Opinion: ICANN, the ITU, WSIS, and Internet Governance

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This is an opinion piece, intended primarily to provoke thought and comment. The author does not necessarily claim to personally hold all of the opinions expressed in this article.

It may have taken some three decades to get here, but there is no doubt that the Internet is now a major public communications utility. That is hardly the most important piece of news you are likely to read today, but the implication of this public role is that there are legitimate issues of public policy to consider when looking at the broad topic of coordination of various aspects of Internet infrastructure. In other words, "Internet Governance" is a matter of significant concern to many.

This opinion piece looks at the various range of views about the *Internet Corporation for Assigned Names and Numbers* (ICANN) [1] and its rationale and role over its brief history. Of course, no look at Internet Governance would be complete without also looking at the role of the *International Telecommunications Union* (ITU), as well as the broader background to this topic. It is a large topic and it has already been the catalyst for numerous articles.

Data Networking and Public Networks

Whether it was because of its antecedents in the research community, or simply because it was not originally envisaged that the Internet would become a global communications platform in its own right, or for whatever reasons, the administration of the Internet infrastructure was not originally crafted with conventional public network coordination in mind. The retrofitting of a model that incorporates considerations of a public utility role is proving to be a rather complicated process.

For example, the original hierarchical name space for the Internet used a set of generic top-level root zone names of "edu," "net," "com," "gov," and "mil." Adding country codes to the root of the name space was a later modification. Even then the original country code delegations were undertaken to individuals or entities who appeared to have some form of link to the national Internet community, rather than specifically seeking out an appropriate office of the national administration of communications services as the point of delegation. Similarly, IP addresses were structured without any form of national prefix, nor were IP addresses distributed along any national lines. In these respects the Internet was really no different from any other computing networking protocols of the 1980s, such as *DECnet*, the *Xerox Network System* (XNS), *AppleTalk*, or IBM's *Systems Network Architecture* (SNA),

where names and addresses were defined in a limited context of the scope of the network, rather than within some broader public name framework.

There were two notable exceptions to this characterization of computer network protocols, and both were designed with a public communications utility as their primary objective, namely *X.25* and the *Open Systems Interconnection* (OSI) model. They can be regarded as offerings from the data services sector of the established telephone industry. X.25, the earlier of these two protocols, had a very obvious relationship to telephony, complete with the notion of a "call" as the means of establishing a data connection and as the unit of a transaction. The addressing scheme used a structured space that drew heavily on the telephone number structure. Like telephony, there was no associated name scheme and endpoints were identified by their numeric X.25 protocol address. OSI represented a later effort to design a packet-switched network architecture that was intended to reflect an increasing level of experience with this technology, but nevertheless continued to draw heavily on telephony design. Much was written about OSI at the time, and it would be a diversion to explore it in depth here. However, the salient observation here is that despite the extensive effort invested into its promotion, OSI was a market failure, and whatever its technical merits it was simply not accepted by the communications industry.

OSI was heavily supported by the ITU, and by virtue of this very active sponsorship of this technology, the implication of the aftermath of OSI was that the ITU was seen as being simply out of touch with data networking. It was often portrayed that the ITU was coming from a mindset that was incapable of engaging with either the data communications industry or the broader consumer market for data services. From the perspective of data networking, the failure of OSI was seen as a failure of the ITU itself.

The ITU and the Internet

The ITU is certainly one of the more venerable institutions in the communications sector. It can trace its origins to May 1865, when the first *International Telegraph Convention* was signed by 20 founding national members, and the *International Telegraph Union* was established to facilitate subsequent amendments to this initial agreement. Two decades later, in 1885, the ITU drafted international legislation governing telephony. With the invention in 1896 of wireless telegraphy, similar coordinating measures were adopted by the *International Radiotelegraph Convention*. In 1932 the Union combined the International Telegraph Convention of 1865 and the International Radiotelegraph Convention of 1906 to form the *International Telecommunication Convention*. The name of the body was changed to *International Telecommunication Union* to properly reflect the full scope of the Union's responsibilities, which by this time covered all forms of wireline and wireless communication.

