

INTERNET NAMES AND NUMBERS IN WGIG AND WSIS: PERILS AND PITFALLS

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This chapter discusses Internet governance arrangements for domain names, Internet Protocol (IP) address numbers, and protocol parameters, i.e. the centrally-coordinated identifiers of the Internet. Background is provided to describe how these issues became central to the World Summit on the Information Society (WSIS), and the wasted opportunity for humankind that ensued. Some conditions of the Working Group on Internet Governance (WGIG) are recounted to show it was a micro laboratory of the collision between cyberspace and a traditional, possibly obsolete worldview. Finally the history of governance mechanisms for the Internet shows the way to continue building new ones after WSIS. The key is to address specific problems with suitable solutions, instead of creating a new mechanism for all.

The functioning of the domain-name system (DNS) has been described many times elsewhere. In particular, the contractual basis and governance arrangements for Top Level Domains (TLDs) and the root have also been extensively studied. Though in less detail and less frequently, the same applies to the global management of IP numerical addresses and other centrally-coordinated parameters of the Internet. Therefore this section skips these readily available facts and instead offers an update on the discussion of how they have been addressed in WSIS, a description of the constitution and evolution of ICANN--particularly in the light of the WSIS principles for Internet governance--and a qualitative historical view of the evolution of mechanisms for Internet governance that work. In the process some difficulties of semantic origin and their effects are discussed.

How Names and Numbers Became a Target

As has been already described by many, the debate, sometimes raging, about Internet governance has often focused only on the governance of the naming and numbering schemes that underlie the identification of most resources found on the Internet. It is this author's view that in the WSIS this excessive focus, first on Internet governance generally, and then almost exclusively on the names and numbers issues, has made the whole WSIS effort a waste of goodwill, effort, genuine work, and genuine hope to make the information society inclusive, and its development beneficial to all.

The “real action” of the Internet occurs in its higher layers. Most users, businesses, governments, academic institutions, software developers, and civil society organizations the world over have their attention turned to issues of access, content, services, and usage of the

Internet – be it for “positive” uses like education, earning a livelihood, health, banking, the buildup of communities, and the creation of collective knowledge, or the “negative” uses like fraud, crime, un-liked or undesired content, censorship, the promotion of hate, and so on. Big money is made or thought to be possible in e-commerce; huge damage comes from phishing and pharming. Large-scale societal shifts to global democracy depend on access, communication, and freedom of speech. Yet organizations formed by thousands and serving millions may have in their staff one person alone dedicated to naming and numbering operations. It should also be remembered that the other large part of the interest on the Internet applies to traffic and bandwidth, including complex issues like interconnection payments, which are essentially independent of the details of operation and governance of the DNS.

In the WSIS context, the interest in naming and numbering issues grew in the months leading to the meeting of the first phase of the Summit in Geneva in December 2003 for a few parallel reasons:

- a. Fundamental disagreements on issues like the inclusion of rights to freedom of speech, access to information, right to organize on line, etc. as well as on financing the expansion of access to the networks of the information society led to focusing on issues like Internet governance in which political discussions can appear more clearly delineated.
- b. Competition among organizations for the most relevant, and controlling, role in WSIS and its follow-up. Of particular importance is the role of the International Telecommunications Union (ITU), after its many missed opportunities in the last decades to play a leading role for the Internet.
- c. Lack of widespread, in-depth understanding of the Internet among traditional policy makers, which in terms of time alone has meant many months lost in explaining the system.
- d. Rejection of the more horizontal, bottom-up, international and transjurisdictional relations that the Internet community worldwide has created – even though it is this, precisely, that has made it so valued to the citizens and businesses that use it. The organizational models of the Internet, including on an equitable footing all relevant stakeholders, challenge the established operation of governments and intergovernmental organizations in ways that some of them are unable to assimilate.
- e. The fundamentally asymmetric role the United States government plays in the administration of the DNS – procedural approval of changes to the root zone file – which is little understood. While there is widespread agreement that this role of a single government is not acceptable in the long run, there is no consensus on what to substitute it with, nor how, at this time.
- f. The rhetorical trap of calling the organizational innovation of the Internet “the existing arrangements” which created the opportunity for the views opposed to the Internet’s innovation power, to appear as the forces of change, and even created the paradoxical situation in which some well-meaning civil society organizations pushed

for an enhanced role of governments in Internet governance, which will end up legitimizing the actions of governments inimical to the causes and actions of those same organizations.

- g. The mystifications occurring in WSIS and WGIG-related discourse around the use of “public policy”, this often being a codeword for “politics”.

How the Internet Organizations Were Built and Continue to Evolve

The Internet has some needs for coordination, which appeared at its very start, and as it has evolved so have the coordination and governance functions. The Internet is a network of interconnected networks; these can be small home or office networks connecting a few computers in a single limited physical space, or large-scale networks of computers belonging to a single organization extended over a whole country or even globally. They are part of the Internet if they have a physical connection to some point of the Internet and communicate with the other networks through procedures (“protocols”) which have been rigorously standardized. The standardization is absolutely necessary so that different manufacturers of equipment, or different programmers of software, can do things in different ways, yet make sure that their products will communicate seamlessly with one another over the whole network.

