

Internet Governance: A Regulative Idea in Flux

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The Internet also presents new opportunities for dealing with the problems it creates.

—Johnson, Crawford, and Palfrey, “The Accountable Internet: Peer Production of Internet Governance”

Although the term Internet governance has been in use about ten years now, there is not yet general consensus on its meaning. First of all, the concept “governance” and its relationship to government is unclear; second, it is unclear what extent and form of authority Internet governance has and in future should have. The concept became a popular catchphrase around the mid-1990s (Kleinwächter 2004a). According to William J. Drake, Internet governance proved to be a “heavily contested concept ... from the very moment it entered into our collective lexicon” (2004: 123). Don MacLean also has described the “Internet governance question” as “very unstable and highly contestable on every dimension, ranging from the definition of key terms to the selection of appropriate forms of governance and institutional arrangements” (2004: 76–77). One telling indication of the political significance of this conceptually ambiguous state of affairs is the United Nation’s establishment in 2004 of a working group to provide some clarification of these issues. Under the aegis of the UN Secretary-General, this working group has been charged among other things with ascertaining what precisely Internet governance encompasses and which public policy issues are relevant in this context.

One could argue that vague, ambiguous terminology is not unique to Internet regulation. Indeed, the production of collective frames of reference and ever-shifting meanings is a constitutive and, above all, continuous part of governance processes. “Anyone involved in governing, in whatever capacity or authority, forms images about what he or she is governing.... Even implicit images govern those who govern. Governing images are always there; however, they can certainly be (re)created and changed. During image formation, governing challenges will be defined and formulated as governing issues” (Kooiman 2003: 29). Thus, the unique aspect of Internet governance is perhaps not so much its vague and fluctuating frames of reference, as the speed with which and extent to which prevailing images, perceptions of problems, and the assumptions based on these images and perceptions change. Because Internet governance is still a very recent field of activity, it provides an ideal opportunity to observe the making of a governance arrangement. As I shall show, the prevalent understanding of Internet governance at any given time is closely related to its changing forums.

MacLean has advanced the theory that in the governance arrangements of international telecommunications policy, long cycles of diversification alternate with long cycles of consolidation. At the beginning of a phase of institutional diversification come the technological innovations—such as those preceding the development of the Internet—together with a political shift in thinking, like the one triggering the demise of the International Telecommunication Union (ITU) as the “single general-purpose forum for governing global electronic networks.” As MacLean has pointed out, the outcome of these innovations and political repercussions is by no means certain: “The revolution in governance

of global electronic networks ... has created a global governance void within which a complex and confusing array of local activities take place without any overall coherence or top-down coordination of the kind formerly provided by the ITU” (2004: 93).

In this sense, Internet governance can be understood as an open-ended, collective process of searching which aims to fill a global “regulatory void” both conceptually and institutionally in a legitimate way. This void arose because the principle of sovereignty, which was an essential component in international regulation of the telephone network, has not been carried over to the Internet. Thus, the practical challenge in the current search for a suitable form of Internet governance is how to generate a binding and legitimate regulatory capacity for a dynamically evolving infrastructure, amidst intensified conditions of transnationalism, partial deterritorialization, and decentralization. So far, attempts to establish a stable governance arrangement have failed. Over the last fifteen years there have only been phases in which the transformation of governance structures has slowed down.

In view of the ambiguous structures and boundaries of this policy area, I present Internet governance in this article as a process of searching that has unfolded in several stages. The three distinct phases that I shall discuss in detail are characterized by their own specific spheres of activity, constellations of actors, policy agendas, and perceived problems. The first phase lasted up to the mid-1990s and can be described as the “technical regime.” The main forum of this phase, the Internet Engineering Task Force, was the first standards organization for the Internet, and to this day continues to be the most important. In this period Internet governance was synonymous with the development of standards, and the organizational rules of the engineering community clearly set the tone and approach for other areas of interaction related to the Internet.

The second phase was characterized by the effort to institutionalize self-governance mechanisms on the Internet. Self-governance without direct government interference was seen as the appropriate solution for the proclaimed “ungovernability” of the Internet. The Internet Corporation for Assigned Names and Numbers (ICANN) could not, however, fulfill the high expectations placed on it and eventually initiated a reform process aimed at establishing a public-private partnership.

The third phase is presently—at the time of writing—in its formative stage. It has already become clear that this phase will also be characterized by a process of “forum shifting” and, consequently, a reconfiguration of the actors involved. The UN World Summit on the Information Society in 2003 emphasized the importance of Internet governance as a policy field. Developing countries, in particular, have expressed their dissatisfaction with the current governance arrangement and are demanding an intergovernmental solution for the Internet.

An examination of the different periods of this process of searching could possibly lead to insights into governance processes that extend beyond the Internet. The role and significance of worldviews in the development of governance arrangements are particularly important in this respect. As Jan Kooiman has observed, images constitute the most important frame of reference in the “governing process” (2003: 29). Changes to regulatory structures therefore become most likely when competing ideas or perceptions of problems no longer can be integrated or ignored.

1. The Technical Regime

Toward the end of the 1960s, when the first trial runs of ARPANET, the precursor to the Internet, were being completed, communication networks were operated in most countries as a state monopoly by the national postal and telephone administrations. Control over the development of communications technology fell to standards organizations, which basically are made up of the former monopolies and national suppliers (Abbate 1999; Genschel 1995). Because they faced no competition, the postal companies could model the architecture and functionality of the telephone networks on their own organizational structures. Thus, telephone networks became just as nationally and hierarchically structured as the companies that were running them (Genschel 1995: 46), and the international coordination of telephone networks came to be determined by the principle of sovereignty. The national operators are brought together in the ITU, a suborganization of the United Nations, which resolves technical and financial questions of international importance by arranging agreements between sovereign states.

Unlike the public telephone networks, the Internet initially attracted hardly any state interest in its control or oversight. At the time, it had emerged as one of many data networks, and even into the early 1990s it was regarded as an academic toy by many experts from the world of telephones, a plaything that would soon vanish into thin air. In fact, if the European governments had had their way, the data network never would have attained its current status. The European postal ministries rejected the Internet because they preferred a different network architecture, one more similar to the telephone networks (see Abbate 1999).¹

Europe's indifference and the United States' liberal market policy on data networks meant that the Internet was left to its own devices—or, more precisely, to the engineers who developed it. Up to the mid-1990s, its technical development and infrastructure management were for the most part in the hands of an informal group of engineers, which in the course of the 1980s had grown into the most important standards organization for the Internet, the Internet Engineering Task Force (IETF). If there was a generally accepted decision-making entity at all up to the mid-1990s, then it was concentrated in the technical authority of the IETF. What characterized the IETF was not only its technical know-how and eagerness to innovate but also its rather academic structure, which was intentionally fashioned as an alternative model to state and intergovernmental standards institutions. For a time even the ITU considered the IETF to be “one of the most successful paradigms of the post-industrial age” (Shaw 1999). The IETF was the only standards organization for the Internet until the privatization of the network infrastructure and the development of the World Wide Web (WWW) in the early 1990s. In hindsight, the governments' indifference gave the IETF unparalleled decision-making power.

