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Global Information Law: How to enhance the Legitimacy of the Information Order In and Beyond the State?

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David Roth-Isigkeit

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Global Information Law: How to enhance the Legitimacy of the Information Order In and Beyond the State?

David Roth-Isigkeit*

* SOCAI-Centre for Social Implications of Artificial Intelligence
Faculty of Law, University of Würzburg

Index Terms- global information law, legitimacy, public order, administrative law

I. INTRODUCTION

We live in a time where our social existence is pervaded and shaped by the processing of information. This is a truism. Hardly any task could be fulfilled without the retrieval and exchange of information through the internet and their processing on large servers at other ends of the world. We can arrange with the fact to stay at home, quarantined facing global pandemic threats, and accept the fact of our *physical* isolation. Yet it would be much more difficult to imagine a global shutdown when it comes to our connection to the internet, our *informational* isolation. Information has become a central factor in our social lives. Yet unlike the physical aspect of human existence, the informational existence of individual lives lies beyond the scope of the sovereign power of the Westphalian legal order.¹ The legal force of the sovereign national state to impose laws and, ultimately, to exercise coercion in their enforcement is limited when it comes to global information. The nation state becomes merely one actor of many in the regulation of the information order.

This process of multiplication of legal and political spaces and their actors might be called *pluralisation*.² Pluralisation is a process that is occurring not only in the area of information and communication technologies (hereafter: ICTs) but in more areas of the law facing globalization as the uncoupling from the frame of the nation state. Trade, sports, global construction or finance are by the very nature of their subject crossing jurisdictional borders. Regime-specific governance, such as in the global law of merchants *lex mercatoria*, has largely succeeded in solving the coordination problems related to these fields. These regimes are thus not extra-legal in the sense that they would escape legal regulation whatsoever.

Pluralisation merely frees the legal ordering from its constraining frame of the national state. While this might have positive effects through more effective, fast and adequate regulation in the respective fields, it loosens the link between citizens and their national state as a mediator of legitimacy. Yet, it is the historical achievement of democratic governance in the national state to provide for a *systematic* connection of citizens to their polities. Democratic law is a practice of collective self-government.³ As in Jean-Jacques Rousseau's sketch of popular sovereignty, legitimate rule requires the consent of those subordinated to the legal order.⁴

But what is the political frame for the global law of information? As the impact of ICTs on individual lives is further increasing, the quest for a legitimacy model is largely open. As the information sphere assumes more and more aspects of daily life and public order functions, it becomes increasingly clear that today's liberties of citizenship depend on the capriciousness of large digital companies. In order to discuss possible solutions, this chapter puts the information order in the context of other areas of global law which have experienced a similar transformation. While these are not always best-practice examples, we might still be able to learn from their experiences to imagine models of a legitimate digital space.

¹ See also L. Floridi, *The Fourth Revolution* (Oxford, Oxford University Press, 2014) paperback, 170.

² D. Roth-Isigkeit, *The Plurality trilemma - A Geometry of Global Legal Thought* (London, Palgrave Macmillan, 2018) 31 f.

³ See Habermas, See in particular J. Habermas, *Between Facts and Norms*, trans. W. Rehg (Cambridge, MIT Press, 1998) ch 3.

⁴ Rousseau discusses these questions in the Social Contract. See J.-J. Rousseau, *Discourse on Political Economy and the Social Contract*, trans. C. Betts (Oxford, Oxford University Press, 1994).

The chapter proceeds as follows: the second part maps the most important phenomena of what is called global information law, its subject, history and actors. A third part describes the growing legitimacy demands of global information law with its exponentially growing impact on individual lives and its relationship to public order functions. Fourth, the chapter discusses the feasibility of foundational sketches of democratic legitimacy in this transnational space. Fifth, it develops alternative “second-tier” concepts of legitimacy based on administrative law vocabulary. These might mitigate the legitimation problems of global information law for the moment, as the chapter concludes in a sixth part, yet require consciousness that their legitimating resources remain fundamentally incomplete without reference to a global *demos*.

II. WHAT IS GLOBAL INFORMATION LAW?

The *global law of information*⁵ refers to the study of ways in which existing, emerging and disruptive technological advances in the area of ICTs interact with existing laws, be it national, supranational or international. It entails associated implications of these technological advances in furthering the development of new laws, regulatory revision and the overall rethinking of traditional legal conceptions. Current advances range from digitisation and automation technologies to domains covered by ICTs, automated data processing and Artificial Intelligence (AI) -enabled developments in general, matters related to privacy, data protection, cybersecurity, telecommunications, Fintech, data-driven economic models and in particular networked technologies.

For questions like the reach of the right to free speech and free information on the internet in between filter bubbles and hate speech filters, the development of advanced artificial intelligence, the areas, limits and conditions connected to its use, big data collection, processing and ownership inter alia from the Internet of Things, public and private cybersecurity and cyberwar, development of network infrastructures and hardware development, the notion of global information law can provide a common frame of thought which might develop shared principles across the borders of single issue areas.

Navigating through multifaceted relationships between technological advances and law may not always be straightforward, as such requires in-depth analyses of applicable facts, the interpretation of the applicable legal and regulatory infrastructure, in combination with a minimum technical know-how. In order to fully grasp the notion of global information law, we have to understand societal effects of the emergence of ICTs as a transformative process. The depth of the current transformation combines with the traditional picture of the international law of communication as a law of sovereign states to a profoundly global area of study.

a. The Emergence of Information and Communication Technology as a Transformative Process

Transformation processes as such are not extraordinary but rather a normal state of play of political communities. Society is in a constant flux inter alia determined by technology. If we try to grasp and label certain transformations, we look for overarching paradigms which represent the underlying change. If we speak, for example, of globalization as a transformation process in world society, we identify the increasing integration through worldwide trade and the associated decrease of political importance of national states and its borders as a shaping development. This reduction to a specific paradigm allows for a simplification of the description in a complex system such as society.