Therefore Internet standards are both absolutely necessary to facilitate the existence, operation, and interoperability of the networks, and are the basis for the rapid innovation that has taken place over the recent decades. The Internet standards are open, available free of cost in a simple format to anyone interested; they are based on the consensus of the people and organizations that create and use the technology, thereby fostering intense competition; and they are based on a layered model that permits to work in one layer while making abstraction of all others, respecting the fundamental end-to-end principle. Standards are not the technology itself; they are ways in which the technology must work in order to keep the Internet functional and open.

Thus, one of the very first needs for coordination on the Internet was the creation and management of technical standards. For this purpose, and given the fluid and rapid process of innovation at the heart of the technology, a unique process for standardization management was created, the Request for Comments (RFC) process. RFCs are documentations of the state of agreement about standards that, once published, allow all makers of equipment and software to use them as specifications. The standards are not enforced by law or governmental intervention; it is their functionality and their ability to deliver something that actually works that make a standard extended or not used at all.

The discussion of emerging technologies and their standardization require a form of governance. This was created through the inception of the Internet Architecture Board (IAB) and the Internet Engineering Task Force (IETF). The organizations of this system are quite

peculiar; for example, the IETF is not actually established as an incorporated legal entity anywhere, having instead chosen the Internet Society (ISOC) as its organizational umbrella. Their operations are optimized to suit the task at hand. Discussions and decision-making take place online as much as in meetings. Debate is intense, vigorous, sometimes heated, and final decisions are very much weighted in favor of an outcome that works, that can be tested and evaluated for function. This principle is known as “rough consensus and running code:” consensus to the point of general agreement of those involved, so that even those initially opposed accept the outcome, and “running code” as the concepts can be demonstrated by working systems and prototypes, desirably by more than one maker. The IETF’s constitution, governance, and character are therefore optimally shaped around the function fulfilled.

Further, the IETF has evolved over the years and continues to do so. From a small group of engineers to meetings of thousands, moving to different levels of formalization of its management according to times and needs, the IETF has undergone self-scrutiny and changes in consequence to continue to try to serve to the best extent possible.

ISOC, which is not in charge of governance but does play related roles, in turn was founded for a specific purpose and carried a limited scope and agenda. Basically the hopes around ISOC and its functions have been providing a corporate umbrella for the IETF (doing tasks such as managing intellectual property of the RFCs so they cannot be privatized or hijacked, for example); creating a society for professionals of the Internet, a goal which found a set of setbacks derived from the dot-com bubble burst; promoting the understanding, extension, and use of the Internet, especially in developing countries and including the necessary human capacity building, which is a continuing task with a good track record of achievement; and putting forward policy proposals that favor the growth of the Internet in a healthy, universal way, which has been performed well in cycles, and in cooperation with other organizations as well.

Maybe the most controversial part of this story is the Internet Corporation for Assigned Names and Numbers (ICANN). Initially, the Internet Assigned Names Authority (IANA) was operated single-handedly by one individual, Jon Postel, under grants (which required contracts) from the US Government in an academic institution, the University of Southern California. As the use of domain names became more widespread and was also made for commerce and speculation, Postel saw the need to formalize the administration and draw some lines that would exempt him and his organization from damaging lawsuits over issues like cybersquatting over which they did not have effective authority. The operation of the DNS and IANA would thus stop being the responsibility of a single individual. The Clinton Administration was also keen to transfer responsibility over this function away from the government, keeping a much reduced oversight function while staying exempt from lawsuits.

ICANN was created also in a form-follows-function kind of design, after severe rows among powerful parties acting internationally. The first proposal of the US Government for transfer of the DNS coordination functions away from government entailed privatization within the United States, in the Green Paper, and caused an international uproar. Intense discussions, globally, ensued, and gave rise as a result to the White Paper, which now designed a transfer to an internationally organized private-sector organization.

It must be remembered that the wording “private sector” has been a source of friction and misunderstanding in this process (and can be predicted to remain so for the foreseeable future). People in many countries and cultures, notably Latin America and continental Europe, understand the “private sector” to designate the for-profit part of the economy: business, including industry, commerce, consulting, banking, services, all provided by individuals or firms organized to seek profit, exchanging goods and services for money and operating the best they can under a principle of maximizing profits and/or value to stockholders. In the formulation made in the US, “private sector” is ambivalent, as it sometimes has this same meaning, with little consideration of other parties, and sometimes is meant as “everything that is not the government” and thus including hospitals, churches, charities, academic and research institutions, libraries, civil society organizations, labor unions, and so forth.