The original management structure of the Internet was very informal and reflected the university setting in which it arose. The first experiments with the transmission technology characteristic for the Internet were carried out in the late 1960s at the University of California, Los Angeles. Up to 1992 the Internet had been a research network to which only universities

¹ “X.25,” the rival model to the Internet, defines a centrally managed network architecture for a uniform public data network; the architecture reflects nation-state boundaries. It would have given the postal authorities far-reaching control over the physical wires and the available communication services as well as the data flow. However, in its “First Computer Inquiry” the Federal Communications Commission (FCC) in the United States decided against public regulation of data transmission networks (see Oxman 1999).

and research centers had access. The technical standards as well as the namespace and address space of the Internet were considered to be goods in the public domain, which were to be administered in the interest of the entire academic community of users.

The informally organized Internet Assigned Numbers Authority (IANA) was the central authority in the administration of the Internet. Established under the umbrella of the Information Sciences Institute of the University of Southern California and at times financed through public funds of the National Science Foundation (NSF), the IANA administered the Internet's namespace and address space and also edited Internet Standards. At its core the IANA consisted of just one person, Jon Postel, who died in 1998. The only supervision of Postel's position—which by today's standards would be considered quite powerful—was of an informal nature as well. It resulted in large part from his function within the IETF, in which he played a leading role as one of its founders.

Unlike classic standards organizations in communications technology, the IETF is a private organization: to this day the IETF is an informal community without legal form.² There are not and never have been the rules on membership and national representation found in conventional standards committees. Each and every participant—in principle, at least—speaks only for him- or herself. The IETF sees itself as a “meritocracy” that is based on consensus and a specific professional culture. The precondition for the acceptance of a draft standard is a broad majority, which is determined by means of communication and compromise in an open, public setting. As the IETF motto under the leadership of Dave Clark in the early 1990s declared, “We reject kings, presidents and voting. We believe in rough consensus and running code.”

The Internet's pioneers eschewed the typical “telephone mentality” not just in an organizational but in a technological sense as well. Their interest in communications technology arose from a bottleneck in the development of computers typical for that time: the computing capacity which in the 1960s was costly and therefore quite scarce. Time-sharing systems made it possible for several users to simultaneously access one central computer, thus enabling more efficient use. The idea that became the basis for the Internet was to extend the time-sharing principle to real-time connections between computers over a broad geographic area. The networking of computers was to enable a virtual work environment irrespective of actual physical distance.

The idea of developing a special communications network for the transfer of data was not a new one. Telephone companies had been working on their own network architectures. The paradigmatic fight that broke out between the telephone world and the relatively young Internet community essentially revolved around a question that remains open to this day: Who should have control over the data flow, the network operator or the user?³

² Since its founding in 1992, the Internet Society has functioned as a legal umbrella for the IETF and also holds the rights to Internet Standards.

³ Paul Baran's work was particularly influential for the design of the Internet. Taking up a position opposed to the precepts of the telephone world, Baran argued that robust and reliable data transmission could be achieved by replacing the hierarchical structure of the telephone networks with a local and distributed system of loosely connected nodes. While the telephone companies viewed such ideas as heresy and fought against them, the U.S. military found them interesting and supported the development of an experimental research network through ARPA, the Advanced Research Projects Agency.

The architects of the Internet opted for a radical decentralization and minimalization of the network concept. At its core the Internet consists of an open, nonproprietary technical standard that defines how computers communicate with each other.⁴ In accordance with the Internet's characteristic end-to-end principle, the control of data flow resides not with the network operator but with the users, or, to be more precise, with the respective applications. In the words of its creators: "The Internet, a loosely-organized international collaboration of autonomous, interconnected networks, supports host-to-host communication through voluntary adherence to open protocols and procedures defined by Internet Standards. There are also many isolated interconnected networks, which are not connected to the global Internet but use the Internet Standards" (RFC 2026).

The engineering community's motives for doing without a centralized control point were both technical and operational in nature. The decentralized network architecture not only promised greater system stability, it also reduced the amount of network administration required. The Internet Protocol thus constitutes a network of autonomous networks which delegates control over data exchange to the end user.

Outside the engineering community, too, the network's architecture was viewed as a major break with the principles of organization and development of modern infrastructures. Early generations of users were fascinated by the regulative implications and practical consequences of this decentralized form of organization. The first wave of academic works on the Internet placed a great deal of emphasis on technological aspects. Many legal and social science scholars who dealt with the Internet in the 1990s studied its technological aspects in detail, because these were viewed as the key to understanding coordination structures of the future: "The Internet is built on a simple suite of protocols—the basic TCP/IP suite.... Like a daydreaming postal worker, the network simply moves the data and leaves interpretation of the data to the applications at either end. This minimalism in design is intentional. It reflects both a political decision about disabling control and a technological decision about the optimal network design" (Lessig, 1999: 32).

One popular belief (also held by members of the IETF) was that there is an equivalent relationship between technical architecture and social organization. The IETF emerged as a prototype for new "postgovernmental" forms of coordination: "Perhaps the best current example of 'nongovernmental governance' is the Internet Engineering Task Force.... Like the Internet itself, the IETF has no official governmental charter or formal membership requirements.... While it is not obvious how broadly the IETF model might be used to deal with other GII [Global Information Infrastructure, a project initiated by the U.S. government] technical and nontechnical issues, it does serve as an impressively successful contrast to slow-moving, formally chartered international standards bodies.... More generally, nongovernmental governance may be the default scenario for the GII" (Baer 1996).

One quality frequently attributed to the Internet in the 1990s was its ability to undermine social hierarchies and state forms of intervention. At first, this aspect concerned the Internet itself. Its decentralized structure, oblivious of borders, promised considerable immunity against state or private-sector intentions to control it: "The very design of the Internet seemed technologically proof against attempts to put the genie back in the bottle" (Walker 2003). However, users also experienced the sphere of digital communication as a place of

⁴ More precisely, the so-called Internet Protocol specifies an addressing system for the identification of computers. In addition, it defines a data transmission process known as "packet switching."

incomparably great freedoms, against which political authority proved to be more or less powerless. In the mid-1990s, John Henry Barlow self-confidently proclaimed, “Governments of the Industrial World, you weary giants of flesh and steel ... On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather” (Barlow 1996).

