected until the end of the last century. A closer look reveals that an inflexion point occurred around 2014, when treaties signed with such clauses surged to 71%, up from 50% the year before. The proportion has remained at or above that level.

Recent years have also witnessed claims relating to government transparency being asserted with increasing frequency in investment arbitration, resulting in a steady stream of arbitral awards. So far, thirty odd such cases have been decided and published, worth more than $19 billion in damages claims, of which 69% have been decided in favor of investors, resulting in more than $3 billion worth of damages awarded.[2]

While it figures prominently in both treaty and arbitral practice, there is a great divergence of opinion on the exact meaning of transparency as a substantive requirement. Early cases derived a requirement to act "totally transparently".[3] By contrast, another early strand of cases was more restrictive

---

† LL.M. (Harvard); Visiting Researcher, Max Planck Institute for Procedural Law; Lecturer and PhD Researcher, Maastricht University, Faculty of Law; Doctoral Fellow, Institute of Globalization and International Regulation, jens.pohl@maastrichtuniversity.nl. The author wishes to especially thank Professor Dr. Eric De Brabandere, Leiden University, and Professor Dr. Nikolas Rajkovic, Tilburg University, for constructive suggestions and comments on a previous drafts of this paper which was presented at the 6th Conference of the Postgraduate and Early Professionals/Academics Network (PEPA/SIEL), Society of International Economic Law, in Tilburg, in April 2017. The usual disclaimer applies.

[1] U.N.C.T.A.D. *Retrieved from* investmentpolicyhub.unctad.org (Jan. 18, 2017). (Including bilateral investment treaties (B.I.Ts.), other international investment agreements (I.I.As.), free trade agreements (F.T.As.) and other treaties with investment provisions (T.I.Ps.)).

[2] *See* U.N.C.T.A.D. *Retrieved from* investmentpolicyhub.unctad.org (Jan. 24, 2017). Most of the cases relate to events that took place when express transparency clauses were not nearly as common as they are today. In only half of the cases the relevant treaty included such a clause, but they were all of early types that were too narrow to cover the alleged transparency breach, and, in half of these cases in turn, the transparency clause was not even subject to investor-state dispute settlement. Instead, the cases so far have characterized the lack of transparency as a breach of the F.E.T. standard. The focus here is therefore on transparency as an element of the F.E.T. standard.

[3] Técnicas Medioambientales Tecmed, S.A. v. United Mexican States, I.C.S.I.D. Case No. ARB(AF)/00/2, , ¶154 (May 29, 2003).

https://doi.org/10.6092/issn.2531-6133/8773

and merely identified a requirement not to act with "complete lack of transparency".[4] This seemingly diametrical divergence of views has yet to be decisively resolved.

Against this backdrop, a restrictive approach can be discerned from recent treaty practice. A notable step in that direction is the Canada-EU Comprehensive Economic and Trade Agreement (hereinafter C.E.T.A.), which introduced a "closed-end" list of what constitutes a fair and equitable treatmenet (hereinafter F.E.T.) violation, comprising, among other things, a "fundamental breach of due process, including a fundamental breach of transparency, in judicial and administrative proceedings". These words appear to be directly drawn from the restrictive strand of case law.

So, what exactly is the meaning today of government transparency as an element of the F.E.T. standard? How do the different notions of transparency, as elucidated within the different strands of case law, relate to each other, and can they be reconciled? How is the recent restrictive trend towards transparency to be understood? These questions are of fundamental importance to states seeking to understand the level of government transparency expected under international investment law and to investors seeking to gauge the nature and extent of the political risk of foreign investment.

To answer these questions, this article proceeds (1) to outline the main strands of arbitral case law with respect to the scope of application of the concept of transparency as an element of the F.E.T. standard (Part II), (2) to conceptualize government transparency as an emanation of the rule of law (Part III), and, finally, (3) to explore the implications of these findings on the interpretation of substantive transparency in international investment law (Part IV).

[4] Waste Management, Inc. v. United Mexican States, I.C.S.I.D. Case No. ARB(AF)/00/3, , ¶98 (Apr. 30, 2004).

https://doi.org/10.6092/issn.2531-6133/8773

2. THE SCOPE OF APPLICATION OF SUBSTANTIVE TRANSPARENCY AS AN ELEMENT OF FAIR AND EQUITABLE TREATMENT

In the 1980s the language of transparency in international investment law became associated with the requirement to publish laws and regulations pertaining to investments, beginning.[5] A clause entitled "transparency of laws" was introduced in Australia's first bilateral investment treaty (hereinafter B.I.T.), Article VI Australia-China B.I.T. (1988). A similar clause, although without the "transparency" label, had been a consistent feature of U.S. B.I.T. practice since first introduced in the original U.S. model B.I.T. (1981)[6] and pioneered in the second ever B.I.T. signed by the United States, Article II(10) U.S.-Senegal B.I.T. (1983) in a wording that became standard:"Each Party shall make public all laws, regulations, administrative practices and procedures, and adjudicatory decisions that pertain to or affect investments in its territory of nationals or companies of the other Party."

The U.S. model B.I.T. was influential for other states' bilateral negotiations as well, and clauses modeled on its requirement to publish laws and regulations appeared in a number of treaties concluded in the 1980s.[7] By the early 2000s, basic transparency clauses providing for the publication of laws and regulations became increasingly common, and by the mid-2010s they had emerged as a standard clause appearing in the vast majority of new treaties.[8]

[5] For an account of the emergence of transparency as term used in a figurative sense (i.e. beyond its original meaning in physics and art) describing a concept related to governance, see Greg Michener & Katherine Bersch, *Identifying Transparency*, 18 INFO. POLITY 233, 234-36 (2013), (tracing its current figurative use to an academic article by Danish economist, Knud Erik Svendsen in 1962).

[6] Pre-cursors had existed in the earlier practice of friendship, commerce and navigation treaties (hereinafter FCNs), see e.g., Treaty of Friendship, Commerce and Navigation, U.S.-Republic of China, art. XVII(1), Nov. 4, 1946, T.I.A.S. 1871 and Treaty of Friendship, Commerce and Navigation, U.S.-Nicaragua, art. XV(1), Jan. 21, 1956, T.I.A.S. 4024, but were rare. There appears to be no examples of such clauses prior to the negotiations leading up to the Havana Charter, Article 38 of which included the elaborate blueprint for subsequent treaty practice, which reappeared with minimal changes as General Agreement on Tariffs and Trade art. X, Oct. 30, 1947, 55 U.N.T.S. 194 and is retained in General Agreement on Tariffs and Trade art. X, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187.