Varying usage of the term marks many debates and creates confusion in them. Mindsets that read “business” when they read “private sector” tend to devolve the solution of issues to markets, in the understanding that the freer these are, the better. Mindsets that read “everything not governmental” may consider action and solutions which are not strictly based on free markets; they also consider regulations beyond market regulations, mechanisms to compensate effects of markets in order to put disadvantaged communities, even whole countries, on a more-equal footing with participants in market mechanisms, as well as non-market-driven action such as are, in many societies, education, the promotion of health and of social well-being, research, support for the elderly, weak, marginalized, and otherwise disadvantaged, and the long-term views and purposes of societies.

Once the discussions about ICANN began to settle, around 1998, many social actors started taking part in the Internet's core identifiers coordination and administration, both in the US and other developed countries, and not only in the for-profit sectors of those economies, but also elsewhere. While in the US and in parts of Europe the companies most closely involved with the domain name market and IP address management came if not under the tent at least into the ring, in Latin America, Africa, and Southeast Asia the first significant set of players to come into the debates for the formation of ICANN came largely from academic institutions and civil society organizations. Among them were people who had been trained and educated on the Internet, both for operations and for its social impact, through ISOC's and related

efforts. Developing countries (their citizens and organizations long before their governments) and civil society organizations have had a decisive role in ICANN since its very start.

Besides the commercial interests represented in the domain name registries and registrars' constituencies, and the trademark and anti-counterfeiting interests and business constituencies, a non-commercial constituency started and made important contributions to shaping ICANN initially. The ready availability of talent from developing countries, in which out of necessity a group of people combining technical knowledge and social and political expertise exists since the start of the propagation of the Internet into these nations, helped populate the ICANN leadership with diverse forces. This balanced the potential (and in many cases actual) focus on the US other developed countries, and on business concerns, and facilitated the introduction of principles-based thinking and action to balance the strictly commercial self-regulation and therefore potential cartelization that could have ensued.

ICANN's structure and functioning were designed from the outset to solve outstanding problems in the management of the centrally-coordinated parameters of the Internet. These included domain names, IP addresses and other numbering such as Autonomous System Numbers (ASNs), and protocol parameters, this last function encompassing the upkeep of tables of information such as what port number is assigned to a given protocol in the IP stack, or the coding of characters from alphabets and scripts. The design of the organization encompasses the IANA function and is directed to eliminate as much as possible the opportunities for arbitrary or discretionary operations.

The elimination of arbitrariness in the above-mentioned operations required setting policies that can be followed algorithmically, and in turn making the process of developing these policies in a public, transparent, participatory manner. The experience of the IETF was decisive in shaping the policy development processes in a way that runs essentially bottom-up, with online participation from anywhere in the world as well as participation in physical meetings.

A note is needed here on the word "policy", which also has been the cause of significant aggravation and difficulties over the years. It is used in ICANN in the same sense as it is used inside any private or social organization, be this a company or an association: guidelines for making decisions. Policies guide companies as much as they guide civil society organizations in hiring, operating in an environmentally friendly way, complying with legislation and contracts, deciding what kinds of travel tickets members of the organization can purchase, and so on. This stretches from very specific small-range actions like buying pencils to the long-term strategies, policies guide organizations.

The same is true in ICANN. Policies guide the way in which parameters for protocols are assigned; policies guide the size of IP address block allocations and the conditions for making

them combining the principles of parsimony and of block compactness to facilitate routing; policies guide the process to study and act in cases of country-code top-level domain (ccTLD) redelegations; policies guide decisions on how long a domain name has to be kept available to the registrant in case he/she lapses in the payment of a renewal; and so on, up to policies that guide the decision of creating new top-level domains which is one of the main purposes for which ICANN was created.

“Policy”, then, becomes both more important and far less threatening than the outcry of 2003-2005 suggests. ICANN's rules, bylaws, unwritten rituals, and its very genome, recognize that there is a difference between this kind of policy and what most of the time and in most of the places is called “public policy”, and therefore also sets out where to deal with the not always sharp frontier between technical, administrative, and business matters that determine technical coordination, and public policy writ large.

For public policy input and feedback ICANN has the Government Advisory Committee (GAC). There can be little delusion and scarce confusion: technical decisions may affect social, business, public-policy, and even political areas of concern, and vice versa, many technical decisions are, or need be, shaped by the social environment. Issues that relate to public policy in the technical management and coordination of the Internet uniquely-valued parameters are dealt with through the GAC. The GAC can only be an advisory body in the multistakeholder environment of the Internet, with its complex transjurisdictional issues, the preeminence of private law, the authority through contracts, and so on. When, in the process that reformed ICANN to its present dynamic, an analysis was conducted with numerous specialists and governmental representatives, it became clear that governmental authority, even if shared, in ICANN was undesirable – to governments themselves. The difficulties of creating a representation structure, of sharing decision-making with internationally established private parties and both national and global civil society organizations, and the liabilities that would ensue for governments from the usual conduct of day-to-day activities were identified as an insurmountable obstacle.