It was widely held in the mid-1990s that state sovereignty could not be effectively exercised on the Internet (see Hofmann & Holitscher 2004). One reason often named—in addition to the network’s architecture—was the territorial constitution of political rule: the exercise of political authority necessitates control over a physical territory. Laws are valid only within clearly defined geopolitical boundaries, and the Internet basically negates such boundaries.⁵

In view of the lack of borders, uncertain identities, and locations in digital space, the only plausible way forward seemed to be to disallow the validity and jurisdiction of territorial forms of regulative authority with respect to the Internet. From the point of view of cyberspace, the end or death of “geographical tyranny” had moved at least within the bounds of possibility: “The Net thus radically subverts a system of rule-making based on borders between physical spaces, at least with respect to the claim that cyberspace should naturally be governed by territorially defined rules” (Johnson & Post 1997: 6).

The generally perceived ungovernability of the Internet, however, opened up the question of who or what could legitimately replace the regulatory authority of governments, the “weary giants of flesh and steel.” If the Internet truly did defy traditional forms of rule-making, which actors, institutions, and procedures would be suited to replace a nation-state or intergovernmental authority? The growing international interest in the mid-1990s in appropriate forms of coordination for the Internet marked the beginning of Internet governance as a research topic and a policy field.

The discussion about suitable forms of governance acquired both its empirical frames of reference and a certain degree of practical urgency through the transformation of the Internet at the beginning of the 1990s. After the U.S. government withdrew its funding of the infrastructure, the Internet became accessible to private users as well. Explosive growth followed just a few years later. One reason for this growth was the creation of a new communications service that both simplified and considerably expanded potential use of the Internet: the World Wide Web (WWW). The WWW gave the Internet, which up to then had been strictly ASCII-based, a graphic user interface. Moreover, it enabled new forms of presentation and visibility, which then made the Internet interesting for retail.

The WWW makes use of an element of the network infrastructure that until then had played a rather peripheral role: the domain name system. Up to the mid-1990s domain names primarily functioned as a user-friendly mnemonic for the far from memorable numeric Internet addresses. As the Web spread, their meaning changed virtually over night. The IETF conceived of domain names as an arbitrary string of characters, whose ambit was to be exclusively limited to the Internet. They were assigned on a “first come, first served” basis, and claims of ownership to domain names were explicitly ruled out: “Domain names provide a convenient addressing mechanism for people and machines to identify resources without

⁵ The Internet operates on the basis of logical, not physical, addresses; there is thus no direct link between the address and the geographic location of a node. Moreover, the enforcement of state sovereignty is made that much more difficult because the identity and, hence, the nationality of users cannot always be ascertained.

having to remember long strings of numbers. Registration ... confers no ownership or legal rights to the name beyond establishing the relationship for Internet addressing purposes” (Mitchell et al. 1997: 262).

Jon Postel defined the status of domain names in similar terms: “Concerns about ‘rights’ and ‘ownership’ of domains are inappropriate. It is appropriate to be concerned about ‘responsibilities’ and ‘service’ to the community.... The registration of a domain name does not have any Trademark status. It is up to the requestor to be sure he is not violating anyone else’s Trademark” (Postel 1994). Domain names were viewed as a public good, and Postel appealed to the reason and morals of the Internet community—which was still small in 1994—to use this good in an appropriate way.

The WWW used domain names in a new way by utilizing them as “locators” of content. The unforeseen consequence of this addressing method was that domain names no longer primarily served the identification of organizations, but instead were discovered to be a way to designate any resources and individuals. The hierarchical utilization of individual domain names—the usual practice up to then—had become a thing of the past;⁶ domain names were “promoted” to symbolic addresses and “became a big deal” (Oppedahl 1997).

One consequence of this “webification” (Mueller 2002) was a rapidly increasing demand in the mid-1990s for attractive domain names. Because there are only so many easy-to-remember domain names, they quickly became a scarce good that could fetch high prices: dealing in domain names became a lucrative business. The first legal battles over domain names began in 1994. Claims to trademark protection challenged the principle of assigning domain names on a “first come, first served” basis and thus, as well, its status as any arbitrary string of characters. However, in the mid-1990s it still was by no means decided that claims to trademark rights actually could be enforced with respect to domain names.⁷

The increased significance of the domain name system brought a number of different economic interests into the picture. Demands for effective, Internet-wide trademark protection stood in direct opposition to interests in a complete liberalization of the namespace. The differences between the two camps came to a head on the question of whether or not additional top-level domains (TLDs) should be created in order to satisfy the undeniable demand. Whereas trademark protection agencies were against an expansion of the namespace, “cyber liberties” groups and those selling domain names voiced their support for such expansion.

The dispute about the future of the domain name system revealed a power vacuum and lack of decision-making authority on the Internet. The growing pressure for a reorganization of the domain name system came to nothing because there was no institutional address for the requests of the parties involved. The engineers who had developed the domain name system, and to some extent still administered it, stood firmly by their conception of domain names and refused to recognize legal claims in protecting trademarks. But the more the Internet grew and the controversy about the right to domain names became an important issue, the more the

⁶ Originally, domain names were used to identify universities and research organizations, which in turn delegated namespace to individual fields or departments.

⁷ In the opinion of the IETF, the domain name system was not designed to map other naming systems and, because of its flat structure, was not in the position to represent the product- and region-specific differentiations in trademark law. “As John Gilmore said, you just cannot pour ten pounds of trademarks into a one-pound domain sack” (Johnson & Post 1997: 88).

IETF's status as a widely accepted arbiter eroded. In the dispute over future rules for the domain name system, the IETF came to represent only one of many competing special interests.

The call for a formal regulatory structure for the namespace which would reflect the transformation of the Internet both advanced and shaped the emerging discussion about Internet governance. However, it should be noted that the domain name system represented by no means the only problematic issue on the Internet. There was a serious shortage of Internet addresses in the early 1990s, necessitating a speedy reform of the existing allocation procedure. Moreover, the carrier agreements on data exchange ("peering agreements"; see Cukier 1998; Peake 2004) raised doubts about the ability of the market's regulatory capacity. Then, in the mid-1990s, there were already the first signs of "digital divides" within and between regions. Each of these issues could have become the catalyst for reflection on governance structures on the Internet—and shaped these structures each in their own way. Thus, the generally perceived need for action and the complete absence of authority should not be interpreted as self-contained "facts" that preceded the governance arrangement. Rather, both the choice of "problem" to be solved and the perception of this "problem" are constitutive elements of Internet governance.

