Nodal Governance

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Introduction

There is now widespread interest in the concept of governance. Governance, which we define as the management of the course of events in a social system, is proving a useful rubric for thinkers and researchers in a number of fields who are interested in democracy, honest and efficient government, political stability and the rule of law.[1] Governance directs

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[1]   See, eg, Lewis Kornhauser, 'Governance Structures, Legal Systems, and the Concept of Law' (2004) 79 *Chicago-Kent Law Review* 355; Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi, *Governance Matters III: Governance Indicators for 1996-2002* (2003); Wolfgang Hein, 'Global Health Governance and National Health Policies in Developing Countries: Conflicts and Cooperation at the Interfaces' in Woflgang Hein and L Kohlmorgan (eds), *Globalization, Global Health Governance and National Health Policies in Developing Countries: An Exploration into the Dynamics of Interfaces* (2003) 33; James Rosenau and Ernst-Otto Czempiel (eds), *Governance Without Government: Order and Change in World Politics* (1992); Paul Kennedy, Dirk Messner and Franz Nuscheler (eds), *Global Trends and Global Governance* (2002); Louise Trubek, 'Public Interest Lawyers and New Governance: Advocating for Healthcare' [2002] *Wisconsin Law Review* 575; Jody Freeman, 'The Private Role in Public Governance' (2000) 75 *New York University Law Review* 543. For other definitions of governance, see, eg, Hein, this note, 35–7 ('all the structures and processes necessary to maintain a modicum of public order and movement towards the realization of collective goals at every level of

attention to the mechanisms (institutions, social norms, social practices) through which these undoubted social goods may be instantiated in social systems, from the smallest community to the global trade regime.[2] Unfortunately, the complexity of governance in practice has evaded capture in the models that are commonly deployed in legal and regulatory theory.[3] The models of decision-making set out in legal documents like constitutions and procedural laws — not to mention those contemplated in philosophical theories of justice — can diverge strikingly from actual human social behaviour. Understanding how power is distributed and wielded is a precondition for promoting just and efficient governance.

Governance at all levels of social organization is typically complex, and the various governance systems throughout social space interact with even greater complexity. The venerable and conveniently simple notion that governance is the province of the independent state and its subdivisions operating through formally established, universal and reasonably stable legal modes is plainly insufficient to deal with the practical and conceptual tasks associated with good governance. Governance today is characterized by a plurality of actors (states, corporations, the World Trade Organization, institutions of 'civil society', criminal and terrorist gangs) forming more or less interconnected governance networks;[4] a plurality of mechanisms (force, persuasion, economic pressure, norm creation and manipulation);[5] and rapid

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community throughout the world'); Kaufman, this note, 2 ('The traditions and institutions by which authority is exercised').

[2] Note that we see governance as a phenomenon that unfolds at all levels of social organization. Cf Saskia Sassen, 'The Participation of States and Citizens in Global Governance' (2003) 10 *Indiana Journal of Global Legal Studies* 5, 5 ('Crucial to my analysis is the notion that the global is multi-scalar: it does not take place only at the self-evident global scale, but also at the national and sub- national scales').

[3] Kornhauser, above n 1 makes this point; see also Alfred Anman Jr, 'The Globalizing State: A Future-Oriented Perspective on the Public/Private Distinction, Federalism and Democracy' (1998) 31 *Vanderbilt Journal of Transnational Law* 769 (critiquing 'state-centered' accounts of law).

[4] See, eg, Nikolas Rose and Peter Miller, 'Political Power Beyond the State: Problematics of Government' (1992) 43 *British Journal of Sociology* 173; H K Colebatch, 'Government and Governmentality: Using Multiple Approaches to the Analysis of Government' (2002) 37 *Australian Journal of Political Science* 417; Colin Scott, 'Private Regulation of the Public Sector: A Neglected Facet of Contemporary Governance' (2002) 29 *Journal of Law and Society* 56; Anne-Marie Slaughter, 'The Accountability of Government Networks' (2001) 8 *Indiana Journal of Global Legal Studies* 347; John Braithwaite, 'The New Regulatory State and the Transformation of Criminology' (2000) 40 *British Journal of Criminology* 222; John Braithwaite and Peter Drahos, *Global Business Regulation* (2000).

[5] See, eg, Colin Scott, 'Analysing Regulatory Space: Fragmented Resources

adaptive change.[6] Conventional models of how governance works are hard put to encompass in a useable heuristic these many elements. Yet even as such fundamental notions as the link between political participation and state citizenship begin to be questioned,[7] we cling to the old models, working ever harder to fit the phenomena we observe into the forms of the past.[8]

In this article, we describe a model of governance that has proven useful in our own thinking. We take complexity seriously, taking as our starting point Friedrich Hayek's compelling account of the epistemological limits on human organization and planning. We begin as well with Hayek's appreciation of markets as a means of bringing order to complex systems by coordinating diffused knowledge and capacity. To this starting point we bring our diverse experience as scholars engaged in studying and instigating new forms of social organization. In particular, we draw upon Drahos' study of the regulation of multinational corporations[9] and Shearing's work

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and Institutional Design' [2001] *Public Law* 329; Susan Sell, 'The Quest for Global Governance in Intellectual Property and Public Health: Structural, Discursive and Institutional Dimensions' (2004) 77 *Temple Law Review* 363; Peter Drahos, 'Securing the Future of Intellectual Property: Intellectual Property Owners and their Nodally Co-ordinated Enforcement Pyramid' *Case Western Reserve Journal of International Law* (forthcoming 2005); Andrew Dunshire, 'Tipping the Balance: Autopoiesis and Governance' (1996) 28 *Administration and Society* 299; Peter Grabosky, 'Using Non-Governmental Resources to Foster Regulatory Compliance' (1995) 8 *Governance* 527; Lawrence Lessig, 'The Regulation of Social Meaning' (1995) 62 *University of Chicago Law Review* 943; Cass Sunstein, 'Social Norms and Social Roles' (1996) 96 *Columbia Law Review* 903.

[6]   Scholarship on governance and regulation rarely considers how even the best designed form of rule is affected by the passage of time and the strategic improvisations of the governed. Institutions develop and rules are made in response to current conditions in order to secure certain new behaviours and ends; even if successful at the time, over time the governed learn to game that system, evade the rules or govern the governors. The meaning of essential concepts is transformed within or distributed across institutions within the system. John Braithwaite, 'Rules and Principles: A Theory of Legal Certainty' (2002) 27 *Australian Journal of Legal Philosophy* 47. The result over time is that no matter how formally stable the system may be, in action it has transformed into something different altogether.

[7]   See, eg, Clifford Shearing and Jennifer Wood, 'Nodal Governance, Democracy, and the New "Denizens"' (2003) 30 *Journal of Law and Society* 400; Sassen, above n 2.

[8]   Unger has aptly characterized this phenomenon as 'institutional fetishism': Roberto Mangabeira Unger, *What Should Legal Analysis Become?* (1996) 6–8.

[9]   Braithwaite and Drahos, *Global Business Regulation,* above n 4.

in creating institutions of micro-governance in poor South African communities, in which Burris has also been involved, and Burris's efforts to link law and social epidemiology.[10] We agree with Hayek that complexity makes governance a challenging game, but we are not nearly as pessimistic as Hayek about the potential for effective management of complex social systems. To understand what planning and intervention is possible, and how to engage in it, we need to understand how complex systems produce order, and to design governance systems that mimic or complement the ordering work of systems themselves. To those ends we offer here a 'nodal governance' framework. Nodal governance is an elaboration of contemporary network theory that explains how a variety of actors operating within social systems interact along networks to govern the systems they inhabit.