In 1947 the ITU, under an agreement with the newly created United Nations, became an agency of the United Nations, with responsibilities in international telephony, telegraphy, and radio communications. Over the next four decades the ITU oversaw a system of international interconnection of telephony and data systems that became an industry in and of itself.

The ITU assumed a role of facilitating what was asserted to be a balanced international environment where the costs of running the international system were fairly apportioned between national service providers. In practice these lofty goals were not achieved very efficiently, and international facilities were priced at levels that were considerably higher than the associated costs of actual service provision. When attempts were made to redress the imbalances between large and small national carriers, the outcomes included collective action on the part of the national carriers that operated in ways not dissimilar to a cartel.

In 1992 the ITU was restructured into three sectors, corresponding to its three main areas of activity, namely the standardization of telecommunications technologies in the ITU-T, the

coordination of radio communications in the ITU-R, and telecommunication development in the ITUD. In 1994 the ITU established the *World Telecommunication Policy Forum* (WTPF), a group that encouraged the exchange of ideas and information about emerging policy issues arising from the changing telecommunication environment. The first WTPF was held in 1996 on the theme of global mobile personal communications by satellite, and the second in 1998, on trade in telecommunication services.

The ITU was heavily criticized over the ponderous amount of time taken to generate telecommunications standards, the nature of the process used in developing these standards in a closed set of forums, the marginal relevance of these standards, and the final indignity, that the ITU charged for paper and electronic copies of these standards. As some critics pointed out, perhaps harshly, this was not just a case of paperware about vapourware, it was a case of very expensive paperware about vapourware!

More recently, the ITU has focused on attempting to strengthen the participation of the private sector in the work of the Union, as well as streamlining the ITU's processes to reduce the level of delay and amount of process overhead in standardization of technology and operational practices. The ITU has sponsored the establishment of the *World Summit on the Information Society* (WSIS) [2], and has been attempting to position itself more centrally in the process of further evolution of the Internet as part of its overall charter.

The Internet has posed a severe challenge to the ITU. Not only was the ITU often perceived as being out of touch with the data communications sector, more critically it had been perceived as being incapable of making the necessary reforms to its mode of operation and policy setting to bring it back into relevance for the rapidly changing communications industry. The inference was being drawn that the ITU was apparently in a state of denial over progressive deregulation of national communications sectors. In many cases the national position had already moved to a position of lightweight regulation, relying on strong competitive pressures in the private sector to enforce regimes of efficiency and effectiveness in the supply of communications services to consumers. The ITU, as an intergovernmental organization, was being seen in some quarters as an anachronistic recalcitrant relic of an earlier era of communications service provision.

It was also evident that this critical view of the ITU was most strongly held within the United States, and in particular those parts of the U.S. administration and industry that were involved with the growth of the Internet. It was perhaps no coincidence that in these growth industries of personal computer technologies and the related Internet industry it was U.S. enterprises that were the "poster children" of this new model of industry-led deregulated communications services. Their consequent rapid expansion into a massive global undertaking of the global Internet was perhaps the most eloquent form of statement about the effectiveness of deregulation, and the degree to which the previous regulatory model had simply not managed to encompass the burgeoning demand for data services in a timely fashion.

From this perspective it should be no surprise to observe that when the transition of the *Internet Assigned Numbers Authority* (IANA) function from a fully federally funded research activity to some form of new foundational base was being considered by the U.S. administration, it appears that the ITU was never seriously contemplated as a viable home for this function. If the Internet was a child of deregulation and industry initiative taking on the outcomes of research activity, then the appropriate progression of the IANA function was also from a research context into an enterprise context. IANA should be responsive to industry needs, and to best achieve this the IANA function itself should be undertaken as a task housed within the deregulated private enterprise sector, rather than establishing yet another public bureaucracy, or using existing bureaucracies for the role. ICANN was the embodiment of this aspiration on the part of the U.S. administration, and to pass the

effective levers of control of the Internet to the ITU was seen as denying the Internet any form of a productive, innovative, and successful future.