[7] *See, e.g.,* Bilateral Investment Treatie, Can.-Phil. , art. XVI, Nov.9, 1995 (earlier Canadian B.I.T. practice had provided for exchange of information between the contracting parties on laws and regulations). A similar provision was later elaborated in the O.E.C.D. draft Multilateral Agreement on Investment. By contrast, transparency provisions of this type were not common in European B.I.Ts. until the E.U. began concluding investment treaties following the Lisbon Treaty. Other states, including Canada, began to include this type of transparency provision from the mid-1990s.

[8] *Cf.* n2.

https://doi.org/10.6092/issn.2531-6133/8773

Meanwhile, the scope of government transparency clauses has steadily grown wider.[9]

In the early 2000s transparency in arbitral case law began being referred to in abstract as an aspect of the core standards of protection—F.E.T. and the customary international minimum standard of treatment (hereinafter I.M.T.).[10] In all but one case, tribunals have uniformly affirmed such interpretation.[11] By the 2010s, arbitral practice reflected the shared view that transparency had emerged as an essential aspect of the F.E.T. standard, including in cases where such standard applied with reference to the I.M.T. standard.[12] Where tribunals have differed is in the degree of transparency required. Here, two lines of precedent exist. In Tecmed v. Mexico, the tribunal concluded that F.E.T. required "total transparency":[13]

---

[9] For a comprehensive review of express treaty transparency clauses, see Jens Hillebrand Pohl, *Substantive Transparency Requirements in International Investment Law*, REVISTA INSTITUTO COLOMBIANO DE DERECHO TRIBUTARIO [REV. ICDT], Nov. 2017, at 179 (Colom.).

[10] *See* Metalclad Co. v. United Mexican States, I.C.S.I.D. Case No. ARB(AF)/97/1, ¶¶76, 88, 99 (Aug. 30, 2000) (set aside by a municipal court noting that "[n]o authority was cited or evidence introduced to establish that transparency has become part of customary international law", Mexico v. Metalclad Corporation, [2001] B.C.S.C. 664, 68 (Can).; see also Emilio Agustín Maffezini v. Kingdom of Spain, I.C.S.I.D. Case No. ARB/97/7, , ¶83 (Nov. 30, 2000); S.D. Myers, Inc. v. Government of Canada, U.N.C.I.T.R.A.L., Partial Award (Separate Opinion by Dr. Bryan Schwartz, concurring except with respect to performance requirements, in the partial award of the tribunal), ¶¶249-58 (Nov. 12, 2000); Tecmed, *supra* note 3, at 154; Waste Management, *supra* note 4, at 98; M.T.D. Equity Sdn. Bhd. and M.T.D. Chile S.A. v. Republic of Chile, I.C.S.I.D. Case No. ARB/01/7, Award, ¶114 (May 24, 2004); Occidental Exploration and Production Co. v. Republic of Ecuador, L.C.I.A. Case No. UN3467, ¶¶184-7 (July 1, 2004); Saluka Investments BV v. Czech Republic, U.N.C.I.T.R.A.L., Partial Award, ¶¶307, 309, 360 (Mar. 17, 2006); LG&E Energy Corp., LG&E Capital Corp. and LG&E International Inc. v. Argentine Republic, I.C.S.I.D. Case No. ARB/02/1, Decision on Liability, ¶¶127-31, 137 (Oct. 3, 2006); Champion Trading Company and Ameritrade International, Inc. v. Arab Republic of Egypt, I.C.S.I.D. Case No. ARB/02/9, , ¶4.3.2 (Oct. 27, 2006). It should also be noted that occasionally transparency has been analyzed indirectly under other principles, such as non-discrimination (Champion Trading v. Egypt, above), or arbitrariness, Parkerings-Compagniet AS v. Republic of Lithuania, I.C.S.I.D. Case No. ARB/05/8, , ¶295 (Sept. 11, 2007).

[11] *See* Cargill, Incorporated v. United Mexican States, I.C.S.I.D. Case No. ARB(AF)/05/2, , ¶290 (Sept. 18, 2009).

[12] *See* Joseph C. Lemire v. Ukraine, I.C.S.I.D. Case No. ARB/06/18, Decision on Jurisdiction and Liability, ¶¶284, 418 (Jan. 14, 2010); *see also* Frontier Petroleum Services, Ltd. v. Czech Republic, U.N.C.I.T.R.A.L. (P.C.A.), , ¶285 (Nov. 12, 2010); Ioan Micula and others v. Romania, I.C.S.I.D. Case No. ARB/05/20, , ¶¶530-33 (Dec. 11, 2013); Gold Reserve Inc. v. Bolivarian Republic of Venezuela, I.C.S.I.D. Case No. ARB(AF)/09/1, , ¶¶569-70 (Sept. 22, 2014); Mamidoil Jetoil Greek Petroleum Products Societe Anonyme S.A. v. Republic of Albania, I.C.S.I.D. Case No. ARB/11/24, ¶¶599, 613-17; William R. Clayton, Bilcon of Delaware and others v. Government of Canada, U.N.C.I.T.R.A.L. (P.C.A. Case No. 2009-04), Award on Jurisdiction and Liability, ¶¶442-44 (Mar. 17, 2015), cited favorably by Mesa Power Group, LLC v. Government of Canada, U.N.C.I.T.R.A.L. (P.C.A. Case No. 2012-17), , ¶¶501-2 (Mar. 14, 2016); Crystallex International Corporation v. Bolivarian Republic of Venezuela, I.C.S.I.D. Case No. ARB(AF)/11/2, , ¶¶543, 545, 579 (Apr. 4, 2016); Philip Morris Brand Sàrl (Switzerland) and others v. Oriental Republic of Uruguay, I.C.S.I.D. Case No. ARB/10/7, , ¶¶320, 324, 486 (July 8, 2016).

[13] Tecmed, *supra* note 3, at 154.

https://doi.org/10.6092/issn.2531-6133/8773

> The Arbitral Tribunal considers that this provision of the Agreement, in light of the good faith principle established by international law, requires the Contracting Parties to provide to international investments treatment that does not affect the basic expectations that were taken into account by the foreign investor to make the investment. The foreign investor expects the host State to act in a consistent manner, free from ambiguity and totally transparently in its relations with the foreign investor, so that it may know beforehand any and all rules and regulations that will govern its investments, as well as the goals of the relevant policies and administrative practices or directives, to be able to plan its investment and comply with such regulations.

By contrast, in Waste Management v. Mexico (II) the tribunal held that only "complete lack of transparency" was actionable, and only in the context of an administrative process:[14]

> Taken together, the S.D. Myers, Mondev, ADF and Loewen cases suggest that the minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety—as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process.

