Articles

Transnational Private Regulation and the Changing Media of Rules

By Tony Porter*

A. Introduction

The growth of transnational private regulation has involved a great many types of changes, including changes in the types of actors that make rules, in the degree of formality of rules, and in the spatial boundaries of rules. One type of change that merits more focused attention is in the media of rules. Historically a major shift was from rules that were communicated orally, to rules that were inscribed in physical objects. Changes in these objects, from stone or clay to paper and print media were also consequential, enabling rules to be created, preserved and disseminated in new ways. This shift was closely associated with the growth of public authority and its accompanying artefacts such as written constitutions, official documents, and paper money. Today further technological changes in information and communications media are widely recognized as associated with structural transformations of all types of institutions. These technologies facilitate the use of networks and transnational supply chains by business. They stimulate the growth of global social movements and undermine state censorship. They lead to experiments with e-Government and threaten the business models of newspapers and the music industry. But what exactly is the significance of these technological changes for the creation, preservation and dissemination of rules, and how do these changes in the media of rules interact with the growth of transnational private regulation?

This paper argues that the changing media of rules is an important and often underestimated dimension of all aspects of transnational private regulation (TPR). We tend to think of TPR as driven by the changing balance of power between public and

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¹ On transnational regulation, *see* for instance, John Braithwaite & Peter Drahos, Global Business Regulation (2000); Burkard Eberlein, Kenneth Abbott, Julia Black, Errol Meidinger & Stepan Wood, *Interactions in Transnational Business Governance Interactions: Conceptualizing a Terrain*, paper under review at Regulation & Governance (2013); Thomas Hale and David Held eds, Handbook of Innovations in Transnational Governance (2011), Christian Tietje & Alan Brouder, Handbook of Transnational Economic Governance Regimes (2009).

private actors, by the need of public authorities to respond to increasingly complex and urgent problems for which command and control regulation is inadequate, such as the regulation of complex financial markets, or perhaps by new norms that value the private-sector way of doing things. These interpretations focus on human interactions. The material dimension of these interactions is usually treated as secondary and subordinate. This happens, for instance, when business actors accumulate material resources and then use these to increase their power relative to the public sector. However, to be effective, particularly at the transnational level, rules need to be recorded or communicated with the assistance of material artifacts such as paper or digital networks. The important role played by these material artifacts in constraining, enabling or altering rules is often underestimated.

B. The Changing Media of Rules

Some scholars have begun to analyze the significance of the media of rules in ways that are useful for understanding TPR. Lessig has explored the way in which computer code operates like law. In cyberspace the code can constitute environments, control access, and constrain relationships. Since it is embedded in objects and can be invisible to those it affects, it can often be more difficult to circumvent, and more effective, than traditional law. Like TPR, the code can be written and managed by private actors, while also lending itself to use by governments. Riles has emphasized the role that the materiality of documents plays in the TPR provided by the International Swaps and Derivatives Association (ISDA).3 The ISDA's master agreement is a template that is widely used in derivatives contracts, and the materiality of these contracts contributes to their ability to shape markets. The widespread use of these contracts assisted the ISDA in its successful efforts to get national legislatures, courts, and regulators to enforce them or incorporate them into domestic law and regulation. ⁴ The materiality of the mountains of paper on which the documents are printed and filled out is an important aspect of their effectiveness. Hansen and Salskov-Iverson emphasize the importance of mediation in constituting private authority. 5 This includes the way that newspapers, television and the internet shapes identities and mindsets, with organizational ramifications, but also the way

² LAWRENCE LESSIG, CODE. VERSION 2.0. (2006).

³ Annelise Riles, Collateral Knowledge: Legal Reasoning in Global Financial Markets (2011); Annelise Riles, *The Anti-Network: Private Global Governance, Legal Knowledge and the Legitimacy of the State*, 56 Amer'n J. of Comp. L. Special Symposium Issue 605-30 (2008).

⁴ John Biggins & Colin Scott, Extending and Contracting Jurisdictions in a Transnational Private Regulatory Regime: Efficiency, Legitimacy, ISDA and the OTC Derivatives Markets, UCD Working Papers in Law, Criminology & Socio-Legal Studies Research Paper No. 51/2011, November 1, (2011), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1952582 (last accessed: 1 December 2012).