In this context, by speaking of a digital transformation, we attempt to describe and isolate the influence that the capacity expansion of information technologies has on processes of social change. For example, the industrial revolution in the second half of the 18th and over the course of the 19th century was not triggered in isolation by the development of the mechanical loom and the steam engine but rather was integrated into a complex macroclimate of societal preconditions such as the ideological erosion of agrarian economic production.⁶ At the same time, the success of digital companies takes root in the social inequality and international politics weakened by great power thinking. The in-between of political and economic frames that becomes apparent in the absence of a unified frame of taxation and redistribution offers the more flexible private actors unprecedented chances of wealth accumulation.

This incorporation into the general climate of world society should not, of course, distract from the fact that technological development is a decisive factor in the current transformation. ICTs, that is the ability to transfer, store and process data, change essential elements of our social coexistence in various areas. Importantly, the development of machine intelligence, the collection and use of big data and the global network infrastructure serve as basic technologies, which much like the steam engine can be used almost universally by adapting to various social subtasks. In this universality of development of a

⁵ The concept of a *global information law*, albeit with a different connotation and background, has been coined by C Tietje, *Global Information Law, Beiträge zum Transnationalen Wirtschaftsrecht* Heft 107, available at <http://telc.jura.uni-halle.de/sites/default/files/BeitraegeTWR/Heft%20107.pdf>.

⁶ F Braudel, *Sozialgeschichte des 15-18 Jahrhunderts - Aufbruch zur Weltwirtschaft*, vol 3 (Hamburg, Kindler, 1986) 630.

new technological platform and its explosive adaptation to new tasks, and hence also the generation of added value, lies the depth of social change.

The boom in “artificial intelligence” can be explained, among other things, by the fact that both raw data collection and the computing capacity required for analysis have experienced exponential growth in recent years. The interaction of these factors also creates important synergy effects. Through global networking and in particular the widespread connection of the world’s population to the internet, so much raw data on human behaviour can be collected that its own term has been created – big data. Big data refers to amounts of data which can no longer be meaningfully analysed and systematised by manual work but can only be processed automatically.

The computing capacity required for algorithmic processing is provided, among other things, by an exponentially increasing computer power. The decisive factor here is not that the computing speed of integrated circuits doubles every one to two years in accordance with the Moore law,⁷ but rather the real transformative effect goes hand in hand with the associated falling prices for the general availability of computing capacity. The performance that was built into super computers for millions of dollars a few years ago can now be found in the simple smartphones in your pocket.

The associated changes possess a transformative - and for the national state eroding - profundity as they cover the entire breadth of global society, across territorial borders. Access to the internet (and hence also via the cloud to large computing capacity) is possible almost everywhere via the global spread of the mobile internet. In 2019, for the first time, more than 4 billion people (more than half the world’s population) used the internet.⁸ In terms of social impact, this encompassing connection of people to the stream of digitalization seems even more important than the development of advanced artificial intelligence.

Digital transformation, in the sense of the approach proposed here, describes the type of social change that is triggered by the increasing interaction of human existence with ICTs. This development triggers not only a transformative but also a modifying effect for the very notion of society, by penetrating and changing the lines of conflict that define it. The individual, whose integrity was protected by his involvement in participatory systems and by the guarantee of privacy under fundamental rights turns from a political actor into a mere user of the digital infrastructure. Conflicts over natural resources are now conflicts over data. Classic warfare is being replaced by cyber war. Territorial sovereignty becomes conflict over bandwidth and infrastructure. It is by no means said that states are still the most powerful players in these conflicts, but rather it is those with the best access and information in the global data network that prevail.

b. The International Legal History of a Law of Information

It is important to acknowledge the fundamental change that has occurred in the scope of information law. Most of its history is a classic showcase of international law⁹. From the year 1865, following the invention of the Morse code, the International Telegraph Union as an international organization was responsible for the administration of the first transatlantic cable. In 1932, it merged into the International Telecommunication Union that until today is an important actor in global communication standard-setting and coordination. In 1874, the Universal Postal Union was founded. It regulates the international cooperation of postal services and their cross-border interaction. A law of global communication is thus deeply embedded in traditional international law.

Obviously, the problems and issue areas of this early information law are entirely different from today’s concerns. In particular, the rise of the World Wide Web as main communication channel has essentially changed the configuration of the information order. Yet, it explains how the first exploratory descriptions of “international internet law” have been trying to situate the internet as a subject matter for national states¹⁰. Notions like “cyber territory” were used to bridge the apparent gap between the spatiality of the international legal order and the universality of the internet space¹¹. While it seemed clear that the decisive novelty, the “right to freedom of information” needed to be preserved, the main orientation of the legal order remained in the Westphalian frame¹².

⁷ G E Moore, ‘Cramming more components onto integrated circuits’ (1965) vol 38, no 8 *Electronics* 114–117.

⁸ Global Digital Report 2019, available at <https://wearesocial.com/blog/2019/01/digital-2019-global-internet-use-accelerates>.

⁹ See, in detail, Tietje Global Information Law 6 f (n Fehler! Textmarke nicht definiert.).

¹⁰ R Uerpmann-Witzack, ‘Principles of International Internet Law’ (2010) vol 11 *German Law Journal* 1245-1263.

¹¹ Uerpmann-Witzack, GLJ (2010) 1254 (n Fehler! Textmarke nicht definiert.).

¹² See eg Tietje Global Information Law 14 (n Fehler! Textmarke nicht definiert.).

c. The Emergence of Global Information Law

At least in theoretical representations of global information law, where the governance of the internet plays the most dominant part, this classic international legal approach has given way to more plural conceptions. As the Tunis Agenda for the Information Society concluded at the ITU World Summit already noted in 2005, “Internet governance is the development and application by governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.”¹³ The global information law is an example of dynamic and accelerating transnational law.

The governance of the different areas of the global communication infrastructure is quite diverse. What is called “the Internet” is neither a holistic nor a centrally determined entity. It involves many thousands interconnected networks that are ultimately operated by different providers (corporate, public, governmental etc.). What bind these entities together are common and open standards that ensure the interoperability of these networks. ICANN, the Internet Corporation for Assigned Names and Numbers, is but one self-regulatory mechanism to account for these standards.