Perhaps the most important assumption in early discussions on Internet governance was the notion that the Internet would generate a new kind of social space subject to its own rules, which would differ considerably from those of the physical world. "Global computer-based communications cut across territorial borders, creating a new realm of human activity and undermining the feasibility—and legitimacy—of applying laws based on geographic boundaries. While these electronic communications play havoc with geographic boundaries, a new boundary, made up of the screens and passwords that separate the virtual world from the 'real world' of atoms, emerges. This new boundary defines a distinct Cyberspace that needs and can create new law and legal institutions of its own" (Post & Johnson 1997: 3).⁸

"Lex mercatoria" became a popular analogy for conceptualizing this new form of spatial ordering. These rules had been developed in the Middle Ages in response to trade across territorial borders.⁹ In allusion to this commercial law, Reidenberg (1998) proposed the legal concept of "lex informatica" for the Internet. One of lex informatica's defining characteristics would be that law and regulatory practices would not constitute the only source of regulation. Much like legal regulations, network architectures are able to enforce as well as obviate certain kinds of action and behaviors on the Internet: "Technological capabilities and system design choices impose rules on participants ... the set of rules for information flows imposed by technology and communication networks form a 'lex informatica'" (Reidenberg 1998: 553). Thus, the network architecture was regarded as an important element of Internet governance in two ways: On the one hand, it constituted the object of regulation, as, for example, in the case of the domain name system (DNS). On the other, it was viewed as a

⁸ The working group "Kulturraum Internet," which ran from 1994 to 1998 at the Wissenschaftszentrum Berlin für Sozialforschung (WZB), also started out from the assumption that the Internet represented a novel place for interaction, distinct from the material world, which could be examined from an insider perspective (see Helmers, Hoffmann, & Hofmann 1998).

⁹ Because traders could not resolve their disputes by means of existing law, a new legal framework tailored to transactions across geographic boundaries developed, supplementing local law. Some observers assumed that a comparable development could be expected for the Internet.

resource for governing conduct. What remained uncertain, however, was what conclusions could be drawn from a *lex informatica* for the generation of a political authority on the Internet.

There was widespread agreement on two points: first, that there is no predestined actor for governing functions on the Internet; second, that this task should not be left to either governments or intergovernmental organizations such as the ITU. As the OECD stated, “At present there is no consensus among the Internet community and all sectors of the Internet industry on how a governance structure will evolve for the DNS. There is increasing agreement that decisions over reforms to the DNS should involve all stakeholders and in particular industry” (OECD 1997: 6).

In hindsight it appears that the negative attitude toward governmental “interference” in the “domestic affairs” of the Internet was one of the few—albeit fundamental—points of agreement in the conflict-filled beginnings of Internet governance. The *modus operandi* of governments was equated with hierarchy, bureaucratic slowness, and thinking in terms of territorial nation-states, and was portrayed as the antithesis of the unbridled and innovative Internet. “So while we believe that there is a role for collective judgments, we are repulsed by the idea of placing the design of something as important as the internet into the hands of governments,” was how Larry Lessig (1998) summarized the Internet community’s mood toward the end of the 1990s. Representatives from science, business, and technology denied governments the right, and above all the ability, to develop suitable and legitimate governance structures for the Internet.

The term “self-governance” became a counter-concept of the intergovernmental regime. “Self-regulatory structures” like those developed by the IETF—and which were springing up in a similar form in countless online communities—were thought to provide the most promising strategy for the future management of the Internet. Positive attributes of the self-governance concept included openness and inclusiveness, a bottom-up orientation based on consensus, and, in particular, decentralization of authority. Hence, all stakeholder groups would be permitted to take part in coordination of the Internet, and only decisions reached by means of consensus would have a realistic chance of commanding compliance. At the same time, centralized decision-making would be kept to the absolute minimum necessary.

The high level of optimism in the second half of the 1990s was reflected in the expectation that the Internet would give rise to lasting, sustainable alternatives to the governance practices of nation-states. The Internet’s technical architecture seemed to guarantee that enforcement of the principle of sovereignty on the Internet would be impossible in the long term as well. The hypostatization of the network technology as a “countervailing force against the centralization and concentration in government and the mass media” (Walker 2003) became a key conceptual component in the understanding of Internet governance as self-governance.

As an idea, Internet self-governance enjoyed a strong base of support, particularly because it seemed to include all stakeholders—except governments. In practice, however, differences of opinion soon emerged with respect to the actual configuration of actors and the authority, objectives, and values of the organizational structure to be created.

2. Internet Self-Governance: The Rise and Fall of a Concept

In terms of time and objectives, the institutionalization of governance structures for the Internet was almost entirely determined by conflicting claims of rights to the Internet's namespace.¹⁰ The IETF came up with the first initiative for the founding of a coordinating body for the Domain Name System which would also be acceptable at the international level. The authority over the Internet that had already been lost was to be regained through strategies of integration. The International Ad Hoc Committee (IAHC) was formed in 1996 and comprised representatives from standards organizations (IETF, ITU), trademark associations (WIPO, INTA), and a U.S. federal agency (the Federal Network Council, or FNC). In its recommendations, the IAHC proposed a moderate expansion of the domain name system and itself as the new supervisory body.

This model, which would have given authority over the namespace to standards setting organizations and trademark associations, was rejected not least by the U.S. government. One IAHC member—anticipating things to come—described the political defeat of the IAHC as the price to be paid for the Internet's success: "For the past decade or more we've been slaying the giants of old, preaching a new utilitarian form of technology.... But the price of such a victory is to become the mainstream of the technology industry, and the price, like it or not, is to recreate all the institutions and their associated ponderous weight and political awareness which we so vehemently criticized in a past lifetime" (anonymous; quotation in Shaw 1999).

In 1997 the U.S. government decided to step out from the "shadow of hierarchy" and redirect further efforts to reform the domain name system to itself. Its first move was to announce that it wished to withdraw from oversight of the DNS. In a document from summer 1997 designated "Request for Comments,"¹¹ the U.S. Department of Commerce (DOC) asked interested experts from the Internet community to give opinions and advice on reform of the namespace (DOC 1997). The first proposal for an "Improvement of Name and Address Administration" of the Internet followed in early 1998. In this document, the Department of Commerce announced its intention to hand over political supervision of the DNS and address space to a private organization that should include international participation but operate on the basis of California law (DOC 1998a).

The so-called Green Paper triggered a wave of criticism around the world. Many stakeholders interpreted the Green Paper as an usurpation of power by the U.S. government in the face of an Internet community that had been managing the Internet relatively free of government involvement. In Europe, too, it was feared that "the current U.S. proposals could, in the name of the globalisation and privatisation of the Internet, consolidate permanent U.S. jurisdiction over the Internet as a whole" (Council of the European Union and the European Commission 1998). And it was not just the European Union that clearly preferred an intergovernmental organization on the model of the telephone regime for management of the Internet. However,

¹⁰ The timeframe was already set by the approaching end of the monopoly on domain name registration in the top-level domains .com, .org, and .net, which the U.S. company Network Solutions had turned into a lucrative business.