⁵ Hans Krause Hansen & Dorte Salskov-Iversen, Critical Perspectives on Private Authority in Global Politics (2008).

that objects are crucial to extending control in complex environments. However, despite valuable insights provided by these approaches there is more to be done to systematically understand the broader significance of the changing media of rules for TPR.

In earlier historical periods the media of transnational rules matched well the spatial distribution of the density of social organization. Territorially-based states displayed relatively dense institutionalization, while trans-border relations were thinly institutionalized. In both locations the media of rules included mixtures of written documents and oral communications. However, in the territorial state the variety of forms that documents took was far greater, including not only public law written in official documents, but a countless number of other complementary documents, including private contracts, policies and procedures, identity documents, checklists, and guidebooks. It would be a mistake to underestimate the variety of documents that sustained cross-border interactions in previous historical periods, including passports, visas, commercial contracts, invoices, bills of exchange, paper currencies, diplomatic cables, and many others. However, in general, a relatively light trans-border flow of paper documents connected far denser agglomerations of documents in national spaces.⁶

The materiality of the media of rules also was not restricted to paper documents in earlier historical periods. Rules about borders were enacted and reinforced with walls and gun emplacements, or by aligning them with the physical properties of the earth's surface. Customary international law relating to jurisdictions over the seas was shaped by the reach of cannons located on the state's shores. Economic and scientific rules and standards were reinforced by objects such as gold, standardized weights and measuring instruments, and the physical configuration of production processes, such as docks, railways, or the foreign offices of banks. Objects were used instrumentally, but also played a constitutive role, such as when the images on coins reinforced national identity or when the communication of agreements through the telegraph altered individuals' conceptions of their place in the world. Like paper documents, these material media of rules were lightly distributed in cross-border spaces, which connected much more dense configurations in national spaces.

⁶ On documents, *see* for instance, Annelise Riles, Documents: Artifacts of Modern Knowledge (2006). On passports *see* Mark Salter, Rights of Passage: The Passport in International Relations (2003). On currencies, *see* Eric Helleiner, The Making of National Money: Territorial Currencies in Historical Perspective.

⁷ Nisha Shah, The Territorial Trap of the Territorial Trap: Global Transformation and the Problem of the State's Two Territories, 6 INT'L POL'TL SOC'Y 57-76 (2012).

⁸ HENDRIK SPRUYT, THE SOVEREIGN STATE AND ITS COMPETITORS: AN ANALYSIS OF SYSTEMS CHANGE (1996).

⁹ ERIC HELLEINER, THE MAKING OF NATIONAL MONEY: TERRITORIAL CURRENCIES IN HISTORICAL PERSPECTIVE (2003).

 $^{^{10}}$ Stephen Kern, The Culture of Time and Space 1880-1918 (1986).

Our present historical period has been widely recognized as involving an alteration in the distribution of rules and institutions, with the trans-border spaces becoming more densely populated relative to national spaces, although debate persists about the degree to which national spaces are becoming more or less filled with rules. A great number of concepts have been devised to capture a shift from centralized rulemaking in national states to a far more disaggregated form of "control at a distance". Control at a distance relies upon discourses, measurements, or other mechanisms to align the actions of far flung actors with the imperatives of systems of power. Concepts that have been used to analyze control at a distance include governmentality, the disaggregated state, the regulatory state, principal-agent relations, experimentalism, assemblages, and rough consensus and running code, among many others.

Attention has also been devoted to the objects that have facilitated these changes. As noted above, often the treatment of the media of rules has treated these as secondary to the decisions and identities of powerful actors—as shaping their environments or as resources that they can deploy. However, useful work has also been done on the way that objects can independently constitute or enable these new configurations of rules, with actor-network theory²⁰ providing particularly useful insights. For instance Mackenzie has

¹¹ Steven Kent Vogel, Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries (1996).

¹² "Control at a distance" is associated with Foucault's concept of governmentality. *See* Mike Reed *Organizational Analysis as Discourse Analysis: A Critique* in DISCOURSE + ORGANIZATION 193-213 (David Grant, Tom Keenoy & Cliff Oswick eds., 1998).

¹³ GLOBAL GOVERNMENTALITY: GOVERNING INTERNATIONAL SPACES (Wendy Larner & William Walters eds., 2004).

¹⁴ Anne-Marie Slaughter, *Disaggregated Sovereignty: Towards the Public Accountability of Global Government Networks*". 39 Gov't & Oppos'n 122-55 (2004); Anne-Marie Slaughter, A New World Order (2004).