The diverse set of actors and types of norms in itself is not a unique feature of a law of information. As in other areas of law, transnationalisation leads to the emergence of a multitude of normative systems that are not exclusively dependent on the sovereignty of the national state. Attempts to define transnational law usually include several factors.¹⁴ Philip Jessup, who apparently first used the term “transnational law”¹⁵ for law regulating actions transcending national frontiers meant to integrate public and private law rules¹⁶. Newer approaches favour a definition that involves the hybrid character of transnational law between the international and the domestic.¹⁷ For Harold Koh, who coined transnational legal process as a distinctive field of study¹⁸, it is precisely the hybrid, decentral norm creation between the international and the domestic that makes up for the phenomenon.¹⁹ Ralf Michaels remarks that “in a transnational paradigm, national and international are no longer strictly separated. Private actors appear in the global sphere; states become in some respects more like private actors.”²⁰ There seems to be relatively wide agreement that transnational law involves, in varying degrees, a weakening of both the public-private and the national-international distinction.

The paradigm case for transnational law is the emergence of a global *lex mercatoria*.²¹ The *lex mercatoria*, the customs of globally active merchants, is nothing new in itself. Commercial law beyond national states has existed ever since, in particular given that the history of trade dates back much further than the history of sovereignty.²² The codification of national trade law in the course of the 18th century and the regulation of trade through sovereign states had temporarily replaced the more direct and unmediated law production by merchants themselves. But as in the course of the 1950s the importance of the transnational interconnectedness of the global economy grew again, the pressing need to account for an unmediated merchant’s law paved the way towards transcending the regulatory frame of the sovereign state again. Some concepts of global information law take reference to this use and have suggested the use of the term *lex digitalis*.²³

The concept of *global* information law does not convey more information than pointing to the fact of transnationalism. Yet, I believe the term “global law” is a useful analytical tool, because it expresses something fundamentally new. According to Neil Walker, it indicates a legal model that increasingly goes beyond the scope of traditional concepts of law.²⁴ Going global allows for recognition of a specific new momentum of the globalization of a specific issue-area in the concept of law.

It has become increasingly clear that global governance develops issue specific. In some cases, this topical governance might develop into so-called self-contained regimes. As Bruno Simma and Dirk Pulkowski define, self-contained regimes are “subsystems [...] that embrace a full, exhaustive and definitive set of secondary rules,”²⁵ thus preventing the application of general international law to wrongful acts.²⁶ Quite similar to private transnational bodies, self-contained regimes emerge when a legal decision-making bodies secure a capacity of its own to develop its law, thus uncoupling from the general framework of international law.²⁷ As exemplified by the case of WTO law, this means a continuous development of the law by the appellate bodies, independent of concerns of general international law.

Currently, global information law is in a crucial phase of development. It has condensed in a normative order,²⁸ yet its processes are still in the phase of chaos. It has not reached the relatively steady state of a self-contained regime that secures the capacity for the own development of the law. Even though some sub-areas of global information law, such as the ICANN system show first signs of such a decoupling from the national space,²⁹ most of the issue areas (e.g. data protection,

¹³ World Summit on the Information Society, Tunis Agenda for the Information Society (2005), WSIS-05/TUNIS/DOC/6(Rev. 1)-E, available at <http://www.itu.int/net/wsis/docs2/tunis/off/6rev1.html>.

regulation of speech rights) remain interlinked to national jurisdictions. Such development is understandable given that regimes tend to decouple from national politics first when it comes to purely coordinative questions. In issue areas where fundamental rights are at stake, domestic courts are more hesitant to externalise review and norm-setting procedures.

The next decades will be important milestones for a global information law beyond the state. Here, it will materialise whether there are any chances of a genuinely harmonised global information order. Crucial for this development are the attempts to foot the law on a broader basis of legitimacy. The next section explains why (unlike the traditional international information law), the dynamic legal environment of global information law requires a new basis.

III. LEGITIMACY DEMANDS OF GLOBAL INFORMATION LAW

The sudden expanse of the importance of global information law has affected individuals inter alia in their human rights, most obvious in their right to privacy. More than that, it has systemic effects that replace and erode the traditional legitimacy model of the nation state based on the idea of collective self-determination. Ultimately, the explosive rise of private power brings the public-private distinction out of balance. The information order as it stands thus produces a legitimacy deficit: it breaks old frames yet remains unable to construct new ones for their replacement.

The rising importance of a legitimate global law of information involves three interrelated aspects. First, technological advances in the area of ICT further accelerate and continuously open new possibilities for their employment. Second, much of what we experience as technological advance is ultimately directed to the economic usability of the advance as a product. Third, this economisation leads to the increasing privatization of the use of ICT's and the multi-dimensionality of the resulting legal space.

a. Impact on Individual Lives

The state has been an important mediator for the global protection of human rights, which undoubtedly constitutes a success model.³⁰ In areas beyond the control of the national state, such as the Internet, it seems particularly problematic who stands

¹⁴ A helpful discussion on the different meanings of the term on the example of the law of the internet can be found in: L Viellechner, *Transnationalisierung des Rechts* (Weilerswist, Velbrück, 2013) 165 f.

¹⁵ P Jessup, *Transnational Law* (New Haven, Yale University Press, 1956) 2: "all law which regulates actions or events that transcend national frontiers".

¹⁶ P Jessup, 'The Concept of Transnational Law: An Introduction' (1963-1964) 3 *Columbia Journal of Transnational Law* 1.

¹⁷ Nye and Keohane defined transnational interactions as "movement of tangible and intangible items across state boundaries when at least one actor is not an agent of a government or an intergovernmental organization" and opposed these to trans governmental interactions, an interaction between the sub-units of different governments. See, J S Nye and R O Keohane, 'Transnational Relations and World Politics: An Introduction' (1971) 25, no 3 *International Organization* 332.

¹⁸ See H Koh, 'Transnational Legal Process' (1996) 75 no 1 *Nebraska Law Review* 181.

¹⁹ H Koh, 'Bringing International Law Home' (1998) 35 *Houston Law Review* 641.

²⁰ R Michaels, 'Three Paradigms of Legal Unification – National, International, Transnational' (2002) 96 *Proceedings of the Annual Meeting of the American Society of International Law* 335.

