

The Network Economy as a Challenge to Create New Public Law (beyond the State)

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I. Personal Satellite Communication Systems and the “Globalization” of Public Law

In recent discussion on the evolution of modern law under conditions of “globalization”, a degree of consensus has emerged regarding a significant growth in transnational rules and norms which are no longer consistent with previous state centred ideas of the production (and legitimation) of law.¹ The resulting implications for the new or – more accurate – the network economy are exemplified by the introduction and development of a new generation of personal satellite communication systems (S-PCS-systems), in which the world leaders are US-American corporations such as Motorola and particularly Qualcomm, which controls the CDMA-technology. These S-PCS-systems are operated by means of low earth orbit satellites (LEOs), and their system architecture is more highly developed and economically more efficient than the previous geo-stationary satellite systems. In the field of mobile telephones, for example, S-PCS-systems provide world-wide reachability under only one number (without roaming). In their higher developmental phases the so-called BIG LEOs combine higher performance capacity with greater flexibility, that is more connection and combination possibilities between different nets and services such as language/data, and mobile/terrestrial networks. In the long term with the aid of so-called GIGA LEOs, S-PCS-systems should make possible a highly variable public system of network and service connections, encompassing the entire spectrum from

¹ See *Gunther Teubner*, “Global Bukowina”: Legal Pluralism in the World Society, in: *Gunter Teubner* (ed.), *Global Law without a State*, Aldershot 1997, pp. 3 – 28; *Karl-Heinz Ladeur*, Towards a Legal Theory of Supranationality – The Viability of the Network Concept, *European Law Journal*, Vol. 3 (1997), pp. 33 – 54; *Jean-Marie Guéhenno*, *The End of the Nation-State*, Minneapolis, 1995; *Niklas Luhmann*, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, pp. 571 – 586; on the different meanings of “Globalization” see e.g. *Gordon Walker/ Mark Fox*, Globalization: An Analytical Framework, in: *Global Legal Studies Journal*, Vol. 3 (1996), pp. 375 – 411, 379 ff.

telecommunications on the internet to television². This flexibility and the openness of their system architecture make S-PCS-systems comparable to the European Universal Mobile Telecommunications Systems (UMTS) and the technologies already used by the biggest Japanese mobile radio provider, NTT DoCoMo, for mobile internet access. As with all information technology products, however, the ultimate commercial profitability of S-PCS-systems is highly uncertain and largely depends on the rate of demand increase among innovative companies and the achievement of a corresponding critical mass of investment. Thus, as is typical of the modern economy, this highly dynamic field of technical development is combined by a fundamental problem of time scale.

This time scale problem initially resulted in considerable pressure to act being exerted on the US-American Federal Communications Commission (FCC), the regulatory agency mainly responsible for the allocation of broadcasting frequencies. This pressure was difficult for the FCC to withstand since it had to take decisions on the basis of incomplete knowledge. Not only is it difficult to predict the technological and commercial development of S-PCS-systems, but in addition relatively high demands are made on the management of public frequencies. Whereas technically suitable frequencies are in short supply at the moment, future requirements are difficult to estimate as progressive digitalization may make possible a multiple allocation of the same frequency to different S-PCS network operators.³ This situation is exacerbated

² For more details see *Martine Rothblatt*, *Lex Americana: The New International Legal Regime für Low Earth Orbit Satellite Communications Systems*, *Journal of Space Law*, Vol. 23 (1995), pp. 123 - 140; *Karl-Heinz Ladeur*, *Die Globalisierung der Telekommunikation und die kooperative Herausbildung einer neuen transnationalen Rechtsordnung – das Beispiel der mobilen Satellitenkommunikation*, *ArchPT* 1998, pp. 243 – 251; *Christian Koenig/Christopher Zeiss*, *EG-Telekommunikationsrecht und Lizenzierung von satellitengestützten persönlichen Kommunikationssystemen*, *EuZW* 1999, pp. 133 – 139.

³ *Christian Koenig/Christopher Zeiss*, *EG-Telekommunikationsrecht und Lizenzierung von satellitengestützten persönlichen Kommunikationssystemen*, *EuZW* 1999, pp. 133 – 139, 133; *Joachim Scherer*, *Innovationsoffenheit der europäischen*

by the fact that S-PCS-systems were from the outset oriented towards global use, whereas the responsible International Telecommunications Union (ITU) – or the responsible broadcasting administration conferences WCR-92 and WCR-95, did not differentiate but only identified and allocated frequencies for satellite communication. Thus the broadcasting frequencies for S-PCS-systems could and can only be allocated once in view of the essential innovative nature of S-PCS-technology in providing unlimited mobility and world-wide reachability with relatively small reception devices, an innovation which can only be realized with a world-wide agreement on frequencies so as to avoid resulting interferences. This need for global coordination and cooperation was clearly recognized by various regional regulatory agencies. Japan, for example, called in 1994 for the task of frequency allocation for S-PCS-systems to be transferred to a new international regulatory institution. However, the lead of US American corporations and resulting variations in pressure for action between countries led to a break down in international cooperation, due in the final analysis to the obstructive stance of the USA (among other countries). Following consultations with US American parties interested in LEO, the FCC as early as 1995 allocated the first license for BIG LEOs to international corporate groups with marked American dominance, namely to Iridium, a joint venture under the leadership of Motorola (which has been wound up in the meantime), Globalstark under the leadership of Qualcomm, and Odyssey under the leadership of PRW. The FCC has also already granted a license for the third development stage, the GIGA LEOs, to an American corporation, Teledisec.

Further details can be dispensed with here, as the consequences of the licensing practice of the FCC are apparent. In a technically and economically highly dynamic field, characterized additionally by global competition between standards and variations in system configurations, the FCC has granted licenses for the use of LEOs on a “first come – first served” basis to the almost exclusive benefit of US-American corporations. In this the FCC has neither made the allocation of frequencies dependant

on an inter-state agreement nor has it waited for the establishment of a new international regulatory agency. Rather it has itself taken decisions – as an independent regulatory agency – which were equivalent to transnational decisions or which by virtue of their independent decision-making practice at least produced such a strong necessity for compliance that the European regulatory body for S-PCS-systems, for example, was forced to accept and fall in with the FCC licensing initiatives especially in the area of frequency harmonisation.⁴ If this is to be a new form of “spontaneous” law production beyond the state, does it not in effect simply constitute an avoidance of international law?⁵ Are we not concerned with a commercially open legal form which primarily serves the interests of US American high technology corporations? Is not the independent action of the FCC evidence that “globalization” is little more than a conceptual vehicle aimed at strengthening the hegemony of the US American business and legal culture?⁶ With the assistance of US American regulatory agencies, US American corporations are strengthening their global power position and administering international law according to the standard of their own commercial interests in a way reminiscent of the application of the 19th century Monroe Doctrine. To express it even more drastically: is not the FCC introduction of S-PCS-systems evidence of a new “legal imperialism”, that is a form of law production which “belongs to a state whose

⁴ *Christian Koenig/Christopher Zeiss*, EG-Telekommunikationsrecht und Lizenzierung von satellitengestützten persönlichen Kommunikationssystemen, *EuZW* 1999, pp. 133 – 139, 133; *Andreas Bartosch*, Europäische Regulierung transeuropäischer Kommunikationssysteme, *CR* 2000, pp. 214 – 220, 220.

⁵ For this argument see *Christian Koenig/Christopher Zeiss*, EG-Telekommunikationsrecht und Lizenzierung von satellitengestützten persönlichen Kommunikationssystemen, *EuZW* 1999, pp. 133 – 139, which regards the onesided action of the FCC as a potential violation of the Art. 2 of the Outer Space Treaty 27.1.1967 as well as Art. 33 of the International Telecommunications Convention 25.10.1973. The Outer Space Treaty precludes laying sovereign claim to the natural resources of outer space.

⁶ See for example *Serge Sur*, The State between Fragmentation and Globalization, *EJIL* Vol. 3 (1997), pp. 421 – 434; *Paul Hirst/Grahame Thompson*, *Globalization in Question*, Cambridge 1996, p. 187.

imperialistic expansion consists in the expansion of its capitalist investments and of its opportunities for exploitation”?⁷

In the context of FCC licensing practice, the term “Lex Americana” of international satellite communication has also been applied to the case of S-PCS-systems used as an example here.⁸ However, the commercially-centered perspective, in which “globalization” and “commercialization” are seen as more or less equivalent, may fail to address the actual changes imposed on law and politics by virtue of new information technologies. If the perspective is widened to encompass development of the network economy, then it is apparent that the introduction of new information technologies is increasingly performed outside the scope of traditional forms of national legislation as practiced within the European continental model in particular. The old state model was a “top down” system. It was based on a pre-established and determining body of rules, the creation of aggregated sets of laws which anticipate reality and which are in practice only partially altered. The new system is a “bottom up” system, based on processes of flexible, heterarchic, network-like and incomplete production of rules. These emerging flexible processes of heterarchic, network-like law production are in turn only loosely if at all connected to legislation in its previously accepted sense through task catalogues conceived at a very general level (e.g. the rapid introduction of S-PCS-systems into the European Union). On the one hand these novel law production processes are operated by various public regulatory agencies in connection with parliamentary or administratively filtered committees (e.g. European Funkausschuss – ERC). On the other hand a wide range of semi-state and private organizations are integrated into these networks, including standardization institutions (e.g. European Telecommunications Standards Institute – ETSI), transnational work groups (e.g.

⁷ *Carl Schmitt*, *Völkerrechtliche Formen des modernen Imperialismus* (1932), in: ders., *Positionen und Begriffe im Kampf mit Weimar-Genf-Versailles 1923-1939*, 1988, pp. 162 – 180, 173.

⁸ *Martine Rothblatt*, *Lex Americana: The New International Legal Regime for Low Earth Orbit Satellite Communications Systems*, *Journal of Space Law*, Vol. 23 (1995), pp. 123 – 140, 128.

CEPT⁹) or other highly organized industry specific target-groups. This pattern of private-public cooperation and network-like law production may be observed on the national level, as in Britain and Germany, with the introduction of digital television.¹⁰ But the pattern is no less wide-spread on the European level, for example in the introduction of GSM or UMTS.¹¹ Similar forms dominate on the transnational level but also in other information technology contexts, above all in the regulation of the internet.¹² In view of this the licensing practice of the FCC in the field of S-PCS-systems appears less an example of “legal imperialism” on the part of the USA than the expression of a new form of “spontaneous” transnational law production. Similarly

⁹ Conférence Européenne des Administrations des Postes et Télécommunications.

¹⁰ See for example *Wolfgang Schulz*, Rechtssetzung in der “Informationsgesellschaft”: Renaissance für die Gesetzgebungslehre, in: Kurt Imhof/Otfried Jarren/Roger Blum (eds.), Steuerungs- und Regelungsprobleme in der Informationsgesellschaft, Opladen 1999, pp. 342 – 360, 352 f., on the introduction of digital TV in Great Britain and Germany; *Karl-Heinz Ladeur*, Rechtliche Regulierung von Informationstechnologien und Standardsetzung, CR 1999, pp. 395 – 404, on the introduction of digital TV in Germany.

¹¹ See *Andreas Bartosch*, Europäische Regulierung transeuropäischer Kommunikationssysteme, CR 2000, pp. 214 - 220, 215 f., on the European GSM-regulation strategy; *Jürgen Heilbock*, UMTS – Die dritte Mobilfunkgeneration aus rechtlicher Sicht, MMR 1999, pp. 23 – 28, on the introduction of UMTS networks in Europe; *Joachim Scherer*, Innovationsoffenheit der europäischen Telekommunikations-Regulierung, in: Wolfgang Hoffmann-Riem (ed.), Innovation und Telekommunikation, Baden-Baden 2000, pp. 161 – 183, 165, on the introduction of S-PCS in Europe. For an overview on standards and standardization processes see also *Paul A. David*, The Internet and the Economics of Network Technology Evolution, in: Christoph Engel/Kenneth Kellner (eds.), Understanding the Impact of Global Networks on Local Social, Political and Cultural Values, Baden-Baden 2000, pp. 39 – 71.

¹² For more details *Michael Hutter*, The Commercialization of the Internet. A Progress Report, in: Christoph Engel/Kenneth Kellner (eds.), Understanding the Impact of Global Networks on Local Social, Political and Cultural Values, Baden-Baden 2000, pp. 73 – 92.

to the way, with the transformation of the world economy since the thirties, supranational private law has liberated itself from the pressures and dysfunctionalities of the national legal order (*lex mercatoria*)¹³, so public law is also partially liberating itself from the state-centred forms of national and international law. It is establishing law production on an independent footing and transforming it into new network-like patterns between private and public organizations. In these forms the rules and their applications are fused, and in view of the openness and indeterminability of the future, the time context dependency of law is more markedly varied than in traditional liberal law.