¹⁵ David Levi-Faur, *The Global Diffusion of Regulatory Capitalism*," 598 The Annals of the American Academy of Political and Social Science 12-32 (2005).

¹⁶ Darren Hawkins, David Lake, Daniel Nielson & Michael J. Tierney eds., Delegation and Agency in International Organizations (2006).

¹⁷ Charles Sabel & Jonathan Zeitlin *Learning from Difference: The New Architecture of Experimentalist Governance in the EU* in Experimentalist Governance in the EUROPEAN UNION, TOWARDS A NEW ARCHITECTURE 1-28 (Charles Sabel & Jonathan Zeitlin eds., 2010).

¹⁸ HEATHER MCKEEN-EDWARDS & TONY PORTER, TRANSNATIONAL FINANCIAL ASSOCIATIONS AND THE GOVERNANCE OF GLOBAL FINANCE: ASSEMBLING POWER AND WEALTH (BOOK MANUSCRIPT IN PRESS); AlHWA ONG & STEPHEN COLLIER, GLOBAL ASSEMBLAGES: TECHNOLOGY, POLITICS AND ETHICS AS ANTHROPOLOGICAL PROBLEMS (2005); SASKIA SASSEN, TERRITORY, AUTHORITY, RIGHTS: FROM MEDIEVAL TO GLOBAL ASSEMBLAGES. PRINCETON: PRINCETON UNIVERSITY PRESS (2006).

¹⁹ GRALF-PETER CALLIESS & PEER ZUMBANSEN, ROUGH CONSENSUS AND RUNNING CODE: A THEORY OF TRANSNATIONAL PRIVATE LAW (2010)

²⁰ THE LAWS OF THE MARKETS (Michel Callon ed., 1998); Bruno LATOUR, REASSEMBLING THE SOCIAL: AN INTRODUCTION TO ACTOR-NETWORK THEORY (2005).

analyzed the centrality of measuring devices and the properties of gases for the construction of the constitutive rules of carbon markets. ²¹ Technical work and the devices themselves make carbon tradable. The configuration of these devices can have massive financial implications. Mackenzie's emphasis on these devices differs from more conventional approaches that start from the assumption that carbon can be measured and then focus on the interactions between humans in markets. Such a restricted focus on human interactions can push the important roles of measuring devices and other objects into the background analytically.

In work that I have done with Hansen on the role of numbers in transnational governance, we have highlighted the distinctive properties of numbers relative to words, which include their ability to order, and their mobility, stability, combinability, and precision. ²² Simple operations such as counting are tied to sets of progressively more complex, integrated, and relatively autonomous sets of numerical or mathematical operations, including metrology, database management, statistical analysis, and higher mathematics. Unlike many social or scientific rules, rules in higher mathematics have no empirical content, but are consistently followed and proved with little debate. The numericization of governance, including the use of rankings, indices, or risk models, has been central to a great many new forms of transnational regulation, including transnational business regulation.

The material aspects of the use of numbers and mathematics in governance are particularly important. Digitization has broken down boundaries between thought and matter, enabling increasingly intense interactions, such as between mental and digitized images, between scientific ideas and genomes, or between the perceptions of border guards and biometric algorithms. We especially focused on barcoding and radio frequency identity (RFID) technologies. The use of RFID to connect objects has been called the "internet of things", and the relative autonomy of these relationships is captured by the title of a *Harvard Business Review* article, "Have your objects call my objects". We examined the extensive use of RFID in ePassports and cross-border supply chains. These technologies connect the micro-level management of rules at the border or in the warehouse with larger macro-rules. Examples of such macro-rules include the official rules of the International Civil Aviation Organization or the private rules of the International Air Transport Association, or the World Trade Agreement's rules and the private standards set by GS1, a non-profit association with more than 1.2 million member companies in about 148 countries.

²¹ Donald MacKenzie, *Making Things the Same: Gases, Emission Rights and Politics of Carbon Markets.*" 34 ACCOUNTING, ORGANIZATIONS AND SOCIETY 440-455 (2009).

²² Hans Krause Hansen & Porter, Tony *What do numbers do in global governance?* INTERNATIONAL POLITICAL SOCIOLOGY (forthcoming). *See also* Keith Robson *Accounting Numbers as "Inscription": Action at a Distance and the Development of Accounting*, 17 ACCOUNTING, ORGANIZATION AND SOCIETY 685-708 (1992).