In Part I of the article, we draw upon Hayek to argue that any collectivity can be understood to be an 'outcome-generating system' ('OGS') whose workings are generally too complex to be fully understood. Inhabitants develop forms of governance as a strategic adaptation to complexity. Our theory posits that governance in such systems is substantially constituted in nodes — institutions with a set of technologies, mentalities and resources — that mobilize the knowledge and capacity of members to manage the course of events. Nodes are normally but not essentially points on networks, but networks are a prime means through which nodes exert influence.

To illustrate how nodal governance operates and to explore its regulatory possibilities, in Part II we discuss two case studies. First, we consider the genesis of the World Trade Organization's ('WTO') Agreement on Trade-Related Aspects of Intellectual Property Rights ('TRIPS'). Second, we examine a South African initiative to create institutions of 'local capacity governance' to govern security and justice. These cases are very different. TRIPS was created by some of the world's most powerful corporations to promote and utilize nodal relationships that enhance their power, ultimately their power in markets. An important consequence of this has been to increase inequality in various ways. The developed country patent standards that developing countries have to implement under TRIPS, for example, will make it harder for their

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[10]   See, eg, Les Johnston and Clifford Shearing, *Governing Security: Explorations in Policing and Justice* (2003); Declan Roche, 'Restorative Justice and the Regulatory State in South African Townships' (2002) 42 *British Journal of Criminology* 514; S O Aral, Clifford Shearing and Scott Burris, 'Health and the Governance of Security: A Tale of Two Systems' (2002) 30 *Journal of Law, Medicine and Ethics* 632; Scott Burris, Ichiro Kawachi and Austin Sarat, 'Integrating Law and Social Epidemiology' (2002) 30 *Journal of Law, Medicine and Ethics* 510.

populations to access essential medicines that are protected by patents. In contrast, the institutions of local capacity governance we consider were created within exceptionally poor and informally housed communities in South Africa to reduce inequality. While the objectives and strategies are very different, what unites them is that in each case the strategies deployed assume and take advantage of nodal governance. In Part III, we discuss some of the implications of the framework for future action.

I. Complexity, networks and nodal governance

A. Governance, complexity and epistemology

The theory of nodal governance provides part of an account of how a governing order emerges from the operation of highly complex systems. We therefore begin with a description of the nature of this complexity and how governance emerges as an adaptive response. This description is not drawn from any particular source, but will be familiar to readers from a variety of disciplines[11] and, of course, to readers of Hayek.[12]

Take any group of people living in the same place or on some other basis identifying themselves as a group for at least some important purposes. We will refer to this as a 'collectivity'. The things these people do create outcomes over space and time. These outcomes are not necessarily the result of their intentional activities or of their activities alone. Outcomes are produced by the complex interaction of what people do, how they relate to one another, the institutions, technologies and mentalities they deploy, their biological equipment and the conditions and stimuli from the larger physical and social environment in which they operate. Any given collectivity can be understood to be an 'outcome generating system'. By this we mean that the products of the operation of the collectivity across space and time are not exogenous but organic to the collectivity, reflect the conditions of the OGS, and in turn influence the further development of the system over time. Individual collectivities constitute larger and even more complex systems. A system of collectivities is simply a larger OGS.

The outcomes produced by an OGS can include 'problems' — like violence, grief, hunger, depression, shoddy goods, illness and so on — and 'goods' — peace, happiness, plenty, joy, economic efficiency, health and so on. These can be seen as 'objective' realities that can be measured, though people chronically differ as to what should be considered a good or a

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[11]   For example, sociology, see, eg, Niklas Luhmann, *Social Systems* (1995), and epidemiology, see, eg, Nancy Krieger, 'Theories for Social Epidemiology in the 21st Century: An Ecosocial Perspective' (2001) 30 *International Journal of Epidemiology* 668.

[12]   Friedrich Hayek, *The Constitution of Liberty* (1960).

problem. The identification of outcomes is, however, more accurately understood as a subjective process because it depends upon our making causal connections between some subset or conceptualization of elements of an OGS and some set of outcomes. Our view of what products the OGS produces — ie, what sorts of outcomes, both 'goods' and 'problems' — is influenced by the heuristics we use to assign cause and effect and to set our boundaries of relevance. Every state of affairs in the world produces an uncountable range of effects, a small subset of which we consider relevant to understanding that state of affairs. These biases result not only in mistaken attributions of causality but also the failure to recognize a range of outcomes that may and probably normally do outnumber and outweigh in significance the outcomes we do recognize. Among these important and usually unrecognized outcomes is the maintenance or evolution of the culture, values, statuses and institutions of the collectivity itself. Another problem is that the identification of 'outcomes' must stop time; outcomes are conceived as cross-sectionally, as static, when in fact they exist dynamically in time. These are the epistemic problems that shaped Hayek's thoughts on regulation and governance. Ultimately they led him to state a powerful case against the possibility of pervasive central planning and top-down governance.[13]

It is, of course, necessary for individuals to identify chains of causation linking causes and effects. Effectively understanding the 'rules' of cause and effect within a collectivity is a valuable adaptation, which embodies a great deal of practical knowledge of the collectivity and its environment. Such knowledge may be tacit, embedded in a collectivity's way or ways of being. Similarly, 'scientific' or 'professional' accounts of causal relations can achieve satisfactory, illuminating fits with observable and measurable phenomena. The fact that everything is an outcome of what has come before, that processes continue over time, and that our attempts to disaggregate chains of causation must inevitably be biased means that we will always get it 'wrong' to some extent — an important point to which we will return — but this does not mean that it is not valuable and important to try to get it as right as possible.

The ability of a collectivity to 'get it right' — to learn the workings of the OGS and how to manage them — is one of the things that determine the ratio of goods to problems produced by the OGS in that collectivity. Collectivities differ in their capacity to manage the OGS and the results it generates; this difference reflects all the factors that go to constituting the OGS: institutions, values, resources and so on. But the capacity of the

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[13]   Ibid; Friedrich Hayek, *Law, Legislation and Liberty* (1973); Alan Thomson, 'Taking the Right Seriously: The Case of F A Hayek' in Peter Fitzpatrick (ed), *Dangerous Supplements: Resistance and Renewal in Jurisprudence* (1991) 68.

collectivity is just one factor. Every collectivity is set in a physical environment and a social environment of other often overlapping collectivities that also influences the constitution of the OGS and the collectivity is itself also part of many larger collectivities that have their own OGSs. More simply put, the OGS and outcomes within a collectivity may be influenced by factors within the collectivity's control as well as by factors that operate at a higher level of social organization and/or beyond the local physical environment.

Every collectivity faces the task of regulating its outcome generating capacities to produce more goods than problems, and coping with outcomes relevant to it produced by external OGSs. All the people living in a collectivity wish to be satisfied — rich, happy, powerful, virtuous. They work within the boundaries of their understanding and social position to achieve that satisfaction. Their success depends, as Hayek argues, upon the degree to which people making up the OGS have made adaptations individually and in how they collectively manage the OGS that maximizes their ability to tap and coordinate knowledge and capacity disseminated throughout the collectivity.[14] These adaptations take a variety of forms, including institutions, rules, principles, habits, customs, traditions and values. Many of these adaptations can be understood to be within the boundaries of what Bourdieu calls the 'habitus', the sense of the 'rules of the game' in a social field that both allows individuals to improvise to their advantage within a field and reproduces the rules of the field as they are understood by its inhabitants.[15]

These adaptations can be seen as forms of regulation. Some of these adaptations are created with the intention of governing while others evolved less consciously and may not be thought of as regulation but as tenets of religion or mere facts of life. All OGSs have norms and governing structures, but people within an OGS typically do not recognize all these structures as such despite their often considerable virtuosity in working within these norms and structures. As we now will show, one important type of governing adaptation can be best understood as a node within a system of nodal governance.

