

Internet Articles

*An occasional series of articles on the social and technical evolution of the Internet
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ICANN, the ITU and WSIS and Internet Governance

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In the previous article I looked at ICANN, its brief history, and its achievements. In this article I'd like to cast the net a bit wider and look at the concept of "Internet Governance" in the context of the International Telecommunication Union (ITU) and the World Summit on the Information Society (WSIS).

One of ICANN's major achievements has been the restructuring of the generic top level domain name business, where it has been able to replace a single monopoly operator with a system of registry operators and registrars. The registry operators are constrained not by regulatory fiat but under the terms of formal contracts with ICANN, so that regulatory constraint is replaced by contractual obligation. Registrars operate under a lighter set of strictures, and the major constraining factor is the competitive market for registrar services. In general, the outcomes of these restructuring measures have been positive, in that the price to consumers has fallen, the market has, to some extent, stabilised, and the privileged monopoly position enjoyed by a single operator has been, to some extent, diluted.

This has not happened easily, and it could be argued that the price paid for ICANN to achieve this positive outcome has been very high.

ICANN - A Critical Perspective

Let's look at this from the perspective of the various criticisms that have been made of ICANN and the current situation. The perception of an advantaged position of the US Administration and of US-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. While 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 in matters of the Internet the US is withholding the Internet from conventional international governance processes. Various views interpret the US Administration's use of ICANN as a delaying technique in order to obtain time to further strengthen the position of entrenched and already well-established US-based enterprises across a lucrative global Internet market.

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 does 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, non-profit corporation is the best, or even the only viable model of coordination of 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 World Summit for the Information Society (WSIS) process, and lies behind much of the continual fascination of the topic of "Internet Governance" in WSIS meetings.

ICANN - A Positive Perspective

Not surprisingly, there is another perspective to this, and the US Administration see their objective as one that establishes a model of international collaboration that more appropriately reflects a deregulated global communications industry, where the disciplines of open competition between service providers act to prevent market distortions. From this perspective ICANN is the vanguard of a approach to coordination of international activity through establishing open free trade structures and populating the space with openly competitive providers.

The US Administration and ICANN continue to adhere to a timetable of transition that is intended to see the US Government acquit itself of the role of being the holder of the authority in the DNS root space, the holder of authority in the unallocated IP address space and the holder of the intellectual property and authority of IETF protocol parameter registries in favour of ICANN. In its place it sees an open competitive environment that constrains individual players from various forms of market distortion and aberrant behaviours, backed up by a system of formal contractual obligations between industry players and ICANN.

At this stage ICANN can correctly claim a role as a private sector, non-profit corporation with technical management responsibilities for the Internet's domain name and address system.

The ITU

This is an agenda for ICANN not without considerable risk, as there remains a strong core of opinion at governmental levels that the intergovernmental form of cooperation and coordination via international treaty instruments remains applicable in the case of the Internet, and there remains a viable, if not central role for the ITU in 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 a 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 concepts of half circuits, bilateral interconnection and call accounting- based financial settlements were all developed within ITU forums. The ITU assumed a role of facilitating what was asserted to be a balanced international environment where the costs of running the system were apportioned according to the level of each international carrier's use of the system, and financial settlements were intended to ensure that the revenue entering the system was shared fairly between the receiver of the call revenue and other carriers who played a role in providing the service.

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 provision. In attempting 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 radiocommunications in the ITU-R, and telecommunication development in the ITU-D. In 1994 the ITU established the World Telecommunication Policy Forum (WTPF), an ad hoc meeting which encouraged the exchange of ideas and information on 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 criticised 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 charges for paper and electronic copies 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 been focused on strengthening the participation of the private sector in the work of the Union, as well as streamlining the ITU's processes in order to reduce the level of delay and amount of process overhead in standardization of technology and operational practices. The ITU sponsored the establishment of the World Summit on the Information Society (WSIS), and has been attempting to position itself more centrally in the process of further evolution of the Internet.

The ITU and the Internet

There is no doubt that the ITU, like many parts of the established telecommunications industry, was caught by surprise by the rapid uptake of the Internet across the world. The ITU's processes were ponderous, and were well suited to making minimal changes in a mature and well understood environment. The coupling of progressive deregulation of national telecommunications markets, emerging regional and global private telecommunications industry players and a comprehensive redefinition of the market through the introduction of the Internet, left the ITU looking unresponsive and indecisive.

However, a number of national regimes saw the new Internet industry as one which strongly favoured a small number of enterprises, predominately those located in the US and the associated national interests, and disenfranchised other players and their national economies. International attention at a national and regional level was focused on the new form of Internet interconnection and financial settlement, which invariably placed US Internet Service providers in a heavily advantaged position. The carefully crafted telephone regime, which attempted to share the costs of international infrastructure and balance call revenues between the originating and terminating providers, appeared to have been discarded. In its place appeared to be a regime where the non-US provider paid for both international infrastructure, and also paid the US provider for transit services. Attempts to raise the matter at regional intergovernmental meetings achieved little, and various efforts to take legal action in US courts also proved to be ineffective.

The ITU was seen by a number of national regimes as one of the few ways by which the perception of over-arching dominance of the Internet by US national and commercial interests could be successfully challenged. The ITU has been responsive to these calls for greater international engagement in the Internet, although one suspects that there is still a considerable level of impatience that the perception of overarching control by US national interests to the exclusion of all others remains firmly in place. The impatience also extends to the observation that the ITU has been unable, so far, to challenge this in any meaningful way.

For those interests who wanted to ITU to become engaged in this matter, hope has now been passed to the WSIS process and the related 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 the current position of global taxation that US national interests have imposed on the rest of the global population in the adoption of Internet based services. For those who may feel that 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, driven by the intersection of national interests, and often expressed in national contexts through regulatory fiat.