Even if one basically accepts the development of new cooperative, network-like legal forms beyond the state, a sober analysis cannot ignore structural weaknesses in new “hybrid” regulatory networks compared with the previous forms. A mixture of non-binding, semi-binding and binding programming by goals predominate, whose approach to practical application is highly informal and opaque. This is because various state authorities and regulatory agencies are operating in often widely differing contexts. With the increase in operating players, more disagreements on competences and responsibilities arise (for example between sectoral regulation and competition supervision), while legal regulations are often only inadequately harmonized (for example in telecommunications law compared to traditional media law). A further problem is simply that public players in these relational networks often react very late, so that their technical knowledge often lags behind the times. In addition regulatory or competition agencies tend to act without direction and generally lack long-term strategies for action. Thus the regulation of more complex technologies would seem to pose novel problems of knowledge. Accordingly should not public law intervene precisely here, and if so which goals and purposes in the network economy should public organizations be expected to undertake? Could this be the basis for a new public law (beyond the state)?

¹³ See *Ursula Stein, Lex Mercatoria. Realität und Theorie*, pp. 13 – 16, 252 – 259.

This paper is intended to formulate initial responses to these rather difficult questions. The paper should be seen as a research exercise, indicating tendencies and pointing out lines of investigation rather than giving definitive answers. To limit the potential for confusion, I deliberately narrow the scope of the questions on problems of the network economy; I also attempt to subject the inductive part of the paper to specific strands of legal theory inquiry. The intention is that both strands contribute to an alternative learning process, avoiding precipitate generalization regarding isolated individual phenomena on the one hand, and on the other making the analytical power of the theory dependant on several case examples and not only on any internal cohesion of the argumentation. Systems theory seems to me to be a particularly promising vehicle for this purpose. The new legal theoretical paradigms on network-like system creation, as built above all in the sphere of the systems theory orientated discussions of legal theory¹⁴, are intrinsically related to network economy “laws”; it is at least no coincidence that these concepts are being formulated precisely in a period in which the new global economy is poised to replace the old order of an industrial society dominated by the welfare state.¹⁵ The innate relationship between systems theory and the global network economy is illustrated by the way systems theory provides an apparatus for conceptual differentiation by means of which autonomous systems can also be delineated. Such delineation is even possible where the territorial borders and limitations of law can no longer be taken as given, that is where the territorial concept of legal theory loses persuasive power in a way similar to the territorial concepts of sociology or state theory. This primarily legal theory perspective leads to a slight shift of emphasis away from questions of “global governance” towards questions of the

¹⁴ *Niklas Luhmann*, *Das Recht der Gesellschaft*, Frankfurt am Main 1993; *Karl-Heinz Ladeur*, *Postmoderne Rechtstheorie*, Berlin 1992; *Gunther Teubner*, *Recht als autopoietisches System*, Frankfurt am Main 1989; see also *Gunther Teubner* (ed.), *Autopoietic Law: A New Approach to Law and Society*, Berlin/New York 1988.

¹⁵ See the remarks on this interdependency by *Kevin Kelly*, *New Rules for the New Economy*, New York 1998, p. 159; *Niklas Luhmann*, *Die Gesellschaft der Gesellschaft*, Bd. 1, Frankfurt am Main 1997, p. 31; *Karl-Heinz Ladeur*, *Postmoderne Rechtstheorie*, Berlin 1992, p. 100.

legal forms necessary for it; I shall however at an intermediary stage (see 3) and in the two final sections (6 and 7) attempt to sketch several consequences of my ideas for governance in a “global age”.

II. Adapting Law to the “Logic of Networking”

1. Introduction

The first step towards a new public law (beyond the state) depends on viewing present-day society in a way appropriate to its high degree of social complexity. Essential from the outset is an adequate picture of modern society from the perspective of the legal system or legal theory. This is particularly necessary in connection with the questions developed here, in that the phenomenon of “globalization” is still seen too much from the viewpoint of the state. Society is equated with the sovereign nation state, whose unity and order is secured not least through a superior ordering of the public (the state) over the private (liberal society). Indeed in many conceptualizations society is first constituted through the supremacy of constitutional principles (basic rights, *rechtsstaat*, democracy, etc). The nation state, the constitutional state, *rechtsstaat* and modern liberal society become broadly the same thing, as the pluralism of the world order of states corresponds under this view to a pluralism of “norm” oriented and territorially limited “spatial ordering”. This fixation on the state then leads from a legal theoretical perspective to a number of premature conclusions or “short cuts”, which render the production and binding nature of modern liberal law a priori dependant on state generated procedures and the potential of state guaranteed sanctions, that is ultimately on the power monopoly of the state.¹⁶

2. From hierarchical to modern society

Such short cuts and misunderstandings regarding the preconditions and characteristics of modern liberal law can be avoided if one seeks to understand modern society more strongly in terms of the historical

¹⁶ As a brilliant example for this tradition see *Martin van Crefeld, Aufstieg und Untergang des Staates*, München 1999, p. 205; and in this book.

conditions under which it arose, in particular the changes that the break with the old hierarchical society has entailed for the self-perception of modern society. This requires a thumbnail sketch of the semantic (not: the true history) of the traditional European hierarchical society. In very simplified terms it can be said that the nature of the traditional European hierarchical society presupposed a belief in metaphysical creation. This belief, the basic supposition of all metaphysics, is that beyond empirical nature there is an immutable true reality which at the same time constitutes the normative principles of our earthly reality.¹⁷ Thus a normative component is built into nature and from here nature and the society create a unity which precedes the individual. This “natural unity”, like a layered model based on various hierarchically constructed levels of being, was possessed of a stationary distribution of positions, and was founded on the authority of God (or at least; in ultimate transcendental principles). The sociologist Ernst Troeltsch has written of the metaphysical world view of the traditional hierarchical society at the beginning of the 20th century, “the entire construction dominated by the central religious aim which leads and conditions the individual soul of all human society, so as to allow each individual in his way and in his place to find his own appropriate lot in the eternal purpose“.¹⁸

As early as Aristotelian times, the normative-teleological model of a “natural unity” led in the politico-legal sphere to the conviction that human nature was such that the

¹⁷ *Aristoteles*, *Metaphysik*, 1526 a 10-23; for more details see *Panajotis Kondylis*, *Die neuzeitliche Metaphysikkritik*, Stuttgart 1990, pp. 12 – 26.

¹⁸ *Ernst Troeltsch*, *Die Soziallehren der christlichen Kirchen und Gruppen 1* (1912), Tübingen 1994, p. 320.

true purpose of the good life lay in the political community (*koinonía politike*).¹⁹ With this close connection between politics and metaphysics it was at the same time determined that the order of the politico-legal community was not, and could not be created by mankind, because worthwhile (rational) life in the city was a product of nature striving to discover or fulfil itself.²⁰ Hence pre-modern society effectively oriented itself towards past circumstances, to origins, to the monarchical and aristocratic traditions, to the world which was as it was and would be ever more. Other possibilities for development were unthinkable within the past-oriented world view of the Aristotelian-Christian metaphysic. While the good life might not ultimately be attained, political action could nevertheless only serve principally worthwhile purposes or interests that were preordained politically and legally part of the “natural unity”. This static, backward-looking character of traditional society corresponded to metaphysics and a form of awareness. Metaphysics was conceptually the core of a system of rules which, on the basis of *logical* rules, made possible the rational-demonstrative (free of contradictions) conception of being and its ultimate principles. For this reason it was, in its highest and most intensive form, nothing other than the representation of the unity of thought (form) and being (content).²¹ In systems theory terms: metaphysics as epistemology consisted in the representation of a “rational continuum”.²² This “rational continuum” bound the observer into, and indeed with an

¹⁹ *Aristoteles*, Politik, 1252 a. The economy, or the house (*oikos*) is thereby seen as independent of politics, but not as initially in the 18th century as a moral science of “political economy”, but the precise opposite as apolitical; the *oikos* belonged in the world of necessity, in which the *cyclical* (not abstract) problem of scarcity had to be resolved; see *Caroline Gerschlager*, Konturen der Entgrenzung, Marburg 1996, pp. 31, 40.

²⁰ For more details *Joachim Ritter*, Metaphysik und Politik, Frankfurt am Main 1977, pp. 9 – 179; *Manfred Riedel*, Metaphysik und Metapolitik, Frankfurt am Main 1975, pp. 11 – 105; for a brief summary see *Wolfgang Kersting*, Die politische Philosophie des Gesellschaftsvertrages, Darmstadt 1996, pp. 1 – 18.

²¹ *Panajotis Kondylis*, Die neuzeitliche Metaphysikkritik, Stuttgart 1990, p. 13.

²² *Niklas Luhmann*, Beobachtungen der Moderne, Opladen 1992, p. 53.

immutably interpreted world, thereby rendering this world accessible for an all-knowing donor subject.

Modern liberal society shattered this natural, traditional order oriented towards a preordained state of perfection. Not overnight, not at a single stroke, but by a series of cuts together with occasional powerful blows. The attack on the past-fixated Aristotelian-Christian world view began in the 17th century, above all with modern mathematical natural science. The mathematical science ideals of research and precision as propagated by writers such as Bacon, Descartes and Galileo, rendered obsolete the conceptual unity between thought and being and the accompanying self-legitimation of being. This was replaced under modern rationalism by methodical work according to strict rules and regular routines; for example Bacon called for a search for pure and abstract truth behind the false images and illusory apparitions (idols)²³, long before Kant in his work *Kritik der reinen Vernunft* discovered “the thing in itself” and thereby the limitations of metaphysics. In political theory the consequences of the new world view were explored above all in social contract theory in the writings of Hobbes, Locke and the Scottish Enlightenment²⁴, where the politico-legal field emancipated itself from the unity of the traditional metaphysical world view and was reoriented towards self-establishing practice.²⁵ Thereby modern society constituted a historical break, which rendered the evolutionary theory extremely implausible and which could not be explained by liberal and Marxist laws of historical predetermination; nevertheless, the transition to modern society can at best be reconstructed “universal-historically” as the product of entirely coincidental

²³ *Caroline Gerschlager*, *Konturen der Entgrenzung*, Marburg 1996, pp. 67 f.

²⁴ “The skill of making, and maintaining Common-Wealths, consisteth in certain Rules, as doth Arithmetique and Geometry; not (as Tennis-play) on Practise onely”, *Thomas Hobbes*, *Leviathan*, 1651, ch. 20, p. 107.

²⁵ For more details see *Karl-Heinz Ladeur*, *Negative Freiheitsrechte und gesellschaftliche Selbstorganisation*, Tübingen 2000, pp. 21 – 46; see also *Wolfgang Kersting*, *Die politische Philosophie des Gesellschaftsvertrages*, Darmstadt 1996, pp. 59 – 139.

preconditions.²⁶ The process of dissolution of the traditional hierarchical society, which seen from a universal-historic perspective reached an irreversible stage *only* in England, nevertheless produced an extraordinarily intense divergence, ultimately leading to a historically unprecedented internal complexity and capacity for self-transformation. The high degree of internal complexity and the rapid transformation of modern society was then generally apparent after the industrial take-off, that is after 1820, and today, with the collapse of communism, this model for social (self-)organization seems to prevail as generally valid all over the world.²⁷

3. Increase of internal complexity of autonomous systems

The idea of the increase in internal complexity should reflect the idea that from an *objectively-social* point of view modern society is a complex society which is not amenable to a centrist theoretical approach (end of metanarratives). This is primarily because in the course of its evolution modern society is gradually liberating itself from any naturally prescribed purposes. Liberal society is loosening any ties to the alien unknowable will of God and is strengthening its own internal values. This also involves a distancing from the natural existence of being, its natural “environment”. A linguistic science standpoint views this phenomenon such that liberal society frees itself from the stable signification of the sign, and, as Hobbes pointed out, devises its own artificial signs with more signification possibilities.²⁸ With the liberation of society from nature (and the stable fixed “natural” signification of the sign), and as modern society continues to evolve, a further differentiation of individual signs and sign formations *within* the society occurs, which in turn gradually stabilizes into independent and self-sufficient communications networks. The unity and accessibility of the old hierarchical society is thus giving way to the self-establishment of independent autonomous communication networks. These autonomous networks were initially described in the sociology of the turn of the century as products of the

²⁶ As is well-known a central theme of Max Weber.

²⁷ See generally *Francis Fukuyama, The Great Disruption*, New York 1999.

²⁸ *Thomas Hobbes, Leviathan*, 1651, ch. 4, pp. 12 – 17; see also *Karl-Heinz Ladeur, Postmoderne Rechtstheorie*, Berlin 1992, p. 24.