¹¹ Among other things, a Request for Comments is the term for Internet standards and thus explicitly tied in with the communication rituals of the Internet community.

a few months later, the U.S. government presented a White Paper which defended the main features of the proposed course of action and made only minor amendments (DOC 1998b).¹²

According to the White Paper recommendations, the engineering community's informal supervision of the network infrastructure was to be replaced by a formal nonprofit organization, which would include international involvement, but be based in the United States. The private sector was to be given the leading role in this organization, though a reasonable amount of participation by other stakeholder groups would also be incorporated. Governments, on the other hand, were to be kept as far from the Internet as possible. The language and line of reasoning in the U.S. government's recommendations contained various references to the antigovernment discourse on Internet Governance: "The new corporation should operate as a private entity for the benefit of the Internet community as a whole. The development of sound, fair, and widely accepted policies for the management of DNS will depend on input from the broad and growing community of Internet users" (DOC 1998a). The White Paper set forth four general principles for the development of this governance structure:

1. Stability: The privatization of Internet management must not disrupt the reliability and security of the domain name system.
2. Competition: Network administration should be left as much as possible to market forces.
3. Private, bottom-up coordination: Coordination of the Internet should be carried out in a private-sector organization that reflects the grassroots governance tradition of the Internet.
4. Representation: The governance structure should reflect the functional and geographic diversity of the Internet. Mechanisms that ensure international participation should be developed (DOC 1998b).

The U.S. government also specified the organizational structure of the corporation to be established: representatives from the various operations related to infrastructure,¹³ representatives from trademark protection agencies, and commercial and noncommercial users "from around the world" should be integrated into the policy-making process. "The Internet community is already global and diverse and likely to become even more so over time. The organization and its board should derive legitimacy from the participation of key stakeholders. Since the organization will be concerned mainly with numbers, names and protocols,¹⁴ its board should represent membership organizations in each of these areas, as well as the direct interests of Internet users" (DOC 1998b).

In addition to the Internet industry and standards-setting bodies, Internet users now appeared to emerge as a third force in regulation of the Internet. Ordinary Internet users, not governments, were expected to represent the interests of society. The U.S. government explicitly excluded governments from any decision-making responsibility; their participation was to be permitted only in an advisory capacity, as fellow users: "Restrict official government representation on the Board of Directors without precluding governments and

¹² One of the few significant changes concerned the role that the U.S. government assigned to itself. The U.S. government distanced itself from its original intention to specify the structures of the corporation to be founded.

¹³ These functions included, inter alia, the Regional Internet Registries for the allocation of Internet addresses, the DNS registrars, the standards organizations, and the Internet service providers (ISPs).

¹⁴ A "protocol" is a term typically used on the Internet to mean "technical standards."

intergovernmental organizations from participating as Internet users or in a non-voting advisory capacity” (DOC 1998b). With respect to inclusiveness and legitimation, the new organization was supposed to not only fulfill the demands of international organizations, but even surpass them—as individual citizens are only indirectly represented in international organizations through their respective governments.

In a Memorandum of Understanding in late 1998, the U.S. Department of Commerce officially recognized the newly created Internet Corporation for Assigned Names and Numbers (ICANN; DOC 1998c). Prior to this, there had been negotiations lasting several months on the future structure and composition of ICANN, and a broad spectrum of interested parties from the private sector, technology, civil society, and international organizations had participated in this process. One issue had especially provoked irreconcilable differences of opinion: the relative influence of the various interest groups. The role of individual users and of governments had been contentious from the very beginning (see Hofmann 2004). The participating companies and standards setting organizations clearly would have preferred a self-regulatory model free of any state or civil-society involvement.¹⁵

Yet, in spite of these conflicts of interest, the organizational structure of ICANN that emerged in 1999 and 2000 initially appeared like a small wonder on the international policy-making scene. The agreement reached between the U.S. government and ICANN called for roughly equal representation of industry and users on the Board of Directors. The absence of state authority was to be compensated by new, legitimizing forms of representation and consensus-based decision-making. Moreover, in response to international pressure, a Governmental Advisory Committee (GAC) for governments and international governmental organizations also was established. The U.S. government continues to this day to have a special role: it is a member of the GAC and at the same time oversees ICANN.¹⁶

The agreements between the U.S. Department of Commerce and ICANN did leave one rather weighty question open: by what means Internet users were to decide on nine board directors in future. There were no organizations, neither within nor outside the Internet, that could claim to represent in any credible way the cultural and geographic diversity of users worldwide. After considerable delay and under pressure from the U.S. government, ICANN at last saw no other choice but to establish a membership organization for individual users—the “At-Large Membership”—despite growing opposition among its own ranks.

Without a doubt, the creation of a transnational user organization as a step toward the institutionalization of regional and functional diversity in regulation of the Internet represented new territory. From the perspective of those directly involved, however, this task was confined to the next, most obvious goal of filling a number of seats on the Board of Directors: “ICANN faces the daunting goal of seeking a fair ballot, free from capture or fraud, from a potential electorate of millions of Internet users worldwide who have little knowledge of ICANN and little understanding of its mission, in order to select a high-quality board of technically-capable members” (Common Cause & CDT 2000). In a contested decision-making process within ICANN, those who supported a direct election of board directors through voting over the Internet won out.

¹⁵ A list of founder organizations, including multinational corporations such as AT&T, MCI, and IBM, can be found in Mueller (2002: 166–172).

¹⁶ In addition, the U.S. government is in charge of the authoritative root server, the Root Master File, and thus has the power both to set up and to delete Top-Level Domains (TLDs).

The first and to date only global election on the Internet, in 2000, ran quite differently than expected. One surprise was the number of people who voted. ICANN was largely unknown in the late 1990s, watched by only a small number of specialists around the world. Yet, instead of the expected few thousand voters, about 170,000 users registered to vote. The cause for the election's sudden surge in popularity lay in national rivalry for seats on the board. ICANN had divided up the Internet into five regional constituencies,¹⁷ each of which was to elect one director. But what had been conceived of as constituencies based on world regions was soon undermined in some countries through national voting attitudes. Because the national majority among voters determined the chances of the respective candidates, there was a storm of voter registrations in the spring of 2000 (Hofmann 2002).

In the opinion of the organizers and many skeptical observers, the election of At-Large Directors was a complete disaster. One telling indication of this was said to be the number of voters (first criticized as too large, then as too small).¹⁸ Thus, once the election was over, the question again arose of what the future role of individual Internet users within ICANN should be. The recommendations forwarded by a committee of top-ranking experts appointed by ICANN to specifically consider this question were not implemented (At-Large Study Committee 2001). The tripartite model of self-governance consisting of representatives from industry, technology development, and civil society, with some role for advisory participation by governments, had shattered by the end of the two-year term of the At-Large Directors.