Thus it is that in ICANN, form follows function: a large-scale participatory process exists for decision-making, which is globally available and comes close to groups in regions by working online and by holding meetings in all regions of the world on an alternating basis. The process is handled in three separate Supporting Organizations for gTLDs, ccTLDs, and IP addresses; advisory committees, such as the GAC, and others for security and stability, for the operation of root servers of the DNS, and for the interaction with the views and needs of the at-large, broad community of users of the DNS and of the Internet in general. Each of these has a different scope, membership, degree of autonomy, and level of development. The GAC attends to issues which relate to public policy. One of the key guarantees of its functioning is the responsibility each of its members has to his/her own national government and laws to

keep track of issues with such an impact and start acting on them lest the representative become guilty of negligence.

There exist a large number of issues with public policy implications that affect the Internet in major ways; a list of them was identified and prioritized by the WGIG. Essentially none of them, other than those related to technical standards and those in the scope of ICANN, have been handed over to the authority of a single, global governance organization or arrangement – there is no parallel to the IETF or ICANN that similarly deals with spam, cybercrime, access costs, creation of content and services, the challenges to “intellectual property” in the digital era, and so on.

The reason that this does not happen is that the function has yet not been determined well enough for these issues to deduce from them a form--a structure, and together with it the rules for membership, organized decision making procedures, policy development, implementation, follow-up, and enforcement, dispute resolution, and funding. It can be surmised that once a mechanism is found that can effectively deal with spam, for example, in a globally governed way, including all relevant stakeholders in a way that is effective, the funding will come for it, almost spontaneously, from the same sources that today are spending gigantic sums of money and effort to fight spam. If the organization is effective, the cost of building and operating it will be much lower than the present (and growing) cost of combining limited technical, administrative, educational, legal, and other means which have a limited impact on spam. A similar analysis applies to cybercrime and several other of the public-policy interest issues.

This set of considerations takes us back for a glance at governance mechanisms and arrangements that have been proposed or created for these issues. For spam, for example, there is the “OECD toolkit”, a combination of proposals for legal, technical, operational, etc. action against spam, slow to uptake and implement in each country, and dependent on enacting legislation of appropriate scope and quality and further, on its enforcement, under authorities which will be first and foremost national, not global. As yet, no global governance arrangement has been proposed that can be on a higher level of effectiveness for dealing with this problem.

Knowledgeable experts have made similar findings in other issues like cybercrime, where the global governance proposals that could have some effect in fighting these scourges have to begin with the recognition that very little crime on the Internet is strictly cybercrime (more of it is common crime committed through different communication means including the Internet). Hence, what can help fighting crime that uses the Internet is more raining lawyers, judges, and law enforcement officials in tasks that can be as basic as properly seizing physical evidence of crimes, establishing specialized prosecutors endowed with appropriate tools and staff, and so on, again mostly under national jurisdictions.

Maybe this is why institutions that perform effective global governance against spam or cybercrime do not exist at present. The purpose of studying why such institutions do not exist, though, should be clear: the global governance arrangements for the Internet that have succeeded have first and foremost been directed to solving specific problems, and they have succeeded when they have advanced the solution of the problem each is charged with, involving all relevant stakeholders in a properly organized fashion.

This brief historic glance would not be complete without mentioning that the institutions that have lived for a longer time and continued to be effective have been resilient and have been able to change, repeatedly, according to changes in the challenges they face, and according to self-assessment mechanisms that guide the change. The IETF, ISOC, or ICANN and their component organizations, have proven to be self-correcting, self-healing organizations, and shown adaptive behaviour enough times in their existence, based on the results of their action and the needs of the communities, that one can trust them to perform more cycles of evolution in the future. The most explicit example is the ICANN Evolution and Reform Process, which corrected some worrisome trends ICANN was developing, among which were being consumed in discussions about process and procedures and therefore bogged down, and a lack of fit of structure to function as well as a mismatch that was more physiological than anatomical, that is to say, not only in the structure but in the way the structure behaved.

ICANN, while never without troubles, has been a successful organization. ICANN itself and the stakeholders who work in collaboration with it have made a huge impact in few years. Under its stewardship competition in the domain-name market has become intense, with dramatic effects in pricing and availability of new services; some of the worst behaviour of players in the field has been reined in; there are ongoing discussion on hot issues such as the relationship between the technical “whois” operation, used to identify persons associated with domain names, and privacy considerations (in which public policy is very much taken into account); a largely successful dispute resolution procedure has been set up for dealing with conflict between domain names and trademarks; new top-level domain names have been introduced and new introductions continue to be analyzed; root servers are being placed in over a hundred sites through “anycast” technology, thus limiting the risks that could accrue from keeping only the thirteen root servers that the basic technology allows; progress is made in the introduction of non-ASCII, i.e. “internationalized” domain names, despite huge technical and organizational challenges; and so on. Such achievements are remarkable for a mechanism that is global, and whose enforcement powers are only based on contracts and other private-law arrangements.

This is not to say that the Internet organizations have no need for change. A more active interaction with governments is evolving in order to balance and eventually redress the asymmetries present today; an increase in participation and global interaction is, though

growing fast, still a focus of attention; defining and executing “internationalization” is an ongoing challenge; and ensuring legitimacy through effectiveness, results, participation, transparency and accountability are all moving targets subject to relentless pursuit.

