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ABSTRACT

The United Nations opened the first-ever World Summit on the Information Society (WSIS) at the International Telecommunication Union (ITU) in Geneva, Switzerland, in December 2003. Per the mandate given to hold WSIS by the ITU in 1998, the event was supposed to focus on using Information and Communication Technologies (ICT) for development (ICT4D, or "E-Development"). However in this broad field there were many other players besides the ITU and its UN partners, and it proved difficult to induce those existing authorities to cede power to the new venue. The event is scheduled to continue in Tunis in 2005.

Negotiations are the usual form that actors choose for progress on goal to be achieved multilaterally. However WSIS is not a venue for negotiations, but rather a showcase and networking space. This paper strives to apply regime theory and institutional economics to the conflicts that arise when existing regimes are challenged by the ITU and its WSIS partners (including UNESCO and the UN ICT Task Force). The paper presents the interests of four of the other main institutions involved, which more closely reflect those of the United States: the Internet Corporation for Assigned Names and Numbers (ICANN), the World Intellectual Property Organization (WIPO), the World Trade Organization (WTO) and the Group of Eight major industrialized nations (G-8).

WSIS Geneva produced a mandate to UN SG Kofi Annan to set up groups to continue working on the issues of Internet governance and financing, and to report its results to WSIS Tunis. Answers to issues other than Internet governance and financing will have to be sought elsewhere. Nonetheless the emphasis on Internet governance emerging from WSIS Geneva is a confirmation of this paper's contention that regimes are important.

Keywords: Information Society, regimes, power, ITU, WTO ICANN

BACKGROUND ON WSIS AT THE ITU

The United Nations will open the first-ever World Summit on the Information Society (WSIS) at the International Telecommunication Union (ITU) in Geneva, Switzerland, in December 2003. The ITU traditionally sets standards, and that function requires that conferences be held.

The International Telecommunication Union ITU was established in 1932 at the initiative of European governments' Ministries of Posts, Telegraphs and Telephones (PTTs) to distribute rights to their common, international frequency "spectrum". In 1947 it joined the UN system, and now handles radio and satellite spectrum as well in systems such as INMARSAT and INTELSAT. ITU resolutions passed at the plenipotentiary session in Minneapolis MN in November 1998 contained the following instructions to the ITU Secretary-General:

• to take an active part in the international discussions and initiatives on the management of Internet domain names and addresses, and

• to report annually to ITU Council on activities. Furthermore the resolutions instructed the ITU Council "to take appropriate measures in order to contribute actively to the above-mentioned international discussions and initiatives".¹

ITU Secretary-General Utsumi regarded WSIS as essential for the future of the ITU.² The ITU has an administrative section on development, which took up the job of focussing WSIS on using Information and Communication Technologies (ICT) for development (ICT4D, or "E-Development").

REGIME VENUES COMPETING WITH THE ITU

Two of the main competitors to the ITU are the WTO and the U.S.-based ICANN. How will the power of the Europebased ITU with its WSIS compare with that of ICANN with its incorporation status in California and its control of the root servers to the Internet? Regime theory originated with [Krasner] and [Ruggie], and is explained in [Young].

Regime	Institution	Organizationa l form	Functions
Interconnection	ITU	UN	Sets telecom. standards, man- ages spectrum, hosts WSIS with UNESCO
Domain names	ICANN	Private-sector, non-profit company	Appropriates scarce name space, dispute settlement in DNS matters
Intellectual property	WIPO	UN	Represents copy- right and patent holders
International trade policy	WTO	Non-UN	Negotiates reductions in barriers to trade in goods/services (telec. services), dispute settlement in trade matters
Technical assistance	UNCTAD	UN	Provides assis- tance (capacity building) in e- commerce for development

 Table 1: Regimes affecting WSIS outcomes and prominent institutions involved in them

¹ [Shaw]

² [Hedblom]

RECENT CRISIS IN THE REGIMES GOVERNING TELECOMMUNICATIONS

The WTO is a venue for negotiations, where authority has recently been accumulating in two related regimes: Trade-Related IPRs (TRIPs) from WIPO and telecommunication services from the ITU. In the late Nineties the traditional national Post Telephone and Telegraph companies (PTTs) were subjected to rapid market liberalization. A new regime called General Agreement on Trade in Services (GATS) emerged from the Uruguay Round of trade negotiations at the WTO. Scholar William Drake called "...the establishment of the GATS regime arguably ... the biggest change in the governance of global telecommunications since the Treaty of Dresden" of 1850.³

Soon thereafter in 1997 the so-called Benchmark Order was issued by the US Federal Commerce Commission (FCC) specifying that in future carriers would only pay one third of the previous price to other countries. The ITU appeared unable to cope with this change, thus yielding to the stronger WTO (Drake, William in [Hufbauer/Wada]).