ICANN and Internet Governance

However this debate over styles of international coordination and governance of the global communications enterprise is one that increasingly drags ICANN out from a rather limited technically-oriented agenda into a much larger sphere of international politics, and it is a sphere where ICANN is not well equipped to broaden its mission into such a wide-sweeping set of activity. Recent moves by ICANN has seen it attempt to stress its position, and its activities, as a case of technical coordination in a limited

domain, thereby carefully avoiding the broader topic of Internet Governance and any pretensions for an over-arching role for ICANN within such a sphere of activity.

ICANN has a focus on achieving outcomes that attempt to promote innovation and enterprise, balancing the needs of Internet users against needs and objectives of various industry sectors and various national agendas. The manner by which ICANN has attempted to achieve this is by a process of attempting to bring all aspects of the debate into open view, and attempting to assist the broad diversity of interests to recognize the greater common benefit of achieving some level of consensus with a shared vision, and then embarking on implementation.

To date, ICANN does not represent itself to be source of an imposed solution to any particular issue, but a forum where issues can be brought to light, stakeholders and interested parties identified, the topic debated in an open and transparent fashion, and solutions proposed that represent a consensus of the various parties involved. ICANN's characterization of its attributes is that ICANN represents a process of so-called "bottom-up" policy making, as distinct from the process represented by the ITU-T where the interested parties are held at arms length or further and solutions, or recommendations reached at the international inter-governmental level become imposed regulations at the national level.

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 is a difficult task, 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, scaleable, well founded and sustaining. Right now the proposition is not that ICANN represents an outstanding set of achievements, but that the track record of the alternative has failed in the past and nothing has changed to prevent it making similar flawed decisions in the future.

WSIS and Internet Governance

The World Summit on the Information Society was envisaged in two phases, the first Summit was held in Geneva 10-12 December 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, 16-18 November 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.

The level of activity behind WSIS is relatively intense: the ITU has the lead role in organizing the Summit, assisted by a UN Secretary-General appointed High-level Summit Organization Committee (HLSOC) comprising of Executive Heads of the FAO, IAEA, ICAO, ILO, IMO, ITU, UNCTAD, UNDP, UNEP, UNESCO, UNFPA, UNHCHR, UNHCR, UNIDO, UNU, UPU, WFP, WHO, WIPO, WMO, WTO, UN Regional Economic Commissions, and the World Bank. HLSOC also includes IADB, OECD, UNITAR and UNV as observers. The UN Secretary-General appointed a Special Adviser to WSIS as his representative. An Executive Secretariat based at the ITU Headquarters in Geneva has been mandated to support the preparatory process and the Summits. Switzerland and Tunisia have also established Host Country Secretariats to facilitate the preparatory process of the Summits. A Bureau of the Preparatory Committee, composed of 32 Governments representing the various regions of the UN System, guides the President of the PrepCom in the preparations of the Summit.

The task before WSIS is certainly as challenging as any in this environment, and the hope is that the alphabet soup of the previous paragraph includes sufficient resources so as to engage in the agenda in a meaningful way.

Internet Governance

However, the underlying issue is that of the progressive change in the role of communications infrastructure from a public sector to a 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 sweat 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 function, 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 the US 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 US-based 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. This new dynamic requires global discussion, and the first phase of the Summit held in Geneva in December 2003 laid the foundations of the Information Society by agreeing to a Declaration of Principles and a concrete Plan of Action. The second phase will review the implementation of the Action Plan and will set new (and more detailed) targets for the period 2005-2015. It will also deal with the important unfinished business of the first phase, e.g. the governance of the Internet and the question of financing mechanisms."

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 which places a model of deregulated activity with its market-based disciplines into direct contrast with a more traditional model of the balancing of various national interests through regulatory measures undertaken within each national regime. 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 regimes, and it is the consequent competitive market 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've been achievable, they argue, in a regulated regime where innovation and competition for the consumer were possible.

The opposite end of the spectrum of views argues that nothing has changed with the introduction of the Internet and the international regime remains one where various national interests compete, and without some form of regulatory control there would be inevitable market distortions where various national interests would attempt to create an advantaged position in the international domain. Public communications is a public sector activity, and, ultimately, control rests within national regulatory regimes, and internationally it is a case where national interests must be balanced. From this perspective it is asserted that the ITU is the venue for this activity for the communications sector, and it is to the ITU

that national interests look to redress distortions where one national entity or one region holds an artificially privileged position with respect to international communications.

It is unlikely that James Watt would've looked at the governor he had invented for the steam engine and foreseen the fundamental way that the ensuing industrial revolution would change the lives of every human on the planet over the ensuing centuries. His was a simple problem of technology.

At its outset the Internet was also a simple problem of technology. Today it is no longer just a question of technology, but also a more fundamental question of entering a process of social change, as we embrace a world of information, where the economic forces appear to be related to the capability of acquiring and exploiting information.

About the Author

GEOFF HUSTON holds a B.Sc. and a M.Sc. from the Australian National University. He has been closely involved with the development of the Internet since the late 1980's, particularly within Australia, where he was responsible for the initial build of the Internet within the Australian academic and research sector. He is currently the Senior Internet Research Scientist with the Asia Pacific Network Information Centre. He is the Executive Director of the Internet Architecture Board, and a member of the Board of the Public Interest Registry. He was an inaugural Trustee of the Internet Society, and served as Secretary of the ISOC Board of Trustees from 1993 until 2001, with a term of service as chair of the Board of Trustees in 1999 and 2000. He is author of a number of books of the topics of the ISP industry, QoS and IP Performance.

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