B. From networks to nodes to nodal governance

Networks have become important in social science theorizing. Networks, argues Manuel Castells, have overcome their historical weaknesses in co-ordinating functions and in bringing resources to bear on goals by becoming

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14   Friedrich Hayek, *Law, Legislation and Liberty,* above n 13.
15   Clifford Shearing and Richard Ericson, 'Culture as Figurative Action' (1991) 42 *British Journal of Sociology* 482; Pierre Bourdieu and L J D Wacquant, *An Invitation to Reflexive Sociology* (1992).

information networks.[16] It is information technology that has allowed networks to retain adaptability and at the same time to achieve superior levels of coordination and management of complexity.[17] Castells recognizes nodes, using a mathematical metaphor, as the sites where the 'curves' that constitute networks intersect. His account does not dwell on the internal characteristics that allow nodes to exert influence across networks, and down-plays the importance of nodes as sites of governance that is not exercised through networks.

In this section we want to give a more complete characterization of nodes and then develop the claim that theories of regulation and governance must place a greater focus on the way nodes are constituted and related. Networks help us to understand how information flows, information processing and communication take place within a social system. However, at some point in the network society the flow of information and communication is translated into action — official or unofficial, economic or military, conventional or unconventional, and so on. By focussing on nodes in more detail we develop a theory that provides a better explanation of how social actions of these and many other types take place, how those within networks end up responding to the 'marching orders' that come from governing nodes.

For Hayek some processes of social action could be explained by the concept of spontaneous ordering. His account of spontaneous ordering and the coordination of diffused knowledge and capacity may be an accurate description at macroscopic level, but it does not provide a basis for understanding the microscopic processes that produce general outcomes.[18] A theory of nodal governance brings greater nuance and particularization to Hayek's general concept of spontaneous ordering.

A node as we conceive of it is a site within an OGS where knowledge, capacity and resources are mobilized to manage a course of events. We define a node as a site of governance (ie, the management of a course of events) exhibiting four essential characteristics:

> A way of thinking (**mentalities**) about the matters that the node has emerged to govern;
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> A set of methods (**technologies**) for exerting influence over the course of events at issue;
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> **Resources** to support the operation of the node and the exertion of influence; and

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[16] Manuel Castells, 'Materials for an Exploratory Theory of the Network Society' (2000) 51 *British Journal of Sociology* 5.

[17] Ibid 15.

[18] Hayek, *Law, Legislation and Liberty,* above n 13.

> A structure that enables the directed mobilization of resources, mentalities and technologies over time (**institutions**).[19]

Nodes in an OGS take a variety of forms, from legislatures and government agencies through neighborhood associations and other non-government organizations ('NGOs') to firms and gangs. We do not want to suggest that a node has a particular structure, or even that it has intentionally been developed as a tool of governance or regulation. But it is a real, not a virtual, entity, not simply a virtual point on a network where information can be said to coalesce. To be a governing node as this theory defines it, a node must have some institutional form, even if temporary. It need not be a formally constituted or legally recognized entity, but it must have sufficient stability and structure to enable the mobilization of resources, mentalities and technologies over time. A street gang can be a node, as can a police station or even a particular shift at a firehouse. A node like this may be primarily part of an integrated network, like a department in a firm; it may be linked to other nodes in multiple networks without having a primary network affiliation, like a small lobbying firm; or it may be what we call a 'superstructural node', which brings together representatives of different nodal organizations in a 'superstructural node' to concentrate the members' resources and technologies for a common purpose but without integrating the various networks — a trade association, for example. A real example of this is the Washington-based International Intellectual Property Alliance ('IIPA'). Its membership consists of eight trade associations (such as the Business Software Alliance and the Motion Picture Association of America) and its basic goal is to further protection of United States' ('US') intellectual property.

> Superstructural nodes are the command centers of networked governance. The IIPA is an a product of nodes on one or more networks being tied together for the purpose of producing various kinds of action such as lobbying the United States Trade Representative ('USTR'), monitoring piracy of US intellectual property abroad and seeking enforcement action. Tying together networks is one very important way in which nodes gain the capacity to govern a course of events. This tying together creates a node with increased resources at the same time as it creates a structure that enables the mobilization of those resources to produce action by other nodes in the network.

> Nodes are pervasive social phenomena and more or less of them can be revealed depending on the level of aggregation and disaggregation in the analysis. Consistent with Castells' network theory,[20] firms, for instance, can

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[19]   Les Johnston and Clifford Shearing, *Governing Security: Explorations in Policing and Justice* (2003).

[20]   Castells, above n 16, 10–11.

be seen as the product of networks within the firm. Similarly, states, for certain purposes, can be seen as the nodes in a network (for example, the states that make up the North Atlantic Treaty Organization). Stores, corporations and manufacturers are all nodes in the market for material goods interconnected by the price mechanism. Sports clubs and bowling leagues may be founded by a small network, but as they evolve they can facilitate and come to house complex social networks. They may form superstructural nodes that have more capacities and resources at their disposal. Government agencies are nodes that take on certain designated tasks like regulating markets or crime within the OGS.

All nodes are not created equal. Nodes vary in their accessibility, their efficacy, the other nodes they can influence and how that influence is exerted. Technologies, mentalities and resources will differ in ways that can have powerful impact on the status and efficacy of the node. Individual nodes may be, and perhaps usually are, rather narrow in the range of knowledge and capacity they crystallize, and even nodes that once had broad participation may over time become narrow and particular. Nodes have different capacities to interact with, and influence, other nodes and the course of events. The capacity of a node to influence or regulate depends in large part upon its resources — broadly defined to include a wide range of forms of capital in the Bourdieuian sense. A small local NGO, for example, can spend a small amount of money, can use social capital to persuade others to use a technology of problem solving, can give voice to local needs and mobilize local political pressure. By contrast, an industry trade association can mobilize a large number of firms and related trade groups, spend large amounts of money and use threats of economic coercion to achieve its regulatory goals. Likewise, mentalities and technologies may vary in their generative potency.[21]

Nodes govern by mobilizing their resources and governing technologies to cajole, coerce or otherwise move those they wish to govern to comply with their directions. A node may use rules or laws, or threats, or social pressure or stigma or any other mode of control at its disposal. Nodes directly govern the people who are subject to their influence within an OGS. For example, a town council passes ordinances governing the use of parks, which are enforced by police. Typically, and perhaps more significantly for most purposes, nodes regulate other nodes that are accessible to them through networks. A feature of many nodes is that they operate as points of access to nodal networks. The IIPA, for example, in a sense regulates the USTR because it can formally petition the USTR to bring pressure on developing countries that it believes are not respecting US intellectual property rights. Companies that become members of trade

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[21]   Eva Sorenson and Jacob Torfing, 'Network Politics, Political Capital, and Democracy' (2003) 26 *International Journal of Public Administration* 609.

associations that are also members of the IIPA thereby gain entry to powerful nodal networks.

The very pervasiveness of nodes and networks corroborates Hayek's claim about the diffusion of the stock of knowledge relevant to regulation. Our interest, like his, is in the way in which knowledge and other resources relevant to regulation are focused to bring about social action. Networks offer only a partial explanation because in Castells' words networks 'decentre performance and share decision-making.'[22] Nodal conceptions of governance, especially the superstructural conception, focus attention on the way in which resources and knowledge are brought to bear through nodes. A nodal governance framework places the emphasis on the way in which governance is directed or steered by private or public actors. The very nature of information networks suggests that processes of governance are neither exclusively structural (because the nodes and networks are constantly reconstituting themselves[23]) nor Hayekean spontaneous ordering (because the nodes do too much planning for it be plausibly regarded as spontaneous) but are rather nodal.