“objective culture”, as “elementary forms”, “value spheres” or “cultural provinces”; the Aristotelian world view – in the language of Max Weber – replaced by the concept of the “inherent natural lawfulness of individual spheres” of “occidental culture”.²⁹ In other words various *collective* (not only: individual) spheres of rationality are differentiated in the modern society. The “natural unity” of the traditional hierarchical society, the metaphysically determined hierarchical class model of traditional Europe, gives way to what Hermann Heller described in his work *Staatslehre* in 1934 as an “objective, non-psychological coherence of the social totality”.³⁰ New systems theory describes this process as a reorientation in society from “hierarchical” to “functional differentiation”.³¹ In contrast to Max Weber, Luhmann reformulates the rationality problematic of modern society in exclusively differentiation theory terms³², however, modern society is here divided into a number of autonomous systems orientated to function like law, politics, economy, science, mass media etc. These primary systems orientated to function are thought of as operatively closed and, with the aid of binary codes (for example legal/illegal) and adjusted programs (for example conditional programs in legal systems) assume specific functions and overall responsibilities in society. Under these conditions, law and its social function can only be produced and guaranteed by the legal system, which does not exclude, but rather presupposes that the legal system takes account of the preliminary input of other autonomous systems, such as monetary payments from the economy.

It is not necessary to decide here whether the a-centric and dynamic relational networks of modern society are accurately analysed under the formula of “functional

²⁹ Max Weber, *Gesammelte Aufsätze zur Religionssoziologie* (1920), Tübingen 1986, pp. 541, 11.

³⁰ Hermann Heller, *Staatslehre* (1934), in: Martin Drath u.a. (eds.), *Gesammelte Schriften*, Bd. 3, Leiden 1971, pp. 195 – 204, 196.

³¹ Niklas Luhmann, *Die Gesellschaft der Gesellschaft*, Bd. 2, Frankfurt am Main 1997, pp. 707 – 776, 709.

³² Niklas Luhmann, *Die Gesellschaft der Gesellschaft*, Bd. 1, Frankfurt am Main 1997, pp. 171 – 189.

differentiation”. However Luhmann’s description of the transition from the traditional to modern society as the dissolution of the traditional European “rationality continuum” is certainly apt.³³ The concept of rationality especially becomes precarious because the closed “holistic” conception of the Aristotelian-Christian worldview is here displaced by a plurality of system rationalities and self-descriptions. This is brought about not least by scientific theories of reflection which, after the invention of the printed book, increasingly developing along side the specific orientations and functions of different meaning systems. This happens for example through the production of new theoretical descriptions such as legal positivism, which carries forward the displacement of natural law, replacing the image of the old good law with the figure of the arbitrary production of law. The supposition that law is discovered by reference to (sacred) authority is now substituted by the image of the production of law and the possibility to change rules contained therein.³⁴

4. *The transitional character of novelty*

A further characteristic of modern society, closely bound up with the idea of increased internal complexity, lies in the dynamic stability of autonomous systems and the fluid relationships which these systems enter into with each other. Modern society also destroys the old “rationality continuum” to the extent that it is a continuum. The departure from the continuity (and authority) of tradition is manifest above all in a new time conceptualisation, with whose implementation the basic orientation principles of society shift from experience (past) to expectation (future). This trend can be seen in the gradual positive re-evaluation of novelty and the supplementary concepts connected with it, such as genius, creativity, innovation, discovery etc. For example in the 18th century the (messianic) idea of a new politically social order can already be consciously turned against tradition, as happened most significantly in the French Revolution. Here modern society at the same time succumbs to the unknownness of the future. The future is no longer experienced and lived as a mere repetition of the

³³ Niklas Luhmann, *Beobachtungen der Moderne*, Opladen 1992, pp. 51 – 91.

³⁴ See Niklas Luhmann, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, pp. 507 – 529.

past (or as the fall), but as a horizon of uncertain possibilities offering opportunities and posing dangers. It is this uncertainty in the temporal dimension which makes concepts of “bounded” and “procedural rationality” plausible.³⁵

Today the preponderance of a rapid, accelerating, and even speeding time is deeply anchored in society. The cause of this is not least that, after the end of the Enlightenment, Romanticism, Marxism, Fascism, Futurism etc., the compulsion to produce novelty can no longer simply be put off into the future.³⁶ The economy in particular today sees itself as exposed to the permanent “temporal nature of the new”³⁷, as shown by the constant need of the economy to substitute old money for new. The typical acceleration of time in modern society is further shown in the extreme shortening of product cycles, especially in the network economy (processors, chips, etc.). It is also seen, however, in the mass media, which have to hold attention under the conditions of an accompanying constant surplus of information, itself only possible by means of the endless production of *new* information, *new* news, *new* sports events, and *new* films. Another example is fashions, which are equally subject to a constant pressure to innovate. In short: the temporal, provisional nature of novelty has today become a way of life. Ultimately it places individuals under constant pressure to change, in which they must repeatedly show their originality and uniqueness.³⁸ Thereby novelty has become an incessant, everlasting event, an “eternal present” of modern culture. With the readjustment towards future orientation an abstract (no

³⁵ *Herbert Simon*, From substantive to procedural rationality, in: S.J. Latsis (ed.), *Method and Appraisal in Economics*, Cambridge 1976, pp. 129, 131.

³⁶ *Boris Groys*, *Über das Neue*, München 1992, p. 11.

³⁷ *Caroline Gerschlager*, *Konturen der Entgrenzung*, Marburg 1996, p. 111; for the consequences of this future-orientation see *Boris Groys*, *Über das Neue*, München 1992 (culture); *Niklas Luhmann*, *Die Gesellschaft der Gesellschaft*, Bd. 1, Frankfurt am Main 1997, pp. 997 – 1016 (society and semantics).

³⁸ See *Gilles Lipovetsky*, *L'ère du vide. Essais sur l'individualisme contemporain*, Paris 1983.

longer space and experience related) time horizon becomes dominant³⁹, which punctuates the present, that is dissolves the coherence of the given in a permanent sequence of new but equally fleeting events.

5. *Intermediate conclusion: from subject to network*

In the light of these initial abstract considerations, a new public law (beyond the state) must proceed from the assumption that with the transition to modern society a network of autonomous “cultural provinces”, freed from the “natural living space” of mankind, has arisen; an immaterial world of relations and connections whose inherent natural lawfulness is produced and reproduced over each specific selection pattern. In their respective roles for example as law professors, car mechanics, consumer, internet user or member of the electorate, people are involved in the production and reproduction of this emergent level of the collective, but are not as the “people” the “cause” of society. A legal theory which started with such simplifications would be contradicted from the outset by the fact that the diversity and internal complexity of the communicative networks of society, their “language games” and specific bodies of knowledge, have multiplied to the extent that they are no longer accessible to *one single* observer. The collective phenomenon fields, which above all emerge on the basis of the differentiation of autonomous functional systems such as politics, law, economy, mass media etc., rather produce a *drift* which in turn leads to the dissolution of all traditional ideas of the unity of the society, the state, the nation, democracy, the people, etc., as well as the associated subject theories and all hierarchical layering related to them. *That* is meant when the end of the (sovereign) subject is talked of. Jean-Marie Guéhenno is undoubtedly correct: “Nothing is more foreign to our age than the idea of a person-subject that could exist in and of itself, outside the network of relationships in which it is inscribed and which alone defines it.”⁴⁰

³⁹ *Manuel Castells*, *The Rise of the Network Society*, Vol. 1, Oxford, 1996, pp. 429 – 468, 465, talks about „timeless time“; see also *Marc Augé*, *Orte und Nicht-Orte*, Frankfurt am Main 1994.

⁴⁰ *Jean Marie Guéhenno*, *The End of the Nation-State*, Minneapolis 1995, p. 33.

In a networked multiplicity of rules and routines, collective “transsubject” relationships displace the old stable person subjects (state, people, organization, individual). This multiplicity no longer has a centre (as in the traditional European conception) and in the continuation of these collective “transsubject” relationships people merely are involved. This renders obsolete the idea of a stable “subject” or “object”, which could be conceived of independently of the communicative networks and their dynamic relationships. This means for the line of questioning raised here that it can no longer be relevant today to seek *one* new stable “person subject” like the global state or global democracy.⁴¹ In future a new network-like thinking in terms of relations and connections will be needed, a legal-theoretical thinking which proceeds from a multiplicity of legal subjects, but which does not assume the differences and boundaries between them to be stable, but rather concentrates on how the differences and boundaries are repeatedly infiltrated, deconstructed, rendered indistinguishable.⁴² Thus a legal theory is needed which assumes a multiplicity of fluid distinctions and linkages. Legal theory can no longer refer to stable legal subjects, hierarchical classes and fixed relationships, but rather must develop a keener sensitivity towards the public arena and rapid self-transformational skills of autonomous systems, organizations and individuals. Like the “objects” of ascribed legal rights and obligations, the “subjects” of production of legal rules must be conceived of as dynamic relational networks of networks.

The readjustment of legal theory towards network-like, dynamic stability also means that in future it will not be enough to open public law to flexibility and innovativeness. This will naturally continue to be an important task of public law, but the legal-*theoretical* perspective will first require an improved understanding of the ordering function of liberal law and its autonomy against the background of *new* experiences. This brief sketch shows that the ordering function of liberal law is inadequately

⁴¹ E.g. *Otfried Höffe*, *Demokratie im Zeitalter der Globalisierung*, München 1999, makes an attempt in this direction.

⁴² *Boris Groys*, *Unter Verdacht. Eine Phänomenologie der Medien*, München 2000, p. 14.

grasped by the widespread ideas of “securing continuity”, “maintaining confidence” and “securing of expectations”⁴³, in that, under conditions of increased social complexity and faster self-transformation capacity, it appears inconceivable that modern law will continue to be oriented towards stable social states.⁴⁴ – Before we explore this area more closely, it is first necessary to explore in more detail the state and political theory consequences of such an approach for the current globalization discussion.

III. Consequences for the Globalization Discussion

In the current globalization discussion, the new world order is still regarded as a phenomenon which undermines the sovereignty of the nation state and the territorial seclusion of their jurisdictions (and thereby in particular undermines the relatively high social standards of European societies).⁴⁵ However, if as here, one construes modern liberal society as an a-centric and dynamic network of relationships of equally ranking autonomous systems, then this viewpoint requires at least partial revision. The supposition of a territorial seclusion of the legal order conceals nothing other than the idea of a *state* legal order, behind which in turn stands the equating of the nation state

⁴³ See *Reiner Schmidt*, Die Reform von Verwaltung und Verwaltungsrecht, Verwaltungsarchiv, Vol. 91 (2000), pp. 149 – 168, 155; on the securing of expectations as involving *future* uncertainty see *Niklas Luhmann*, Das Recht der Gesellschaft, Frankfurt am Main 1993.

⁴⁴ *James R. Buchanan*, Individual Right, Emergent Social States, and Behavioural Feasibility, in: Rationality and Society Vol. 7 (1995), pp. 141 ff.

⁴⁵ With varying emphases *Serge Sur*, The State between Fragmentation and Globalization, EJIL Vol. 3 (1997), pp. 421 – 434; *Paul Hirst/Grahame Thompson*, Globalization in Question, Cambridge 1996, pp. 170 – 194; *Saskia Sassen*, Losing Control? Sovereignty in an Age of Globalization, New York 1996, pp. 1 – 30; *Jürgen Habermas*, Jenseits des Nationalstaats? Remarks on the Problematic Consequences of Economic Globalization, in: Ulrich Beck (ed.), Politik der Globalisierung, Frankfurt am Main, 1998, pp. 67 – 84, and the overview by *Phillip Alston*, The Myopia of the Handmaidens: International Lawyers and Globalization, EJIL (1997), pp. 435 – 448.

with modern society.⁴⁶ The above considerations, however, suggest that modern society is to be thought of as a communicatively networked global system, which in a purely formal sense can certainly be described as a “world society” or “world-wide communication system”.⁴⁷ Such a linguistic ruling seems to be particularly productive when less stress is placed on the unity of *the* “world society” than on the “heterarchic, connectist, network-like linking of communication on the level of organisations and professions”.⁴⁸ “Globalization” is not then a principally new phenomenon, but rather the product of an increase and intensification of the global interweaving of communication systems. Such interweaving has been a feature of liberal society from its beginnings, and is continued today above all by the global development of the information economy.⁴⁹

If one accepts the perspective given here of an a-centric society, then the autonomy of primary social (function) systems must also be understood as independent of the conditions and limits of time and space. This should today be relatively plausible for the economy or mass media. But then it also is valid for the political system (and the legal system). Such a conceptual strategy would, contrary to the dominant everyday consciousness, lead to a clear shift of emphasis, but would not be a departure from the liberal tradition. All the same bourgeois thought early recognised and insisted that the

⁴⁶ This is, for example, the approach in *Anthony Giddens, The Consequences of Modernity*, Cambridge 1990; similarly *Ulrich Beck, Wie wird Demokratie im Zeitalter der Globalisierung möglich?*, in: Ulrich Beck (ed.), *Politik der Globalisierung*, Frankfurt am Main 1998, pp. 7 – 66.

⁴⁷ *Niklas Luhmann, Der Staat des politischen Systems*, in: Ulrich Beck (ed.), *Perspektiven der Weltgesellschaft*, Frankfurt am Main 1998, pp. 345 – 380, 373 f.