The Waste Management standard has been cited in all cases where the F.E.T. standard is subject to the I.M.T. standard,[15] such as in the U.S. model B.I.T.s 2004 and 2012 and NAFTA. Of all other cases, 67% have followed the Tecmed

[14] Waste Management, *supra* note 4, at 98.
[15] Cargill, *supra* note 11; Railroad Development Corporation (R.D.C.) v. Republic of Guatemala, I.C.S.I.D. Case No. ARB/07/23, , ¶219 (Jul. 29, 2012); Adel A Hamadi Al Tamimi v. Sultanate of Oman, I.C.S.I.D. Case No. ARB/11/33, , ¶¶384, 396 (Nov. 3, 2015); Clayton and Mesa Power, *supra* note 12.

https://doi.org/10.6092/issn.2531-6133/8773

standard.[16] Overall, the choice of precedent is thus correlated with the formulation of the F.E.T. clause, with the exception of the cases involving an autonomous F.E.T. formulation, where the choice of precedent instead is more strongly correlated with outcome. Of such cases, Tecmed was cited in 77% of awards where a transparency breach was found (with the remaining 23% citing Waste Management),[17] compared to only 37% of awards where no transparency breach was found (with the remaining 63% citing Waste Management).[18] This leaves unanswered the question of what motivated the choice of citation; whether it was the choice of cited precedent that determined the outcome, or rather the outcome that determined the choice of precedent. It is indeed statistical revelations such as these that lend credibility to legal skepticist methodologies that focus on analyzing case facts and legal outcomes as a counterfactual to formalist analysis of tribunals' stated judicial reasoning and case citations. It suffices here to re-emphasize that the cases differ only as to the degree of transparency required, not as to the acceptance in principle of transparency as a standard. Thus, although these two discernible strands of caselaw have thus crystallized, each of which focuses, in abstract, on the degree of required transparency, it may be surprising that there is no parallel

[16] M.T.D., Occidental, and Saluka, LG&E, *supra* note 10; PSEG Global Inc. and Konya Ilgin Elektrik Üretim ve Ticaret Limited Sirketi v. Republic of Turkey, I.C.S.I.D. Case No. ARB/02/5, , ¶¶173-4, 246 (Jan. 19, 2007); Siemens A.G. v. Argentine Republic, I.C.S.I.D. Case No. ARB/02/8, , ¶¶297-9, 308 (Feb. 6, 2007); Rumeli Telekom A.S. and Telsim Mobil Telekomunikasyon Hizmetleri A.S. v. Republic of Kazakhstan, I.C.S.I.D. Case No. ARB/05/16, , ¶¶584-5; Bayindir Insaat Turizm Ticaret Ve Sanayi A.S. v. Islamic Republic of Pakistan, I.C.S.I.D. Case No. ARB/03/29, , ¶¶168-70, 178-9; and Lemire, Frontier, Micula, Gold Reserve, and Crystallex, *supra* note 12; cf Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. Argentine Republic, I.C.S.I.D. Case No. ARB/97/3, , ¶¶7.4.31 (Aug. 20, 2007); Biwater Gauff (Tanzania) Limited v. United Republic of Tanzania, I.C.S.I.D. Case No. ARB/05/22, , ¶¶597, 602 (July 25, 2008); Nordzucker AG v. Republic of Poland, U.N.C.I.T.R.A.L., Second Partial Award, ¶¶12, 14, 84-5 (Jan. 28, 2009); Bosh International, Inc. and B&P, L.T.D. Foreign Investments Enterprise v. Ukraine, I.C.S.I.D. Case No. ARB/08/11, , ¶¶210, 212 (Oct. 25, 2012); Deutsche Bank A.G. v. Democratic Socialist Republic of Sri Lanka, I.C.S.I.D. Case No. ARB/09/2, , ¶420 (Oct. 31, 2012); Renée Rose Levy de Levi v. Republic of Peru, I.C.S.I.D. Case No. ARB/10/17, , ¶¶327-8 (Feb. 26, 2014); and Mamidoil and Philip Morris, *supra* note 12.

[17] M.T.D. and Occidental, *supra* note 10; LG&E, P.S.E.G., Siemens, and Rumeli, *supra* note 17; Lemire, Micula, Gold Reserve, and Crystallex, *supra* note 12; *compare* Vivendi, Nordzucker, and Deutsche Bank, *supra* note 16.

[18] Biwater, Bosh, and De Levi, *supra* note 17; Mamidoil and Philip Morris, *supra* note 12; *compare* Saluka, *supra* note 10; Bayindir, *supra* note 17; and Frontier, *supra* note 12.

https://doi.org/10.6092/issn.2531-6133/8773

bifurcation with respect to the material scope of transparency.[19] Rather, both strands appear to assume the same material scope, while differing only in the interpretation of the scope of application.

3. CONCEPTUALIZING TRANSPARENCY AS AN EMANATION OF THE RULE OF LAW

If the material scope of transparency is approached from a legal skepticist perspective by analyzing the facts of arbitral cases rather than the legal reasoning of judges, a very different and more concrete picture emerges. Leaving aside the abstract statements of the Metalclad, Tecmed and Frontier tribunals,[20] the material scope then neatly falls into four broad categories: (1) disclosure of existing measures of general application—laws, regulations, adjudicatory decisions and administrative procedures and practices—,[21] (2) disclosure of prospective measures of general application,[22] (3) clear and comprehensible measures of general application, i.e. where transparency was treated as a *quality* of the relevant legal framework,[23] and (4) disclosure in the administration of measures of general application.[24] The vast majority of transparency cases, accounting for 72% of all such cases (and 94% of such cases where lack of

[19] In Metalclad, *supra* note 10, the tribunal understood "transparency" to mean that: "all relevant legal requirements for the purpose of initiating, completing and successfully operating investments made, or intended to be made, under the Agreement should be capable of being readily known to all affected investors of another Party. There should be no room for doubt or uncertainty on such matters." This definition was echoed by the tribunal in Tecmed, *supra* note 3, at 154, which understood the transparency requirement to ensure: "that [the foreign investor] may know beforehand any and all rules and regulations that will govern its investments, as well as the goals of the relevant policies and administrative practices or directives, to be able to plan its investment and comply with such regulations." Another perspective was added by the tribunal in Frontier, *supra* note 12 , at 285, which stated: "Transparency means that the legal framework for the investor's operations is readily apparent and that any decisions of the host state affecting the investor can be traced to that legal framework." For practical purposes, such abstract definitions are not very helpful.

[20] *Id.*

[21] Champion Trading, *supra* note 10, Cargill, *supra* note 11, Mamidoil, *supra* note 12, De Levi, *supra* note 16, and Occidental (where lack of transparency was found), *supra* note 10.

[22] S.D. Myers, *supra* note 10 , and Cargill, *supra* note 11.

[23] Metalclad (where lack of transparency was found), *supra* note 10 and Saluka, *supra* note 10, and Mamidoil, *supra* note 12.