In the next two sections we present two case studies that show how a nodal governance framework helps to describe how OGSs are managed. The observation of nodal governance in operation generates important insights into why OGSs produce the results they do. One of these is the importance of who within an OGS has access to nodes, how nodes differ in efficacy, and who is able to participate — ie, whose knowledge, capacity and wishes are actually operating in the management of the OGS. This analysis has immediate and important implications for both effectiveness and democracy in regulation. We demonstrate that disseminated capacity and knowledge can be locally mobilized through the deliberate creation of nodes equipped with the resources necessary to influence the OGS and other related nodes.

II. Nodal governance in action

A. Nodal governance and the strong: the story of TRIPS.

TRIPS is one of 28 agreements that make up the Final Act of the Uruguay Round of Multilateral Trade Negotiations, the negotiations that had begun in Punta del Este in 1986 and culminated in 1994 with signing of the Final Act and the creation of the WTO. TRIPS is one of the institutional pillars of the WTO. It is binding on all WTO members.

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22   Castells, above n 16, 15.
23   See Clifford Shearing, 'A Constitutive Conception of Regulation' in Peter Grabosky and John Braithwaite (eds), *Business Regulation and Australia's Future* (1993).

TRIPS requires all WTO members to adhere to minimum standards of intellectual property protection. All developing countries and many developed countries had to reform their domestic intellectual property law in order to conform to obligations in TRIPS. On the face of it TRIPS represents a puzzle. Why did other countries agree to TRIPS? At the time of the negotiations the US, as the world's principal exporter of intellectual property, had much to gain from the globalization of intellectual property rights via the trade regime, while the economic and social consequences for developing countries were (and are) serious. For example, TRIPS requires countries to recognize patents on pharmaceutical products; this has implications for both the cost of patented medicines, as well as the long-term fate of the generic industries in those countries.[24]

TRIPS scholars have explained the agreement as a coercion story.[25] During the 1980s, the US used its bilateral trade muscle to threaten those developing countries that were treading in its domestic market with duties and penalties unless those countries adopted US-style intellectual property rights. At one level there is a structural explanation available for TRIPS. The US uses its hegemonic power to secure a global redefinition of property rights that is favorable to its information capitalist economy. This type of structural theory is not fine-grained enough to explain how actors within the US (an OGS in our terms) were able to secure coercion as an outcome. There are both economic and diplomatic costs associated with threatening other states with trade penalties. Nor is it obvious that higher standards of intellectual property rights are especially suitable for all economic producers in an information economy. On closer inspection there is a deep contingency about TRIPS that the structural explanation does not reach. TRIPS is a complex achievement. How was it achieved in the US and by whom?

Susan Sell in her study of TRIPS points out that some 12 US corporations were primarily responsible for the lobbying that brought TRIPS into being.[26] Other studies of TRIPS have come to a similar conclusion.[27] TRIPS was not a case of simple lobbying, because it required

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[24]   Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy* (2002).

[25]   Peter Gerhart, 'Reflections: Beyond Compliance Theory — Trips as a Substantive Issue' (2000) 32 *Case Western Reserve Journal of International Law* 357.

[26]   Susan Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (2003).

[27]   See Michael Ryan, *Knowledge Diplomacy: Global Competition and the Politics of Intellectual Property* (1998); Duncan Matthews, *Globalising Intellectual Property Rights: The TRIPS Agreement* (2002); Peter Drahos and John Braithwaite, *Information Feudalism: Who Owns the Knowledge Economy?* (2003).

the drafting of a detailed international agreement containing US standards of intellectual property protection and then ultimately steering it through a multilateral trade negotiation involving more than 100 states, and that lasted from 1986 to 1993. The key to explaining how this was achieved lies in a small number of corporations creating ever widening circles of influence that brought more actors and networks into the cause of global intellectual property rights.   The activities of Pfizer Corporation during this time illustrate how TRIPS came to be an output of private nodal governance.

Pfizer more than most pharmaceutical corporations had invested in developing countries and so saw the threat to international markets that generic manufacturers in countries like India posed for the Research and Development pharmaceutical industry. It also saw that developing countries were increasingly using their superior numbers in the World Intellectual Property Organization ('WIPO') to put forward initiatives that favoured their own position as net importers of foreign technology. During the early 1980s a small group of Washington-based policy entrepreneurs had conceived of the idea of linking the intellectual property regime to the trade regime. Pfizer executives, including the CEO Edmund Pratt, were amongst the leading proponents of this idea. Essentially their policy idea was to get an agreement on intellectual property into the General Agreement on Tariffs and Trade ('GATT'). Amongst other things, such an agreement would be enforceable under GATT dispute resolution procedures. It was a radical idea. States had moved cautiously in ceding sovereignty over intellectual property rights within the context of WIPO.

The Pfizer firm is a governing node by our definition, and a powerful one. It has extensive resources, a way of thinking about intellectual property, its own orientation towards a regulatory regime, and a set of technologies for projecting its aims into a variety of OGSs. Its resources and technologies (campaign contributions, interlocking board and business group memberships, public relations, advertising and lobbying) allow it regulatory access to nodes in the government, the media and industry.

Pfizer executives began to use networks to mobilize and regulate nodes in two important ways. The first way consisted of nodal activation. Pfizer executives used their established business networks to disseminate amongst the governing nodes along the networks the idea of a trade-based approach to intellectual property. Pratt began delivering speeches at business fora like the National Foreign Trade Council and the Business Round Table outlining the links between trade, intellectual property and investment. As a CEO of a major US company, he could work the trade association scene at the highest levels. Other Pfizer senior executives also began to push the intellectual property issue within national and

international trade associations.[28] Gerald Laubach, President of Pfizer Inc, was on the board of the Pharmaceutical Manufacturers Association and on the Council on Competitiveness set up by President Ronald Reagan; Lou Clemente, Pfizer's General Counsel, headed up the Intellectual Property Committee of the US Council for International Business; Bob Neimeth, Pfizer International's President was the Chair of the US side of the Business and Industry Advisory Committee to the Organization for Economic Cooperation and Development. The message about intellectual property went out along the business networks to chambers of commerce, business councils, business committees, trade associations, and peak business bodies. Progressively, Pfizer executives who occupied key positions in strategic business organizations were able to enroll the support of these organizations for a trade-based approach to intellectual property. With every such enrolment, the business power behind the case for such an approach became harder and harder for governments to resist.

The second way in which Pfizer operated was through the creation of what we have called superstructural nodes — nodes that magnify or focus the power of individual nodes through creating nodal assemblages. One of the nodes that played a pivotal role in the negotiations over intellectual property was the Advisory Committee on Trade Negotiations ('ACTN'). ACTN had been created in 1974 by Congress under US trade law as part of a private sector advisory committee. The purpose of this committee was to ensure a concordance between official US trade objectives and US commerce. ACTN existed at its apex. Under its charter, its membership of no more than 45 had to be drawn from a range of sectors including labor, industry, agriculture, small business, service industries, retailers and consumer interests. Pratt, with the assistance of other senior executives within Pfizer, began to put himself forward within business circles as someone who could develop US business thinking about trade and economic policy. In 1979 Pratt became a member of ACTN and in 1981 its Chairman.[29] During the 1980s representatives from the most senior levels of big business within the US were appointed by the President to serve on the committee. (Pratt was appointed by President Carter.) The Committee was a purely advisory one, but in a nodal governance perspective the fact that its advice was not formally binding is of little moment: the important thing was that the committee, seen as a node, had direct access to the USTR and the duty of advising him/her on US trade policy and negotiating objectives in the light of national interest. Out of this business crucible came the crucial strategic thinking on the trade-based approach to intellectual property.

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[28]   Michael Santoro, *Pfizer: Protecting Intellectual Property in a Global Marketplace* (Harvard Business School Case Study) (1992).