²³ Glover Ferguson, *Have your Objects Call my Objects*, HARV. Bus. Rev. 138-44 (2002).

In highlighting the importance of the media of rules it is important not to emphasize that that technological changes on their own do not determine the actions of firms or regulators. Such technological determinism has long been discredited. Individuals and organizations continue to act creatively to reshape technologies, and accidents can divert the momentum of machine systems. At the same time, the media of rules can interact with human intentions and actions in ways that very significantly influence the creation, management, and effects of rules.

C. The Media of Rules and the Distinctive Features of Transnational Regulation

Contemporary transnational regulation (TPR) is dependent on the changes in the media of rules that have accompanied its emergence. TPR differs from more traditional international rules in at least three ways. First, private actors are more closely involved in the making and management of rules. Second, the rules have a more robustly transnational character as compared to traditional public international law, in which sovereign states codified their relations with one another. In contrast, TPR involves complex linkages between domestic rules and ones that are developed in transnational processes that have considerable autonomy from any particular nation state. Third, TPR is more flexible, fast, and informal, often taking the form of soft law or best practices. Each of these defining features of TPR would not be possible without the changes in the media of rules discussed above.

The private presence in TPR is heavily dependent on changes in the media of rules. If the only way to preserve and communicate rules was pen, paper and the printing press, it is unlikely that business actors could move much beyond the international conferences and national involvement that were typical of the 19th century.²⁴ It would simply be too costly and time consuming to maintain a sustained transnational presence, let alone to manage complex changing rule-governed relationships among business actors. TPR relies heavily for its effectiveness on the linkages between macro-level rules and the internal operating procedures of firms, as evident in the relationship between the GS1 standards and the electronic supply management technologies used by firms, or the dependence of the Basel III bank capital adequacy standards on the internal risk management rules of banks. These trans-business linkages would not be possible without advances in the media of private rules.

Similarly TPR would not be as thoroughly transnational without the changes that have occurred in the media of rules. In the past, an individual's relationship to national jurisdictions was much clearer. Conflicts of law procedures sometimes had difficulty sorting

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²⁴ Craig Murphy, International Organization and Industrial Change: Global Governance since 1850 (1994).

out particular cases, such as a crime committed by one citizen against on a ship registered in a third jurisdiction sailing on the high seas. However, today millions of individuals can simultaneously be present in the jurisdictions that govern the location of their body, and elaborately institutionalized cyberspaces that lack any unambiguous link to single sovereign jurisdictions. A soldier in Texas can pull a trigger in Pakistan, and a financial trader in Singapore can incur an immediate financial loss in France. These linkages, and the micro-level rules they depend on, could not be created, nor could they be regulated, with pen and paper alone.

Finally, TPR could not be as fast, flexible and informal without the changes that have occurred in the media of rules. TPR and the interactions it governs would soon drown in a sea of paper if that was the only media available for preserving and communicating rules. The time needed to conduct traditional steps of rulemaking, such as notice and comment procedures, has been dramatically reduced with electronic media. Digitization allows new forms of real time adjustments in rule commitments, such as when a financial clearing house monitors and enforces its rules governing the flow of funds and member firms electronically, or when transnational agreements between retailers and suppliers are immediately altered as the pace at which customers take products from different shelves varies over time. Indices and rankings allow far finer performance distinctions to be readjusted as performance changes, thereby rendering more flexible the compliance functions that they can sustain.

D. The Media of Rules and Controversies Associated with TPR

Considering the media of rules is as important for understanding the ongoing operations and effects of TPR as it is for understanding its emergence. While a full exploration of this claim goes beyond the scope of the present paper, it is useful to consider the implications of the media of rules for three important overlapping controversies associated with TPR. The first controversy relates to the distributional consequences of a shift from more traditional rulemaking, which benefits from the accountability and legitimacy of traditional democratic procedures and the formality of domestic law, to an informal transnational process that often seems to be dominated by powerful wealthy private sector actors. The second controversy relates to changes in the public/private boundary, where our capacity for collective action to address potentially catastrophic global public policy problems such as climate change may be enhanced or undermined by increased reliance on TPR, with its prominent private presence. The third controversy relates to the effectiveness of TPR, where compliance is often seen as weaker because of the informal or private character of

²⁵ LESSIG, *supra* note 2.