[24] Tecmed, *supra* note 3, Maffezini, M.T.D., Occidental, and LG&E, *supra* note 10, Lemire, Micula, Gold Reserve, Clayton, Crystallex, *supra* note 12, P.S.E.G., Siemens, Vivendi, and Rumeli, Nordzucker, Deutsche Bank, *supra* note 16, where lack of transparency was found, as well as Waste Management, *supra* note 4 , Frontier, Mesa Power, Philip Morris, *supra* note 12, R.D.C. and Al Tamimi, *supra* note 15, and Biwater, Bayindir, Bosh, De Levi, *supra* note 16.

https://doi.org/10.6092/issn.2531-6133/8773

transparency was found), have concerned the fourth category, i.e. failure to disclose information prior to an administrative act.[25]

Transparency, as pronounced in arbitral practice, thus comprises the disclosure of information by host states with respect to (a) the existence of legal requirements (publication of laws, regulations, etc.), (b) prospective legal requirements (advance notice and consultation of changes in laws and regulations), (c) the substance of existing legal requirements (transparency as a quality of legislative, regulatory and adjudicatory decision-making), and (d) the administration of existing legal requirements (administrative and judicial transparency), in such manner as to make the information effectively known by investors, and at such time as to make the information useful to them.[26]

To be effective, transparency requirements must ensure that investors are in a position to understand what the legal requirements are and how they are applied. Doing so enables them to predict the consequences of compliance (and non-compliance) more easily, and thus to deliberately comply (or not) with the relevant legal requirements. By contrast, if they were not able to understand this, investors would be unable, or at least have difficulties in, anticipating whether their conduct was in accordance with applicable legal requirements. Furthermore, they would not be able, with certainty, to deliberately satisfy those requirements. In addition, the host state would not be justified in expecting investors to comply with its legal requirements. In other words, the legal requirements would not provide *effective normative guidance*.

The exercise of power under the guidance of norms, rather than at the whim of whoever happens to be in a position to exercise such power, lies at the heart of the rule of law. In his famous 1958 debate with Harvard professor of law, Lon L. Fuller, on morality and law, the eminent legal philosopher and Oxford professor H.L.A. Hart argued that relying on legal norms to guide the action of legal subjects serves to protect against arbitrary exercise of power. However, he also recognized that this aim requires a delicate balancing act between achieving predictability, which controls arbitrariness, and avoiding inflexibility, which

[25] *Id.*
[26] *See, e.g.*, Saluka, *supra* note 10, at 360, P.S.E.G., *supra* note 16 , ¶246, Siemens, *supra* note 16, ¶308, and Micula, *supra* note 12 , ¶872.

https://doi.org/10.6092/issn.2531-6133/8773

generates arbitrariness on its own.[27] The desired equilibrium is achieved through judicial flexibility, but since judges may formulate their considerations in the cloak of rule-bound decision making, judicial flexibility too undermines the ability to control arbitrariness and to guide conduct by means of norms.[28] Fuller, in his public response to Hart, pioneered the view that the law in itself is expressive of a set of primordial principles, or *desiderata*, without which law fails at its basic function of providing normative guidance.[29] Fuller's principal contribution to the understanding of the law was to focus attention to the minimum criteria that must exist in order for law to be effective, although he himself insisted that his *desiderata* were (also) of a moral nature.[30]

In order for the law to provide normative guidance, it must therefore be *capable of being complied with*.[31] This is self-evident, i.e. nigh impossible to argue against. For this to happen, the existence and contents of the law must be *knowable*—capable of being known.[32] Normative guidance is inherently future-oriented, so that retroactive laws cannot be said to exert normative guidance.[33] For laws to guide conduct without the need for arbitrary exercise of power, their scope of application must be determinable,[34] their substance ascertainable,[35] their continued application stable[36] and their administration in practice congruent with their content as pronounced.[37]

Beyond this minimum requirement of the *possibility* of compliance, normative guidance appears as a gradual quality or a matter of degree. The more readily knowable the law is—with respect to its existence, as well as its scope of application and substantive content—, the more likely it is, all other things being equal, that the law will be complied with. The more stable the laws are, the

[27] Herbert L.A. Hart, *Positivism and the Separation of Law and Morals,* 71 HARV. L. REV. 593 (1958). *See also* Gerald J. Postema, *Positivism and the Separation of Realists from their Scepticism: Normative Guidance, the Rule of Law and Legal Reasoning*, *in* THE HART-FULLER DEBATE IN THE TWENTY-FIRST CENTURY 259, 272 (Peter Cane ed., 2010).
[28] *Id.*
[29] Lon L. Fuller, *Positivism and Fidelity to Law: A Reply to Professor Hart*, 71 HARV. L. REV. 630 (1958).
[30] LON L. FULLER, THE MORALITY OF LAW 33 (rev. ed. 1969).
[31] *Cf.* Fuller's sixth *desideratum*.
[32] *Cf.* Fuller's second *desideratum*.
[33] *Cf.* Fuller's third *desideratum*.
[34] *Cf.* Fuller's first *desideratum*.
[35] *Cf.* Fuller's fourth and fifth *desiderata*.
[36] *Cf.* Fuller's seventh *desideratum*.
[37] *Cf.* Fuller's eighth *desideratum*.

https://doi.org/10.6092/issn.2531-6133/8773

more likely it is that the subjects will be able to adapt their conduct and comply. Likewise, the more faithfully laws are administered, the more probable it is that the law will guide conduct in the manner foreseen.

It is this latter aspect that relates most pertinently to the vast majority of transparency related cases in arbitral practice, which, as discussed, involve a lack of transparency in the administration of the law. This has two aspects. *First*, providing information with a view to inviting and obtaining critique, such as in the context of administrative proceedings, serves to promote rational decision-making. This in turn is conducive to ensuring that the aims of legal rules can be realized in practice, or, put in other words, ensuring that compliance with the law is liable to realize the legislative will, which in turn obviates the need to intervene to exercise power arbitrarily. Conversely, laws that are irrational means to an end are unlikely to attain their intended purpose. How this works in practice is clearly on display in pre-legislative or pre-regulatory public consultations, where input from academics, professionals, civil society and members of the general public, particularly those with an interest or expertise in the subject matter, serve to provide (free of charge) valuable advice and insights to the legislator or regulator in order to improve the proposed measure. It can also be seen in the notice and hearing requirements of administrative and judicial due process.

Second, the law's propensity for normative guidance depends crucially on the law's acceptance by those to whom it is addressed and by whom it ultimately looks to for its enforcement: its subjects. The law must be accepted as such, *i.e.* out of a sense of legal obligation, and not as an arbitrary exercise of power—accepted merely as a result of coercion or coercive threat. This is certainly partly a matter of providing clear and transparent compliance incentives. Knowing the pros and cons of compliance is one way in which transparency can ensure that the incentives to comply are capable of being effectively assessed. Similarly, knowing what is at stake in an administrative or judicial proceeding is a central function of being on notice about an impending adverse measure.

https://doi.org/10.6092/issn.2531-6133/8773

4. IMPLICATIONS

Normative guidance, being the hallmark of the rule of law, can be achieved only if laws are *possible to comply with* and is promoted the more readily the laws are capable of being complied with, the more means-to-end rational the laws are and the more readily the promulgated laws are accepted as law in practice by the laws' addressees.