[29]   Drahos and Braithwaite, *Information Feudalism,* above n 27.

With Pratt at the helm, and the CEOs of IBM and Du Pont Corporation serving, the ACTN began to develop a sweeping trade and investment agenda. John Opel, the then Chairman of IBM, headed this Task Force. During Pratt's six years of chairmanship ACTN worked closely with William E Brock III, the USTR from 1981–1985, and Clayton K Yeutter, the USTR from 1985–1989, helping to shape the services, investment and intellectual property trade agenda of the US.

ACTN's basic message to US government was that it should pull every lever at its disposal in order to obtain the right result for the US on intellectual property. In nodal terms, ACTN was using its access to and influence with the USTR to mobilize other governing nodes throughout the government and beyond. There were a lot of possible levers. US Executive Directors to the International Monetary Fund and World Bank could ask about intellectual property when casting their votes on loans and access to bank facilities; US aid and development agencies could use their funds to help spread the intellectual property gospel. Over time the message was heard and acted upon. Provisions protecting intellectual property as an investment activity were automatically included in the Bilateral Investment Treaty program that the US was engaged in with developing countries in the 1980s. Means of influence of a personal and powerful kind also began to operate. Shultz, the Secretary of State, discussed the intellectual property issue with Prime Minister Lee Kuan Yew, as Jacques Gorlin states in his 1985 analysis of the trade-based approach to intellectual property.[30] President Reagan in his message to Congress of 6 February 1986 entitled 'America's Agenda for the Future' proposed that a key item was much greater protection for US intellectual property abroad.[31] This was consistent with ACTN's recommendation that the development of an US strategy for intellectual property be endorsed by the President and cabinet. The ground was being prepared for intellectual property to become the stuff of big picture political dealing and not just technical trade negotiation.

So far as ACTN was concerned, folding intellectual property standards into the GATT was the single best way in which to spread those standards. Realistically, ACTN realized that the negotiation of a broad intellectual property agreement would be a long process. But this process would not start unless intellectual property was put on the agenda of the next trade round. For this to happen a Ministerial Conference of Contracting Parties of the GATT would have to issue a declaration containing, amongst other things, a form of words opening the way for the negotiation of an intellectual property code. Here ACTN ran into a fundamental problem.

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[30]   Jacques Gorlin, *A Trade-Based Approach for the International Copyright Protection for Computer Software* (1985).

[31]   Bureau of National Affairs, *BNA's Patent, Trademark and Copyright Journal* (1986) 285.

Both Opel and Pratt had been pushing the intellectual property agenda with the USTR, at first with William Brock and then his successor Clayton Yeutter. In 1981 Brock had formed a superstructural node of fellow trade negotiators, the Quadrilateral Group ('Quad') of countries, for the purpose of trying to develop a consensus for a new round of multilateral trade negotiations. In the early 1980s there were differences of view between Europe and the US on the desirability and content of a future trade round. Without the agreement of the US and Europe the prospects of a multilateral trade round getting off the ground were slim. The Quad consisted of the US, the EC, Japan and Canada. Once these countries had achieved a consensus on an agenda for a multilateral trade round, the round would most likely begin. Yeutter saw the centrality of intellectual property to the round, but the problem was, as he explained to Pratt and Opel, that when he went to meetings of the Quad there was no real support from the other Quad members to merge intellectual property and trade.

The problem facing Pratt and Opel was clear enough. They had to convince business organizations in Quad countries to pressure their governments to include intellectual property in the next round of trade negotiations. That meant first convincing European and Japanese business that it was in their interests for intellectual property to become a priority issue in the next trade round. With a strong Quad consensus there was a real likelihood of intellectual property making it onto the agenda for the next trade round. Without such a consensus developing countries would win with their jurisdictional argument. The time frame for the consensus-building exercise was roughly six months. The Ministerial Conference to launch a new trade round was scheduled to take place at Punta del Este in Uruguay in September of 1986. The USTR had been working hard to convince the remainder of the Quad of the intellectual property issue, but it had to become much more than just a talking point at the Ministerial Conference.

Pratt and Opel's response was swift. In March of 1986 they created the Intellectual Property Committee ('IPC'). This was, in our term, a superstructural node that tied together key networks. The IPC was an ad hoc coalition of 13 major US corporations; Bristol-Myers, DuPont, FMC Corporation, General Electric, General Motors, Hewlett-Packard, IBM, Johnson & Johnson, Merck, Monsanto, Pfizer, Rockwell International and Warner Communications. It described itself as 'dedicated to the negotiation of a comprehensive agreement on intellectual property in the current GATT round of multilateral trade negotiations.'[32]

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[32]   Intellectual Property Committee, *Accomplishments and Current Activities of the Intellectual Property Committee* (1988).

Europe was the key target for the IPC. Once Europe was on board Japan was likely to follow, or at least not to raise significant opposition. Canada, despite its Quad membership, was not really a player. It was the support of European and Japanese corporations that was crucial. What followed was a consensus-building exercise carried out at the highest levels of senior corporate management. CEOs of US companies belonging to the IPC would contact their counterparts in Europe and Japan and urge them to put pressure on their governments to support the inclusion of intellectual property at Punta del Este. Small but very senior and powerful business networks were activated. The IPC also sent delegations to Europe in June 1986 and Japan in August of 1986 to persuade businesses in those countries that they also had an interest in seeing the GATT become a vehicle of globally enforceable intellectual property rights. The IPC's efforts in the lead-up to Punte del Este brought it success, for both European and Japanese industry responded by putting pressure on their governments to put intellectual property on the trade agenda. Ultimately the linkages that were created between US, European and Japanese companies led to the joint release in 1988 of a suggested draft text of an agreement on intellectual property. Those companies had joined on the intellectual property issue to become a superstructural node that no government could ignore.

The Ministerial Declaration on the Uruguay Round of September 20, 1986, contained a negotiating mandate on intellectual property rights.[33] In the seven years that followed US trade negotiators with the assistance of the many networks that had been enrolled and activated in the cause of global intellectual property rights were able to deliver a strong agreement on intellectual property in TRIPS.

B. Some conclusions about the TRIPS story

TRIPS is admittedly a spectacular story of nodal governance that blurs the line between public and private spheres and that ultimately has global consequences. As a result, the 148 members of the WTO all have to adhere to the same minimum standards of intellectual property, irrespective of their stage of economic development. The TRIPS case study leads us to make a number of claims about nodal governance.

The first and most obvious claim is that a theory of nodal governance provides a highly accurate explanation of the process through which TRIPS came to be. A theory of nodal governance helps to explain the circuitry of power in societies where information networks have become a dominant organizational form. Corporations such as Pfizer, as governing nodes, used

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33   'Ministerial Declaration on the Uruguay Round' (20 September 1986) in Terence Stewart (ed), *The Gatt Uruguay Round: A Negotiating History (1986-1992) Volume III: Documents* (1993) 1.

their networks to activate other nodes. Once Pratt and Opel brought together 13 of the largest corporations in the US to form the IPC to form a nodal assemblage, that concentrated power. Other assemblages and their networks were interlinked to form superstructural nodes such as ACTN and the IPC that gave their constituent nodes highly effective regulatory access to the people and governmental nodes that had to be regulated. Those superstructural nodes in turn activated other private and public assemblages both within the US and in Europe and Japan. More networks became available for use, more CEOs were available to exercise personal influence, more financial resources could be drawn on and the projection of invincibility and no compromise on the issue of intellectual property became much more credible. Superstructural nodes, as the TRIPS case shows, are a way in which decentered performance and shared decision-making becomes centered and concentrated.