²¹ The literature is huge. See, A. C Cutler, *Private Power and Global Authority: Transnational Merchant Law in the Global Political Economy* (Cambridge, Cambridge University Press, 2003); N Jansen, *The Making of Legal Authority: Non-Legislative Codifications in Historical and Comparative Perspective* (Oxford, Oxford University Press, 2010); G-P Calliess and P Zumbansen, *Rough Consensus and Running Code: A Theory of Transnational Private Law* (Oxford, Hart Publishing, 2010); T Schultz, *Transnational Legality: Stateless Law and International Arbitration* (Oxford, Oxford University Press, 2014). See initially, G Teubner, 'Breaking Frames: Economic Globalisation and the Emergence of Lex Mercatoria', *European Journal of Social Theory* 5, no 2 (2002) 199.

²² See S Ogilvie, *Institutions and European Trade* (Cambridge, Cambridge University Press, 2011) 264-66; For a critical discussion on the use of history in the debate, see R Michaels, 'The True Lex Mercatoria: Law Beyond the State' (2007) 14, no 2 *Indiana Journal of Global Legal Studies* 447.

²³ See eg Saskia Sassen, *Territory, Authority, Rights - From Medieval to Global Assamblages* (Princeton, Princeton University Press, 2008) 230.

²⁴ N Walker, *Intimations of Global Law* (Cambridge, Cambridge University Press, 2014) 8.

²⁵ B Simma and D Pulkowski, 'Of Planets and the Universe: Self-Contained Regimes in International Law' (2006) 17, no 3 *European Journal of International Law* 493.

²⁶ Simma and Pulkowski, 'Self-Contained Regimes', 493 (n 25).

²⁷ Simma and Pulkowski, 'Self-Contained Regimes', 485 (n 25).

²⁸ M Kettemann, 'The Normative Order of the Internet', *Normative Orders Research Paper* 01/2020.

²⁹ Notably, ICANN has a close relationship to the US chamber of commerce as exemplified by the Joint Project Agreement, available at: <https://www.ntia.doc.gov/files/ntia/publications/signedmou290906.pdf>.

³⁰ See N Bhuta, 'The Frontiers of Extraterritoriality: Human Rights as Global Law' in N Bhutas (ed) *The Frontiers of Human Rights*, (Oxford, Oxford University Press, 2016), 1; For discussion, see Anne Peters, *Beyond Human Rights: The Legal Status of the Individual in International Law* (Oxford, Oxford University Press, 2016), 408 f.

guard for human rights in the same way. Consequently, an intense scholarly debate about the relationship of human rights to all aspects of information technology such as network design or hard- and software applications has evolved.³¹

Privacy and integrity of individual lives are particularly at risk of falling prey to the global information order. Big data involves the accumulation of data from very different spheres of individual lives that can be automatically reconstructed and put together to form a digital personal identity as a copy of the physical human existence on the internet.³² This data collection is possible as every online activity leaves traces that are submitted either voluntarily or without consent through edge devices as well as plugged-in software in the form of aggregated metadata. Further records are created through the sharing of third-party information, a problem that has become more pressing through the integration of connected devices and Internet of Things in the private and public spheres. Here again, individual consent hardly provides thresholds to data collection as spyware transfers individual data to third parties.³³ What is more, the opacity of the data processing leaves individuals clueless about the extent of how and for which purpose their data has been used.³⁴

So far, the public sector does not have a satisfying track record in dealing with this problem. Governments seem to downplay the problem given the improvements in economic efficiency data collection could bring about. For example, the EU General Data Protection Regulation hardly gives sufficient guidance in how to deal with new mechanisms of data processing accelerated by artificial intelligence. While in a short-term perspective, this neglect raises problematic concerns for the protection of individual rights, it also involves a chance. It makes clear that the attempts of a territorial regulation of information technology have failed. Here, a new understanding the form, content and addressees of human rights equally involves chances, such as the possibility to bind private actors to human rights standards across national borders.

b. Systemic Imbalance

The legal discourse has largely neglected the systemic imbalance that results from the dynamics of the information order. While it is important to note how the practices impact on individuals' rights, what is connected to these practices is the imbalance that causes the political system to tremble. Democratic governance relying on collective self-determination is increasingly at risk of falling prey to the manipulation of choices. Such influence on public election has become prominent in the debate in particular as it has been argued that the American presidential election 2016 has been influenced from abroad. Further rumours of foreign influence on democratic elections have persisted since.

Technically, targeted advertisement, targeted news and so-called social media trolls, persons that intentionally spur emotional debate through spreading false information, are able to influence the public perception of a candidate.³⁵ The Council of Europe suggested in its report that “[f]ine grained, sub-conscious and personalised levels of algorithmic persuasion may have significant effects on the cognitive autonomy of individuals and their right to form opinions and take independent decisions.”³⁶ As Jamieson argues, it is not only the fact that such influence through social media is increasing that should make us worry about the quality of democratic elections, but also that even “serious” media coverage tends to follow the lines of the influencers. The category of quality media loses its credibility with the devastating effect of a loss in trust in the medium as such.³⁷

Closely connected to this failure is the prevalent phenomenon of echo chambers. An echo chamber³⁸ is normally received as a metaphor for the self-reinforcing of specific beliefs in a closed communication system. You only hear, albeit in a slightly changed manner, the sound of your own voice, which in this case might reinforce your belief in the correctness of your claim. Echo chambers might occur as an outcome of targeting algorithms in social media platforms. Yet, as Benkler, Faris and Roberts argue: “Echo chambers ringing with false news make democracies ungovernable. We can imagine a pluralist democracy in which populations contested elections and won or lost based on their votes, without ever sharing a viewpoint

³¹ For an overview, see G Sartor, Human Rights and Information Technologies, in R Brownswords, E Scotfords, K Yeungs (eds) *The Oxford Handbook of Law, Regulation and Technology* (Oxford, Oxford University Press, 2017) 424-450; For a connection of technical questions of internet architecture and human rights, see C Cath, L Floridi, ‘The Design of the Internet’s Architecture by the Internet Engineering Task Force (IETF) and Human Rights’ (2017) 23 *Science and Engineering Ethics* 449-468.