The Formation of ICANN

Whatever the original motivation in creating ICANN to administer the IANA responsibilities, it is now apparent that ICANN was deliberately structured to provide the industry with an alternative structure of coordination and regulation within national and international communications sectors to that of the ITU. The critical difference is that ICANN had not placed governments at the forefront of visible activity, but instead placed industry needs and the operation of a competitive deregulated international communications sector as being the major thrust of coordination activities.

As with any novel model of public policy determination, ICANN's acceptance ranged from cautious approval to advanced scepticism. Even within the U.S. administration ICANN has yet to be "unleashed," and it currently operates under the terms of a Cooperative Agreement with the *National Telecommunications and Information Administration* of the U.S. Department of Commerce under a sole source cooperative agreement. In this light ICANN appears to be a cautious step in a bold direction.

ICANN undertakes activities of management of Internet Protocol infrastructure in the areas of the content of the root of the *Domain Name System* (DNS) and the identification of parties to whom are delegated administrative and operational control of the top-level domains and the associated specification of terms and conditions of this delegation. ICANN, through IANA, also manages the pool of unallocated IP addresses (IPv4 and IPv6 addresses and Autonomous System numbers), and also manages the protocol parameter registries as defined by IETF Standards Actions.

ICANN MkI

The initial structure of ICANN had three "supporting organizations," focusing on:

- Coordination of the DNS with the *Names Supporting Organization* (NSO)
- Coordination of address policies with the *Address Supporting Organization* (ASO)
- Operation of Internet Protocol parameter registries with the assistance of the *Protocol Supporting Organization* (PSO)

The intended role of these supporting organizations was to provide a venue where interested parties could develop and consider policy proposals, leaving the task of ultimate identification of broad support for particular policy initiatives to the ICANN Board.

As has been evident to any observer of the ICANN process, things did not proceed within the parameters of that plan. The NSO met problems due to the diversity of interests that were encompassed with the DNS domain, including emerging national and regional interests in the country code top-level domains, the operators of the generic top-level domains, the trademark and intellectual property collection of interests, the emerging industry of registrars, and a continual interest of individuals who maintained that they had legitimacy of inclusion by virtue of their representation of interests of end users and consumers, or, to use an emerging ICANN lexicon, the "at large" constituency.

The ASO was formed within the parameters of a different model. The *Regional Internet Registries* (RIRs) had already developed a considerable history of working within their communities, and being widely accepted by these communities as an appropriate means of coordination of activity in the role of number resource administration and distribution. The ASO was formed with membership of the associated council based on processes determined

by each RIR. Even then it was unclear as to the relationship between the RIRs' already well-established open policy development process and the ASO and ICANN. The RIRs were unwilling to pass all regionally developed policies to ICANN for a second round of consideration and potential alteration. They insisted that only those policies that were considered to be "global," in that they were common to all the RIRs, would be passed into this ICANN sphere.

The PSO was placed under strong pressure to include the ITU-T and the *European Telecommunications Standards Institute* (ETSI), and the *World Wide Web Consortium* (W3C) was also enlisted, in addition to the IETF. If the objective of the PSO was oversight and policy formulation concerning the role of protocol parameter registration of IETF protocols, then this enlarged membership of the PSO was unwarranted. Even within the terms of consideration of the PSO as a source of standards-based technical advice to the ICANN Board, the presence of these additional organizations was somewhat puzzling in terms of the match of resultant structure of the PSO to its intended role. The PSO, however, had a role in seating individuals onto the board of ICANN, and it was likely that this aspect of the PSO had been part of the reason for the interest in broader institutional membership. Uncertainty about the extent of the role of ICANN saw many groups attempting to gain access to board seats.

Missing from this mosaic of diverse interests was the inclusion of various national public communications sector entities who also felt that they had clear legitimacy to undertake an active role within the ICANN policy development process, and, in response, the *Government Advisory Committee* (GAC) was formed.

ICANN Evolution and Reform

If a camel is a horse designed by a committee, then it is unclear whether ICANN was a three-humped camel or a three- and three-quarter-humped camel as a result of all this, but camel it undoubtedly was.

The PSO was dysfunctional and missing any tangible agenda of activity. A fracture was apparent in the relationship between ICANN and the IETF. Attempts to create an agreement between ICANN and the IETF over the IANA function were not recognized by the U.S. administration, who continued to insist that, formally, the IANA function for the IETF was undertaken at the behest of the U.S. Department of Commerce rather than the IETF. This view was not shared by the IETF.