Understood as a device to promote normative guidance, transparency serves to enable and promote compliance with legal requirements. The former function is *binary* in nature as compliance is either possible or not. Transparency that makes compliance possible can either exist or not. Where laws are not promulgated, compliance is impossible and transparency can be said to be "completely lacking" (*cf.* Waste Management) or "fundamentally breached" (*cf.* Article 8.10(2) C.E.T.A.). The same applies to, e.g., failure to disclose relevant evidence in an administrative proceeding, which denies the other party the opportunity to defend its position and makes it impossible to meaningfully participate in and influence the outcome of the proceedings. In that situation, either the relevant evidence is disclosed or not. This is also a binary transparency requirement, similar to many other familiar and related legal concepts, such as good faith, lack of arbitrariness and due process.

By contrast, even where possible, compliance may be *unlikely to be promoted*, e.g., because of cost, effort, delay or difficulty in discovering the existence of applicable measures of general application (laws, regulations, adjudicatory decisions, procedures, practices, policies, standards, authoritative interpretations, etc.), or in ascertaining, analyzing and interpreting their scope of application or substantive requirements or entitlements. Where transparency is understood as *the degree to which* the legal framework is readily knowable, transparency clearly appears not as a binary but as a *gradual* quality. Promoting this aspect of transparency is certainly conducive to normative guidance, *viz.* to minimizing the scope of potentially arbitrary exercise of authority and to the realization of legislative will. However, it is nevertheless clear that "total transparency" in this respect is something wholly different from transparency that is merely not "completely lacking".

https://doi.org/10.6092/issn.2531-6133/8773

While this binary aspect appears upheld by restrictive case law and treaty practice as a required minimum level of transparency, the same cannot be said about transparency over and above that minimum level. Impossibility of compliance, rather than practicability, thus appears as the only uncontested justification for transparency as upheld even in the restrictive strand of case law and treaty practice. However regrettably, the same cannot yet be said about the policy ideal of facilitating compliance and promoting normative guidance, and hence the rule of law.

 https://doi.org/10.6092/issn.2531-6133/8867

Labour Law and Transnational Law: the Fate of Legal Fields & the Trajectory of Legal Scholarship

HARRY ARTHURS[†]

CONFERENCE & MEETING PROCEEDING: TLI Distinguished Lecture in Transnational Labour Law, June 30th 2015, King's College London, London (UK).

KEYWORDS: *Labour Law; Transnational Law; Legal Scholarship*

EDITORIAL NOTE

This lecture is republished with the kind permission of Prof. Peer Zumbansen, Director of the Transnational Law Institute at King's College London.

https://doi.org/10.6092/issn.2531-6133/8867

In this lecture, I am going to explain how and why I came to write my article, *The Law of Economic Subordination and Resistance*.[1] I hope that by doing so, I will be able to shed some light not only on my own field of labour law, but on the larger problem of how legal fields or domains of legal knowledge, come into existence, change or become obsolete, and in the end are either transformed or superseded altogether. I will be talking about labour law, but I hope you will be thinking about transnational law. I am going to try to persuade you that the invention and transformation of these two fields have something in common. But I am going to go further. I hope to convince you that their ultimate fate is determined by some of the very same forces. Transnational law, I am going to argue, can only survive if it learns from the short, sad history of labour law.

So to begin at the beginning: I am a labour lawyer. For much of my early career, I tried conscientiously not only to show how the present law fails to produce logical, just and workable outcomes, but also to propose new legal arrangements that would be in everyone's interests. Most of my colleagues were doing the same thing, though of course we did not always agree on either our critique or our proposals for reform. we had some good ideas, we tried hard to persuade people to adopt them, and sometimes we even succeeded. But gradually it became obvious that our best ideas, even ideas that judges and legislators adopted and translated into law, did not necessarily make the world a better place for workers. Nor did the adoption of new international and constitutional protections for workers. Nor did the election to office of labourfriendly political parties.

Admittedly, I may have been a slow learner. It took me some time. However, in the end, I came to accept that law lacks the capacity to fundamentally alter power relations. Those relations are ultimately determined not by law but by political economy, and they are found not in the law reports or statute books but embedded in cultural practices and social structures. No "silver bullet" with

† Professor Harry A. Arthurs is a Professor Emeritus, former President and Dean, Osgoode Hall Law School, York University, Toronto (Canada).

[1] *See generally* Harry W. Arthurs, *Labour Law as the Law of Economic Subordination and Resistance: A Thought Experiment*, 34 COMP. LAB. L. & POL'Y J. 585 (2013).

https://doi.org/10.6092/issn.2531-6133/8867

"law" written on it, I came to feel, would fundamentally alter labour markets or relations of employment. Law's contribution would be very much at the margins. Workers would only get the rights they were prepared to struggle for.

Well, they struggled — and they lost. The labour movement is in retreat almost everywhere. Union membership, power and influence are all declining rapidly — in some countries, they are nearly at the vanishing point. Labour and social democratic parties are able to remain "credible" only if they abandon their historic values, alliances and programs. The welfare state has been fatally weakened by forty years of ascendant neo-liberalism, and more recently by the force majeure of austerity. Labour market institutions and regulatory agencies are in disarray — often understaffed and disempowered. Workers' share of G.D.P. is diminishing; wages have lagged inflation; some combination of precarious employment, underemployment and unemployment afflicts almost all advanced economies. The result, as we all know, is that these economies are growing more and more unequal, and the problems of economic subordination are growing more severe.

How can we explain these developments? Globalization, technology and market fundamentalism are the most obvious causes. However, one more cause occurred to me, which I explored in an essay entitled *Labour Law after Labour.*[2] I suggested that labour is no more. It is no longer a sociological descriptor: workers now tend to selfidentify as members of the middle class rather than the working class, as consumers rather than producers; they mobilize politically around issues of race, religion, national identity or lifestyle, not the defence of their class interests; and working class culture has been absorbed into a commercialized, popular culture. Worse yet, labour is no longer a matter of urgent public concern. As far as I know, hardly any newspapers in the United Kingdom or North America ha ve a labour specialist. In many jurisdictions, labour is no longer a free-standing field of public policy: many governments have assigned the functions of their labour department.nts to ministries of welfare or economics; decisions made by

[2] *See also* Harry W. Arthurs, *Labour Law After Labour*, in THE IDEA OF LABOUR LAW 13 (Guy Davidov and Brian Langille eds., 2011).

https://doi.org/10.6092/issn.2531-6133/8867

Finance and Trade and Industry departments turn out to be far more consequential for workers' wellbeing than anything that happens in whatever ministry now has formal responsibility for employment standards or collective bargaining. And to my great distress, Labour is no longer a popular academic subject: in business schools, courses in labour or industrial relations have given way to courses in human resource management; in many law schools, labour law is either not taught, taught by practitioners rather than tenured scholars, or disaggregated into specialist regulatory fields such as pension law or discrimination law.