With respect to its actual coordination tasks, too, ICANN was confronted with almost insurmountable challenges. It soon became evident that the conflicts surrounding domain names were no easier to resolve through the self-governance approach. In addition, cooperation with the various infrastructure providers also turned out to be extremely difficult. To this day, a significant number of operators of name and address registries refuse to submit their functions to contractual oversight by ICANN. And, finally, there was disagreement about the financing of ICANN. Because of these problems, ICANN failed to meet the conditions set out in agreements with the U.S. government, which in turn were prerequisite for a complete privatization of its tasks. One telltale sign of this failure were the perpetual renewals and constant revisions of the Memorandum of Understanding with the U.S. government. As one skeptical observer of the self-governance process asked, had it ever been realistic to think “that ICANN, an ICANN with no statutory or regulatory authority, will be able to implement and enforce decisions based on a belief that the Internet will be some idyllic island of private-sector cooperation?” (Shaw 1999)

In the third year of its existence ICANN initiated its first fundamental reform process. ICANN's president had presented an analysis of the organization's situation at the beginning of 2002, which bluntly and unceremoniously certified ICANN as dysfunctional. In his report the president interpreted the source of ICANN's failure as a governance problem. ICANN's private-sector structure based on voluntariness and self-imposed obligations was, in his view, too weak to cope with the tasks entrusted to it: “If one thing is clear from the past three years, it is that a purely private entity that must depend on the voluntary cooperation of many other

¹⁷ Africa, Asia/Australia/Pacific, Europe, Latin America/Caribbean Islands, North America.

¹⁸ According to ICANN's president at the time, the number of votes cast amounted to one-hundredth of all Internet users. “These are not numbers which meet any test related to democratic legislative elections” (Roberts 2001). However, representative voter participation among users on a global scale had never been the declared aim; it first gained acceptance as an assessment criterion after the election.

entities is not likely to be able to coordinate anything globally without significant governmental support” (Lynn 2002).

The role of governments in Internet administration became the linchpin in both the diagnosis of the problem and the suggested approach toward reform. The self-governance model had proved to be a wrong choice that now had to be replaced by a “true public-private partnership.” Whereas consensus among stakeholders was the “driving notion” in ICANN’s early years, effectiveness would now have to come to the fore. Ironically, ICANN hoped to gain authority and legitimacy on the Internet by ensuring a more active role for the governments it so recently had scorned. Three years of experience had shown, Lynn claimed, that a purely private model cannot work: “It is not workable because it leaves ICANN isolated from the real-world institutions—governments—whose backing and support are essential for any effective global coordinating body to accomplish its assigned tasks. Though many in the traditional Internet community react strongly against the very mention of governments, it is simply unrealistic to believe that global coordination of the DNS can succeed without more active involvement of governments.... What is needed at this stage if ICANN is to carry out its mission is neither a totally private nor a totally governmental solution, but rather a well-balanced public-private partnership” (Lynn 2002).

Because ICANN was unable to gain the authority to act through consensus, governments were now supposed to step in and help establish some kind of order in the Internet’s namespace. The concept of public-private partnership essentially called for a reapportioning of the relative influence of the various actors. The participation of individual users on the Board of Directors was reduced to a liaison function without entitlement to vote. The standards organizations voluntarily relinquished any further collaboration. In contrast, the role of governments was strengthened, though not on the scale desired by ICANN. In fact, governments rejected the role that ICANN had envisioned for them.¹⁹ As Shaw has noted, governments have “their own machinery and processes to make mutually acceptable agreements—this is an intergovernmental context; it is not on ICANN’s turf” (Shaw 1999). Indeed, the discussion about Internet governance did leave “ICANN’s turf” and went on to conquer new, intergovernmental territory.

3. Internet Governance as a Multi-Stakeholder Process

In 1998, the year that ICANN was founded, the ITU took the initiative to organize a World Summit on the Information Society (WSIS).²⁰ The formal resolution of the UN General Assembly to have ITU organize and hold the summit followed in late 2001, that is, around the time that ICANN was preparing to announce its intent to give up the self-governance model. The first phase of the two-part summit conference took place in Geneva in late 2003.

The UN Summit on the Information Society shifted the discussion on Internet governance to a new organizational and thematic context, thereby opening up new perspectives on regulation of the Internet. World Summit conferences constitute designated UN territory; thus, governments are the key speakers and negotiators, whereas representatives from the private sector and civil society are only allowed to speak in circumstances specified by the “rules of

¹⁹ The governments did accept the offer of greater involvement and influence, but decided against voting rights on the Board of Directors (and the responsibility connected with it) and against participation in the financing of ICANN.

²⁰ Resolution 73, Minneapolis, 1998 [<http://www.itu.int/council/wsis/R73.html>].

procedure.”²¹ In contrast to typical Internet forums, developing countries enjoy strong representation among the governments at UN meetings. Two types of document constitute the product and practical terms of reference of the World Summit: the Declaration of Principles and the Plan of Action. These documents structure the activities of the preparatory conferences and form the discursive frame of reference for the negotiations.

The Summit threw a comprehensive, all-embracing light on the concept of the information society.²² Contrary to the expectations of most observers, Internet governance proved to be one of the most contested topics in the preparatory phase. In particular, the prevailing equation of Internet governance with the administration of namespace and address space was questioned. Many participants called for a broader definition that would include issues such as Internet access, interconnection costs, cultural diversity, and the digital divide.

But the main issue of contention in the debates over Internet governance was the question of nation-state control over the network infrastructure. The organization of the Internet’s administration in the form of a public-private partnership overseen by the U.S. government drew especially sharp criticism. Many developing countries regard the Internet as an encroachment on their sovereignty, and thus demand greater leverage than the current governance structure provides.²³ In particular, they consider unacceptable the special role that the United States has created for itself in the coordination of the network architecture. A representative of China’s Ministry of Information Industry, commenting on governmental negotiations during the WSIS, described the situation as follows: “This governance structure, whatever it refers to ICANN or U.S. government, is illegitimate. For ICANN, it is not an international organization and is constantly at the stake of discarded by U.S. government if it couldn’t get the continued contract from U.S. government.... Facing the fact that the Internet has evolved into a global infrastructure, there came the urgent need that all the concerned governments, including the U.S. government, should govern the Internet in a collective and coordinated manner.... Today’s governor is not the ICANN, nor the private sector, not the individual netizens, nor the governments around the world. It is solely the government of the United States” (Zicai 2004). Many countries share the position of China’s government.

²¹ The definition of these circumstances is usually the responsibility of the first preparatory conference on the World Summit, which establishes the rules of procedure. In the case of the WSIS, the delegates primarily dealt with the question of whether or not the private sector and civil society should be granted the status of observers. The rules were later modified several times over the course of the process.