A theory of nodal governance more accurately explains the role of the state and the tenuous quality of analyses rooted in hierarchy or public-private distinctions. The TRIPS story illustrates that within a nodal governance framework states and state agencies are not be conceived as existing at the top of a pyramid of power and influence. Nor are they seen as a crowning governing auspices that devolve authority to others. TRIPS is not a 'rule at a distance' story.[34] Here nodal governance is seen to allow a group of corporations to use the GATT/WTO process to enlist not only international but domestic law around the world to police an intellectual property regime of their choosing — far from remaining in the realm of contract, under state regulation, the firms at the center of the TRIPS story are in essence wielding the power of state and international trade law through nodal means. Here the private sector steers and the state rows. Yet this is also not a story that depreciates the role of states. States are crucial elements of nodal assemblages and their associated networks. States and state agents are critical nodes though which knowledge, capacity and resources are focused and legitimized, and opposition from states is powering the ongoing efforts to address some of the inequities in the TRIPS regime.

The TRIPS case study also demonstrates why nodal governance is not necessarily democratic governance or governance that secures more 'goods' than 'bads' for the population as a whole. In order for nodal governance to be democratic the relevant nodes and networks must satisfy tests of representativeness, accessibility and deliberation that were devised in light of some set of democratic ideals.

We do not pursue this line of argument here, except to point out that the nodal governance that brought TRIPS into being would fail most such

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[34]   Rose and Miller, above n 4.

tests.   Intellectual property rights affect consumers in a wide variety of ways including the price of prescription drugs and competition in the pharmaceutical sectors.   Yet consumer interests were absent from the networks of nodal governance that produced TRIPS. Most consumer organizations only began to understand TRIPS after the event. However, even if consumers had mobilized on the issue the outcome may well not have been that much different. The superstructural nodes that the consumer movement would have been able to create would not, we suspect, have been able to concentrate power in the way that international business actors were able to. One of the key points about the TRIPS story is that it shows that even in OGSs with public regulatory nodes and formal nodes of democratic governance (like elected legislatures) nodal governance can nevertheless lead to enormous concentrations of unaccountable power.

At the same time, a theory of nodal governance offers new insights into how democracy might be enhanced and participation facilitated. While the chief implications of nodal governance for democracy-building are more fully addressed in the next section of this paper, a few observations do flow from the TRIPS story. First, to the extent that consumer and developing-country opposition to TRIPS has emerged, it has done so in the form of nodes activating other nodes, and the creation of superstructural nodes. While poorer countries and NGOs lack the economic muscle and access to state nodes of the TRIPS proponents, they have capitalized on their capacity to mobilize public opinion and action through the media, and to deploy that opinion in lobbying efforts, in ways that have led to at least some willingness on the part of the TRIPS 'winners' to give back some of their gains in some areas. Second, by showing how undemocratic decision-making actually occurs, nodal governance can facilitate efforts to replace formal with 'real' democracy.

Although the TRIPS story shows that the rich and powerful have particular advantages in their efforts to manage the course of events to their liking, TRIPS was not a structural story: the outcome of a path dependence in which capitalism shifts from an industrial to an information stage of development was not inevitable. In many ways TRIPS represents a dramatic break from the past. The treaties that states had signed in the past on intellectual property contained no effective dispute resolution mechanisms and contained only a minimum of common standards. This is hardly surprising because property rights are a fundamental mechanism for dealing with externalities and questions of distributive justice. States had been very reluctant to cede sovereignty over such an important mechanism. Nodal governance offers an explanation of how a small group of actors, admittedly a powerful group, created an alternative path for themselves, thereby overcoming the 'lock in' effects of existing intellectual property treaties and organizations like WIPO. TRIPS is not a story of 'social forces' playing

themselves out in inevitable and preordained ways. It is, however, a story that illustrates the way in which existing nodal arrangements can be very obdurate 'social facts' in Durkheim's sense that provide both opportunities and constraints that shape outcomes.

Nor for the same reasons can TRIPS be seen as a story of spontaneous ordering. The process could be described as spontaneous ordering only at the highest level of abstraction: the creation, deployment and linking of nodes was the product of conscious and deliberate planning. The process began in US business circles and spread to include official committees and the trade bureaucracy. From there it widened to include European and Japanese businesses which in turn led to linkages with key bureaucracies such as the European Commission. All this provided a base for the coalition-building that was used amongst the states that negotiated TRIPS. Bourdieu's concept of strategic improvisation is a much apter description of the way nodes form than Hayek's broad notion of spontaneous ordering.

TRIPS is also a story of places and not just networks and nodes. The nodes and networks that produced it operated in strategic city sites such as New York, Washington, Geneva and Brussels. These places are the geographical sites of a nodal governance that has a genuinely global reach. In the next section of our paper we travel to Zwelethemba, a small township situated near Cape Town. Like New York or Geneva it is a site of nodal governance. In Zwelethemba, however, nodal governance is unfolding in very different ways.

C. Nodal governance and the weak: Zwelethemba

Zwelethemba — a Xhosa word that means country or place of hope — was the site of intervention designed to build a nodal arrangement to promote the effective governance of security and justice in very poor South African communities. In the Zwelethemba Model, residents of poor collectivities poorly served by government created local institutions (nodes) called Peace Committees. The sole qualification for taking part as a Peace Committee member is the acceptance of a mentality, embodied in a constitutional Code of Good Practice, built on non-violence, cooperation and an orientation towards fixing the future rather than fixing individual blame for community problems. Peace Committee members use a simple technology based on community gatherings to promote two outcomes. First, Peacemaking — namely, developing responses to disputes and conflicts that seek to reduce the likelihood of them reoccurring — and second, Peacebuilding — developing responses to generic local problems that seek to reduce their impact on the life of the collectivity. Resources come into Peace Committees in the form of payments for gatherings, which are divided evenly between members who organized the gatherings and a local

development fund controlled by the Committees. Payments are strictly outcome based. They require auditable documentation that gatherings were held and conducted in compliance with the Code of Good Practice and the gatherings technology. All the Peace Committees are linked to an NGO called the Community Peace Programme, which provides administrative support and coordinates fundraising, government relations and facilitates the establishment of new Committees.

The theoretical origin of the Zwelethemba intervention was an analysis that drew upon Hayek's assessment of the value of mobilizing and focusing local knowledge and capacity as an instrument of effective governance. On this view, residents in Zwelethemba had as a group the capacity to govern security and development in the collectivity but lacked a node in which this diffused capacity could be coordinated and mobilized. The analysis noted that the way this Hayekian agenda was being realized under the neo-liberal sign of the 'reinvention of government' — through the delegation of governance authority to private nodes[35] — systematically favoured the well to do and discriminated against the less well off. The argument explaining this 'governance deficit'[36] maintained that a key factor was the absence of nodal arrangements that resourced and focused the local capacity and knowledge of poor people. The intervention was designed to respond to this governance deficit by facilitating the creation of these nodal arrangements.

The Peace Committee model was developed between 1997 and 1999. Since then some 20 other Committees have been established in poor collectivities in South Africa, and the number has grown and continues to grow steadily. Peace Committees contribute to the governance of their communities by resolving disputes and undertaking community improvement projects. In these functions, the Committee as a node governs directly (ie, not through a network) by using reason, peer pressure, money, contracts and other available cultural tools to achieve their ends. Outcome data indicate that Peace Committees are successful in influencing the course of events in the collectivity. They resolve a large number of disputes. Their gatherings attract broad participation across ages and genders. Regular surveys in Zwelethemba have shown a steady increase in the percentage of residents who are aware of Peace Committees and who believe the community is capable of solving its own problems.

Committees also govern through their network connections to other nodes, such as street committees, local businesses and other NGOs. As

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[35]   David Osborne and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (1992).