This brings me to a painful question: what is the future for a legal field called labour law in which the law is designed to protect people who no longer think of themselves as "labour" and in which the very concept of "labour" is disappearing from public, political and academic discourse? the answer pains me even more: it is not a bright future.

I will return to this theme, the theme of my article *Labour Law after Labour*, in a moment. Before that, I want to point to two great anomalies in the present situation. First, the disappearance of labour and the decline of labour law's importance coincide with a period during which, in many advanced economies, labour has acquired more formal legal rights than it ever enjoyed before. In my own country, Canada, for example, the courts have decided that labour's rights to organize, to bargain collectively and to strike and picket are all protected by the constitution. parallel developments have taken place in the space governed by transnational law where the regulation of labour rights has expanded enormously. Now the second anomaly: during this same period, while labour's social, economic and political influence have been deteriorating, labour law scholarship has been flourishing. It has become more theoretically and methodologically sophisticated and diverse; it has begun to address law at every level from the indigenous law of the workplace from national systems of labour market regulation to the domain of transnational labour and social rights; and it has belatedly begun to explore the problems of previously neglected worker cohorts such as migrant workers, domestic workers and those engaged in non-

https://doi.org/10.6092/issn.2531-6133/8867

waged work. Perhaps these two anomalies lend credibility to my thesis that struggle, not law, ultimately defines the rights that workers actually enjoy.

In any event, I am sure you will understand why I have recently been feeling that my intellectual life's savings, almost entirely invested in labour law, are very much at risk. "How did this happen?", I asked myself. "Am I the victim of historical trends, rather than poor personal judgment?" In order to answer this question, I decided to revisit the history of labour law: when and why did it emerge, when and why did it flourish, when and why did it decline? Some answers to these questions are found in *The Law of Economic Subordination and Resistance.* I will summarize them very quickly.

Labour law began as an academic discipline and field of professional legal practice in the 1920s — a response to the social upheavals of the late ninetheen century, to the Great War and the Russian Revolution and to widespread outbreaks of proletarian discontent. It took on special urgency during the Great Depression of the 1930s, and really came into its own during the period between 1945 and 1960 when unions gained power and legitimacy as part of what is known as the postwar settlement. By about 1960, even conservative law faculties, law publishers and lawyers' organizations were prepared to acknowledge labour law as a legitimate field of legal learning and practice. However, in the 1970s, the postwar settlement began to unravel. Over the next four decades, as I have mentioned, globalization, technology, market fundamentalism and the disappearance of working class identity and solidarity have combined to launch unions on a long-term downward trajectory from which they may never recover. With the decline of unions has come a decline in labour's political and economic power, and that decline has, in turn, undermined labour law. After all, who is interested in advocating, designing, administering, studying or practising a field of law when the output is likely to be frustration and disappointment?

So, in historical terms, labour law has had a fairly short life span, as well as a mostly unhappy one. But wait! Could things have turned out differently? Better for workers? Better for society? Better for labour lawyers like me? This is the point in my article at which I introduce my thought experiment, my historical

https://doi.org/10.6092/issn.2531-6133/8867

counterfactual. A counterfactual is something that might plausibly have happened, but did not. Suppose that instead of inventing a legal regime that had only to do with labour, we had created something more ambitious — a field of law that was concerned not just with employment but with all forms of economic subordination. As I point out, this might have happened during the 1930s, when a wide variety of people — workers, small businesses, farmers, consumers, investors — were all recognized to be suffering as a result of a crisis of unregulated capitalism and inept governance. America came close to responding to their plight by adopting the N.I.R.A., the National Industrial Recovery Act of 1935 —one version of my "law of economic subordination and resistance". Other countries, including Canada, might have followed if the American experiment had succeeded. Yet the N.I.R.A. was struck down by the U.S. Supreme Court; some parts of it were reintroduced in piecemeal fashion, including what came to be known as the National Labor Relations Act; and the Great Depression gave way to preparations for war, the war itself and postwar reconstruction. My counterfactual never happened.

But could it happen today? Is the crisis of capitalism comparable to that of the 1930s? And might a new legal field called "the law of economic subordination and resistance" have something to contribute to the resolution of that crisis? Let's pursue those questions and see where they take us.

The last question first. In my article I stress the conceptual incoherence of labour law, which, in most common law countries, consists of bits and pieces of private and public law, of general law and special statutes, which express very different value assumptions, and use different conceptual vocabularies, but which are deemed to be core elements of labour law because they happen to address the same phenomenon: the employment relation. But if that is the criterion for inclusion in the domain of labour law, why not include other things that seldom find their way onto the labour law curriculum or the dockets of labour law practitioners: why not trade and immigration law which significantly influence the balance of power in the labour market? Why not tax or corporate law which establish the dynamic of business decisions that in turn lead to the hiring or firing

https://doi.org/10.6092/issn.2531-6133/8867

of thousands of workers? Why not the laws that govern technical training and retirement security, social housing and health care, that at one remove but with great power, help to determine what social goods will be provided by the employer, what by the state and what by workers themselves?

So, labour law is incoherent. Would the "law of economic subordination and resistance" be any less so? The unifying theme of my counterfactual is that gross disparities of economic power are inherent in capitalism, and that certain generic legal technologies can and should be used to reduce those disparities or to mitigate their harmful effects. The aggregation of countervailing power is one such technology; the requirement that all economic bargains should be fair and transparent is another; state imposition of minimum or standard terms is another; the displacement of private market provision of social goods by public provision is another; and the list goes on. Therefore, my suggestion is that experts in the technologies of resistance might be able to show tenant groups what they can learn from labour unions, to show the owners of small business franchises what they can learn from farmers, and to show mortgagors what they can learn from consumers. The end point of the exercise is by no means revolutionary. It is merely to save capitalism from its own excesses, which are very much in evidence today.

If pressed, I would have to admit that the "law of economic subordination and resistance" is likely to be no more coherent than labour law. Indeed, by ignoring the very different social and economic contexts in which subordination and resistance occur, it might turn out to be even less coherent. Nonetheless, it has both conceptual and practical attractions.