⁴⁸ *Niklas Luhmann, Der Staat des politischen Systems*, in: Ulrich Beck (ed.), *Perspektiven der Weltgesellschaft*, Frankfurt am Main 1998, pp. 345 – 380, 375.

⁴⁹ See *Manuel Castells, The Rise of the Network Society*, Vol. 1, Oxford 1996, pp. 66 – 151; *Paul Krugman, The Self-Organizing Economy*, Malden 1998; *Jonathan Perraton/David Goldbealt/David Held/Anthony Mc Green, Die Globalisierung der Wirtschaft*, in: Ulrich Beck (Hrsg.), *Politik der Globalisierung*, Frankfurt am Main 1998; *Ulrich Menzel, Globalisierung versus Fragmentierung*, Frankfurt am Main 1998.

generalisation of the communicative relationships between people is a consequence of a liberal society possessed of uninhibited power. One only has to think of Adam Smith and his observations of the results of free trade in the last third of the 18th century⁵⁰; or of Hegel, who some two decades later pointed out that the life-giving element for modern industry is not the earth, the ground and soil, but rather the sea, that is fluid and which knows no bounds.⁵¹ And we know from Carl Schmitt that national macro economists (but not: jurists) as early as 1900 clearly analysed the wide-spread de-territorialization, which accompanied the rise of the industrial society of the 19th century. At least the idea of “commercial globality”, that the liberal idea of free world trade and free world market was taken for granted in European thinking since the Cobden Treaty of 1860.⁵²

The sovereign nation state in the sense of a territorially bound and culturally (linguistically, religiously, cultural etc.) distinct political unity would also then have to be qualified as a historically specific form of regional political differentiation in a global communicative network of networks. *This* form of political differentiation is today dissolving. The sovereign nation state and the “international system” based upon it are proving to an increasing degree to be an inadequate answer to cope with the increased internal complexity and capability of rapid self-transformation of liberal society. This is particularly true of the state as described in the European continental development path. The European continental state has always seen itself as the side of

⁵⁰ *Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), 1961, Vol. 2, p. 141.

⁵¹ *Georg Wilhelm Friedrich Hegel, Grundlinien der Philosophie des Rechts* (1821), 1970, § 247.

⁵² *Carl Schmitt, Der Nomos der Erde* (1950), Berlin 1974, p. 208. Bourgeois critical thinking early recognized the tendency in „bourgeois society“ to be driven out above itself. For Marx the tendency to create world markets was „intrinsic to the concept of capital“. In more recent political and social science writing this insight is headed „Pax Britannica“, see *Paul Hirst/Graham Thompson, Globalization in Question*, Cambridge 1996, pp. 18 – 50.

distinction from state and society, which has to more observe than respect the distinction. The continental European state is not a “trust”, not an institution of society which determines the tasks and boundaries of this institution, as e.g. with John Locke where the political society determined the end of every form of government.⁵³ By contrast the continental nation state has always conceived of itself as the constitutive condition and background guarantor of the entire social order. This applies to the state fixated Hegel-derived variant as it does to the people-fixated Rousseau-derived variant. From this perspective the continental European state appears as the particular subject of history which guarantees the unity of the range of interests of the *société civile* on a higher more generalised level⁵⁴; a theoretical pattern which is still to be encountered today in social and political science⁵⁵, but which is particularly widespread in the German term “Staatsrechtslehre” (state doctrine theory), and indeed among those writers who consciously distance themselves from the statist tradition of “state law”.⁵⁶ From here public interests are and can be qualified as stable, and given by the social order, as a public good, which is implemented in society not least with the help of state law, the legislature and an administration strongly influenced by jurists. This solution and the traditional pretensions associated with it have however long been untenable.⁵⁷ But what Carl Schmitt diagnosed in the sixties as the end of the

⁵³ *John Locke*, Two Treatises on Government, 1698, ch. VII, §§ 77 – 94, 89, 90.

⁵⁴ For the situation in France see *Francois Furet*, Der revolutionäre Katechismus, in: E. Schmitt (ed.), Die französische Revolution, Köln 1976, pp. 46 – 88, 64; *Marcel Gauchet*, Die Erklärung der Menschenrechte. Die Debatte um die bürgerlichen Freiheiten, Reinbek 1991.

⁵⁵ For an example on this perspective see *Ulrich Beck*, Wie wird Demokratie im Zeitalter der Globalisierung möglich?, in: Ulrich Beck (ed.), Politik der Globalisierung, Frankfurt am Main 1998, pp. 7 – 66, 31; *Helmut Willke*, Supervision des Staates, Frankfurt am Main 1997, p. 9.

⁵⁶ *Konrad Hesse*, Grundzüge des Verfassungsrechts der Bundesrepublik Deutschland, Heidelberg 1995, pp. 3 – 13.

⁵⁷ *Niklas Luhmann*, Der Staat des politischen Systems, in Ulrich Beck (ed.), Perspektiven der Weltgesellschaft, Frankfurt am Main 1998, pp. 345 – 380, 371; see also *Thomas*

“statist epoch”⁵⁸, and what is referred to in recent times as the “end of the nation state”⁵⁹, would then be no more than, and in the first place, the end of the continental European state model.

From here the thesis could be elaborated that statism and representative democracy are not identical to the continental European development path of the state, or rather – in the language of Max Weber – not with the “institutional state” (Anstaltsstaat). The state would then be capable of outlasting the erosion of the “institutional state”.⁶⁰ If one combines this idea with the distinction between government and state, which colours the Anglo-American tradition more strongly than the continental European, then continental European public law would also have to orientate itself more strongly towards the idea of public government, that is a concept which is from the outset more tailored for the self-indication of the political system than is the state concept. Statism in the sense of public government would then be conceivable under conditions in which the unity of “territorial order” and “political order” is dissolved under the pressure of information technology development. This and similar ideas certainly are headed in the correct direction, but one must remember thereby to take into account that the increasing relationships between the states change the state itself. And even more: if one combines the emergence of supranational and international organisations (EU, WTO, UNO) and the increasing significance of more or less autonomous public

Vesting, Politische Einheitsbildung und technische Realisation, Baden-Baden 1990, pp. 95 – 170.

⁵⁸ *Carl Schmitt*, Der Begriff des Politischen (1932), Berlin 1979, p. 10; *Ernst Forsthoff*, Der Staat der Industriegesellschaft, München 1971, pp. 11 – 20. *Stefan Breuer*, Der Staat. Entstehung, Typen, Organisationsstadien, Reinbek 1998, pp. 298 f., correctly points out that the concept of the modern state should strictly be a *contradictio in adiecto* for Carl Schmitt.

⁵⁹ *Jean-Marie Guéhenno*, The End of the Nation-State, Minneapolis 1995, pp. 1 – 34; *Martin van Creveld*, Aufstieg und Untergang des Staates, München 1999, pp. 371 – 463; *Kenichi Ohmae*, The End of Nation State, New York, 1995.

⁶⁰ In this direction *Stefan Breuer*, Der Staat. Entstehung, Typen, Organisationsstadien, Reinbek 1998, p. 299.

regulatory bodies (e.g. FCC, EU Commission) with the increasing significance of cooperative relationships of these authorities with private and semi-private organisations – a development which has long been observable particularly in the context of the network economy – then there is a lot to be said for the view that we are witnessing the emergence of a new world order beyond all traditions. Thus we would be facing a new political and social world, not categorised by either Hobbes, Locke, Montesquieu or Max Weber.

The nation state will not disappear in this new world order. Rather it will remain indispensable for the “international system” (and international law) for the foreseeable future, if only because the state provides a form of organised communication capability which is also relatively accessible for other states.⁶¹ But the idea of an *international* political order should rather obstruct than open the view to the new in the new world order. The sovereignty of the nation state will drift further in the direction of responsibility for partial segments of regional territorial order such as e.g. the regulation of citizenship and its exceptions, while the dependence of the nation state on supranational, international and transnational political networks, in Luhmann’s terminology: the “political system of the world society”, will grow.⁶² Beyond the level of international networks, among which are to be counted informal relations between national parliaments, governmental organisations and courts⁶³, an in principle pluralistic order of overlapping regulatory networks will gain in significance, for

⁶¹ Arguments supporting this thesis collected e.g. in *Michael Reisman*, *Designing and Managing the Future of the State*, EJIL Vol. 8 (1997), pp. 409 – 420.

⁶² *Niklas Luhmann*, *Der Staat des politischen Systems*, in: Ulrich Beck (ed.), *Perspektiven der Weltgesellschaft*, Frankfurt am Main 1998, pp. 345 – 380, 351 f.

⁶³ *Anne-Marie Slaughter*, *International Law in a World of Liberal States*, EJIL Vol. 6 (1995), pp. 503 – 538, 522 ff.

which the terms “global governance” or “global public private governance” seem to be becoming established in the political and social science literature.⁶⁴

While the term „global public private governance“ is often, perhaps justifiably, described as fuzzy, the term aptly expresses the way the new world order follows the “logic of networking”, that is a logic in which order must be generated under the conditions of displacement of earlier stable boundaries (private/public; state/non-state etc.). The new regulatory networks will be based on time dependent stability, will no longer be ordered territorially but *functionally*, and will largely proceed from a cooperation with private actors. All in all an a-centric landscape of high mobility and unravelling borders should be generated, in which public and private, national, transnational, supranational and international components overlap to an at times varying extent.⁶⁵ Jean-Marie Guéhenno pictured the formation of such „network-connections” using the image of the interlinked Olympic rings.⁶⁶ This image captures the new world order very well, although the rings and their connections should not be thought of as stable. The future will more probably be like a modern computer animation, like a relational network of networks based on “iteration”, in which order is not simply replaced by disorder, but in which a greater variation of figure combinations must indeed be reckoned with. The concept of democracy, for example, should also be recast in these terms⁶⁷, instead of simply projecting the traditional democratic image of the state coupled with a unified will onto the global (or European) level.

⁶⁴ For an overview see the papers in *Jan Kooiman, Modern Governance. New Government-Society Interactions*, London 1993, and *Raimo Värynen, Globalization and Global Governance*, Lanham 1999.

⁶⁵ Such a perspective is taken in *Karl-Heinz Ladeur, Towards a Legal Theory of Supranationality – The Viability of the Network Concept*, *European Law Journal*, Vol. 3 (1997), pp. 33 – 54.

⁶⁶ *Jean-Marie Guéhenno, The End of the Nation-State*, Minneapolis 1995, p. 56.

⁶⁷ See *Karl-Heinz Ladeur* in this book.

IV. The Ordering Function of (Public) Law

1. *The further decoupling of law and politics*

It will also be decisive for future legal theory that the new public law, seen only in outline, is not considered equivalent to past institutional structures. Thus for example the development of the information economy will hardly lead to a “new middle ages”.⁶⁸ Admittedly state legitimated organisations will not in the future be able to claim a *monopoly* over law production – a potential parallel with the middle ages – but there can be no talk in the new functional regulatory networks of the priority of *one* political will over other autonomous system of the society. Also law and politics will no longer grow together, but rather both systems, which were indeed linked together in the continental European tradition, are more likely in future to become more distinct from each other. This trend to a self-organizing legal system will develop the relationship between state legislation and self-organisation of society further at the expense of national legislative bodies and their associated practices (judicial review, university dogmatic, journal culture etc.) – and thereby also at the expense of traditional public law. But just as questioning the significance of the nation state is the consequence of a fully developed liberal society, so the increase of self-organisation and self-regulation means neither a departure from the liberal legal tradition nor an end to public law. Karl-Heinz Ladeur recently pointed out correctly that not only the codification of law but also the judicial decision or the dogmatic always had a rather supportive *secondary* function for liberal law; whose significance could (nevertheless) be over-estimated in the past because the emergence of the law of nation states in the 19th century was strongly conditioned by the antithetical fixation on local law and custom.⁶⁹ The variety and complexity of local law had to give way to the unity of a national legal system and its laws, that is the legal order of the nation state was

⁶⁸ See e.g. *Hedley Bull*, *The Anarchical Society*, London 1977, p. 264.

⁶⁹ *Karl-Heinz Ladeur*, *Der “Eigenwert” des Rechts – die Selbstorganisationsfähigkeit der Gesellschaft und die relationale Rationalität des Rechts*, in: Christian J. Meier-Schatz (ed.), *Die Zukunft des Rechts*, Basel 1999, pp. 31 – 56, 43.

modelled on a mechanical image. Order and rationality signified here: predictability and systematic cohesion.

2. *The self-organization of law*

Systems theory may enable a more precise delineation of the significance of the trend to self-organization of modern law. In contrast to the still widely-held idea that law consists of a more or less ordered mass of norms derived from the prescriptions of national legislative bodies and occasionally from the “lacuna filling” work of courts, in future the self-referential network-like closure (*Geschlossenheit*) of the legal system must be foregrounded. By this is meant that the legal system proceeds from the continuous use of legal communications which, for their part, link up to an existing stock of legal communications (and their corresponding forms of practice). Thus the legal system produces and reproduces a recursive structure from actually performed operations. The law⁷⁰ is not determined hierarchically from above, but rather heterarchically, that is to say collaterally, in a network of neighbourly relationships.⁷¹ If one exploits this network-like idea fully, then the unity of modern law is not due to a “system” which hurries on ahead of reality and which exists independently of its practical application. Rather the unity and autonomy of the legal system is realised exclusively in and through operations whose performance is a given fact, e.g. through the conclusion of a contract, a court ruling or the promulgation of a law. Thereby the legal system is primarily bound to the legal circumstances of the present, which it carries on into the future or endeavours to vary or modify in response to corresponding negative practical experience.