[36]   Anthony McGrew, 'Power Shift: From National Government to Global Governance?' in David Held (ed) *A Globalizing World? Culture, Economics, Politics* (2000) 127.

Peace Committees establish themselves, they tend to expand the roster of networked connections within and beyond the community, including Peace Committees in other communities. In the course of Peacebuilding, Committees deliberately seek to make connections with NGOs, government agencies or other nodes that can contribute to solutions. One of the links Peace Committees establish once they have developed a governance record is with local government councils to lobby for tax support for Committee services.

The design of the Peace Committee node appears to facilitate the development of new nodal assemblages. The most recent development has been the development of Community Peace Centers that bring together police and Committee resources in a single physical space around the theme of security. In brief, the story is that Peace Committees in one district first created network connections with the district council and the police. As the former began to fund Peace Committee work, and the latter faced unrelated budget cuts that required closing of some police stations, an idea emerged: Peace Committees would work with the police to convert police stations into Community Peace Centers. The primary governance of security in the collectivity would thus fall to the Peace Committee while emergencies, and other matters beyond the scope of the Committee, would be dealt with by the police. As each node in this relatively tightly coupled assemblage has independent access to a range of resources located in separate networks neither node has overwhelmed the agendas and interests of the other. Each maintains a relative autonomy. Community Peace Centers are currently being extended to multiple sites in one South African police district.

The nodal assemblages and associated networks of which Peace Committees are a part relate a range of nodes that focus other capacities and knowledges. Indeed, the model is notable for the way it can link professional and local knowledge and capacity without the professional overpowering the local. One critical nodal relationship is with a unit of a School of Government at a South African university that provides administrative, regulatory supervision and research support as the implementing agency for the Zwelethemba Model. This nodal link provides a place through which international funding to support these functions has been channelled. At one point links were established with a Swedish university that provided a link to Swedish Government aid funding. At present Finnish funding is provided through a linkage that has been established with the Finnish Embassy in South Africa. At present a review of Peace Committee activity is being undertaken in cooperation with a Norwegian University with Norwegian funding.

These external support and funding links provide Peace Committees with the ability to establish a track record and methods of operation that are being used to cement sustainable internal access to local tax resources.

Linkages to provide Committees with intellectual support have also been established with Argentine, Australian, British, Canadian, and American universities. Again these links serve to establish and support processes that encourage sustainable local support. Similar links have been established to provide organizational support with businesses in Canada and South Africa.

The linkage noted above with the South African Police Service has not only served to channel police resources into Peace Centers but has provided opportunities for Peace Committees to build political support from local, provincial and national governments. By embedding Peace Committees, and the collectivities they serve, within a complex network of nodes that stretch across a variety of domains, widely dispersed knowledges, capacities and resources have been focused to support the agendas, mentalities and technologies embedded in the structures that comprise Peace Committees.

D. Some conclusions about the Zwelethemba story

The Zwelethemba experience suggests that the creation of governing nodes can be a robust means of promoting democracy and self-efficacy within local collectivities. If we recognize that firms and NGOs are governing nodes, arising as adaptations in an OGS, the idea of creating Peace Committees, in and of itself, does not seem radical. What may be is the creation of governing nodes at very local levels to drive a strategy to enhance democratic values and practices. Such 'constitutional moments' are rare, few and far between.[37]

New nodes can change the relationships among existing nodes, and even change the operation of formal government structures. Peace Committees have occupied a space for dispute resolution and local problem solving that was in theory, but not practice, the province of state governments. They have then gone on to claim public funding for providing these 'public services'. As dramatically, Peace Committees have changed the way security and community development is being accomplished and may well change the way the governments operate as they create new options for governance. The Zwelethemba experience suggests that even in the poorest and most marginalized of places, diffused local knowledge and capacity can be mobilized for governance purposes through relatively simple institutional means.

There is much that this story of Peace Committees and Peace Centers shares with the story of TRIPS that a nodal analysis reveals. In each case we see how specific governance agendas have been promoted through the effective mobilization of diverse knowledges and capacities located

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[37]   Bruce Ackerman, 'Generation of Betrayal' (1997) 65 *Fordham Law Review* 1519.

physically in many different parts of the world. In each case particular nodes act to direct and mobilize nodal resources in a contested nodal environment. While their agendas are very different, their strategies and their outcomes have much in common. In addition, each story demonstrates that market mechanisms are but one method for mobilizing and focusing dispersed resources.

What differentiates the stories is not the general characteristics of nodal governance. Rather it is the agendas pursued, the location of direction within the nodal assemblages and the location of the capacities and knowledges that are mobilized, focused and prioritized. These differences have critical implications for the nature of the nodal governance that is promoted, particularly for the phenomenon of the governance deficit. The nodal governance of TRIPS was designed to produce, and in fact has produced, a major discrepancy with respect to the rewards that flow from ideas (and the production processes that realize them) that has had global ramifications. The nodal governance of Zwelethemba has as its principal objective a reduction of a governance deficit. Despite its many global features its consequences for this deficit have, to date, been very local. There are, of course, many other differences that will be obvious to the reader. Not the least of these is the enormous resource disparities and enormous differences of scale between the two nodal arrangements. What is important, however, from the point of view of this paper, is that despite these enormous differences a unified nodal conception is able to explicate both. Similarly, strategies based on an understanding of the nodal character of governance have allowed the driving nodes within each case to take advantage of other locations of knowledge and capacity to promote their values and interests.

Thus far we have shown that nodal governance is a fact — that it is an accurate and nuanced explanation of events in the world. We have shown that nodal governance can be a strategy for achieving public as well as private goods, and that to this end nodes can be designed and created to further public goods. The theory of nodal governance that we have elaborated has several advantages. It makes possible precise description of how what might appear as 'spontaneous' ordering emerges from an OGS and operates at the boundaries of contingency, structure and agency. It has rich empirical possibilities, both in the study of how outcomes are produced and how governance systems operate. It deepens network analysis by taking nodes from virtual to actual entities. It can guide action to make governance systems operate more democratically.

III. Uses of a theory of nodal governance

A. Nodal governance as an approach to regulating systems

As Moran notes, more than one line of contemporary regulatory theory has converged on the idea that complexity requires strategies that in some way change, or at least thickly engage, the internal constitutions of the regulated entities,[38] ie, to mobilize and facilitate the resources of OGSs to produce 'good' outcomes rather than simply seek to control and restrain them from producing 'bads'. Gunther Teubner has been a strong proponent of this view.[39] A theory of nodal governance facilitates such strategies by offering insights into how nodes are governed and how they govern other nodes.

The past 50 years would seem to have refuted the idea that democracy and free markets in a fairly abstract form are all we need to get OGSs with dispositions towards goods over bads.[40] The stories we tell in this paper suggest why: ideas like the market and democracy are abstractions that do not capture the dynamics of real-life governance as our theory does. The theory of nodal governance allows us to see much more deeply into OGSs and to generate some basic tests of governance adaptations: who has access to nodes? How do resources vary among nodes? How are nodes networked? How well do different mentalities and technologies generate governance potency? How is governing power distributed as between 'public' and 'private' governing nodes? How are powerful nodes made accountable, if at all — ie, how if at all do the less powerful have the means to regulate the more powerful?

Changing forms of social organization such as the information networks described by Castells offer the possibility of different kinds of governance approaches, what we might call second order approaches. Within a nodal context where governance takes place through a multiplicity of nodes we have seen how an evolving second order form of regulation can be developed that meets Hayek's normative requirement of a system of regulation that utilizes diffuse and local knowledge. We have also seen how this can be done without insisting on a market mechanism. Zwelethemba is a concrete instantiation of this approach. The goods of regulation such as peace, security, health and prosperity are not reached

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[38]   Michael Moran, 'Review Article: Understanding the Regulatory State' (2002) 32 *British Journal of Political Science* 391.