Conceptual attractions first: the likely incoherence of my imagined "law of economic subordination and resistance" is not a mere oversight on my part, an accidental failure to integrate diverse legal and regulatory systems. Rather, it is deliberately constructed as the mirror image of our present incoherent legal system which has been unable to perceive — let alone link, analyze or respond to — many important realworld social, economic and political developments. Although these developments are clearly related in both their origins and their

https://doi.org/10.6092/issn.2531-6133/8867

consequences, they are currently assigned to separate intellectual domains on the basis of a system of legal and regulatory taxonomy constructed at another moment in history, and with a different set of value assumptions. Thus, the problems of consumers are characterized as "contract law", of tenants as "property law", of debtors as "insolvency law", and of workers as "labour law" or "employment law". Similarly, the decision-making processes by which their fate is determined are variously assigned to the domains of "constitutional law" or "administrative law", "corporations" or "securities law".

However, such labels fail to capture the underlying structural pathologies of contemporary capitalism whose manifestations they represent. By contrast, descriptors such as those I have proposed — "subordination" and "resistance" — or others such as "precarity" or "exclusion", call our attention to what these problems have in common: they all arise from decades of domestic and transnational market fetishism. Admittedly, my alternative descriptors — subordination and resistance, precarity and exclusion — are provocative: but no more so than the terms that have been deployed to ease us gradually into the post-affluent, post-social democratic era that is our "new normal". I have in mind such reassuring terminology as "smart" or "responsive" regulation, "best practices" and "new public management" which are designed to make us feel good about deregulation and the retreat of the state from its responsibilities to protect citizens from malfunctioning markets and malevolent corporations. I might mention "flexibilisation", "responsibilisation" and "contractualisation". Such terms are used to make it appear that recent labour market and welfare "reforms" are not only inevitable but logical and desirable. Who could possibly be against flexibility, against responsibility, against freely made contracts? Who indeed — except those who experience declining living standards and the resulting degradation of their civic and cultural life. My point, in short, is that conceptual language can render the developments they purport to describe visible or invisible, controversial or conventional.

There is also, despite its incoherence, a distinctly practical dimension to a legal field that answer to the name of "the law of economic subordination and

https://doi.org/10.6092/issn.2531-6133/8867

resistance". First, it would be a response to the argument that labour law is nothing more than an attempt to make a claim for workers' privileges that are unavailable to other groups in society. Why, for example, should workers enjoy access to special tribunals with expedited procedures and enhanced remedial powers, when consumer and tenancy disputes must be dealt with through slow, clumsy, expensive and often ineffective procedures of the regular courts? The answer to such questions is the core notion of the law of economic subordination and resistance: all subordinate people should enjoy access to similar means of resistance. Second — a related point — if other groups such as farmers and small businesses could realistically aspire to the social gains won by workers in the heyday of collective bargaining and the welfare state, might they not be less hostile to unions than they now are? third — perhaps too much to hope for — might not a broad coalition of social forces emerge from the shared sense of workers and other subordinate groups that they have a common interest in finding ways to resist their subordination, or at least to strike a better balance between their interests and those of powerful corporations?

That's how legal fields emerge, take hold or decline. It finally brings me to the business of this Summer Institute. I'll try to explain what transnational law has to do with labour law other than it being another legal field in transition.

One connection is that both fields have been influenced by legal pluralism — by the notion that the state has no monopoly on the making of law or its implementation. I developed this notion in *Labour Law Without the State,*[3] one of my first attempts to describe transnational labour law. In that article, I pointed out that labour law had never been state-centred; it had always included an important element of informal and indigenous law making. But as I had to acknowledge in a later article, Landscape and Memory,[4] although labour law was an example of legal pluralism, it was nonetheless shaped by political economy

[3] *See* Harry W. Arthurs, *Labour Law without the State?*, 46 U. TORONTO L. J. 1 (1996).
[4] *See* Harry W. Arthurs, *"Landscape and Memory": Labour Law, Legal Pluralism and Globalization*, in ADVANCING THEORY LABOUR LAW IN A GLOBAL CONTEXT 21 (Ton Wilthagen ed., 1997).

https://doi.org/10.6092/issn.2531-6133/8867

which profoundly influences power relations in labour markets and workplaces, as it does in so many other contexts.

My next attempt to describe transnational labour law was in a piece called *Extraterritoriality by Other Means.*[5] Here I focussed on the practical mechanisms by which globalization constructs its own normative systems. My sub-title — *How Labor Law Sneaks Across Borders, Conquers Minds and Controls Workplaces Abroad* — pretty much tells the story. finally, in a recent piece — *Making Bricks Without Straw: The Creation of a Transnational Labour Regime*[6] — I try to bring together the various lines of my work. Is it possible, I ask, that my counter-factual thought experiment — "the law of economic subordination and resistance" — might help us to think of new ways to protect workers' interests in the context of globalization?

Globalization has played a leading role in the destruction not only of national labour law systems but also of other regimes whose ambition is to restore a measure of fairness to relations characterized by severe inequalities of economic power. We must therefore learn how to achieve social justice in the workplaces of what looks like being a permanently globalized world. However, we have been handicapped in pursuing this project by the absence of a big idea, of a plausible alternative vision of economic relations. Perhaps, maintaining our traditional focus on labour has contributed to this difficulty. Labour lawyers generally insist that their subject is a unique, distinct, legal field. They often make their point by reminding us of the moral implications of the fact that "labour is not a commodity". However, as I point out in *Bricks without Straw*, this justification for labour law "[valorizes] class membership or the employment relation" — both of which are concepts with a diminishing grip on reality. Fortunately, there is another way of looking at labour law. As I suggest:

---

[5] *See* Harry W. Arthurs, *Extraterritoriality by Other Means: How Labor Law Sneaks Across Borders, Conquers Minds, and Controls Workplaces Abroa*d, 21 STAN. L. & POL'Y REV. 527 (2010).
[6] *See also* Harry Arthurs, *Making Bricks Without Straws; The Creation of a Transnational Labour Regime*, in CRITICAL LEGAL PERSPECTIVES ON GLOBAL GOVERNANCE: LIBER AMICORUM DAVID M TRUBEK 129 (Gráinne de Búrca, Claire Kilpatrick & Joanne Scott eds., 2014).

https://doi.org/10.6092/issn.2531-6133/8867

> The . . . . narrative . . . . of employment can be understood as a specific instance of injustice that reinforces the case for adherence to a general principle: everyone is entitled to freedom, dignity and a decent life; everyone should be treated with fairness and compassion. The ultimate value . . . . is social justice, not identity . . . .

In effect, I was offering a new ethical justification for the new legal field that I was proposing, a field built around all relations of economic subordination and all technologies of resistance.

Coincidentally, this formulation also opened up a new possibility to expand the spatial reach of labour law. Today most markets operate across national boundaries and require some form of transnational regulation. However, while a framework of transnational law is emerging to regulate capital and commercial markets, the regulation of labour markets has lagged badly. Worse yet, the absence of effective universal labour standards has enabled regulatory competition amongst states that are willing to attract investors by ensuring the subordination of their own workers. If workers' rights and interests were to be inscribed along with those of other subordinate groups on a comprehensive agenda of developmental and trade concerns — rather than as a separate and unique project called "labour law" — they might gain the same international visibility and transnational support that attaches to, say, environmental or health or consumer protection issues.