The WSIS/WGIG Process

Internet governance is a subset of information society governance. It is related to ICT governance, media governance, and several other fields in which societies are giving themselves forms of governance, some of which are innovative. Digital convergence, a trend that has been both factual and subjected to loud hype, creates challenges to media governance since the forms in which telephony, radio, recorded music, film, video, books, magazines, and libraries are governed vary enormously, and veritable collisions occur when they begin to come together.

Also, in the fields mentioned above and more notably for the Internet, the emergence of private governance is seen by many as a novelty. The truth of the matter, especially for the Internet, is that while private parties (not all of them for-profit, and many in fact public-service entities like universities and research laboratories) were building the Internet and creating the needed governance arrangements, in many countries governments, large telecommunications-related corporations, and their alliances (in some cases unholy) were either looking in other directions, ignoring the growth of the Internet and its potential, dismissing it as a toy, or often actively fighting against it through regulation, law-making, and less loyal means like dumping and other forms of anti-competitive behaviour.

Therefore, when the issues of information society governance came up during the Summit, large numbers of governmental representatives were surprised, and could only respond in ways determined by traditional mindsets which are dysfunctional for the task at hand. The 21st century will not see the demise of the nation-state and the institutions inherited from the Westphalia regime, but certainly forms of global co-governance will have to appear if the world is to react constructively to the consequences of a globalization that is essentially irreversible, and in which civil society, individual citizens, and many other organizations which are not part of the traditional state apparatus have taken a place on the international stage that will not be relinquished.

The Internet's Organizations and the WGIG/WSIS Process

Probably the most long-lasting result of WSIS, in the field of Internet governance, will be the principle that effective Internet governance must include the full, effective participation of all stakeholders. The form and extent of this participation will inform the debates of the meeting of the second phase of the Summit in Tunis and, especially if not well solved there, continue to

cause bitter fights for several years into the future. As commonly quoted, the United Nations Secretary-General Kofi Annan has acknowledged civil society as a superpower, and its participation as something that will continue into the future.

“Stakeholder” is one more of the key semantic friction points in the global debate today. It is in the “handle with care” category, and under serious danger of becoming meaningless. A further problem is that it is not easily translated in its full richness to languages other than English due to the plasticity of this language. It represents a person or organization that has something at stake, be it life itself, business, a way of living, honor and reputation, or some other significant interest or principle. The stakeholders of Internet governance are thus varied: the creators and developers of technologies and their standardization, Internet service providers (ISPs), universities, schools, whole national educational systems, all companies active in e-commerce, banks and other financial institutions, businesses, hospitals, individuals who use the Internet, and if the list is extended to everybody that has something to lose, unborn non-users who may see their children benefit from the Internet.

The list above, which seems to encompass all of present and future humankind, becomes a lot tighter when the stakeholders of the governance of domain names, IP addresses and protocol parameters are listed: domain name registries and registrars, businesses with active use of domain names, academic institutions, trademark interests, civil society organizations, address registries, ISPs, a subset of the at-large users of the Internet, and few more. These are the parties that come together in ICANN. They come together in a different way than the very visible and successful multistakeholder partnership of the WGIG: they have to make decisions whose consequences may actually threaten the very existence of companies, the reputation of individuals, and the stability and security of the DNS. There are not only ideas at stake, as there were in WGIG, but money, power, and security of individuals and organizations.

Another substantial difference is that the mandate of WGIG was to create input to a decision-making mechanism. ICANN is a decision-making mechanism and therefore the rules of engagement are much more complex: they entail segmenting, organizing, formal policy development rules, rules for votes, rules for reconsideration and redress of decisions, dispute resolution, an Ombudsman; rules to bring together providers and consumers of certain “goods” and services without infringing competition rules; and so on.

In the work of the WGIG, a large fraction of the time and energy were applied to detailed scrutiny of ICANN. ICANN, notwithstanding problems already enunciated above, emerged in our analysis as the organization that best fits the WSIS criteria: it is democratic, involves all stakeholders, creates unequalled opportunities for their meaningful participation, coordinates with other institutions which are active in the fields recognized by the WSIS Declaration of Principles and those which make a claim for relevance, and situates public-policy authority in

the governments. A further feature of ICANN, surprisingly not considered in the Principles, is that it is effective – it can in fact do what it is meant and charged to do.

Organizations with a Claim to Relevance

No organization which makes a claim to relevance in Internet governance was subjected to anything like the detailed scrutiny applied to ICANN in the WGIG's work. The WGIG report is eloquent in this respect too: for example, it succinctly dismisses the International Telecommunications Union [ITU] as not fulfilling the WSIS principles, conceding only one and then in a most restrained form: “democratic, in the sense of one-country one-vote,” and in general goes into far less detailed descriptive and prescriptive wording about all other issues.