²⁶ Tony Porter, "Making Serious Measures: Numerical Indices, Peer Review and Transnational Actor Networks," 15 J. OF INT'L REL. & DEV. (2011) 532–57.

the rules. I look briefly at the relevance of the media of rules for each of these three controversies in turn. I have already discussed the relevance of the media rules for the emergence of TPR, and therefore to these controversies, but here I focus on the more direct implications of changes in the media of rules.

I. Distributional and accountability controversies

How might the media of rules be relevant to the distributional implications of the growth of TPR? Often distributional controversies are debated without reference to the media of rules. For instance the shift of rulemaking from legislatures to technically complex transnational policy networks may be seen as shifting power from the average citizen to powerful corporate elites. These elites, with their greater command of money and knowledge, and their more sustained transnational presence, are better able to influence TPR than are citizens. However, such a way of framing the debate, while useful, tends to obscure the role of the media of rules with regard to distributional issues. Does it matter than the shift to TPR has also involved a shift in the media of rules?

There are multiple ways that rules can have distributional consequences, some of which are unintended or indirect. While it is impossible to consider all these ways here, it is useful to focus on the most important factors, which are associated with words like democracy, accountability, and legitimacy. The implication of these words is that if citizens as a whole are able to influence rulemaking, the distributional consequences of the rules are more likely to be fair than if a particular set of interests dominate rulemaking in secret. The latter is associated with regulatory "capture", which is usually agreed to be a pathology with negative distributional consequences, although there are some contrary views. How are the media of rules relevant to democracy, accountability, and legitimacy? Traditionally this media included oral debate in legislatures, reports to citizens through

²⁷ On transnational democracy, accountability and legitimacy, *see* The Challenges of Global Business Authority: Democratic Renewal, Stalemate, or Decay? (Tony Porter & Karsten Ronit eds., 2010), Walter Mattli & Ngaire Woods, *In Whose Benefit? Explaining Regulatory Change in World Politics, in* The Politics of Global Regulation 1-43 (Walter Mattli & Ngaire Woods eds., 2009), Ruth Grant and Robert Keohane, *Accountability and Abuses of Power in World Politics*, 99 Amer. Pol. Sci. Rev. 29-43 (2005), Global Accountabilities: Participation, Pluralism and Public Ethics (Alnoor Ebrahim & Edward Weisband eds., 2007). A well-recognized distinction is between input and output legitimacy (Fritz Scharpf, Governing in Europe. Effective and Democratic? (1999). Conceptually and ethically it is easier to focus on input because the observer is claiming that everyone should have an opportunity to participate in decisions that affect them, an easier claim to justify than is the observer's preference for a particular outcome. This is the approach taken here.

²⁸ On capture, see Stefano Pagliari ed., THE MAKING OF GOOD FINANCIAL REGULATION: TOWARDS A POLICY RESPONSE TO REGULATORY CAPTURE (2012). For instance there may be public policy benefits in allowing knowledgeable firms to have privileged access while protecting the confidentiality of their commercial secrets. A more extreme view is that voluntary contracting between individual firms is preferable to mandatory public or private regulation, but the credibility of this view is low in the aftermath of the global financial crisis of 2007.

newspapers, and laws written on paper, enforced by judges and police forces. This process was reinforced by the grandeur and materiality of legislative buildings and national monuments. TPR relies more heavily on electronically mediated storage and communication in rulemaking and management, and on virtual objects, such as well-designed websites, for its democratic elements, its accountability, and its legitimacy.

In general, it is likely that a shift from the media of rules associated with traditional democratic processes to the media of rules associated with TPR will have distributional and accountability effects that benefit wealthy elites at the expense of the average citizen.²⁹ Partly this is due to the greater difficulty for average citizens than for wealthy elites of working with the media associated with TPR. Although citizens increasingly have widespread access to the internet, digital divides remain wide, 30 and many TPR interactions take place on closed or private networks. Oral communication continues to be important, but it has shifted from more easily observed legislatures to distant conference rooms. Most importantly, the vast and complex delegation of decisions to firms or to machines in TPR renders those decisions even less transparent. However the uniqueness or inevitability of these effects associated with TPR should not be overstated. Very similar processes are occurring with domestic regulation. Moreover, there are offsetting advantages of electronically mediated rules. Websites may create demands for greater transparency. Electronic records and rules used by firms may provide opportunities for citizens to impose sustainability requirements on supply chains, or to demand greater equity in wages.³¹ It should be evident, however, that whatever the net effect of these contrary tendencies might be, it is impossible to analyze adequately the distributional consequences of greater reliance on TPR without considering the media of rules.