For our context this means above all that the legal system is not dependent on territorial borders for the preservation of its own autonomy. As a meaning-processing communication system the law rather generates its own boundaries and autonomy. The

⁷⁰ See *Niklas Luhmann, Die Gesellschaft der Gesellschaft, Bd. 2, Frankfurt am Main 1997, p. 1048.*

⁷¹ *Niklas Luhmann, Das Recht der Gesellschaft, Frankfurt am Main 1993, p. 144.*

legal system has evolved special selection mechanisms for this, and these make possible a drawing of boundaries without state power monopoly; for this reason, too, modern law is established for Luhmann not as national but rather as a “world-wide function system”.⁷² The questions and problems derived from this supposition and finally with the theorem of functional differentiation cannot be dealt with in detail here. However, it should be noted that Gunther Teubner’s supposition is insupportable that the rise of a new global law evinces above all the shift from function to code associated with the “linguistic turn”⁷³. Whatever one’s position on Luhmann’s, in my view, very rigid determination of the ordering function of liberal law is, it is clear that the *new* legal phenomena will not be constituted as legal phenomena alone by recourse to the legal/illegal distinction, e.g. the “implicit or explicit invocation of the legal code.”⁷⁴ The binary coding is no doubt an important selection criterion for the development of the internal complexity of the legal system. Nevertheless it is primarily the legal/illegal distinction *and* the social function orientation which generate the law and which guarantee “that the legal specific operations distinguish themselves clearly from other communications and thereby can reproduce themselves from themselves with only marginal boundary lines.”⁷⁵

Hence, the potential to orientate the description of the social function of law generates cannot be dispensed with if one emphasizes the heterarchical, collateral, neighbour-like self-networking of law. This also applies to a theory of law that is appropriate to these developments. The previous self-descriptions of law were certainly too strongly fixated on the unity of the (national) legal system, but also a

⁷² Niklas Luhmann, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, p. 573. According to Luhmann the most important indicator for this world-wide networking is the idea of human rights.

⁷³ Gunther Teubner, “Global Bukowina”: Legal Pluralism in the World Society, in: Gunter Teubner (ed.), *Global Law without a State*, Aldershot 1997, pp. 3 – 28, 14.

⁷⁴ Gunther Teubner, “Global Bukowina”: Legal Pluralism in the World Society, in: Gunter Teubner (ed.), *Global Law without a State*, Aldershot 1997, pp. 3 – 28, 14.

⁷⁵ Niklas Luhmann, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, pp. 60 f.

theory of the new legal pluralism will not be able to dispense with an indication of the social function of law. Legal theory must also in the future be able to identify the boundaries of the legal system; it must at least establish a concept and monitoring management which can make reliable statements on the stability of the legal system. This is also of great significance for a new public law beyond the state. Public law has always been legitimised by very specific public interests. With the rise of the welfare state, the spectrum of “state purposes” (Staatszwecke) has however become more or less blurred. A new public law beyond the state would therefore have to attempt to jointly reflect a self-limitation of its task catalogue if it is not to force the already problematic development of constantly expanding state activity.

3. Public law in an order system of distributed decision-making rights

As the constant pressure to produce something new has deeply penetrated the self-description of the autonomous systems of modern society, it also appears questionable from the perspective of a theory of time in modern society, whether the ordering function of liberal law is appropriately defined by the formulation “securing expectations”, that is the contra-factual stabilisation of normative expectations.⁷⁶ Naturally it is beyond dispute that criminal law in particular must secure the temporal boundedness of expectations to possible self-revisions of law. But one must take into account for modern law as a whole that – in contrast to the good old law of the middle ages – this is no longer oriented towards the preservation of a god-given order of being, that means it does not serve the stabilisation of *a specific social state*. Much more the modern society opens ever new possibilities, which can be legitimately realised without recourse to tradition. However law cannot simply react to this dynamic self-modification of the given with the expectation that “normative expectation will be expected normatively”.⁷⁷ It must much more – as for example in cases of liability – build into the normative structure its own mechanisms for its own

⁷⁶ Niklas Luhmann, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, pp. 124 – 164.

⁷⁷ Niklas Luhmann, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, p. 144.

judgment-modification of factual situations. The objection to the narrow delimitation of the legal function to expectation guarantee must remain at this point rather abstract and brief⁷⁸, however it implies the supposition that modern law can only achieve a *limited* security of expectations. The entire problem of the concept of “expectation guarantee” truly lies in the measure of the thereby assumed “security”.

The function of public law should also not be lost in the idea of “securing expectations”. This becomes clear if one from the outset includes in the legal concept social contract theory and the associated growth in significance of basic rights. This should be emphasized not least because the significance of liberal social philosophy for modern law is grossly neglected by Luhmann. In comparison Max Weber correctly showed in his legal sociology that the shift to modern law – in Weber’s terms: to formal rational law – would not have been possible without the liberation of the individuals from the prescribed bounds of the traditional stratified society.⁷⁹ Thus liberal law is inconceivable without guaranteed subjective rights, which are beyond to the arbitrary power of monarchs. The break caused by modern law is however only weakly stressed by Weber. Thus for example Weber sees the function of basic rights in protecting an area of legally permitted behaviour from certain forms of disturbance by third parties, and in particular by the state apparatus.⁸⁰ This still widely held view of basic rights as negative rights (*Abwehrrechte*) is alone rather unpersuasive because the various communication networks of modern society realise their autonomy in the form of basic rights. Modern science constantly produces *new* knowledge and claims scientific freedom for this purpose. Freedom of property, to give another example, also serves to handle property productively, that is to produce *new* property and thereby to

⁷⁸ For more details on this argument see *Karl-Heinz Ladeur, Der “Eigenwert” des Rechts – die Selbstorganisationsfähigkeit der Gesellschaft und die relationale Rationalität des Rechts*, in: Christian J. Meier-Schatz (ed.), *Die Zukunft des Rechts*, Basel 1999, pp. 31 – 56.

⁷⁹ *Max Weber, Wirtschaft und Gesellschaft* (1922), Tübingen 1980, p. 383; see also *Stefan Breuer, Bürokratie und Charisma*, Darmstadt 1994, pp. 12 – 16.

⁸⁰ *Max Weber, Wirtschaft und Gesellschaft* (1922), Tübingen 1980, p. 398.

widen possibilities of connectivity (Anschlussmöglichkeiten) in the future – and not only to be able to deal at will with a thing seated in property within certain limits (thing-ownership), as e.g. Max Weber supposes. The more complex the need for coordination and cooperation becomes resultant on this productive processing with basic rights, the more forms of self-organisation and self-regulation come into their own. The function of these forms is equally interpreted too narrowly, if merely an autonomy which is schematically limited by legal transactions and derived from the state is seen therein. Much more a process of “decentralisation of legal production“⁸¹ is concerned. This decentralisation of legal production no longer permits a prioritisation of the public over the private. Rather it tends to boundary drawing *and* networking, that is to a productive, coordinative and cooperative relationship between the public and the private.

Against the background of these (still provisional) considerations the ordering function of public law can be defined more precisely. The function of public law is not limited to guaranteeing the predictability of state action in general and the administration of justice in particular. Therefore, its protective function is by no means directed only towards the political system. The function of public law would not be missed either if one divorces it from private law and reduces its role to the erection of a stable boundary between the public and the private. Rather public law should promote the productivity of the a-centric and dynamic relational network of modern society, or in other words promote the self-coordination and self-production of legal capability of binding *between* organisations and individuals. The ordering function of public law is thus shifted onto a secondary level of order. As public-legal obligations are today primarily created under conditions of distributed subjective decision-making rights, that is in a context of growing significance of self-organisation and self-regulation, the function of public law should consist in connecting these forms of self-organisation and self-regulation and in promoting their *productive* coordination and cooperation. This also means that public organisations in the future can and should be involved in the production of legal capability for binding.

⁸¹ Max Weber, *Wirtschaft und Gesellschaft* (1922), Tübingen 1980, pp. 439 f.

This applies however to the involvement role of public law in the development of information technology and information economies. This participation should be indispensable if only because the movement towards a “knowledge society” brings with it great uncertainties. To this extent a new public law must also contribute to the establishment and trust of confidence in social and above all economic relations.⁸² As coping with the uncertainty of the future in the “knowledge society” is however no longer, as in the traditional society, a harmonious, perfection-oriented, teleological process, ordered according to the will of God (and his representatives), it cannot be ruled out that the constant quest for novelty in turn produces self-blocking effects and unproductive path-dependencies. The task of public law must consist above all in observing the innovation-driven self-modification of an a-centric society in a “secondary level of order”. It should be directed at observing the differentiated, respectively bounded rationalities of autonomous systems – and their related organisations – and possibly at drawing boundaries through public law, but also at making learning and development mechanisms available. It goes without saying that in an open society there can only be cooperative and provisional solutions. In return for civil law would have to adjust not to aligning its autonomy absolutely but rather to seeing itself as the moment of a collective relational network, as the effect of the granting and conceding of distributed decision-making rights, which for their part should be used productively but not at will, as can be shown more exactly for the network economy through the example of patent rights and copyright law.⁸³

⁸² *Niklas Luhmann*, *Das Recht der Gesellschaft*, Frankfurt am Main 1993, p. 132.

⁸³ See *The Economist*, Vol. 355, April 8th – 14th 2000, pp. 85 – 89; see further *M.A. Heller/R.S. Eisenberg*, *Can Patents Deter Innovation*, *Science* 280 (1988), pp. 280 ff.; *S.A. Cohen*, *To Innovate or not to Innovate, That is the Question*, *Michigan Telecommunications Law Review* 5 (1999), pp. 1 ff.; *P. Samuelson/R. Davis*, *The Digital Dilemma*, Washington DC 2000.

V. The Significance of Conventions for (Public) Law

1. *The status of conventions*

If one accepts the considerations and conclusions drawn so far, then the significance of conventions in public law is also cast in a new light. Public law is not to be modelled so much as an “instrument” of (state-political) “intervention” in other autonomous systems of the society, but rather as a means of stabilising and promoting processes of social self-organisation and self-regulation. The continental European development path of legal thought has always stressed the element of “sovereign decision” and the associated decision monopoly of the state for the creation of legal rule and order. This is shown essentially in the Kantian distinction between legality (according to law) and morality, in that there public law is associated directly with (external) enforcement by public institutions.⁸⁴ This moment appears even more clearly e.g. in Kelsen’s reduction of the legal order to enforced normativity.⁸⁵ Thus a developmental line is involved in which the binding capability of rules is ultimately made dependent on state norm production and norm enforcement moments. In opposition to this tradition it would be necessary to point out from the perspective adopted here, that the functional capability of liberal law primarily lives and always has been derived from a functioning social infrastructure and conventions, habits (customs) standards etc. Production of legal rules and order requires practical knowledge, that is rules rooted in knowledge experience which evolve and develop in relational networks between individuals and organisations.⁸⁶

The formation of such rules accompanies the production of “common experience” and “common knowledge”. By “common experience” and “common knowledge” we should not understand universal moral laws in the Kantian sense (or in the sense of

⁸⁴ *Immanuel Kant*, *Die Metaphysik der Sitten* (1797), AB 15, A 163, 164.

⁸⁵ *Hans Kelsen*, *Reine Rechtslehre*, Wien 1960, pp. 31 – 59, 45.

⁸⁶ For more details see e.g. *Robert Sugden*, *Spontaneous Order*, *Journal of Economic Perspectives*, Vol. 3 (1989), pp. 85 – 97; *Karl-Heinz Ladeur*, *Negative Freiheitsrechte und gesellschaftliche Selbstorganisation*, Tübingen 2000, pp. 72 – 80; *James C. Scott*, *Seeing like a State*, New Haven/London 1998, pp. 309-341.

discourse theory by Jürgen Habermas). The “common knowledge” which is produced by conventions must rather be interpreted as “local” or “ecological knowledge”. It varies from place to place, is linked to concrete forms of practice and factual contexts and like these underlies constant changes. Admittedly – from the perspective of the legal system – a *pre-existing* experiential framework is concerned, but this “framework” can itself only be conceived of as a flexible, self-changing network of bodies of practical knowledge which are distributed in society.⁸⁷ Such conventions, which initially must be formed below the level of legal rule formation (before they can then be incorporated into the legal system), fall within the field of private law as “required level of care” or “customs” of merchants (e.g. written acknowledgments between merchants). In constitutional law one thinks of the preliminary structural work of parties or mass media in the formation of a “common will”. In administrative law the public danger concept of police law could be pointed to. Here too the attributing of loss to a perpetrator was and has been dependent on conventions and “canonised examples”.⁸⁸ The interplay between conventions and law cannot be examined further here, but these briefly sketched interdependencies would be an indication that the evaluative and binding capability of liberal law is much more strongly dependent on self-production and self-organisation processes than is acknowledged in the continental tradition of “state law”. The functional capability of the legal system rests primarily on this distributed form of “common knowledge” by which rules and conventions are produced, and is in the second place dependent on support by legislation, power monopoly and state administration.