Given the above, it is remarkable that in the process leading to PrepCom-3 of the second phase of WSIS and further into the future there is not yet an outcry for reform of the ITU and other, similar and related, organizations in which the full, meaningful participation of all stakeholders is not considered, be it in the existing rules and membership, or in the foreseen evolution of the institutions. That there is not this outcry may be given several explanations, among them:

- a. It is a matter of time; as the dust settles, individuals, CSOs, businesses and their associations, and governments will turn their attention to these organizations, scrutinize them, and, if the WSIS Principles are to be sustained in a consistent manner, will start a radical, long-term reform process¹.
- b. It is a decision of the members to continue non-compliance.
- c. The organization is not really, and should not be at all, involved in Internet governance².

¹ As documented among others by Drake and by MacLean, the ITU has already undergone a couple of reforms in its past, adjusting to changes in the global regime of telecommunications governance. The last one was meant to adapt the Union to the change that went from monopoly, large telecommunications companies, either state-owned or with close ties to the state, to a more liberal and competitive regime, a transition that is still underway if at all occurring in many countries. See, William J. Drake, “The Rise and Decline of the International Telecommunications Regime,” in, Christopher T. Marsden, ed., *Regulating the Global Information Society* (London: Routledge, 2000) pp. 124-177. <<http://www.ceip.org/files/projects/irwp/pdf/draketelecom.pdf>>; and, Don MacLean, “Sovereign Right and the Dynamics of Power in the ITU: Lessons in the Quest for Inclusive Global Governance,” in, William J. Drake and Ernest M. Wilson III, eds., *Governing Global Electronic Networks: International Perspectives on Policy and Power* (Cambridge, MA: MIT Press, forthcoming, 2006).

² The WGIG is witness to considerations of this kind at least as related to the ITU; not only was it expressed that the Union should not go into this field: it was starkly said it does not *do* these things – by a representative of a member state!

Others have already dealt, both in the WGIG and in public commentary, on aspects of Internet governance which are subject to the work of existing organizations like the World Intellectual Property Organization (WIPO), so in honor of space and their expertise I will not delve deeper into the subject.

A different kind of track is possible in some specific issues. Thus, for example, on the matter of multilingualism, by far the largest need is the provision of online content and to facilitate its searching, finding, and usage through search engines, keywords, digital libraries, and so on. A small, specific subset of the problem is that of Internationalized Domain Names (IDNs), meaning, as mentioned above, domain names that can include characters that are not part of the ASCII character set, i.e. Latin characters with diacritics such as are used in many European languages and, more importantly, characters used in other alphabets, like Cyrillic or Greek, Arabic, Hebrew, Kanji, Katakana, Hiragana, and others vital to represent in native form the languages and scripts used by maybe more than half of humankind. This is not a trivial undertaking, both for its significance and for its complexity.

The establishment of technical standards to represent most of the above mentioned character sets (one must distinguish between languages, alphabets, scripts, and character sets, in order to pay attention to facts like the Arabic alphabet is used in languages as distant as Malay) has been largely performed, by the (private) UNICODE consortium; many important languages and alphabets, like Khmer, are still in progress. Further, there exist technical standards that give significant guarantee for translating these codes into domain names in IETF drafts and ICANN recommendations. Significant gaps remain to be filled: for example, establishing definitive tables of characters and codes for each language, preferably by an authoritative, expert, language- or culture-specific body. It is here that the Internet governance angle of organizations like the United Nations Educational, Cultural and Scientific Organization (UNESCO) can come through without, or while waiting for, deep reform of the organization for WSIS-principles compliance. UNESCO can identify and possibly bring together groupings of all significant stakeholders, like Language Academies and other scholarly bodies, to enable them to finish these urgent tasks.

On the “Forum Function,” or, “Is there Discussion on the Internet?”

One does not have to be an Internet old-timer (this author's first contacts and uses of what would become The Internet started in 1979) to find it quite amusing that a “Forum Function” is postulated as a pressing need to discuss the future governance of the Internet. The history of the Internet is rife with discussions, discussion forums, discussion listservs, discussion mailing lists, discussion wikis, discussion audio teleconferences, discussion videoconferences, discussion journals, discussion sections in e-publications, discussion books, discussion meetings, meetings that started with discussions, meetings that were convened to follow-up on

discussions, and of course, discussions on procedures for discussions, discussions on set-ups for discussions, discussions on rules for discussions, discussions on the follow-up for discussions, discussions on the consequences of discussions, discussions on the consequences of the lack of discussions, and a lot more – not to speak about “flame wars” and so many other forms of discussion.

Early on, each discussion group on the Internet found its own needs and forms of governance. One of the most outstanding discussion forums of the Internet, the Computational Chemistry List which has been run continuously since 1991 by Prof. Jan Labanowski (initially out of the Ohio Supercomputing Center) is a prime example; from the start we had to find ways of establishing civil discourse, dealing with commercial announcements – and therefore later with spam – and other non-academic participations, establishing rules for confidentiality and for the management of intellectual-property concerns, and for adapting to technological change. As things became more complex, thousands of groups like this developed into global communities of interest, true embodiments of the Castellsian “space of flows”. Little if any assistance was found in preexisting legal, accounting, and other rules, while in exchange truly amazing gems of progress were made by linking scientists as well as ordinary citizens and breaking the gaps, walls, and chains that kept them in isolation.