³² B James, ‘Ethics of identity in the time of big data’ (2019) vol. 24 (5) *First Monday*, <https://journals.uic.edu/ojs/index.php/fm/article/view/9624/7756>.

³³ S D Eposti, ‘When big data meets dataveillance: The hidden side of analytics’ (2014) vol 12 no 2 *Surveillance & Society* 209-225.

³⁴ The Human Rights, Big Data and Technology Project, University of Essex, submission to OHCHR on “The Right to Privacy in the Digital Age” (OHCHR 2018, 8), A/HRC/39/29.

³⁵ S C Woolley, P N Howard in Woolley, Howard (eds) *Computational Propaganda: Political Parties, Politicians, and Political* (Oxford, Oxford University Press, 2018) 3 ff.

³⁶ Council of Europe (CoE) Committee of Ministers, ‘Declaration on the Manipulative Capabilities of Algorithmic Processes’, Decl (13/02/2019)1, 2019.

³⁷ K H Jamieson, *Cyberwar – How Russian Hackers and Trolls Helped Elect a President: What We Don’t, Can’t and Do Know* (Oxford, Oxford University Press 2018) 218.

³⁸ Or with E Pariser, *Filter Bubble – What The Internet is Hiding from You* (New York, Penguin 2011).

on what is going on in the world.”³⁹ While some authors warn that the effect of these phenomena has been largely overstated,⁴⁰ a meaningful forum for opinion and will formation has yet to be found.

This is the Janus face of digital transformation. “Techno-social engineering” creates a state where technologies and social forces align and impact how we think, perceive and act.⁴¹ This is also a challenge for the legal discipline. As Shoshana Zuboff notes “We rely on categories such as ‘monopoly’ or ‘privacy’ to contest surveillance capitalist practices. And although these issues are vital, and surveillance capitalist practices are also monopolistic and a threat to privacy, the existing categories nevertheless fall short in identifying and contesting the most crucial facts of this new regime.”⁴²

c. Transnational Private Power

Ultimately, the global information order witnesses an unprecedented rise of transnational private power. Academics have continuously tried to exemplify this rise. In 2000, a report argued that of the 100 largest economies in the world, only 49 were countries while 51 were corporations.⁴³ The report used a highly debated comparison between the GDP of a country and companies’ revenue.⁴⁴ Yet what is interesting to illustrate in this respect is that in a re-make of the report in 2016, already 71 of the largest economies were corporate.⁴⁵ The tendency of large corporations to grow exponentially also finds root in the platform logic of the digital space, which tends to promote winner-takes all scenarios.

As a side effect, when the state transforms into a digital society, the traditional distinction between public and private as one central aspect of state order ceases away. The fuse between public and private becomes especially visible in transnational concepts of law and politics which reaching beyond the different spheres. What we can observe is functions that are originally attributed to the public sphere,⁴⁶ like communication infrastructures, are increasingly performed by private actors. In addition, norm and standard setting becomes privatised and voluntary. This role-change towards the privatization of public order has not been accompanied by the expansion of public responsibilities of large companies.

While most Western economies have seen large waves of privatisation of (communication) infrastructure in the 1970’s, the trend has turned since the 2000’s and points towards more public influence. Yet, this trend has limits: in large parts of the world, private initiative is the only prospect of a connection to the world. We see this, for example, in the growing South-East Asian investments on the African continent and its communication infrastructures.⁴⁷ On the other hand, even in industrialised societies the key infrastructures relevant for the digital transformation are not public. If we just consider the reliance on the storage of data on private server clouds, we see a growing dependence of public action on the provision of private infrastructure.

At the same time, the transnational character of phenomena on the internet make it difficult to attribute liability to the responsible actors.⁴⁸ As a result of the cross-border character, national legislation has difficulties to get its hand on private action. Through the clever choice of the legal forum in which they act, private companies can effectively determine the conditions for the regulation of technical progress, the attribution of liabilities and even of their taxation.⁴⁹ While public communities increasingly raise consciousness for the problem and some measures to combat tax avoidance have been taken,⁵⁰ the playing field has still not been levelled.

In order to release the pressure of democratic system, private companies start to become norm entrepreneurs.⁵¹ They implement common and voluntary codes of conduct, non-binding ethical guidelines that regulate the behaviour of them and

³⁹ Y Benkler, R Faris, H Roberts, *Network Propaganda – Manipulation, Disinformation and Radicalization in American Politics* (Oxford, Oxford University Press, 2018) 4.

⁴⁰ A Bruns, *Are Filter Bubbles Real?* (Polity, 2019).

⁴¹ B Frischmann, E Selinger, *Re-Engineering Humanity*, (Cambridge: Cambridge University Press, 2018) 4.

⁴² S Zuboff, *The Age of Surveillance Capitalism* (New York, Public Affairs, 2019) 14.

⁴³ Top 200: The rise of corporate global power https://ips-dc.org/top_200_the_rise_of_corporate_global_power/

⁴⁴ For discussion, see Floridi, *Revolution* (2014), 174 (n 1).

⁴⁵ M Babic, J Fichtner, E M Heemskerk ‘States versus Corporations: Rethinking the Power of Business in International Politics’ (2017) 52:4 *The International Spectator* 20-43, 27.

⁴⁶ H M Watt, ‘Private International Law Beyond the Schism’ (2015) vol 2 *Transnational Legal Theory* 347.

⁴⁷ For a nuanced analysis, see F Lisk ‘Land grabbing’ or harnessing of development potential in agriculture? East Asia’s land-based investments in Africa’ (2013) vol 26:5 *The Pacific Review* 563-587.

⁴⁸ Roth-Isigkeit, *Plurality Trilemma* (2018) 39-41 (n 2).

⁴⁹ A Bell, *Forum Shopping and Venue in Transnational Litigation* (Oxford, Oxford University Press, 2003).

⁵⁰ See, eg the Anti-Tax Avoidance package of the European Commission of January 2016: www.ec.europa.eu/taxation_customs/business/company-tax/anti-tax-avoidance-package_en.