Turning these ideas somewhat, previous views of sources of law must also be modified. The theory of sources of law substitutes the dependency of liberal law on

⁸⁷ *Steve Fleetwood*, Order without Equilibrium: A Critical Realist Interpretation of Hayek’s Notion of Spontaneous Order, *Cambridge Journal of Economics*, Vol. 20 (1996), pp. 729 – 747; *Karl-Heinz Ladeur*, *Das Umweltrecht der Wissensgesellschaft*, Berlin 1995, pp. 22 – 68.

⁸⁸ *Karl-Heinz Ladeur*, *Das Umweltrecht der Wissensgesellschaft*, Berlin 1995, pp. 11 – 15.

experience, practice and social conventions in favour of a political constitution of law from the “void” – and thereby implies a “beginning” of law, which could be instrumentalized at will by a sovereign. In the context of the information economy the binding capability of liberal law is particularly dependent upon self-organisation processes. As shown by our introductory example of S-PCS-systems, public law proceeds from an accompanying “logic of networking”, in which norms are generated from cooperative relations between private companies and administration officials. In consequence of this a sources of law doctrine coupled with the state and its organs obstructs the view of the gain in significance of “spontaneous law” production.⁸⁹ But from the perspective taken here it also follows that the maintenance of productivity of this ‘pre-found’ structural framework must become one of the central tasks of a new public law (beyond the state). The state cannot erect this framework itself, but it must observe its development and perhaps support it institutionally. This is especially so if the “spontaneity” of convention formation is no longer conditioned by everyday habits, customs and generally shared values, but itself becomes the object of a “heterarchic, connectivist, network-like linking of communication on the level of organisations and professions”.⁹⁰

2. The significance of technical standards

This idea is also of great significance for the assessment of the ordering function of public law in the network economy. It is particularly important in order to be able to develop a productive view of technical standards. As mentioned in the introduction, technical standards are central to the network economy, e.g. in the field of mobile telecommunication technology (GSM/UMTS), in the technical linking of terrestrial and mobile networks (WAP) or in the conception of internet protocols (TCP/IP).⁹¹

⁸⁹ See on this *Gunther Teubner*, *Global Private Regimes: Neo-spontaneous Law and Dual Constitution of Autonomous Sectors in World Society?*, in this book.

⁹⁰ *Niklas Luhmann*, *Der Staat des politischen Systems*, in: Ulrich Beck (ed.), *Perspektiven der Weltgesellschaft*, Frankfurt am Main 1998, pp. 345 – 380, 375.

⁹¹ See for an overview *Paul A. David*, *The Internet and the Economics of Network Technology Evolution*, in: Christoph Engel/Kenneth Kellner (eds.), *Understanding the*

Technical standards which are a form of social convention⁹², do not determine the respective technical coding, but predetermine the system architecture above this, including the possibilities for linking components, levels and performances. This is especially true in the network economy, indeed in simple terms one can say that technical standards ultimately dictate the “constitution” of the new online world, particularly whether open or closed systems will be utilised in cyberspace.⁹³ Here, too, further exploration must be put off until later, but a new public law (beyond the state) would have to insist that the process of producing technical standards in and for the new net architectures must be an element of (public) law. The network economy is the expression of the aforementioned shift in the formation of social conventions, which no longer proceed from social habits, but rather, because of the uncertainty industry has to cope with, are made the object of explicit negotiated processes. For this reason the processes in which the common technical standards are formed must themselves become the object of strategic legal observation and possibly of legal decisions. This would also have to result in the acceptance of the normative, indeed legal character of technical standards.

Impact of Global Networks on Local Social, Political and Cultural Values, Baden-Baden 2000, pp. 39 – 71, and *Carl Shapiro/Hal R. Varian*, Information Rules, Boston 1999, pp. 261 – 296, 305 – 309; *Kevin Kelly*, New Rules for the New Economy, New York 1998, pp. 71 – 73.

⁹² On the nature and function of technical standards and their parallels with norms of social behavior see *Paul A. David*, The Internet and the Economics of Network Technology Evolution, in: Christoph Engel/Kenneth Kellner (eds.), Understanding the Impact of Global Networks on Local Social, Political and Cultural Values, Baden-Baden 2000, pp. 39 – 71, pp. 45 – 50.

⁹³ For more details see *Lawrence Lessig*, Code and Other Laws of Cyberspace, New York 1999, pp. 100 – 108; see also the overview in developments in the Law of Cyberspace, Harvard Law Review Vol. 112 (1999), pp. 1575 – 1704, 1634 ff.

In the meantime this demand has been repeatedly made.⁹⁴ Admittedly in academic literature it is just as often objected that law is an instrument for the regulation of *social* relations and therefore not transferable to technical artefacts. In the increased significance of technical standards, and of computer programs in particular, some see an indication for the dissolution of normative structures, that is a moment of the dismantling or shrinking of the *normative* order. Jean-Marie Guéhenno has targeted this supposition in this direction, that law is transformed according to the new regulatory networks into a purely economic factor of the reduction of uncertainty. Law formerly bound to state sovereignty has been downgraded to a mere “procedural practice”, a means for the reduction of business costs, while politics is losing its moral and philosophical basis. The question of the legitimacy of politics is thus just as inappropriate as the consideration of “legality” or “illegality” of a computer program. The “soft humming of the social machinery is sufficient unto itself.”⁹⁵

Here this thesis hits an important point, in that the legitimacy of a computer program is indeed difficult to assess. This is so however only if law and politics are drawn together into a unity in the tradition of continental constitutional state. If one opens one’s concepts in contrast for the changes in law and order formation sketched above, as is apparently happening in the network economy at the moment, then the increased significance of technical standards is simply an indication that the pre-given structures of conventions, which liberal law makes a precondition, lose their pre-modern foundations even more than before. The traditional foundation of conventions was generated from the experience of people, practical knowledge, and above all their habits, customs and traditions, that is the “spontaneous” order of their inter-personal

⁹⁴ See, e.g., *Karl-Heinz Ladeur*, *Rechtliche Regulierung von Informationstechnologien und Standardsetzung*, CR 1999, pp. 395 – 404, 398; *Lawrence Lessig*, *Code and Other Laws of Cyberspace*, New York 1999, pp. 6, 63 – 108 (“Code is law”); see more generally *Joerges/Ladeur/Voß (eds.)*, *Integrating Scientific Expertise into Regulatory Decision-Making*, Baden-Baden 1997.

⁹⁵ *Jean-Marie Guéhenno*, *The End of the Nation-State*, Minneapolis 1995, p. 58; similarly *Helmut Willke*, *Supervision des Staates*, Frankfurt am Main 1997.

relations. This traditional lifeworld (Lebenswelt) is now replaced even more by artificial, technically constructed worlds, e.g. by cyberspace, whose architecture is produced by abstract (mathematical) knowledge and which itself represents a realisation of spatial real time autonomy. This leads to changes in procedures of convention formation, which now become a product of companies and private-public procedures. Hence it would be completely wrong to wish to decide the question whether technical standards and computer programs are law in accordance with pre-existing norm-typical features. More helpful is the advice of Lawrence Lessig that the internet forces us to look behind the traditional norms.⁹⁶ However, Lessig combines this apt advice with a rather traditional conception of public law. For him regulation is roughly the same as state regulation, while in the perspective adopted here it would be important to open the concept of law itself to new modes of convention formation and thereby also for the forms of self-organisation and self-regulation associated with the internet. From this, the categorisation of standards and codes as law may be explained. Precisely because the development of new information technologies is proceeding so rapidly and demands highly-specialised knowledge which cannot be produced and administered by the state, a new public law must seek functional equivalents of rule and order formation. Such an equivalent is seen here on the one hand in the recognition of the new pluralism of law. On the other hand such an extension of law creation requirements would have to encompass the processes of self-organisation and self-regulation, as conducted for example in the field of domain allocation (ICANN), and would be observed by public institutions with regard to the observance of particular standards (e.g. fairness). This forum of second order observation would itself have to be oriented towards the aspect of maintaining the variability and variety of connections and connection options, that is the maintenance of a plurality of development paths. At the same time this means that the production of technical standards would possibly have to be made the object of a new cooperative relationship between the state and the economy. – Before examining this more closely, the concept of the “network economy” should be sketched in the next section.

⁹⁶ *Lawrence Lessig, Code and Other Laws of Cyberspace, New York 1999, p. 6.*

VI. The Network Economy and the Need for New Regulatory Networks beyond Competition Policy

1. The network economy as an academic discipline

The network economy, which is practiced as an academic discipline under titles such as “information economy”, “new economy” or “internet economy”⁹⁷, directs its attention primarily to product and services markets with high knowledge and information components, such as computers, telephone systems, mobile telephones, film, music publishing, websites, books and so on. The concept “network economy” certainly has something of a brand name effect and may be reminiscent of such difficult to grasp constructs as “New Labour” or “the third way”. But even if one accepts that the new network economies have predecessors in the old network economies (railway, energy provision), it is still beyond dispute that the new network economy exhibits several peculiarities and departures in comparison with industrial mass production. The concepts “network economy”, “information economy” and “new economy” are adopted not here so as to attract attention in the academic circles, but rather to draw attention to these peculiarities and to emphasize thereby that what we today term “globalization” can be largely traced back to innovations in the information economy.

One peculiarity of this kind of network economy is that, unlike any other previous economy, they are driven by immaterial products and no longer by fertile soil, raw materials, energy sources or the like. Their basic elements are information and knowledge, and this makes the economies to a large degree independent of specific spatial and temporal conditions. In addition the products (and services) of the new

⁹⁷ See, e.g. *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999; *Kevin Kelly*, New Rules for the New Economy, New York 1998; *Nicholas Economides*, The Economics of Networks, International Journal of Industrial Organizations, Vol. 14 (March 1996); pp. 673 ff.; *Axel Zerdtick a.o.*, Die Internet-Ökonomie, Berlin 1999; see also *Manuel Castells*, The Rise of the Network Society, Vol. 1, Oxford 1996.

economies are produced and distributed almost exclusively through real and virtual networks. Thereby the characteristics of elements bound to a network are changed. The “economies of scale” become “economies of networks”⁹⁸, in which the value of information commodities recedes into the background, while the real or virtual connection of the individual elements to a network are foregrounded. According to an oft-cited formula of Katz and Shapiro, the network effects relate to goods in which the consumer achieves a higher utility the more consumers apply that good.⁹⁹ Seen more from the network side, the value of a network depends on the number of *other* users, which are *already* connected to the network.¹⁰⁰ This applies in the real networks, e.g. the telephone network; the value of the network performance increases exponentially with the number of users at any time. The more transmitters/receivers are connected to the particular network, the more combination and relationship options is makes available for each individual user. In the field of virtual networks, operating systems and software applications for personal computers produce the same effect: the higher the degree of dissemination of certain programmes, the greater is the utility of the program for the single user.

One result of this priority of the relations over the elements themselves is that the total value of a network grows exponentially with the number of users. “A tenfold increase in the size of the network leads to a hundredfold increase in its value.”¹⁰¹ In other

⁹⁸ *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999, p. 173.

⁹⁹ *Michael L. Katz/Carl Shapiro*, Network Externalities, Competition and Compatibility, American Economic Review, Vol. 75 (1985), pp. 424 – 440, 424.

¹⁰⁰ See only *Carl Shapiro/Hal R. Varian*, Information Rules, Boston 1999, p. 174: „the value of connecting to a network depends on the number of *other* people already connected to it“; p. 182: „the more people using the network, the more valuable it is to each one of them.“

¹⁰¹ *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999, p. 184; see also *Kevin Kelly*, New Rules for the New Economy, New York 1998, p. 24 („Metcalfes Law“), and *W. Brian Arthur*, Competing

words information economy markets are determined by positive feedback and are subject to the law of “increasing returns”.¹⁰² Nothing similar may be observed in this form and to this degree in traditional markets for mass production goods. It is true that increased returns in the form of economies of scale are known to the previous markets or mass production goods, as e.g. the automobile industry (“Fordism”). The returns on scale which accrue here through more efficient production methods and higher level of production compared to small or ‘niche’ providers, however, increase in linear fashion and usually run up against organisational limits, in which the management can no longer achieve further growth of the company even through a changed enterprise concept. By contrast the network economy knows no equivalent production related limits. This is due above all to the fact that information goods display an untypical production and cost structure, in turn resultant on the peculiarity that information goods are for all practical purposes inexhaustible. Certain information goods, such as software products, can even be used as often and by as many as required (no rivalry) and display, insofar as they are once generally accessible, also the second typical property of a “public good”, that is non-excludability – the inability to prevent third parties from use.¹⁰³ This atypical production and cost structure varies between markets, it is true, but it can still be said with the unavoidable imprecision of generalities, that information goods are characterised by high fixed costs and low variable costs, or

Technologies, Increasing Returns and Lock-In by Historical Events, *The Economic Journal* 99 (1989), pp. 116 – 131.