The ASO was criticized by ICANN itself of being insufficiently "representative" of the addressing community, and the ICANN Board established its own temporary advisory committee on addresses, and in so doing alienated the RIR community from the entire ICANN framework.

The NSO was hopelessly wedged into factional-based politics.

The GAC decided at the outset that it would operate behind closed doors, in contrast to ICANN's continuing efforts to operate in an open and transparent manner.

The "At Large" election process undertaken by ICANN appeared to be of dubious validity because of problems in establishing a reliable constituency of individuals who had an interest in ICANN, and a direct election process was attempted only once.

Not surprisingly, ICANN fell into some disarray under these pressures, and by early 2002 the CEO of ICANN at the time, Stuart Lynn [3], was warning all who cared to listen that ICANN was paralysed, dysfunctional, and in danger of an imminent demise. Whether this was a message directed to the ICANN Board or to a fractious set of communities that had

some intersection with ICANN, or to the U.S. administration who had been influential in determining the original ICANN structure was not entirely clear to any observer of the process.

However, given that ICANN had been set up as an example of a new form of international coordination of communication infrastructure support activities that was based on private-sector activity rather than governmental fiat, this message of imminent failure was widely interpreted both as a potential failure of ICANN and a sign of failure of this new model of coordination of international activity. ICANN was seen as a point of vulnerability with respect to the U.S. administration's diplomatic efforts to reform this international activity sector. The ITU-T's activities in this same area was reinvigorated, with considerable support from national sectors who saw their national interests being potentially advantaged in a ITU-led international environment.

ICANN MkII

Although still firmly positioned as a private-sector activity, and although still making no concessions in the direction of the ITU, ICANN has managed to reorganize its structure through a protracted evolution and reform process.

With respect to the ASO, The Regional Internet Registries formed its own coordination entity, the *Number Resource Organization* (NRO) [4], and has proposed this entity to ICANN as the means of interfacing between the addressing community and ICANN's policy-development activities.

The PSO was abolished, to be replaced by a *Technical Liaison Group* that, apart from its function of seating an individual on the ICANN Board, is a group without an obvious role or agenda.

The NSO was forced to recognize the fundamental difference between the generic top-level domains, which fall under a more direct relationship with ICANN and its processes, and the country code domains (ccTLDs), which have from the outset been quite wary of ICANN. From the ICANN reform process emerged the *Country Code Name Supporting Organization* (CCNSO) and the *Generic Names Supporting Organization* (GNSO), as a recognition that these two groupings are so dissimilar that they have almost nothing in common.

In addition, an *At Large Advisory Committee* was formed.

The reform process has had some more tangible outcomes, in that formal open meetings of the ICANN Board of Directors have managed to be progressively refined from efforts at direct dialogue and open debate into highly structured events with many formalisms and appropriate quantities of ceremony.

ICANN Today

Despite the effort to encompass coordination activities in the areas of names, addresses, and protocol parameters, ICANN has been largely captured by the names industry, and ICANN's agenda, activity focus, and outcomes are concentrated mostly in the name domain.

In this activity domain, the track record of ICANN is very mixed. To its credit, it has managed to dismantle the most objectionable parts of the monopoly hold over the *generic Top-Level Domains* (gTLDs), create an operational model that makes a clear distinction between registry operators and registrars, impose price and business controls on the registry operation as a means of controlling the natural tendency for the registry operation to reflect its unique position in the form of monopoly rentals, and assist in the creation of a

global network of competitive enterprises, with the expectation that competition will instil operational and price efficiency in the registrar business.

In addition, ICANN has been successful in not only introducing new gTLDs to complete with the established brands of .com, .net, and .org, but also in moving .org and .net to new registry operations (.net is under way at the time of writing of this article). Despite these positive achievements, it is not clear that this new regime has been entirely successful.