II. Changes in the public/private boundary

Traditionally there was a relatively clear division "public" and "private". Public was associated with the state. Private was associated with business and an individual's personal matters.³² In some conceptions the public also referred to the public sphere, which, like civil society to which it is closely related, mediates between the state and the individual.

²⁹ On democracy, accountability and TPR, see supra note 27.

³⁰ United Nations Conference on Trade and Development THE DIGITAL DIVIDE REPORT: ICT DIFFUSION INDEX 2005 (2006).

³¹ On the use of supply chain tracking technology for regulatory purposes, *see* Graeme Auld, Benjamin Cashore, Cristina Balboa, Laura Bozzi & Stefan Renckens, *Can Technological Innovations Improve Private Regulation in the Global Economy?* 12 Bus. & Pol. (2010). Efforts to use Walmart's electronic systems for these purposes are discussed in Hansen & Porter, *supra* note 20.

³² Jeff Weintraub, *The Theory and the Politics of the Public/Private Distinction, in* Public and Private in Thought and Practice: Perspectives on a Grand Dichotomy 1-42 (Jeff Weintraub & Krishan Kumar eds., 1997).

While debates about the appropriate location of the public/private boundary overlap with the distributional and accountability issues discussed above, they involve an additional important issue, which is the capacity for collective action. Public institutions and the public sphere enable the formation of sufficient consensus to tackle the countless severe global public problems facing humanity, including global warming, financial instability, epidemics, armed violence, terrorism, and the exhaustion of natural resources. While improved private property rights may be useful in addressing such problems, such as with carbon markets or the use of derivatives to mitigate financial risk, the formulation and deployment of private property rights to solve such problems requires public action.

TPR challenges traditional conceptions of the public/private boundary, and in doing so provokes controversies about whether the public quality of governance is being dangerously undermined, or whether instead a more effective use of private institutions and rules has been devised. Often such debates implicitly measure the relative prominence of governmental and business actors and rules in TPR, assuming that these adequately represent the public and private elements in these governance arrangements. However, this tends to obscure the changes in the qualities of public and private that have been associated with changes in the media of rules.

The most important quality of publicness is not its link to the state, or to civil society, but rather its openness or inclusive quality, which is counter-posed to the exclusion that is the defining characteristic of privateness.³⁴ Openness and exclusion are consistent with economic definitions of public goods and private property rights³⁵, but can include other discursive and social meanings, such as public quality of the content of a rhetorical assertion, or the informal boundaries constructed by a group of close friends. States can exhibit private interests and values, for instance when regulators are captured. Businesses can exhibit public interests and values, such as when internet service providers facilitate the growth of a public sphere.

³³ Inge Kaul & Ronald Mendoza, *Advancing the Concept of Public Goods, in* PROVIDING GLOBAL PUBLIC GOODS: MANAGING GLOBALIZATION 78-111 (Inge Kaul, Pedro Conceicao, Katell Le Goulven and Ronald Mendoza eds., 2003).

This argument draws upon an unpublished paper I produced for a project initiated by Jacqueline Best and Alexandra Gheciu entitled "Constitutive public practices in a world of changing boundaries". The argument was informed by an unpublished overview paper they provided for that project. A copy of my paper is available upon request. On the project, see Centre for International Policy Studies, The Return of the Public, but not as We Knew It: Changing Practices of Global Governance, UNIVERSITY OF OTTAWA, available online at: http://cips.uottawa.ca/projects/publicprivate-interaction-and-the-transformation-of-global-governance-2/ (last accessed: 1 December 2012).

³⁵ On economic definitions, see Harold Demsetz, *Toward a Theory of Property Rights*, 57 AMER. ECON. Rev. 347-59 (1967); Alkuin Kölliker, *Conclusion I: Governance Arrangements and Public Goods Theory: Explaining Aspects of Publicness, Inclusiveness and Delegation, in* New Modes of Governance in the Global System: Exploring Publicness, Delegation and Inclusiveness 201-35 (Koenig-Archibugi, Mathias & Michael Zürn eds., 2006).