Most matters of interest for the conduct of the business of the Internet writ large – new technology, new applications, new ways of delivering them with the highest impact to the most isolated communities, and the governance of the whole set-up – came to be discussed at the INET meetings organized by ISOC. Though badly hurt in recent years, as much of the meetings industry, by the collapse of the dot-com bubble, the INET meetings have been a veritable cauldron. Initiatives like the Internet Societal Task Force, several crucial meetings in the discussions of the Green and White Papers as well as initial meetings of ICANN and its Supporting Organizations, were held in contact with the INET's because of the level of interest they elicited and the diversity of groupings of stakeholders they brought together internationally.

In more recent years, the number of meetings to address Internet issues, and in particular those in the WGIG list of issues with public policy implications, has multiplied. There is anything but a lack of opportunities to discuss these issues, and, though many would wish for less meetings and a higher concentration of decision-makers in them, one of the reasons for the continued increase in meetings is the evolution of the issues and stakeholders themselves. Many valuable meetings are held on specific issues like spam or cybercrime (not to speak of computer and network security); many are held in order to bring together specific subsets of the stakeholders, like law-enforcement officials, civil society organizations, etc., or communities defined by affinities of geography, language, culture, etc.

One significant aspect of the most fruitful of the discussions and meetings referred to here is that there are many combinations between face to face meetings and purely online discussions that are effective. To date, the most effective way to assure no stakeholders are left out of discussions because of lack of economic means to attend meetings is online discussion. This has limitations of its own (people who depend on weak links to the Internet, for example, are challenged in their participation; discussions held in foreign languages may be hard to follow for non-native speakers – and the language of the discussions may be today's lingua franca, English, as frequently referred, or a number of other languages with widespread use, such as Arabic or Chinese) but still is the bottom-line guarantee for open participation.

Reading from this extensive experience, a few points emerge related to the “Forum Function” being debated in WSIS. Discussions attract participants who are true stakeholders – who have something at stake in the discussion. Companies which have money to win or lose, citizens who may be deprived of their way of living, honor, or opportunities for progress, or their rights, government officials whose personal or political agendas may be under threat, or for whom the matter discussed is vital for the fulfillment of their functions and projects; this are the at-heart participants of discussions, online or face to face. It is true that some participants are not true stakeholders; this category includes people who try to build a career on top of the discussion or its subject, people or organizations which do not have complete enough information about the subject or expectations which maybe cannot be fulfilled, people inexplicably bent in making things difficult, etc. Up to now in most cases the Internet community has been uncannily able to weed out troubles of this kind and continue to work productively in discussion forums.

The “forum function” may more realistically be exerted by an architecture of forums, formed by true stakeholders of the issue at hand, with adequate expertise. Successful forums will even find their funding, in ways similar to one stated previously in this paper, if they truly are able to advance towards a solution for specific problems. In such cases, participation in the forums will be a lesser expense than that which is being incurred by the participants in the efforts already ongoing to solve the problems. This will only happen in a sustainable way if the forums engage all relevant stakeholders with sufficient decision power to affect the outcome, with rules of engagement that both commit the participants to the outcome and leave them a perceived, adequate level of freedom to continue their work, and can be effective for their avowed purpose.

One interesting thought that has been expressed in the discussions about the “forum” imagined to exist following a WSIS mandate is that “it will not be politicized”; this is said even more emphatically when the forum is imagined to exist in one of the United Nations related structures depending on the Secretary General, like the United Nations’ Economic and Social Council. One can’t but note that even convening the forum will actually be a strongly

politicized event and will require a structure that does have to be decision-making and will in turn be politicized. The reader is invited to make a forecast of how a program committee for the forum would be formed; let's make the *Gedankenexperiment* of organizing a WSIS-derived forum on spam, or a session on spam in a more general forum.

Organizing this forum would necessitate the formation of a program committee. In it, the conveners themselves would request a seat (or more, commensurate with the size of the committee), claiming not their right but their responsibility to make sure the forum's success is guaranteed. They would call for a few experts on spam and a few organizations with relevant experience and/or interests to designate members of the committee. As of this writing, it is imaginable that the OECD, which has produced valuable work on fighting spam, such as the "toolkit" mentioned in the relevant section above, would propose to have a seat. As a reaction, developing countries, which feel (and are!) not members of the OECD will make a claim for a seat or more. "Aha!, this is getting very anti-spam!", and now you have the U.S. Direct Marketing Association claiming for a seat, trying to make sure that the Forum is not predestined to make an antispam statement that is so strong as to impinge on the business of the Association, its members, and their clients. More are coming: the ITU has already held forums on spam and thinks it is entitled to some space in the antispam sphere; the International Chamber of Commerce, with a claim to representing businesses worldwide and officially endowed with a dispute-resolution function, will also consider itself entitled. Whew! And we still don't have the ISP's, network and server operators, the operators and vendors of antispam equipment, software and services. And wait!, nor do we see the users, nor is the presence of real experts yet guaranteed....Similar analyses for the discussion of intellectual property rights online, freedom of speech and organization online, cybercrime, etc. are left as an exercise for the reader.