²² One of the strengths of the final documents is how they draw conceptual and normative links between areas that at first glance seem unrelated, such as the advancement of human rights and the development of telecommunications. The declaration stresses the effective realization of human rights as a precondition for the creation of an inclusive and global information society. It therefore became clear in the course of the Summit that a proper interpretation of the right to information and freedom of expression includes access to communication networks.

²³ There is some truth to the impression of a loss of sovereignty through the spread of the Internet. In many developing countries, state-controlled telecommunications are an important source of income. New communications services such as Internet telephony (VoIP) threaten to bypass state monopolies. For that reason VoIP is illegal in some countries. The proponents of an intergovernmental regime for the Internet expect that a UN organization such as the ITU could devise an Internet equivalent to the international Accounting Rate System, which aims to ensure a fair cost distribution in international telecommunications.

A large number of developing countries view ICANN as an exclusive organization dominated by wealthy industrial countries. Because they lack funds and expertise, they are excluded from any meaningful participation. In their view, a private governing body such as ICANN was acceptable as long as the Internet was in its early developmental stage. But now the Governmental Advisory Committee within ICANN is no longer seen as sufficient to articulate national interests. UN organizations such as the ITU would not only guarantee recognition of the principle of sovereignty, but also offer developing countries relatively greater opportunities for participation.²⁴ For their part, developed countries defended the existing governance arrangement. In response to demands for an intergovernmental solution, they countered with the “multi-stakeholder approach,” which was becoming increasingly popular in the course of preparations for the Summit. In its current form this approach incorporates the private sector and civil society, in addition to governments and international governmental organizations.²⁵ The open, participatory multi-stakeholder approach, ICANN’s supporters argued, complemented the Internet’s tradition and structure better than any form of intergovernmental organization could.

The conflict between the governments over the most suitable form of governance concentrated on a passage in the draft version of the summit declaration which dealt with international problems. While it was easy enough to reach a consensus that the protection of public interests in connection with the Internet falls under the sovereign right of nation-states, no agreement could be reached on the question of jurisdiction with regard to international affairs. In the summer of 2003 a number of governments had presented suggestions on wording, which were included as “alternatives” in the draft declaration:

“[Policy authority for Internet-related public policy issues should be the sovereign right of countries.

[Internet issues of an international nature related to public policies should be coordinated Alternatives:

- a) between governments and other interested parties.
- b) through/by appropriate intergovernmental organizations under the UN framework.
- c) as appropriate on an intergovernmental basis.
- d) through/by appropriate international organizations.
- e) through appropriate and mutually agreed international organizations.]]”²⁶

Whereas the meaning of the five options was clear to all participants, the point that actually needed to be resolved, the “Internet issues of an international nature related to public policies,” remained decidedly nebulous. The object of negotiation clearly was institutional jurisdiction, but the substance and scope of public policy issues remained vague. One reason for this indeterminacy is that the governments could not come to an agreement on a common

²⁴ Whether developing countries are in a position to make use of these opportunities for participation is another matter entirely. As studies on ITU’s standardization activities show, it is developed industrial countries that normally set the tone (see Schmidt & Werle 1998).

²⁵ In this context civil society is defined as a network consisting of nongovernmental organizations and individuals who actively participate in Summit preparations.

²⁶ Whereas the United States wished to accept option A exclusively, many developing countries insisted on option B. The position of the United States was supported by, among others, the European Union, Canada, Mexico, Senegal, and Malaysia, though these countries also would have accepted option D as a compromise. Among the strongest supporters of an “intergovernmental” solution were Brazil, South Africa, India, and China (also see Hofmann 2003).

interpretation of Internet governance. The governments that associate Internet governance primarily with the tasks of ICANN do not see any impending encroachment on their national sovereignty. Those governments, however, that understand Internet governance in broader terms including communications services and Internet content rightly point to problems of sovereignty. In the opinion of one diplomat involved: “In Geneva we accepted that there was a role for governments, but we were not really ready to discuss what we meant with these ‘public policy issues,’ in particular we were unable to spell out whether we were thinking about a narrow, technical definition, or whether we were referring to a broad definition, including issues such as network security, intellectual property rights, consumer and data protection” (Kummer 2004: 55; also see Kleinwächter 2004a).

Just a few days before the summit a tentative compromise was put together in order to move beyond the unyielding fronts of both governance camps. The substantive conflict was bypassed by means of procedures: “Delegations were firmly entrenched in positions that were diametrically opposed and it would have been overoptimistic to find a far-reaching solution. The only way out was to establish a process to deal with these issues and in order to reach agreement we had to concentrate on the modalities of the process we hoped to initiate” (Kummer 2004: 54).

The governments battled it out over the principle political conflict, Internet governance, exclusively among themselves. Access to the working level of the Summit, the “drafting groups,” was denied the “stakeholders” (including ICANN). Behind closed doors the delegates wrote, in contradiction to their own actions, “The international management of the Internet should be multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations. It should ensure an equitable distribution of resources, facilitate access for all and ensure a stable and secure functioning of the Internet, taking into account multilingualism” (WSIS 2003a).

The reference to democracy here is particularly noteworthy: in this form, at least, it was new to the discussion of Internet governance. ICANN had always preferred terms like “bottom-up” processes, and previous demands for democratization were emphatically rejected. Yet now, even though it is not clear what exactly is meant by democratic, international management, this yardstick will have to be held up to any future governance models.

The process intended to reconcile the governments’ contrary positions involves the creation of a working group on Internet governance. It was formed under the UN Secretary-General—consensus could not be reached on any other option—and has been charged with preparing the ground for decision-making in the second phase of the Summit. The working group’s mandate consists of three quite formidable tasks, challenging in terms of policy and technical expertise. First, it is to develop a working definition of Internet governance; second, it must identify the public policy issues that are relevant to Internet governance; and, third, it is to propose a common definition of the roles and responsibilities of the stakeholder groups in both developing and developed countries (governments, international organizations, the private sector, and civil society). In line with the multi-stakeholder concept, the working group is to include representatives from governments, civil society, and the private sector (WSIS 2003b).