Shifts in the media of rules have important implications for the balance between publicness and privateness in TPR. Following the disastrous experience with secret treaties in the lead up to World War I, and responding to demands for transparency from citizens as democracy expanded, states agreed to prohibit secret treaties in international law. Article 102 of the UN Charter now requires that treaties be registered at the United Nations. Ratification processes also often fostered public awareness of treaties. These processes were dependent on the media of rulemaking discussed above, such as paper documents and oral debates in legislatures. However produced and, the different media of rules associated with TPR have impacts on TPR's publicness that are independent of the prominence in TPR of private actors. Digitized media allows far finer gradations and distinctions among public or private zones or objects. Moreover, the control mechanisms that produce these gradations and distinctions are far more easily managed by business actors than in earlier historical periods where state action primarily constituted the public/private boundary.

This is especially evident in digital rights management (DRM). For instance, a Rights Expression Language (REL) like XrML aims to specify a wide variety of rights to content that will govern users, such as the length of time a file can be possessed, and whether it can be sampled, copied, printed or modified. Unlike copyright laws RELs provide complete discretion to their coders in specifying private rights.³⁶ While these mechanisms are often underwritten by public legislation, such as the US Digital Millennium Copyright Act or the European Copyright Directive, they are also reinforced by the materiality of the systems in which they are embedded, such as when a consumer accesses a network into which the setting of public and private are encoded in software and servers. DRM exemplifies the many non-traditional mechanisms that can govern publicness and privateness of TPR. Others include password-protected or open websites, reports circulated through email lists rather than public archives, official meetings held on inaccessible islands rather than capital cities, the embedding of rules in complex risk models or machine systems rather than public documents, and the use of exclusive newsletters rather than broadcast media. The variety and complexity of controls over publicness and privateness are increased by the extension of integrated rule systems from those who develop them initially or manage their overall direction, to the disaggregated sites at which they are implemented, recalibrated, and enforced.

As with the distributional and accountability impacts of changes in the media of rules that have accompanied the emergence of TPR, the impact on publicness and privateness remains in flux, although it is likely that private actors will be better positioned to benefit

³⁶ Stefan Bechtold, *The Present and Future of Digital Rights Management — Musings on Emerging Legal Problems, in* DIGITAL RIGHTS MANAGEMENT — TECHNOLOGICAL, ECONOMIC, LEGAL AND POLITICAL ASPECTS, BERLIN: SPRINGER 597-654 (Eberhard Becker *et. al.* eds., 2003); Karen Coylem, *The Technology of Rights: Digital Rights Management*, Based on a talk given at the Library of Congress (2003), available at: www.kcoyle.net/drm basics1.html (last accessed: 1 December 2012).

and to promote the private elements of TPR arrangements to an extent that is suboptimal from a public policy perspective. Again, whatever the net effect of these contrary tendencies might be, it is impossible to analyze adequately the impact on the public/private boundary of greater reliance on TPR without considering the media of rules.

III. Compliance and the media of rules

Traditionally enforcement of rules involved the mobilization of material resources such as police forces, armies, or economic sanctions to deter or punish non-compliance. Enforcement of public international law has relied heavily on self-help by states. There are long-standing debates about the degree to which the absence for international law of a coercive institution such as the state is a problem for its enforcement, and thus for its character as law. For some scholars compliance with public international law can be ensured by complex forms of reciprocity that confer or deny rights in the community of states in response to compliance or non-compliance with international law, while for others this falls far short.³⁷ However, regardless of which of these positions seems most credible, TPR is often seen as weaker because it is not only transnational, but is also at some distance from the more traditional coercive instruments of the state.

While the debates about the significance of the absence of a world state will never be fully resolvable, it seems evident that the growing density of transnational interactions provides a growing variety of opportunities for expanding the complex forms of reciprocity that have been seen by some scholars as important even in earlier periods. There is now a significant body of work that analyzes the importance of more intangible factors such as reputation and credibility in bringing about compliance with soft or private law.³⁸

The media of rules associated with TPR are also important in analyzing compliance. In today's complex global setting, intangible qualities such as reputation and credibility cannot be constructed or rendered effective if they remain at the level of thought or face-to-face oral communication. Even the construction of opportunities for face-to-face communication requires extensive reliance on material objects, such as airplanes, hotel rooms, agendas, and meeting venues. When leaders of governments or corporations make

³⁷ ANTHONY D'AMATO, INTERNATIONAL LAW: PROCESS AND PROSPECT (1986).