[39]   Gunter Teubner, 'Juridification: Concepts, Aspects, Limits, Solutions' in Gunter Teubner (ed), *Juridification of Social Spheres: A Comparative Analysis in the Areas of Labour, Corporate, Antitrust and Social and Welfare Law* (1987) 389.

[40]   Niklas Luhmann, 'Globalization or World Society: How to Conceive of Modern Society' (1997) 7 *International Review of Sociology — Revue Internationale de Sociologie* 67.

through regulation based only on the command of rules. Rules, as we have stressed, remain an important first order approach. In Zwelethemba, the Peace Committees and Gatherings do not replace the criminal law. But Zwelethemba also shows how nodes and networks can be used in combination for the purpose of producing the goods of governance.

As the TRIPS case shows, nodal governance very often involves juridification,[41] as nodes that can demand or generate rules do so as a means of managing the course of events to their liking. Around the world many countries have, in order to meet their obligations under TRIPS, enacted complex patent, copyright and trademark laws. What Zwelethemba illustrates is that this is not inevitable. Rather it is a function of the regulatory strategy deployed within a nodal context. Peace Committees both in resolving disputes and in responding to generic problems in collectivities focused on mobilizing a disposition that would generate different outcomes in the future. Here the focus is on fostering, within an OGS, those characteristics that seem to be associated with good outcomes, like stability or safety, rather than engineering the system to produce specific goods (like a reduction in assaults or lower particulate emissions).

B. Democracy and nodes

This paper, while cautious about promising particular outcomes, clearly has a strong normative orientation. We have argued, as a descriptive matter, that all sorts of people routinely govern through nodes and nodal networks for all sorts of purposes. Nodal governance is ubiquitous. We also have implied views about how nodal governance can be used both to limit and to enhance democracy by broadening participation and enhancing the quality of decision-making. Advancing a normative agenda that seeks to use nodal forms of governance to enhance democratic governance places attention on three key questions: who has access to nodes, how potently can particular nodes govern other nodes, and how are governing networks to be governed in a way that promotes and deepens democracy?

Who has access to nodes is the fundamental question if nodes are the primary instruments through which the opportunity to take part in governance capacity is instantiated. In contrasting TRIPS and Zwelethemba we have argued that a criterion of good nodal governance is that it draws upon neglected capacities and knowledges in ways that deepen democracy. This we have argued has in addition the useful functional advantage, identified by Hayek, of mobilizing diffused knowledges and capacities so as to promote forms of governance that are better able to govern locally that ones based on central planning. We also argued that if Hayek claimed that this can, and does, happen spontaneously he was wrong. Access to effective governing nodes can be highly restricted for many

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[41]   See Teubner, above n 39 (defining 'juridification').

reasons.   Governance that governs locally and effectively, and in normatively appropriate ways, is not automatic and is not produced 'naturally' by markets.   It requires careful and sustained constitution. Broad access to governing nodes is a regulatory outcome.

Access to nodes is a necessary condition for participation in governance, but it is no guarantee of thick or effective participation. Nodes, as we have shown, differ markedly in their governing potency. The variation may relate to resources, technologies and mentalities of a node, or its position on a nodal network. As with the prior question of access, the theory of nodal governance problematizes these nodal characteristics, and both demands (normatively) and allows (through explanation) that means be devised to enhance the potency of weaker nodes to promote greater participation and equality in decision-making.

In a nodally governed world, states may have unique characteristics, but they occupy no special analytic space: they govern and are governed like other nodes. It follows, however, that non-government nodes do not occupy a space that is defined as different in relation to government. The public-private distinction is functionally unimportant, and normatively problematic.   Hierarchy is a discursive strategy of certain nodes, particularly government nodes, but it is not a description of actual social structure, which is a horizontal plane of nodes.[42] Hence our third important question, which confronts the problem of how the exercise of power may be constrained by duties and limitations aimed at collective good, must be addressed in relation to all nodes. How are nodes, nodal assemblages and the networks they facilitate to be governed? Internally democratic nodes may undemocratically dominate other people in a collectivity. Network relationships may change the internal dynamics of individual nodes, undermining internal democracy even as they enhance the influence of the network.[43] Powerful superstructural nodes may dominate networks or pieces of networks.

As we have just suggested, nodal arrangements that do not reproduce inequalities and hierarchies within the OGS, can, and should, be encouraged. This is question of constitutive regulation that both Teubner and Julia Black have approached.[44] In the case of Zwelethemba, democracy within nodes has been promoted by tying tax resources to an outcome that

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[42]   Luhmann, 'Globalization or World Society: How to Conceive of Modern Society', above n 40.

[43]   Sorenson and Torfing, above n 21.

[44]   Teubner, above n 39; Julia Black, 'Proceduralizing Regulation: Part I' (2000) 20 *Oxford Journal of Legal Studies* 597; Julia Black, 'Proceduralizing Regulation: Part II' (2001) 21 *Oxford Journal of Legal Studies* 33; Julia Black, 'Critical Reflections on Regulation' (2002) 27 *Australian Journal of Legal Philosophy* 1.

requires open, deliberative conditions. At the network level, easy formation of nodes and entrance and exit from networks lower the costs of participation and thus may promote participation. On this view, whether one's ideal is a Habermasian discourse or the centripetal engagement described by Mouffe,[45] nodal systems self regulate to some extent through competition. This mode of regulation of individual nodes has operated in the Zwelethemba model, where Peace Committees can dissolve and reform when an individual or faction seeks dominance. The story of the reaction to TRIPS (in which NGOs and smaller states organized around significant problems like pharmaceuticals for HIV/AIDS) illustrate the activation of nodal networks and the creation of new nodes and superstructural nodes as a means of challenging undemocratic governance processes. In a legal framework, the nodal theory of governance suggests that restraints traditionally aimed at states (constitutions, international law) begin to apply more broadly across the plane of governance.

The issue of the governance of networked relationships and the very nature of networks themselves, while raised by both TRIPS and Zwelethemba, ultimately takes us beyond our analysis to this point. In the case of TRIPS what we found was a distinct absence of regulatory mechanisms designed to ensure that networks did not operate to undermine more broadly defined public interests. Indeed, with TRIPS what we see are networks being deliberately used to avoid regulatory restraints at national and local levels. Then, in an ironic twist, once standards had been established without the local input, and without consultation with critical constituencies like consumers, national regulatory tools were mobilized coercively to support these standards. These possibilities raise difficult questions about how to regulate networks and under what auspices this regulation should take place.

In the case of Zwelethemba one finds serious, but very different, dangers emerging. Here the problem is that local standards of order, because local nodes are empowered, might be used to trump those of broader constituencies. Here again the solution was to tie tax incentives very closely to the production of local outcomes that complied with wider standards — in the Zwelethemba case these wider standards were those set out in South African law.

Conclusion

This article has argued that we live in a world in which nodal forms of governance are now commonplace. These forms, we argue, present difficulties and opportunities for effective and normatively appropriate

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[45]   Chantal Mouffe, 'Deliberative Democracy or Agonistic Pluralism' (1999) 66 *Social Research* 745.

governance. We used two very different case studies of nodal governance to explore the dangers and possibilities associated with nodal governance. Whether it produces 'goods' or 'bads' is an empirical and contingent question.   It can and does produce both.   Nodal governance is not necessarily a governance in which power has been diffused by flowing through countless networks and nodes.   On the contrary, nodal governance permits the concentration of unaccountable power, concentrations that can act through networks to globalize inequalities.   It can, however, also be used to counter this and to promote other more equitable possibilities. Nodal governance is full of potentialities for the weak and the strong, for 'goods' and 'bads'. Which possibilities are realized depends on how nodal governance is constituted.