Now of course some readers may find the above exaggerated, others actually desirable – but the point that is unavoidable is that there is no way that the WSIS-engendered Forum will not be politicized. If the participants of the last stage of WSIS decide to engage in the creation of this forum as a self-standing organization, even if temporary, the politics must be accounted for starting in stage zero of the design, *i.e.* they must be an essential part of the assumptions.

For many in the Internet community the logical consequence is quite different. The stakeholders after WSIS must come together into organizing multiple specialized forums, with care, resources and timing adequate to bring together the real stakeholders, the experts, and the thinking that will be able to find a way forward – for each issue.

A subset of governmental stakeholders has said repeatedly that its members feel excluded from international discussions about Internet governance. One has to acknowledge a concern in this respect. Insufficiencies in funding, expertise, and personnel are making it difficult for

governments, especially in developing countries, to attend the numerous fora, face to face and online, mentioned above. This aspect of the discussion about the WSIS-originated Forum will need deeper study than is allowed in the final stage of WSIS. In part, the insufficiencies mentioned do not necessarily apply to whole national governments, and pertain more to single ministries or offices. Countries that have achieved a broader, more balanced presence have largely done so by involving more parts of the governments, and leading them onto the specific problem areas under their purview.

Thus, for example, spam is more and more treated as a problem for e-commerce, consumer protection, and – in countries where laws exist and are applied for this specific matter – privacy and the protection of personal data, and not in telecommunications ministries. Cybercrime or cybersecurity are again not any more substantial telecommunications matters; they are treated in governmental offices which deal with law enforcement, governmental information systems, consumer protection agencies, and so forth. Further: for any government, participation in international forums is only a small step to enable them to actually go solve something. For the largest part of the Internet governance public-policy issues, problems are defined and solved in-country, with national laws, law enforcement, and other governance arrangements. The attendance of a foreign office representative to a forum on spam will not preclude the need to identify law-breaking originators of spam in-country, prosecuting them, and coordinating with other countries' authorities; this in turn will require in-country training, definition of best practices, and many other actions.

Finally, one severely lamentable form of governmental activity on the Internet, the possible curtailment of basic human rights, is more liable to negatively affect citizens and organizations by virtue of the establishment of the all-encompassing Forum. Examples abound of international discourse, speak not of formal agreements, being used as precedent, legitimizer, and origin of authority for in-country actions. The unnecessary complexity created in some countries, regarding the management of their ccTLD, which emerged from the ITU's "Resolution 102 of the Marrakesh Plenipotentiary" is exemplary. Careful consideration of consequences and careful and prudent action are needed in order to preserve the viability of the innovation atmosphere created by the Internet.

A Clash of World Views

The paragraphs above may tell the reader something about the underpinnings of the work of the WGIG, its successes and its difficulties, as well as the challenges facing further progress in the months and years to come. The WGIG was, in an atmosphere propitious to frank dialogue, a microlaboratory of the collision between cyberspace and what utopians call "meatspace", between the optimism and realities of the Internet and the strongly-held views of tradition in telecommunications and in international relations. With extreme respect to persons, ideas, and

views, the WGIG was surely a lively learning experience to all involved. Each of its members understands much better what are the motives and the principles that guide the others in this field, and can surely point sourly at the divergences.

The collision between the Internet-optimist views of horizontal, global, transjurisdictional, technically sound cooperation (what Vinton Cerf has called “a grand collaboration”) and the traditional, telecommunications-centered, top-down governed, treaty-based relations between states will not end soon. It is a collision between the 21st century and the 19th. May it evolve in favour of a more open, educated, free, people-centered, equal global society.

Some of the underlying differences of opinion among WGIG members may be irreconcilable. The dynamics of the group shows that we can live together if we widen the lens, look forward into the future, share the assumption that we are all striving for the common good (on what it is, there are profound differences), believe the arrangements, organizations, and institutions that are created (if any) will only work if they have the inbuilt capacity to evolve dynamically, and continue to create trust among the players. May this be true for the future!

Conclusion

The evolution of Internet governance mechanisms that actually work has been based on solving specific problems with tools that can actually have that effect. There is no evidence in favour of all-encompassing arrangements or new organization to handle all the Internet governance issues. Transfer of these functions to intergovernmental organizations is not warranted, particularly in light of the WGIG's assessment that they do not comply with the WSIS principles. The argument of “no new organization” that is made in the post-WGIG discussions also does not mean that an intergovernmental organization is suited to take over Internet governance arrangements now or in the foreseeable future. The continuing evolution of the Internet and its governance mechanisms may at most support a bare-bones forum function which does not need a home in an intergovernmental organization either. The WGIG has been a microlaboratory of the collision between the worldview of the Internet-enabled societies and the past.