Just setting up the working group proved to be an extremely long process, taking up more than half the total time allotted in the Action Plan. The process of forming the group, keenly watched everywhere, spawned a discursive life of its own, which in many respects seemed to anticipate the functions and responsibilities of the working group. A large number of

international events took place—prompted by the announcement of the nascent working group—ensuring that systematic public reflection on Internet governance was set in motion even before the group began its actual work. The papers and other contributions that have been presented in connection with these events have already shown that the “common” understanding of Internet governance is once again in flux, and that a new phase of conceptual change is underway. In its future form, Internet governance will probably be embedded in more comprehensive regulatory contexts that have a direct or indirect impact on the Internet. Examples might be international agreements on trade and competition, guidelines on copyright protection, data privacy protection, and cyber crime, as well as national measures on consumer protection and the regulation of telecommunications (see MacLean 2004; Mueller, Mathiason, & McKnight 2004; Drake 2004; Kleinwächter 2004b). Meanwhile, the prevention of state interference—once the leitmotif of debates on Internet governance—has been quietly pushed to the side.

The forty-member Working Group on Internet Governance (WGIG) will present its final report in July 2005. The road leading up to this point has been rocky: WGIG members have depicted the current issues and state of affairs in about twenty broad “issue papers.”²⁷ As its basis for an assessment of existing governance structures, the WGIG has now devised criteria for the conceptualization of terms like transparency, accountability, and democracy, as well as presented a discussion paper on the role of the respective stakeholders.²⁸ There are already indications that the administration of names and numbers on the Internet will be just one of many topics.

Overall, there are now signs of an expansion of Internet governance’s frame of reference and, furthermore, of a reappraisal of the stakeholders in this field. This shift in emphasis concerns the role of governments in particular: state intervention is no longer automatically equated with the suppression of innovation and of freedom to communicate. Rather, one can observe an increasing willingness to reflect on the desirability and conditions of a more comprehensive form of political coordination for the Internet. Accompanying (but not preceding) this trend is a growing sense of urgency about the unintended consequences of another, less positive meaning of “unbridled” communications: the spread of spam, viruses, identity theft, and other forms of Net abuse are leading to a sense—in no way trivial in the context of Internet governance—that “unconstrained online interactions can lead to highly undesirable results. There are bad guys out there who do not care what effects their actions have on others” (Johnson, Crawford, & Palfrey 2004: 7). To the extent, however, that self-governance runs up against the limits of its regulatory capacity, the traditional leitmotif in the debates on Internet governance—the prevention of state intervention—loses its power of persuasion.

Even if, in the development of Internet governance, particular attention has been paid to questions of process, one can in all certainty count on an intensified regulation of data traffic and communications infrastructure in coming years. In this light, the development of the Internet has turned out to be more similar to that of other communications infrastructures than initially expected. In retrospect, the diagnosis of the Net as “different” and ungovernable will probably be attributed in part to its novelty. Nonetheless, future governance structures could differ from traditional arrangements, particularly with respect to the relative importance of the

²⁷ The “issue papers,” the list of roughly forty “public policy issues” on which they are based, and the “clusters” derived from this list are available on the Internet at the WGIG Web site: [<http://wgig.org/>] (accessed April 23, 2005).

²⁸ All of these texts can be found on the WGIG Web site.

principle of sovereignty and the role of nongovernmental actors. It is quite possible that an increase of state intervention will take place in the context of a “privatization of governance” (Zangl & Zürn 2004).²⁹ Up to now, at any rate, governments have been relatively open in terms of their role in coordination of the Internet: “Now we are at the beginning of a reflection process on how best to coordinate Internet Governance.... The Summit agreed on no more no less than the need to adapt traditional models of governance to the needs of the 21st Century and find new forms of cooperation which allow for the full and active participation of all stakeholders” (Kummer 2004: 55). Thus, the political challenge in coming years will be to establish institutionally safeguarded forms of participation that are capable of creating favorable synergies between legitimation and effective problem-solving, without recourse to exclusive principles of sovereignty.

4. Conclusion: Internet Governance as a Process of Searching

To observe the development of Internet governance is to follow an endlessly winding and intricate path of negotiation. As I have argued in this article, this process can be understood as a process of searching. The ever distant—and perhaps unattainable—vanishing point of this search process is a stable regulatory arrangement accepted by all sides, which can adequately accommodate the changing set of problems in transnational data traffic as well as the desire of stakeholders to be involved. Up to now questions of process have been front and center in this development. Regardless of whether it concerns oversight of the DNS, the allocation of Internet addresses, or the battle against spam, public attention is focused on the legitimacy of the respective claims to authority. In the collective struggle for suitable forms of coordination, the Internet has become an experimental domain where visions of transnational democracy clash with the rights of sovereignty reflected by the territorially defined nation-state.

The prevailing responses to the question of suitable regulatory arrangements for the Internet have changed many times over since the 1980s. Above all, this change reflects the growth and transformation of the Internet over this period. I have differentiated three phases characterized by specific perceptions of the problems to be tackled, specific regulatory forms, and specific constellations of power and actors. The transition from the first to the second phase was instigated by opening up the Internet to private use: the private sector and individual users wished to have stronger representation of their interests in name and number administration. At the beginning of the third phase there are unmistakable signs of a certain disillusionment with the effectiveness of self-regulatory structures. Governments are referring to the public interest in Internet governance and are considering—not for the first time—proposals aimed at the internationalization of the central resources of the DNS.

One conclusion to be drawn from this development is that the ongoing transformation of Internet governance cannot be adequately understood as a reaction to existing governance problems. Rather, the perception and assessment of problems are themselves constitutive parts of governance arrangements. From the perspective of the IETF, the conflict over domain names in the mid-1990s represented at most a temporary sideline.³⁰ In contrast, ICANN’s reading of Internet governance is so closely connected to the administration of domain names

²⁹ The German term is *Vergesellschaftung*, which is not quite the same as privatization.

³⁰ In the opinion of three IETF members, which was quite representative of the organization’s position: “... it is at best unhelpful, and most likely destructive, to delineate the DNS as a central focus in discussions of the future of Internet governance and sustainability, to which we believe it is largely irrelevant” (Mitchell, Bradner, & Claffy 1997: 269).

and Internet addresses that topics extending beyond it, like those playing such a visible role at the UN Summit on the Information Society, are systematically ruled out from consideration. Thus, definitions of Internet governance, either narrow or broad, always implicitly include preliminary decisions about institutions, constellations of actors, and forms of authority.

The option of strengthening intergovernmental authority is preferred mainly by countries in the southern hemisphere. Though industrial countries are critical of the United States' unilateral position, nearly all of them reject the notion of a UN solution. Thus, the ancien regime of telecommunications (Drake 1994), which left all international coordination up to sovereign states, seems to have come to an end. Its institutional successor, however, is still uncertain, and the process of searching might continue indefinitely. One interesting new facet in the discussion of Internet governance to emerge from the UN Summit is the question of democracy. The concept sets very ambitious standards for organizational structures, which neither UN agencies nor public-private partnerships such as ICANN satisfy. In democratic theory it is a contentious issue whether democracy can be practiced beyond the nation-state at all. Internet governance could evolve—in part by design, in part unintentionally—into an ongoing pilot project.

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