True competition in the name space is still some way off, and the recently introduced gTLD brands have failed to gain any leverage within the market. The name market itself remains one where the role of name speculators continues to play a significant role in terms of proportion of registered names. The overarching dominance of .com as a brand has continued, and the advantaged position of the U.S.-based registrar of this zone continues.

The obscure nature of the relationships between the IETF, ICANN, and the U.S. administration over the protocol parameter registries remains unresolved. The IETF is clearly not in control of its own protocol parameters, and has abrogated this role to ICANN. Standards making entirely divorced from any effective engagement with deployment tends to result in a standards body of dubious long-term validity, and despite its impressive track record in the past, the IETF is clearly already well distanced from current technology directions in the industry—and the gap continues to widen.

The DNS *Root Server Operators* continue to operate as an independent group. The recent moves to dramatically increase the number of DNS root servers and improve the overall robustness of DNS resolution through anycasting root servers and distributing anycast instances across the globe has been a well-received initiative. The fact this has occurred without any form of ICANN involvement is an interesting commentary on the ability of ICANN to engage with the operational parts of the infrastructure of the Internet. Comparable activities to improve the DNS in terms of resolution services within the ICANN sphere have become protracted exercises that impose a very heavy burden on the patience of the players.

The moves to introduce IPv6 AAAA records into the DNS root have been anticipated for many years, and the response to the recent ICANN announcement is, in general, of the tenor “why didn’t this happen some years ago?” The continuing frustration to get the DNS root to include *Secure DNS* (DNSSEC) [5] important information continues to illustrate a perspective that the ICANN process appears to be unresponsive to technical needs and end-user imperatives.

The situation today is that ICANN appears to enjoy a mixed level of success. It has managed to establish itself as a means of administering the infrastructure elements of the Internet Protocol in a manner that is reflective of the deregulated nature of the Internet industry. It has managed to reform parts of the landscape and generate an industry structure that uses open competition as the major control mechanism. ICANN has managed to bring much of the discussion about the administration of Internet infrastructure out into the open. All these are major milestones, and it is to the credit of many dedicated individuals that ICANN has managed these impressive outcomes. However, it has been able to achieve all this with the continued sponsorship of the U.S. administration, and the question of whether it can firmly establish itself in its own right in the coming years remains today perhaps a matter of hope rather than absolute certainty.

There are still the lingering concerns that if ICANN, as a private-sector entity, were to once more explore positioning itself on the brink of imminent demise, the collective task of picking up the pieces and continuing to support the operation of the Internet is one that appears to have a very uncomfortable level of uncertainty. In addition, the perception of ICANN as an entity whose single purpose is to maintain an entrenched advantaged position

of the United States and of U.S.-based enterprises in the global Internet has been widely promulgated. It is often portrayed that ICANN offers no viable mechanisms for other national or regional interests at a governmental level to alter this somewhat disturbing picture of international imbalance. Although other aspects of international activity fall under various political or trading frameworks, and national and regional interests and positions can be collectively considered and negotiated, critics of ICANN point out that the message ICANN sends to the rest of the world is that the United States is withholding the Internet from conventional international governance processes. Sceptical commentators interpret the U.S. administration's use of ICANN as at best a delaying technique to gain time to further strengthen the position of U.S.-based enterprises across a lucrative global Internet market, aided and abetted by a compliant industry body that masquerades as an international standards organization.

Such a critical perspective also points to ICANN's tenuous lines of authority, its lack of performance in many aspects of the domain name enterprise, its seeming obsession with the registrar sector to the apparent exclusion of any other activity, its burgeoning costs, and its lack of acceptance, particularly as it relates to the acceptance of ICANN by the various country code DNS administrators, to name but a few factors.

Accompanying this strident criticism is the line of argument that the Internet does not actually represent a viable challenge to existing mechanisms for coordination of international activity. At both a national and international level, the Internet should not require novel and untested regulatory mechanisms as a means of expressing public interest and public policies. The line of argument from this perspective is that there is neither the demonstrated need, nor any appropriate level of international support at a governmental level to sustain the argument that a private-sector, nonprofit corporation is the best, or even the only viable model of coordination of Internet activity. If "Internet Governance" is the question, then, the line of argument goes, the model upon which ICANN is based is definitely not the best answer we can devise. This very critical line of reasoning has become particularly prominent in the WSIS process, and lies behind much of the continual fascination of the topic of "Internet Governance" in WSIS meetings.