⁵¹ G Teubner, ‘The Corporate Codes of Multinationals: Company Constitutions Beyond Corporate Governance and Co-Determination’ in R Nickels (ed) *Conflict of Laws and Laws of Conflict in Europe and Beyond: Patterns of Supranational and Transnational Juridification* (Oxford, Hart, 2009).

their competitors. While this might sound advantageous, one central aspect is that while they might implement favourable legislative conditions for themselves, such corporate norm-setting is at odds with the principle of democratic self-determination.

Most importantly, it is increasingly corporate actors who determine what is private and what is public. The individual has to open the private realm to the algorithms of companies. What we consider for ourselves as private is – in fact – easy decipherable for the data analytics. In turn, what we consider as a public statement might remain unread in a social network as the sorting and display algorithms see fit.

IV. FOUNDATIONAL CONCEPTS OF LEGITIMACY

Global information law thus opens a gap between the legitimation resources that are conserved in national states and the legitimacy requirements of actual decision-making. Simply closing the gap through a re-nationalization of the subject matter is an option that is unavailable as a result of the interdependencies of the network structure of the internet. For example, national jurisdictions might offer laws against hate speech on the internet which do their part in the fight against it. Yet, unlike in the case of housebreaking, which is an act that can be attributed to a specific physical territory and thus a sovereign jurisdiction, it will not be possible to ultimately contain the whole phenomenon of hate speech in a national legal framework. The search for a foundational concept of legitimacy thus tries to imagine a transfer of the concept of democratic legitimacy to the level beyond the state.

a. Self-determination as the Gold Standard of Legitimacy

The central concern of a transfer of democratic legitimacy to the level beyond the state is the concept of self-determination. The exercise of political authority in any form can only be justified with reference to those subject to this political authority. In line with the enlightenment model, legitimation requires the identity of the ruler and the ruled. A legitimate global information law thus needs to rely on a reconstruction of democratic authority on the global sphere.

This connection of popular sovereignty to the constitution of the national state appears most clearly in Habermas' understanding of law as a practice of collective self-government. Habermas' discourse theory of law and democracy locates the nodal point of legitimacy in the legal procedures that create the law, given that they fulfill two conditions. First, these procedures must ensure the inclusion of everyone concerned, and second, the laws must be created in a deliberative process of collective will formation.⁵² The (conservative) hope is that, through the interpenetration of popular sovereignty and legal form, the legitimacy model of constitutional democracy reassembles on the global level.

The decisive aspect of self-determination as the “gold standard” of democratic governance is a reunion of the active role of those subordinated to the law with legal formality. Klaus Günther has argued that this requirement has already condensed to a universal code, “which guarantee[s] the minimum requirements of democratic self-determination: the right to change the role between author and addressee of a legal norms, transparency of procedures of opinion and will formation, imputability of decision and responsibility for consequences, equal access to procedures and equal rights of participation for third parties.”⁵³

b. Democracy and Institutional Reform

In principle, the democratic governance of the global information order would require far-reaching institutional reform. This reform is often associated with the concept of global constitutionalism. Constitutionalism appeared in the 1990s primarily as mitigation for the legitimation gap as a consequence of the exercise of non-state authority.⁵⁴ It is through the assumption of political unity beyond the state, often suggested in the vocabulary of a cosmopolitan community, that constitutionalism can suggest a frame of reference for the exercise of non-state authority.⁵⁵ The concept of digital constitutionalism is thus

⁵² Habermas, *Between Facts and Norms* (1998) 121-123 (n 3).

⁵³ K Günther, ‘Legal Pluralism or Uniform Concept of Law – Globalisation as a Problem of Legal Theory’ (2008) 5 *No Foundations – Journal of Extreme Legal Positivism* 18.

⁵⁴ S Kadelbach, “Konstitutionalisierung und Rechtspluralismus – Über die Konkurrenz zweier Ordnungsentwürfe,” *Archiv für Rechts- und Sozialphilosophie*, Beiheft 153 (2017), 97.

⁵⁵ See eg M Kumm, ‘The Cosmopolitan Turn in Constitutionalism: On the Relationship in Constitutionalism in and beyond the State’ in J.L. Dunoff, J Trachtman (eds) *Ruling the World? – Constitutionalism, International Law and Global Governance* (Cambridge, Cambridge University Press, 2009) 258; M Avbelj, J Komarek, ‘Four Visions of Constitutional Pluralism’ (2008) 2, no. 1 *European Journal of Legal Studies* 325; For criticism, see N Krisch, *Beyond Constitutionalism: The Pluralist Structure of Postnational Law* (Oxford, Oxford University Press, 2010) 67: ‘It embodies a peculiarly modern trust in the ability of mankind to rationally govern itself.’

directed at the development of an institutional frame that secures minimum conditions of democratic governance. Therefore, it suggests a construction of unity of political order. The unity of legal order, in contrast, comes rather as a by-product for the functioning transfer of the legitimacy of the political order to the practical exercise of authority. At its heart, *digital constitutionalism*⁵⁶ is concerned with the civilization of political authority. Arguably, democracy in its current understanding is ill-prepared to create a level playing field between public and private spheres. There are no visible tendencies of a development of a shared political culture that would be a precondition for a process of bottom-up constitutionalisation of the digital space.⁵⁷

c. New Institutional Frames

Is there any chance for the foundational model of democratic legitimacy to prevail in the digital realm? From the outset, it seems to have better chances than in other areas of globalised law. Gunther Teubner has argued that constituent power is “a communicative potential, a type of *social energy*.”⁵⁸ Through its origin in communication between physical subjects, global information law arises in the presence of this potential. While intermediaries weaken the connections between individual participants as subjects of the network, the social energy would require “the consciousness and corporeality of actual people”⁵⁹ in order to unfold.