³⁸ Kenneth Abbott & Duncan Snidal, *Hard and Soft Law in International Governance*, 54 Int'l Org. 421-56 (2000); William Bradford, *International Legal Compliance: Surveying the Field* 36 Georgetown J. of Int'l L. 495-36 (2005); Claire Kelly, *Enmeshment as a Theory of Compliance*, 37 New York Univ. J. of Int'l L. & Pol. 303-56 (2005); Edward Luck & Michael Doyle eds., Int'l L. & Org.: Closing the Compliance Gap (2004); Aseem Prakash & Matthew Potoski, *Collective action through voluntary environmental programs: a club theory perspective,*" 35 Pol. Stud. J. 773-92 (2007); Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System (Dinah Shelton ed., 2000); Beth Simmons, *Compliance with International Agreements, in* International Law: Classic and Contemporary Readings 181-200 (Charlotte Ku & Paul Diehl eds., 2003).

oral commitments in such settings, and repeatedly put reciprocal pressures on one another to foster compliance, this can be effective. However, the effectiveness is only enabled by the objects that transmit their actions when they return home.

The complex entanglement of humans and objects in domains, and their linkages with the rules created in TPR arrangement, provide additional types of compliance mechanisms than existed in earlier periods when state leaders return home after signing treaties. As discussed above, rules can be embedded in risk models, machine systems, procedures manuals, checklists and many other technical artefacts. Even when international law is primarily communicated orally and on paper it can be argued that actors need to work through the codes or shared understandings that law or negotiation has established in order to communicate intelligibly or effectively. 39 However, when rules are embedded in technical artefacts this is even more the case. This can take the form of documents, as with the ISDA master agreement discussed above. It can also include other objects. For instance, standards for automobile manufacturing are governed by the public World Forum for Harmonization of Vehicle Regulations, the public/private International Organization for Standardization's ISO/TC 16949 standards, and the International Automotive Task Force, a private organization of manufacturers. Once agreed, these are engineered into parts. While third party certifiers play an important role in compliance, the unforgiving materiality of an auto part that does not match the dimensions or other specifications of the rest of the car is also significant. ⁴⁰ A similar example is provided by Mitchell of the way in which compliance with rules on dumping of waste at sea was greatly enhanced once tankers were required to be built so that such dumping was not physically possible.41

E. Conclusion

In this paper I have argued that it is important to consider the changing media of rules that have accompanied the emergence of TPR if we wish to understand that emergence and its implications. I have sought to go beyond the valuable work of scholars such as Lessig, Riles, or Hansen and Salskov-Iverson by more systematically considering the relevance of the media of rules for TPR. I identified three distinctive features of TPR: the prominence in TPR of private actors; the more robustly transnational character of TPR relative to traditional public international law, and TPR's flexibility, speed and informality. I then argued that all

³⁹ NIKLAS LUHMANN, LAW AS A SOCIAL SYSTEM (2004); Thomas Risse, "Let's Argue!" Communicative Action in World Politics, 54 INT'L ORG. 1-39 (2000).

⁴⁰ Tony Porter, *Transnational Policy Paradigm Change and Conflict in the Harmonization of Vehicle Safety and Accounting Standards, in* INTERNATIONALIZATION AND POLICY PARADIGM CHANGE 64-90 (Grace Skogstad ed., 2011).

⁴¹ Ronald B Mitchell, *Regime Design Matters: Intentional Oil Pollution and Treaty Compliance*", 48 INTERNATIONAL ORGANIZATION 425-458 (1994).

three of these features were enabled by changes in the media of rules. This illustrates the relevance of the media of rules for understanding the emergence of TPR. The paper then explored the relevance of the media of rules for three key debates about TPR: its distributional and accountability implications; its impact on the public/private boundary; and its effects on compliance. In each case the changing media of rules have effects that need to be taken into account, even if they also create new countervailing forces that complicate our ability to predict longer range outcomes. The media of rules are significant not only for how they modify the interactions of leaders of states and firms, but also how they link in new ways the high-level agreements that these leaders create with micro-level operations of the regulated firms. These linkages rely heavily on objects, which in many cases embody rules in a material form that is not easily altered.

While the materiality of the media of rules cannot on its own determine the fate of those rules, it can significantly reinforce or constrain human agency. It is difficult to assess TPR and its effects without considering changes in the media though which these rules operate. This media cannot always be modified at will by humans. Especially with increasingly complex forms of automation the objects involved in the media of rules display a significant degree of independence, comparable at times to the independence of the humans involved in the management and implementation of rules. There is much more to be done to more fully understand the significance of the interactions between humans and objects, and the changing media of rules more generally, for TPR and other forms of governance.