WSIS and Internet Governance

The WSIS has been a long time coming, and it represents a move on the part of the ITU to formulate a revised role for the ITU to engage with a world richly populated by all manner of information services layered upon a highly diverse and capable communications environment. This summit was planned in two phases. The first summit was held in Geneva December 10–12, 2003, where the foundations were laid by reaching agreement on a *Declaration of Principles* and a *Plan of Action*. The second phase will be held in Tunis, November 16–18, 2005, to implement the agenda leading up to achievable targets by 2015, and to agree on unfinished business, most importantly on the question of Internet governance and of financing mechanisms.

Irrespective of any particular political perspective here, the universal observation is that the Internet has heralded a revolutionary change to the global communications enterprise. Markets for communications services are changing, the technology base is changing, the economic models of communication are changing, and the models of interaction at the provider level are changing. The challenge from the public-policy perspective at a world level is to create a framework that ensures that the benefits of this change, in both social and economic terms, are accessible to all, rather than to a subset of the world's population. It is within this broad framework that WSIS has been positioned.

These are lofty and ambitious goals, and the task before WSIS is certainly as challenging as any in this environment. The hope is that the myriad of participants in this process includes sufficient resources to engage in the agenda in a meaningful way.

However, the underlying issue is that of the progressive change in the role of communications infrastructure from a predominately public-sector activity to a very diverse spectrum of public- and private-sector activity. We appear to have become increasingly reliant on private-sector investment and private enterprise to support the public communications enterprise. But is this necessarily the appropriate model for the entire world, or even any part of the world?

As many recently privatized industries could attest, private-sector activity has entirely different investment motivations and entirely different service objectives. If the nature of the activity is one that requires long term investment in infrastructure with low returns, then private-sector activity tends to use the existing infrastructure base without necessarily making adequate longer-term replenishment investments. Private activity also tends to concentrate service delivery to the most lucrative sectors of the market, and, if possible, will deliberately avoid establishing services in areas that are less financially attractive. The task of structural cross-subsidization that makes ubiquitous equity of access possible is not seen as a private enterprise outcome, and aspects of communications such as universal service obligations and equity of access are seen as public regulatory functions rather than natural market outcomes of a deregulated industry.

The Internet today is anything but a level and balanced environment. There are concentrations of investment capability, concentrations of technical knowledge and logistical capability, concentrations of intellectual wealth, and concentrations of power and influence. How to create from this current diverse environment some form of structural cross-subsidization that extends the basic means of access to all is the appropriately lofty goal of the WSIS endeavour. There is also the more focused investigation of "Internet Governance" and the agenda of establishing to what extent the perception of the advantaged position of a small number of national entities in all this can be balanced by measures that allow other national economies to invest in this space on terms and conditions that do not involve a continuing flow of money and a ceding of power to these existing advantaged national interests.

As the WSIS documentation points out, "... building the foundations for an Information Society is a complex task. The digital revolution is already impacting the world in deeply intrinsic ways, perhaps more profoundly than even the industrial revolution itself. Yet, while the digital revolution has extended the frontiers of the global village, the vast majority of the world remains unhooked from this unfolding phenomenon."

The Secretary General of the UN chartered a smaller group to examine Internet Governance, in particular, the *Working Group on Internet Governance*, or WGIG. Its nine-month brief is to glean these issues of public policy in an environment that has very significant private-sector interest. Indeed from an international perspective, where regulatory powers, even of a reserve nature, are in a very real sense ephemeral, the work in WGIG to date with its discussion papers has done little. The discussion papers have illustrated the broad nature of the topics raised in the context of Internet Governance, but their poor depth, visibly poor levels of research, and lack of any real analysis of the selected topics only highlights the complexity of the underlying interplay of public- and private-sector interests within a domain that is also bounded by technical considerations.

At the same time the poor quality of these reports highlights the inability of WGIG to engage directly into the heart of this exercise, given their obvious constraints of time and resources. It is not surprising to observe that, following its February meeting WGIG has decided to abandon this set of discussion papers. If a fresh start is being contemplated for WGIG, then perhaps it is time to note that only half of the group's allocated time remains, and the topic is getting no easier with the passing of the days.