Thus, digital constitutionalisation as the emergence of a constituted order would first require a transnational public sphere⁶⁰ where actual people see themselves as subjects of the information order. One central impediment to this individual consciousness is the mediation of individual contributions through corporate platforms. Emerging technologies allow for an alternative organisational integration. For example, peer to peer network infrastructures, such as distributed ledger technology (DLT) –based platforms, would in principle allow for multi stakeholder relationships whereby it is made possible to reduce dependency on third parties with centralised governance. Changes in the communication infrastructure might thus substantially improve the ability of a transnational public sphere to emerge.

So far, the concrete formation of a global public sphere has been largely topical on the event of global crisis. Greta Thunberg, for example, has succeeded in raising awareness for the climate catastrophe and provided focal points for a common discourse. Teubner argues that constitutional moments are crucially connected with the experience of crisis. “Ultimately, then, it is a system’s pathological tendencies that bring forth the constitutional moment, the moment of catastrophe, in which the decision is made between the energy’s complete destruction and its self-restraint.”⁶¹ Yet, these catastrophes in single areas tend to produce tunnel visions of the public interest of a polity.⁶² A global pandemic might raise awareness for problems in the global health system, yet does not improve the principles of governance of the digital world. Even worse, spill-over effects might lead to distortion within the digital system and introduce a “state of exception” logic. A recent case is the introduction of surveillance measures to enforce contact limitations in the Corona crisis which has been introduced in China.⁶³ The use of mobile phone service provider data to combat the spread of the disease is increasingly discussed in continental Europe.⁶⁴ In regime-specific governance, there is a competition in which issue receives the most attention from the global public.

Yet, if there is an area to transcend this tendency of regime-specific public interest, it will probably be the area of global information law. Since in a globalised world communication provides the backbone of any meaningful political human interaction, it might become the necessary precondition for any topical engagement. There is reason to be mildly optimistic. As Günther contends “In the last step, we have to trust the historical experience of the democratic constitutional nation state

⁵⁶ For a first use of the concept, see L Gill, D Redeker, U Gasser, ‘Towards Digital Constitutionalism? Mapping Attempts to Craft an Internet Bill of Rights’ (2015) *Berkman Center Research Publication* No. 2015-15, <https://ssrn.com/abstract=2687120>; See also B Fitzgerald, ‘Software as discourse? A constitutionalism for information society’ (1999) 24 (3) *Alternative Law Journal* 144; For a helpful discussion on the matter, see E Celeste ‘Digital Constitutionalism: Mapping the Constitutional Response to Digital Technology’s Challenges’ (2018) 2 *High Discussion Paper Series*.

⁵⁷ Again, in Habermas’ words: ‘[W]orld citizens do not form a collective that would be held together by a political interest in the self-assertion of a way of life that shapes their identity.’, J Habermas, *The Crisis of the European Union: A Response*, trans. C Cronin (Cambridge, Polity, 2014) 64-65.

⁵⁸ G Teubner, *Constitutional Fragments: Societal Constitutionalism and Globalization* (Oxford, Oxford University Press 2012) 63.

⁵⁹ Teubner, *Constitutional Fragments*, 63 (n Fehler! Textmarke nicht definiert.).

⁶⁰ See, for an elaboration of this argument in global governance, P Nanz, J Steffek, ‘Global Governance, Participation and the Public Sphere’ (2004) 39, no. 2 *Government and Opposition* 314.

⁶¹ Teubner, *Constitutional Fragments*, 82 (n Fehler! Textmarke nicht definiert.).

⁶² Teubner, *Constitutional Fragments*, 156 (n Fehler! Textmarke nicht definiert.).

⁶³ New York Times, March 1, 2020, available at <https://www.nytimes.com/2020/03/01/business/china-coronavirus-surveillance.html>

⁶⁴ Tagesschau, March 27, 2020, available at <https://www.tagesschau.de/inland/corona-handydaten-103.html>

to ground our hopes that people will re-activate the idea of a constitutionalised democratic self-legislation against the networks of legal experts who only administer the universal code of legality.”⁶⁵

V. ADMINISTRATIVE CONCEPTS AS SECOND TIER PROVIDER OF LEGITIMACY

Foundational concepts are utopian insofar as they need considerable political action to be realised. Looking at the status quo of global information law, this institutional reform seems far away. This section illustrates what might be called “second-tier” provider of legitimacy. “Second-tier” means that while they do not live up to the demands of democratic constitutionalism, they still introduce some basic legitimacy requirements in global information law.

a. A Shift in Vocabulary

One of the central legitimisation problems of global information law stems from the lack in accountability, transparency and participation. Administrative law principles could provide for criteria for a review of this normative output, without necessarily having to relate back to the legitimacy chain that starts with constituted demos. These lower demands make the design and control of review procedures easier to achieve. Referring to administrative law vocabulary, similar to constitutional discourse, entails the hope to be able to connect to conceptual debates in domestic law to understand phenomena of technology law beyond the state.

In this perspective, legitimacy is gradual. There are more and less legitimate institutional set-ups. Importantly, this involves a shift of perspective. It departs from the formal-procedural frame of democratic legitimacy to a Dworkinian line of argument. Dworkin argues that “[a]ny theory about the correct analysis of an interpretive political concept must be a normative theory: a theory of political morality about the circumstances in which something ought or ought not to happen.”⁶⁶ Such approaches thus replace the collective will as a formal-procedural point of reference with the “relatively mundane demand to ensure that appropriate forms of transparency, participation, representativeness, and accountability become an integral part of governance practice”.⁶⁷ Currently, however, such modest representations might be the only plausible answer to the challenges of global information law.

b. Administrative Principles

In practice, this would mean the application of a diverse set of administrative principles to global information law. As a general theoretical approach, the research strand of *Global Administrative Law* is one of the most influential schools of global legal thought dealing with plurality and the legitimacy of global governance. In short, law beyond the state transforms from a contractual basis into a “global administrative space”⁶⁸. In this space, a variety of public and private actors produce legal acts with external effects on states and individuals through rule generation, interpretation and application that are not subject to judicial review.⁶⁹ Remedy for this lack of review can be found by drawing analogies to rights in administrative procedures. General principles of public law such as legality, rationality, proportionality, rule of law and human rights potentially provide for a legitimating frame.⁷⁰

Other voices have equally suggested that transnational decision-making lacks a frame of reference to ground its authority.⁷¹ Von Bogdandy and Venzke find inspiration for a recalibration of democracy in the Articles 9-12 of the *Treaty of the European Union*, which are supposed to provide a vision of an international democracy.⁷² The principles contain basic procedural rules, such as democratic elections of judges, publicness of decisions and due process guarantees.⁷³ They

⁶⁵ Günther, ‘Uniform Concept of Law’ 20 (n **Fehler! Textmarke nicht definiert.**).