Doing this, of course, requires a robust response to the discourse of global "thought leaders" who seek to "normalize" existing relations of subordination by demonstrating that they are not only inevitable but morally defensible. I propose two related examples. According to orthodox economists, Greek pensioners deserve to suffer significant reductions in their standard of living because they have tolerated a political system characterized by corruption, tax evasion, and financial irresponsibility. Likewise, Canadian workers deserve to see their jobs shipped to Mexico or China because collective bargaining and the tax burdens of the welfare state have led to unsustainably high labour costs in the

https://doi.org/10.6092/issn.2531-6133/8867

manufacturing sector. In this fashion, the discourses of market fundamentalism and global neo-liberalism legitimate a system of transnational governance in which the interests of subaltern groups — both labour and non-labour — receive little attention and less sympathy. Collective challenges to this way of thinking are a necessary first step towards alternative models of capitalism and of global governance.

Which brings me — at last — to the prospects of transnational law as an instrument for social justice. Let us assume, as the literature suggests, that there already exists in embryo a body of transnational law governing labour and social rights, human rights more generally and even, as Boa Santos proposes, a jus humanitatis. Let us suppose as well, contrary to the facts, that the widely-recognized regime of lex mercatoria has begun to incorporate principles that ensure basic fairness for the subordinate party in contractual dealings to— debtors, consumers, franchisees and so on. Let us imagine, in other words, that my counterfactual was instead factual, and that the "law of economic subordination and resistance" has already emerged in the interstices of transnational law. What would that mean?

I have to be careful here. It would not mean nothing. In given circumstances this new body of law could be used to embarrass corporate wrongdoers, educate public opinion, and elicit remedial action from governments that now and again want to do the right thing. But that's the problem. Unfortunately, the history of labour law tells us under what "given circumstances" this new branch of law would likely be effective. When labour lost its power, labour law became a lost cause; until other economically subordinate communities regain the power that labour has lost, my thought experiment will not succeed. There will never be a transnational law of economic subordination and resistance, to speak plainly, unless and until social movements have the power to do economic harm to corporations and political harm to governments. International conventions and covenants, universally recognized social rights, corporate best practices and codes of conduct, principles of contract and soft law

https://doi.org/10.6092/issn.2531-6133/8867

regimes: none of these will matter much unless people who do not now have power are somehow able to mobilize effectively and on a broad front.

This will not be easy. The labour movement is clearly disempowered; most other subordinate groups are unwilling to mobilize or, if they do, to stay mobilized for a sustained period of time. Further, many such groups mistrust each other; and that mistrust prevents the formation of broad coalitions. finally, the complexity of global markets largely hides corporations and governments from scrutiny and shields them from pressure. In short, the same circumstances that have led to existing imbalances of wealth and power across the global economy and in national economies, are also preventing the emergence of new legal technologies of resistance.

I admit that prospects for rescuing my intellectual investment through a turn to transnational law seem poor. Why then should we bother with thought experiments like the "law of economic subordination and resistance"? Why should we trouble ourselves about the emergence or non-emergence of a regime of transnational law? One strong proponent of transnational law answers these questions in the following way. The conceptualization of transnational law as a new legal field (he says): ". . . . might help both juristic practice and socio-legal scholarship by making it possible to organize, link and compare what often appear as very disparate and problematic, but increasingly significant, types of regulation."

The same might be said for the law of economic subordination and resistance. He then makes an even more important claim: "The attempt to clarify the nature of transnational law . . . . forces a fundamental reconsideration of relationships between the public and the private, between law and state, and between different sources of law and legal authority."[7]

I agree with those claims, and I will add another, yet more compelling, reason why we should do thought experiments. Their great virtue is that they remind us of the tenuous connection between legal representations of social

[7] Roger Cotterrell, *What Is Transnational Law?*, 37 LAW & SOC. INQUIRY 500 (2012).

https://doi.org/10.6092/issn.2531-6133/8867

relations, and their reality. Concern, even outrage, about that divergence, I should add, is what has caused the current explosion of excellent labour law scholarship, as many scholars suggest ways to rescue, revise or replace existing, obsolete or failed approaches to the field. alas, much of that scholarship (mine not least) is unlikely to produce practical real-world consequences.

Will transnational law suffer the same fate as labour law? Will it come to be regarded as another thought experiment that was intellectually provocative, but did not achieve its ambitious objectives of bringing the rule of law and the regime of justice to a globalized world?

As you will perhaps conclude from your own research and the discussions this week, the definition of transnational law is contested. For some scholars, it includes all of the normative regimes that govern relationships or transactions across state boundaries, including but not limited to those that emanate from state law or from agencies empowered by treaties or conventions entered into by states. For others, transnational law is a pluralistic legal system, constructed from the bottom up, by transnational actors including corporations, sectoral business associations, technical bodies, financial institutions, agencies for dispute settlement, social movements, trade unions and communities.[8] For others still, transnational law offers, above all, a critical perspective on the role of legal regulation in a world that is deeply divided economically and politically. Whatever the definition, one thing is clear: conventional descriptions of law that begin and end with the state are no longer accurate, if they ever were; in our search for greater accuracy we must somehow take account of the multiple normative systems that now govern the transnational movement of goods, capital, people, culture, technique, information and ideas. I am going to refer to those systems as "transnational law" without worrying too much about what is included and what is not in order to make my final point.

It is this: we can admire the ingenuity and the energy of those who have built transnational law, whether they set out to do so or not; we can admire the

[8] *E.g.* Peer Zumbansen, *Transnational Legal Pluralism*, 10 TRANSNAT'L LEGAL THEORY 141 (2010).

https://doi.org/10.6092/issn.2531-6133/8867

intellectual acuity of those who have noted its existence and theorized about it in such a stimulating fashion. But what we cannot do is to romanticize transnational law. Transnational law is very much like national law, only more so. It shares the strengths of national law, but also its weaknesses. It is often inaccessible to those who need it most. Like national law, when it is invoked, it is often ineffective. Like national law, it reflects and frequently reinforces existing power relations but is far less often successful in revising them.

How then do we establish a just and effective regime of transnational law? Just as we do with national law: by broad-based political and social mobilization, by winning the intellectual and cultural battle for people's hearts and minds, by organizing and demanding and pressuring for reform of the economic order that the law is meant to govern. In other words: by making the "law of economic subordination and resistance" a global reality.

University of Bologna Law Review

Department of Legal Studies
Via Zamboni, 27/29
40126 Bologna (Italy)

Email: bolognalawreview@unibo.it
Website: bolognalawreview.unibo.it
Facebook: www.facebook.com/ubolognalr
Twitter: twitter.com/unibolawreview