For those interests who wanted the ITU to become engaged in the Internet, hope has now been passed to the WSIS process and the related WGIG study into Internet Governance issues. This is seen as being a means of opening up the control of the Internet into a more conventional international process that dismantles what they see as the current position of global taxation that U.S. national interests have imposed on the rest of the world's population in the adoption of Internet-based services. For those who think the ITU remains an unreformed vehicle for the imposition of anachronistic, inappropriate regulatory measures that stultify any form of innovation and progress in telecommunications, the WSIS process is yet another venue to parade the stark contrast between the rather impressive track record of a deregulated market-driven approach to coordination of telecommunications services, as seen with the Internet, and the ineffectual outcomes from the international public regulatory sector.

Looking Forward

One view of this process is that this is a negotiation of national roles of influence and power over the coming century or more, and that this process requires some considerable care and attention at an international level.

This topic is one that places a model of deregulated private sector-led activity, with its market-based disciplines, into direct contrast with a more traditional model of the balancing of various national interests through common regulatory measures undertaken within each national regime as a regulated public-sector process. The proponents of a deregulated approach argue that the Internet is a child of the progressive position of deregulation of communications markets in many national environments, and it is the dynamic and creative impetus of highly competitive markets that has led to the rapid spread of the Internet and the consequent improvements in the efficiency and effectiveness of national and international communications systems. None of these outcomes would have been achievable, they argue, in a regulated regime where innovation and competition for the consumer were completely stifled by the deadening weight of regressive regulation.

Like many bold innovative experiments in international coordination and the establishment of new world orders, ICANN stands a strong risk of falling foul of an inherent conservatism in international politics, where the careful balancing of national interests is seen as being far more critical an objective than any actual outcomes that may be achieved from the process.

From this perspective, ICANN is critically reliant on its acceptance by all players of its legitimacy to operate in this space, and also critically reliant on acceptance of the proposition that these issues are best addressed in open forums of debate. This task is difficult, and the limited set of outcomes that ICANN can point to as being products of this process do not install a high degree of confidence that this process is stable, scalable, well-founded, and sustaining. Currently the proposition is not that ICANN represents the most appropriate enduring framework here, but that the track record of the alternative has failed in the past and nothing has changed to prevent the historical alternative framework making similar flawed decisions in the future.

The opposite end of the spectrum of views argues that nothing has really changed with the introduction of the Internet, and the international regime remains one where various national interests need to be resolved in a coordinated and equitable fashion. Without some form of common regulatory constraint, there are inevitable market distortions where the expression of vigorous national aspirations results in an advantaged position in the international domain. Public communications is a public-sector activity, they argue, and, ultimately, the only points of control rest within national regulatory regimes, and internationally it is a case where national interests must be balanced through a process that recognizes political realities of coordination and compromise. From this perspective it is

asserted that the ITU is the intergovernmental venue for this activity as it relates to the communications sector, and it is to the ITU that national interests must look to redress distortions where one national entity or one region holds a contrived privileged position with respect to international communications.

In looking at these two extremes of perspective, an obvious question is what then is the role of international public policy setting? In this form of market-mediated service supply functions, are international issues being progressively transformed into aspects of international trade? Does such an environment provide adequate protection for developing economies? Are common social priorities being adequately considered in such a framework?

This leads to a more basic question of whether the existing international institutions, such as the ITU, are appropriately positioned to meet these public policy challenges, or should we be considering changes here in order to bring the international institutional framework into better alignment with the emerging information society?

These are certainly difficult positions to attempt to reconcile, and perhaps it is being impatient to expect clear outcomes in the near future, and certainly very difficult to expect that in a few short months WGIG and WSIS will be able to deliver a balanced, considered, and generally acceptable outcome in this space. It is also a natural concern in looking at these rather aggressive schedules for WSIS that short-term political expediency will obstruct genuine attempts to truly understand the fundamental nature of the changes that are happening with the differing model of communications that are heralded by the Internet model.

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