¹⁰² See *Brian Arthur*, *Increasing Returns and the New World of Business*, Harvard Business Review 74 (1996), pp. 100 – 109; *Carl Shapiro/Hal R. Varian*, *Information Rules. A Strategic Guide to the Network Economy*, Boston 1999, pp. 173 – 225 ff.; *Kevin Kelly*, *New Rules for the New Economy*, New York 1998, pp. 23 – 38; *Jörn Kruse*, Märkte für Rundfunkprogramme, in: Ernst-Joachim Mestmäcker (ed.), *Offene Rundfunkordnung*, Gütersloh 1988, pp. 275 – 308, 279, for TV-Software especially.

¹⁰³ *Michael Hutter*, *The Commercialization of the Internet. A Progress Report*, in: Christoph Engel/Kenneth Kellner (eds.), *Understanding the Impact of Global Networks on Local Social, Political and Cultural Values*, Baden-Baden 2000, pp. 73 – 92, 76. The internet itself is interpreted as „constrained“ or „impeded“ public good by Hutter.

infinitely falling average costs. The difference between first-copy-costs and break-even costs in software markets is especially high. The unikat of Netscape Navigator for example involved around US-\$ 30 million development costs, while the second copy only cost US-\$ 1.¹⁰⁴

The positive feedback lines of the network economy lead to extremely dynamic markets, which are determined by the tendency to the formation of temporary monopolies. In place of the relatively stable oligopolistic markets of mass production goods, come markets which on the basis of their network effects tend to extreme reactions up to the economic destruction of all competitors. In the network economy there is a development dynamic that strengthens the market segment with the greatest success, resulting in a tendency to monopoly formation by the larger network with its extended connection options potential. Such an effect occurs e.g. when a software producer inserts ready-written program elements into other program elements and uses a strong market position in a market segment, which is characterised by network effects, to occupy other market segments (“crossover”), so as ultimately to link more and more strands and knots of a network to its own corporate technology and culture („leveraging“). It is rather unlikely in the network economies that several big providers can survive in one market segment. It is on the contrary more likely that the market tips from a certain point and the last remaining competitor disappears if it no longer reaches the critical mass; this phenomenon is described in the literature with reference to the film industry as the „winner-takes-all-market“-effect.¹⁰⁵ Thus from a certain time point in its market development, the commercial success of a product is determined by its popularity; and this is precisely because the value of a product is first generated by the possibility which a real or virtual network makes available also in relation to its potential for relation-building and connection with other networks.

¹⁰⁴ For the Netscape Navigator example see *Kevin Kelly*, *New Rules for the New Economy*, New York 1998, p. 58.

¹⁰⁵ See, e.g., *Carl Shapiro/Hal R. Varian*, *Information Rules. A Strategic Guide to the Network Economy*, Boston 1999, p. 177.

In this respect the network economy produces and reproduces a novel culture economic source of value, which is itself located beyond the ascribed material quality of the good. This phenemon, in which the sheer volume in a certain way seems to suppress shortage as a source of economic value, leads in turn to path dependencies which are reversible only with difficulty. Thus the explosion-like collective growth of value, to which, for example, from a certain level of dissemination software is subject, need not necessarily be the result of its technological superiority to other options. This is not comparable with oligopolistic conditions of industrial production: here competition generally leads to the continuous improvement of products and product lines and adaptation to the respective state of technology, while the monopolistic position of dominant market position in the network economy can certainly result from a disproportional advantage, which the “first mover” is able to secure by virtue of coincidence or a chain of coincidence. The markets of the network economy are in other words characterised by lasting instability, in which initially insignificant historical events can produce an increased divergence which influences the entire technological development and from which ultimately only one company emerges as victor.¹⁰⁶ This successive extension of the dominance of a company is also highly problematic to the extent that in the information economy products cannot be separated from standards, while standards are themselves inseparable from the technologies based upon them. The victor thus suppresses not only all other companies, but as a rule all other standards and technologies. The technological and economic development then becomes dependant on a single innovation source.

2. The limitation of anti-trust law

These few remarks on the market conditions peculiar to the network economy show that it produces a range of novel hazards and risks of self-blocking of technological and market developments. These hazards and risks cast the confidence in the “natural”

¹⁰⁶ Stressed particularly by *W. Brian Arthur*, *Competing Technologies, Increasing Returns and Lock-In by Historical Events*, *The Economic Journal* 99 (1989), pp. 116 – 131; see also *W. Brian Arthur (ed.)*, *Increasing Returns and Path Dependence in the Economy*, Michigan 1994.

self-renewing properties of the market widespread at the moment in US literature in particular in a rather problematic light.¹⁰⁷ True the assessment of future technological and market developments from the perspective adopted here is an entrepreneurial decision, and there is no indication that public regulators could collect better knowledge on the future of the information economy than the participating companies. But on the other hand a judicial perspective must also take into account that the dispersed knowledge which is produced on the market under the specific conditions of high complexity and dynamic can equally only be a limited and provisional knowledge. Via the distributed order of decision-making rights of individual companies, this complexity and its accompanying uncertainty can only be partially coped with. The generation of information by the market is then especially precarious if, beyond already established technological paths and beyond the balance functioning market equilibrium, a faster process of basic change of technology paths *and* markets takes place, a process in which a change of the development possibilities itself is involved, that is the parameters which first lend structure to the still to be constituted markets.

These thoughts lead to the thesis that the productive self-development of dynamic markets of the network economy can in no way be taken for granted. Much more the supporting public observation and possibly national or transnational regulation of this development is needed. Here at the latest the problem is encountered that while most national jurisdictions since the last third of the 19th century have developed monitoring and regulatory agencies for real networks (railway, energy provision, telephones and post), regulation of virtual networks remains very uneven or even non-existent. This vacuum is filled at the moment by competition policy. However, the control of competition through anti-trust law – with some exceptions – can only react situatively and ex post to certain market constellations, and enquires exclusively or at least

¹⁰⁷ See, e.g., *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999, pp. 297 – 318, 314.

primarily regarding efficiency and the functionality of markets.¹⁰⁸ It inquires situatively into the consequences for competition of an already existing monopoly and thereby establishes, as a foundation, a general understanding that is abstracted from particular goods and services; thus for example overlooking the particular cost structure of information goods. In addition competition law monitors the permissibility of monopolies primarily with regard to the consequences for national markets, and tends with a range of variants and various argumentation patterns to a nation based justification of monopoly positions.

It is however decisive for the limitations of anti-trust law that ideas of a functioning market in the network economy are of limited value as a starting point for a legal assessment. On the one hand information markets are subject to a completely different time scale than the traditional oligopolistic markets of mass production; the identification of a monopoly position is accordingly problematic. On the other hand the continuous transformation of information technologies constantly modifies the scope of possibilities, within which new markets arise and disappear. The network economy is – at least at the moment – characterised rather by cycles of technological innovation, temporary stabilization of technological paths and markets as well as accompanying dissolution and recombination of technological paths and markets. Such a process can only be portrayed by a disequilibrium model.¹⁰⁹ At any rate it lies beyond previous stable market models and can thus only with difficulty be handled on the basis of anti-trust law which is based on such an equilibrium model. This is also valid from an institutional point of view. Competition regulation which decides on an individual case basis will quickly reach its limits through this dynamics, because a field of reference for the normality of a market can only be determined with extreme difficulty if at all. Further it would be unable to cope with the knowledge problems if it fails to build up a specialist competence for the long-term systematic observation of the development of the network economy. Then, though, it must operate in a way

¹⁰⁸ See only *Ulrich M. Gassner*, *Grundzüge des Kartellrechts*, München 1999, pp. 4 f., 8 ff.

¹⁰⁹ *Kevin Kelly*, *New Rules for the New Economy*, New York 1998, p. 38.

similar to a specialised public regulator which at the same time would be a departure from the hitherto concept of retrospective, situative competition policy.¹¹⁰

3. The example of Microsoft

The limitations of competition policy hitherto can be seen in the practices of Microsoft. In the Microsoft case the prime question was to decide whether it can be permissible from the competition point of view that Microsoft combines the Windows operating system with its own browser (Explorer) and protects this combination against competing companies (Netscape). Thereby the prime issue is the behaviour in one market. Behind the conflict lies more the competition between two quite distinct technological development paths: Microsoft pursues a strategy of vertical integration in order to bind customers to it. This initially raises the question of whether its own product is concerned or the form of combination of operating system and browser occurs in several products. This is not easy to answer by anti-trust law in that the integration of the browser in the platform is economically quite efficient and in no way prevents other competitors from writing their own user programs for the Windows platform. The result is, however, that Microsoft thereby has a privileged position in part because Microsoft is always the first to learn of changes to its operating systems and can adapt its programs accordingly. By contrast, Netscape's strategy as a competitor is to promote an open standard (with the JAVA language): the program is based on a layered model of protocols and programs, within which an operating system like Windows would lose importance.¹¹¹ A further problem is the acceleration of time; markets in the network economy can change so quickly that it seems incomprehensible to establish an anti-trust procedure with far-reaching consequences

¹¹⁰ For more details *Karl-Heinz Ladeur*, Innovation der Telekommunikation durch Regulierung, in: Wolfgang Hoffmann-Riem (ed.), Innovation und Telekommunikation, Baden-Baden 2000, pp. 57 – 76.

¹¹¹ *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999, p. 148.

on a momentary apprehension, if a monopolist could have forfeited his dominant market position in the next moment with the success of a new technological option.¹¹²

The Microsoft conflict shows that anti-trust law is hardly suitable to rule on the productivity of technology path dependencies. In extremely dynamic markets such path dependencies can however only be observed very late, and only then if anti-trust law is strengthened by a range of additional parameters which must then be administered pragmatically as “violations” of fair competition. Nevertheless network effects can inhibit the incentive to innovate. It can even occur that on the basis of a chain of coincidences inferior technologies prevail, that not the best alternative develops into the standard and that the public technological connection and combination options are squandered. There are a number of examples of this as amply indicated in the appropriate economic literature.¹¹³ Today too many see the operating and application programs of Microsoft as an inferior technology compared for example to Linux.¹¹⁴ One may accept this view or not, but the danger that unproductive technological path dependencies are entrenched by the “winner-take-all market” effect can hardly be denied. The Microsoft case should also not be paraded here as a blanket regulatory power, above all as it was quite customary in the past that public regulators themselves promoted unproductive development paths in order to achieve competitive advantages for “home” companies in global information markets¹¹⁵; the (analogue) HDTV promoted by the EU Commission may suffice as an

¹¹² For more details *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999, pp. 309 f., 323 f.

¹¹³ Examples in *W. Brian Arthur*, Competing Technologies, Increasing Returns and Lock-In by Historical Events, *The Economic Journal* 99 (1989), pp. 116 – 131, 126; *Carl Shapiro/Hal R. Varian*, Information Rules. A Strategic Guide to the Network Economy, Boston 1999, pp. 206 – 223.

¹¹⁴ *Lawrence Lessig*, Code and Other Laws of Cyberspace, New York 1999, p. 105.

¹¹⁵ More details by *Paul Krugmann*, Increasing Returns and the Theory of International Trade, in: Truman F. Bewley (ed.), *Advances in Economic Theory*, Cambridge 1987, pp. 301 – 329.

example. Nevertheless it remains that the preservation of self-renewal capacity of dynamic markets can be guaranteed neither by an unlimited trust in the market nor by a disproportionate trust in the dissemination of knowledge by public regulatory instances.

VII. Tasks of Public Law in the Network Economy

1. Fundamentals

The second and fourth sections of this investigation have shown that the function of a liberal public law may not be reduced to the establishing of a stable boundary between the public and the private. Public law not only has the task of guaranteeing the predictability of state action in general and of the jurisdiction in particular. Above all it serves the making possible and promotion of *productive* coordination and cooperation of divided decision-making rights in an a-centric society.¹¹⁶ The constant seeking of novelty under the conditions of the future-oriented modern (“capitalistic”) society leads to an increase in the weight of self-organization, and in that above all is founded an increased significance of (non state removed) forms of rules and order creation (conventions, standards etc.). At the same time the network economy produces new forms of problems of path dependency on market and technological development, which at times can accumulate to block entire technology paths. The uncertainty of the future thus undoubtedly opens new chances for the network economy, but it equally fails to exclude new dangers and risks.