⁶⁶ R Dworkin, ‘A New Philosophy for International Law’ (2013) 41 no 1 *Philosophy and Public Affairs* 11.

⁶⁷ Kumm, ‘Cosmopolitan Turn’, 273 (n **Fehler! Textmarke nicht definiert.**).

⁶⁸ B Kingsbury and N Krisch, ‘Global Governance and Global Administrative Law in the International Legal Order’ (2006) vol 17 no 1 *The European Journal of International Law* 1.

⁶⁹ GAL distinguishes between two general types of administrative action, constitutive and substantive. Sometimes the category of procedural law is added. See, B Kingsbury, ‘The Concept of ‘Law’ in Global Administrative Law’ (2009) vol 20, no 1 *European Journal of International Law* 34; The first type, constitutive administrative law, concerns the delegation of power to administrative bodies and their internal structure. GAL counts these constitutive rules, that in most jurisdiction would could as constitutional law in the narrow sense to a body of emerging administrative law. The primary advantage of GAL is the capacity to address the second type of global administrative action, that they define as substantive. This type refers to the output of global administration, which can be understood in general terms as producing norms and decisions. Both types have external effects on other global administrative entities, states or individuals, which have to be legitimated through the administrative process.

⁷⁰ Kingsbury, ‘Concept of Law,’ 32-33 (n **Fehler! Textmarke nicht definiert.**).

⁷¹ A von Bogdandy, I Venzke, *In Whose Name? – A Public Law Theory of International Adjudication* (Oxford, Oxford University Press) 9 f.

⁷² Bogdandy, Venzke, *In Whose Name?*, 135f (n 71).

⁷³ Bogdandy, Venzke, *In Whose Name?*, 157f (n 71).

guarantee a global citizenship on the basis of “equality, representation, transparency, participation, deliberation, and responsiveness.”⁷⁴ The exercise of authority is legitimate when it observes these principles.

Indeed, these general approaches might provide for an increased legitimacy of global information law in the sense that they could begin a process of bottom-up constitutionalisation. If the surrounding institutional frame becomes increasingly dense, leeway for the arbitrary exercise of transnational corporate power shrinks. When – for example – algorithms in social networks are put under obligations of justification, this might at least improve the human rights protection of concerned individuals while at the same time limiting the impediment on collective will-formation.

c. Risks and Benefits of „Second-Tier” Options

“Second-tier” providers thus formulate non-constitutional concepts to evaluate the legitimacy of global governance. Their central concern is how to preserve the legitimacy of public arrangements and private norm creation at the same time. Such squaring of the circle might imply considerable risks. If the constitutional type of legitimacy demands is taken out of the picture, these approaches might end up legitimating administrative action that is in fact illegitimate.⁷⁵ As Koskenniemi argues, “legitimacy is not about substance. Its point is to avoid such substance but nonetheless to uphold a semblance of substance [...] to ensure a warm feeling in the audience.”⁷⁶

At the same time, “second-tier” options might be better than nothing. If a global political frame is missing, these fairly general principles could provide for patches for the most pressing problems in the information society. International legal discourse, so the famous argument goes, oscillates between *Apology* and *Utopia*, between concreteness and normativity, always tragically required to give preference to one over the other.⁷⁷ Foundational legitimacy requirements seem to be unavoidably utopian with no possibility of being realised. “Second-tier” options might reinforce the asymmetries and injustices already present in today’s global information law and be apologetic to current power dynamics.

For the moment, the most convincing solution to deal with these dilemmas is a certain consciousness and reflexivity. Most likely the introduction of basic accountability and justification procedures will be celebrated as a revolutionary achievement of information governance. Facing these celebrations, we should take note of the fact that such minimum requirements of the rule of law are self-evident, in particular when corporations increasingly assume public order functions. Rather, we should insist on a political solution for the information order that keeps its perspective to the truly revolutionary achievement of collective self-determination.

VI. CONCLUSION

This chapter has argued that the traditional understanding and scope of global information law has fundamentally changed given the disruptive effect of technological advances. While traditional dogmatic resources of the international legal order of information retain importance in the interpretation and reading of the law, the pluralisation of the global communication infrastructure has effectuated a shift in actors and institutions. While international law can access the legitimating resources of the sovereign national state, the case is different with processes that take place completely outside the traditional frame. Global information law thus has a crucial legitimacy deficit.

In order to overcome this deficit, this chapter has first examined suggestions that link back the processes of the global information order to a foundational concept of democratic legitimacy. While foundational concepts provide an important utopian perspective, they have currently no chances of being realised. “Second-tier” options in contrast are more likely to provide pragmatic mitigation for global information law’s legitimacy demands yet cannot replace the holistic view on a human polity. When the legitimacy debate on global information law picks up pace, consciousness is required that “second-tier” options might provide short term patches yet cannot replace the fundamentally necessary political perspective on the global information infrastructure.

⁷⁴ Bogdandy, Venzke, *In Whose Name?*, 147 (n 71).

⁷⁵ N Krisch, ‘Global Administrative Law and the Constitutional Ambition’ in, P Dobner, M Loughlin (eds), *The Twilight of Constitutionalism* (Oxford, Oxford University Press, 2010) 245.

⁷⁶ M Koskenniemi, ‘Miserable Comforters: International Relations as New Natural Law’, (2009) 15 *European Journal of International Relations* 395, at 409.

⁷⁷ M Koskenniemi, *From Apology to Utopia – The Structure of International Legal Argument* (Cambridge, Cambridge University Press, 2009).

AUTHOR

Author – ¹David Roth-Isigkeit, Dr. iur., david.roth-isigkeit@uni-wuerzburg.de

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