This tension should not be relaxed one-sidedly at the expense of the openness of the future. The task of a new public law could be seen more in addressing the uncertainty of the future through viable practice-appropriate structures. Essentially a liberal society can neither allow itself to plan or to “steer” the future centrally with general reliability, nor can it simply trust to unbridled evolution. Rather public law should be

¹¹⁶ For more details see *Karl-Heinz Ladeur, Negative Freiheitsrechte und gesellschaftliche Selbstorganisation*, Tübingen 2000, pp. 67 – 80.

concerned to combine the various, but respectively bounded rationalities of autonomous system of the modern society in regulatory networks based on mutual cooperation in a way as productive as possible. It is especially necessary to facilitate a fruitful dialogue between public and private in new institutional forms. In this long-term oriented dialogue, public law would have to orientate itself more strongly than hitherto towards the “paradoxical” effect that it produces through “intervention” in self-regulatory private-autonomous connected networks, but on the other hand private law would have to conceive of itself as a moment of a complex collective relational network (and not as an autonomous island with intrinsic private decision-making rights). This however would depend on accepting stronger provisional solutions and experiments, the pragmatic understanding regarding ‘best practice’ dependant on a process of experimentation and learning.¹¹⁷

This should also apply to the ordering function of public law in the new network economy. Here there is as little to be said for an unlimited trust in the state as for an unlimited trust in the naturally growing self-renewal capacity of markets and technologies. Much more in future it will have to involve making possible and drawing together an intelligent collaboration of market, competition, autonomous rule creation, self-regulation and public regulation into functional regulatory networks. Just as in the past private law attempted with different legal instruments such as property law, patent law, copyright, company law and anti-trust law in the automobile industry, to establish preconditions for forms of market economic self-organisation, so must public law in future make a positive contribution to the development of the new network economy with equally new legal forms and new substantial content. Modern society has a duty in ensuring its own innovative capacity to maintain a wide range of potential surplus knowledge. And just as the coordination of public and private would have to orientate itself “towards the preservation of the social knowledge pool”¹¹⁸, so the most

¹¹⁷ *Karl-Heinz Ladeur*, *Negative Freiheitsrechte und gesellschaftliche Selbstorganisation*, Tübingen 2000, p. 6.

¹¹⁸ *Karl-Heinz Ladeur*, *Negative Freiheitsrechte und gesellschaftliche Selbstorganisation*, Tübingen 2000, p. 6.

important task of a new public law (beyond the state) would lie in the preservation of such a knowledge surplus, that is the preservation of diversity and flexibility of connections and connection options of the real and virtual networks in the network economy. In other words the substantive end point, the “meta-rule” for public law of the dynamic markets of the information economy would be the securing of variability of the networks, the guaranteeing of their openness, productivity and capacity for further development.¹¹⁹

2. Differentiation and concretisation of the concept

This admittedly abstract description has a technological component. In view of the tendencies to technological and economic convergence of telecommunications, the computer industry and media sector (a development which we have encountered in the S-PCS example)¹²⁰, the specific task of a new public law could and should consist in maintaining and enhancing the variability of linkages between different technologies (satellite, terrestrial network etc.). In this way public law could contribute to protecting the openness of development and renewal capacity, especially the admission of new knowledge, in the (vertically and horizontally) networked information economy. This could possibly be combined in individual areas with the positive duty to enhance the openness and flexibility of individual technology paths. In the interest of protecting the productive function of competition, this also means making the process of identifying best technology itself the object of a public-law guarantee.¹²¹ For this the openness, compatibility, linking and further development capacity of central contact points and nodes (e.g. portals, navigation systems, digital bitrate management) etc. must be more closely observed than hitherto and possibly promoted by public law. Thus, for

¹¹⁹ See generally *Karl-Heinz Ladeur*, *Postmoderne Rechtslehre*, Berlin 1992, pp. 176 – 213, 207.

¹²⁰ On convergence of technologies see e.g. *Ono/Aoki*, *Convergence and New Regulatory Frameworks*, Telecommunications Policy 1998, pp. 817 ff.

¹²¹ *Karl-Heinz Ladeur*, *Innovation der Telekommunikation durch Regulierung*, in: Wolfgang Hoffmann-Riem (ed.), *Innovation und Telekommunikation*, Baden-Baden 2000, pp. 57 – 76.

example, one of the central technical strategic questions involved in introducing digital television in Germany is whether with the so-called Set-Top-Box at least optional computer and internet compatibility is to be provided – or whether the technological development should be driven by the aim of optimisation of television programme choice as well as certain additional services. The Kirch Group, the German market leader, has long favoured the second alternative, that is the television technology option. However everything points to the first alternative from the perspective taken here. The multi-media solution preserves more options and is generally more open to innovation. As such it is the preferable alternative which responds to the technological convergence of computer, telecommunications and the media by maintaining potential for learning and further development.¹²²

When one defines the technological component of this regulation strategy somewhat more narrowly and refers to the internet and the virtual networks of the computer industry (operating systems, application software, interfaces), then the central task of a new public law could and should consist in protecting the openness of protocols and programs and in enhancing the alternative options within the developmental scope of the internet and computer programs. The Microsoft conflict is also concerned not so much with the normal harm and dangers which monopolies were associated with in the past, such as high prices, worse service, lack of reference to customer preferences and so on. The central problem of the Microsoft conflict, I would submit, consists in the fact that here a larger portion of the technological development becomes dependent on only one innovation source; and this speaks against Microsoft. By contrast the procedure of the FCC regarding S-PCS-systems described in the introduction seems legally rational, because a further relatively independent technology path in the field of telecommunication technologies is made possible, which contributes to the increase of links and linking options.

¹²² For more details see *Thomas Vesting*, *Fortbestand des dualen Systems?*, K&R 2000, pp. 161 – 170, 164 f.

The preservation of diversity and changeability of links and linking options can and may not be limited to technological aspects. On the one hand technological, economic and culture-economic circumstances in the network economy cannot be sharply distinguished from one another. On the other the danger produced by network effects of a variability reducing rush into rigid development paths of media contents may be observed. This is seen in the Hollywood film.¹²³ In the big Hollywood film, the prospect of huge profits results in a concentration on the blockbuster. The investment risk of these productions (which ultimately cannot be eliminated entirely) is contained by means of a flexible combination of strategies, such as a limited range of genre patterns, plot orientation, the broad opening and forming of information cascades, the use of superstars, massive expenditure on marketing, and so on.¹²⁴ In this way an incessant compression of attention throughout the media is produced¹²⁵, which results in the “Hollywood system” being programmed for unremitting hit productions and the destruction of national and global competition („the-winner-takes-it-all“). Precisely the global success of Hollywood, which at times involves self-destruction, is based on a pattern which is copied increasingly by the European film industry and which ultimately results in a reduction of the pool of film ideas, of material, forms and experiments. This means that the introduction of novelty is made significantly more difficult and at times even impossible. The Hollywood system thereby consumes its own cultural raw material. It endangers the stock of new ideas and different film languages which are indispensable to its own development; in that for example any

¹²³ Another example would be: Television. See e.g. *Cass R. Sunstein*, Television and the Public Interest, *California Law Review*, Vol. 88 (2000), pp. 499 – 564, 515.

¹²⁴ For more details see e.g. *David Prindle*, Risky Business: The Political Economy of Hollywood, Boulder 1993, pp. 18 – 34 (on risk reduction and hit producing); *Arthur de Vany/W. David Walls*, Bose-Einstein Dynamics and Adaptive Contracting in the Motion Picture Industry, *The Economic Journal* 1996, pp. 1493 – 1514 (on informational cascades); *Sherwin Rosen*, The Economics of Superstars, *The American Economic Review*, Vol. 71 (1981), pp. 845 – 858. See also the paper by *Lawrence Friedman* in this book.

¹²⁵ See generally *Georg Franck*, *Ökonomie der Aufmerksamkeit*, München 1998.

milieu and talent reserves existent outside America are dried out, which the US American film industry up to now has kept alive, and which indeed in the past was a cause of productivity of Hollywood. In the case of the Hollywood film too especially if one basically accepts the development of the blockbuster cinema, consideration must be given to how maintenance of the film industry's openness and capacity for development can be supported. This is even more true because we find ourselves at the beginning of a development which will become more pronounced by virtue of the distinctive integration of the film, television and computer industries.¹²⁶

3. Institutional aspects

Regarding the institutional realisation of these ideas the emphasis must be laid on the solving of novel knowledge and orientation problems of public institutions. For this the ordering function of public law must be more strongly conceived from the perspective of a second order observation.¹²⁷ By this is meant the perspective of an observer who observes other organisations and who utilises the knowledge of other organisations (whether private or public) for his own strategy formulation and decision-making. Within these neighbour oriented private-public networks would have above all to design procedures for the creation of rules which would help to feed the knowledge of the industries being regulated back into the decision-making process. It would depend above all on developing open forms and networks with learning-capacity, which are directed much more than traditional institutions towards the production of knowledge through cooperation as well as towards experimentation with hypotheses. Even if we understand the implementation of public tasks from the beginning as dependant on the dynamic of technical and market development, this

¹²⁶ See *Neil Weinstock Netanel*, *Cyberspace Self-Governance: A Skeptical View from Liberal Democratic Theory*, *California Law Review*, Vol. 88 (2000), pp. 395 – 498, 442.

¹²⁷ On the concept of second order cybernetics (and observation) see generally *Heinz von Foerster*, *Observing Systems*, Seaside 1981; the consequences of this concept for politics are described e.g. in *Niklas Luhmann*, *Die Politik der Gesellschaft*, Frankfurt am Main 2000, pp. 287 – 298.

does not necessarily lead to an “arrogation of knowledge” as described by von Hayek. Precisely when we seek solutions based on cooperation with private players, new opportunities and chances present themselves for realising public tasks which go beyond the classical aims of compensating for “market failure”. Thus jurisprudence would have to conceive of new forms of adequate self-description for the information and network economy, forms in which the dynamic development of complex systems and the resulting self-organisation problems could be constantly scrutinised, stabilised and promoted through a constant exchange of knowledge and experience between public and private organisations (“sharing responsibilities”).

VIII. Towards the Global Linking of “Hybrid“ Networks

The shift from nation state to transnational regulatory networks briefly sketched here, which is based from the beginning on private-public cooperation, is also an attempt to escape the usual customary either/or of the current globalization discussion: the perspective adopted here is directed on the one hand against such descriptions which dismiss “globalization” as an epiphenomenon, but which allow for internationalisation of the economy and wish to continue to depend on nation state institutions to cope with the future. On the other hand the “postmodern” idea of overlapping functional regulatory networks is directed against such views which describe the compression of worldwide communication systems as an exclusively economic globalization, in order then to demand a globalization of politics, democracy etc. While the first variant seeks solutions within the hitherto model of the “*Rechtsstaat*”¹²⁸, the other favours calls for a raising of the control level, a “controlling superstate” or at least the massive building up of international organisations (“transgovernmentalism”).¹²⁹ Against this the perspective developed here depends on

¹²⁸ See e.g. *Paul Hirst/Grahame Thompson*, *Globalization in Question*, Cambridge 1996, pp. 170 – 194, 193.

¹²⁹ See e.g. *Michael Reisman*, *Designing and Managing the Future of the State*, *EJIL* Vol. 8 (1997), pp. 409 – 420; somewhat in between are the considerations of *David Held*,

initially more readily accepting the educational processes of the self-production of transnational law and to accompany this development with new cooperative “hybrid” regulatory networks.

The development of the network economy shows that public law has in the future to look for a connection with the processes of self-organisation and self-regulation which spring up along the technological paths of modern society. A new public law (beyond the state) would have to accept not only the distinctive trend of dissolution of state sovereignty into function-oriented structures, but also the accompanying decentralisation of the production of law. The old idea that each normative order is a spatial ordering must give way to the idea of global legal pluralism of overlapping regulatory networks (“global governance networks”). On the one hand this must involve improving the existing regulatory agencies in the economically advanced regions of the world, and on the other enhancing their performance by means of a better transnational coordination. But coordination does not mean integration. Rather the emphasis must be the exact opposite, on improving the efficiency of regional regulators by the construction of overlapping areas of responsibility. It makes sense at the national, as at the European or transnational levels, to accept destabilising uncertainties and to consciously build them into regulations and institutions. In this way world-wide competition between public institutions in best practice could be stimulated¹³⁰ – for example between the regulatory authorities for telecommunications in Germany, the European Commission, the FCC and WTO. But unless one of these regulators introduces or supervises a process with transnational effect, then these decisions will have to be linked to mutual obligations regarding voting and coordination. Turning back full circle to our introductory example, then the FCC action regarding S-PCS-systems is perfectly acceptable. Nevertheless the FCC should be encouraged in future to make its decision-making process transparent world-wide,

Democracy and the Global Order, London 1995, who argues in favor of “cosmopolitan democracy” which includes new governance structures, see pp. 226-238, 279.

¹³⁰ An outline of this concept is given by *Lüder Gerken*, *Competition among Institutions*, London 1995, pp. 1 – 31.

to inform other regions of its own future plans, and to better coordinate its own practice with the plans of other regions.