GATS 1994 contained an Annex on Telecommunications A decision was made to negotiate in the Group on Basic Telecoms (GBT), where a deal was signed in 1997 providing for:

- market access
- interconnection under nondiscriminatory terms no less
 favorable than domestic, unbundling
- an independent, national dispute settlement body
- regulators independent from service providers
- universal service.

Switzerland is taking up the cause of universal service, in its contribution to WSIS, and is promoting the related concept of universal *access* and corresponding funding mechanisms.

Drake calls the need for precise coverage of Internet service a "looming battle on the horizon". This refers to the need fulfilled by ICANN, whereas the question of relative power refers to the WTO. So let us turn to these two organizations, which depend on business interests and consumer demand for their clout. We will then see that the WSIS event at the ITU appears more like a venue for philanthropic goodwill when compared with the size of forces operating at the business organizations. Fig. 1 shows data from Guy Karsenty, WTO. Unlike Karsenty, Drake sets the cross-border telecommunications market at \$ 100 billion p.a.⁴

World trade in goods / services
 Services
 Comm's + Computer / Info. services



Fig.1: Volume of world trade in communication and computer /information services in billions p.a. (in 2000 per Karsenty, WTO) As we see from Fig. 1 the volume of world trade in telecommunications services is still relatively small -but it is growing rapidly. How does this commercial power relate to the telecommunications networks at the basis of the ITU's work and the World Summit on that broad field called the Information Society? In Table 2 we see that it relates in two ways:

- telecommunication services facilitate communication (the more obvious way, on the two bottom levels), and
- in the top-level information/ content layer where telecommunication services less directly facilitate e-commerce (box at right).

 Table 2: Layer model of telecommunications network

 and regulatory aspects related to each layer (per Rood)



ICANN likewise benefits from this source of commercial power because of its decision making authority over the "dot-com" name space. WSIS is less concerned with online ordering, and more with local content generation in developing countries and other content issues such as consumer protection laws. In the Information Society telecommunication regulation must take its place in a scheme of governance. Governance is not necessarily a reference to government.⁵

The commercial power of worldwide e-commerce is difficult to predict, but many have tried. Their estimates vary widely, but a volume of \$2-3 trillion p.a. (in 2003) could be taken as a relatively reliable mean, as it is derived from three different sources⁶. In descending order, the next comparison would be with the value of European UMTS licenses, which are said to be worth \notin 100 billion.⁷ Below that, we see the domain of the GATS with \$60 billion p.a. in Fig. 2 on the next page.

³ Drake, page 32

104 billion Euro so far on licenses to offer next-generation mobile services based on UMTS" reports Lars Godell, analyst at Forrester Research [Godell].

⁴ OFCOM: Partnership for strengthening a sustainable public telecom service, Draft / V0.29 / 5 June 2003
⁵Drake, page 31
⁶ Young, page 3 ff.
⁷ UNCTAD, page 8
⁸ "European mobile operators have collectively spent a staggering



Fig. 2: ICT for development funding in relation to world business volumes (Japan Fund ⁹)

Seen in the perspective of Fig. 2, the generosity of the Japanese at the G-8 Summit in Okinawa in 2000 appears much larger than that of other donors in efforts against the global digital divide.¹⁰ The Japanese \$1000 million each year is some 100 times larger than the World Bank's InfoDev Fund, and is more readily comparable in size to the world's effort to combat HIV/AIDS. Other comparisons are available in the documents of the [Centre for Global Studies].

⁹ Per [Japanese] Ministry of Foreign Affairs: DOT Force Meeting in Calgary, May 02, http://www.mofa.go.jp/policy/economy/it/df02 05.html

¹⁰ Ruddy, 2001A, and B, page 943

UNCTAD'S ROLE

The UN Conference on Trade and Development (UNCTAD) appears to have recognized the importance of using e-commerce strategies for development. It produces an annual E-Commerce and Development Report. It seems desirable to UNCTAD that ICT is to be "mainstreamed" into official development aid programs. They report that this "is a major objective of the intergovernmental policy dialogue that is currently taking place in UNCTAD in the field of e-commerce both in Geneva and through a series of high-level regional workshops in the field" [UNCTAD].

As for the reasons that UNCTAD is doing this, it continues to explain that "After all, if e-commerce matters for development, it is not because it is a fancier or more convenient way to go shopping: e-commerce matters because it allows enterprises to generate efficiency gains at all the stages of their production and distribution processes" [UNCTAD].

UNCTAD is counting on wireless access as "likely to be the principal means of bringing more people in developing countries to the Internet". A history of the activities of other UN players such as UNESCO is provided in [O'Siochru 2004].

THE ITU'S AMERICAN COMPETITORS

The ITU, the WTO and WIPO and UNCTAD are all located in Geneva, Switzerland. Two organizations far away from there in the United States are vying for the power that ITU apparently seeking to obtain through WSIS: one of them is ICANN and the other the U.S. government with its digital trade agenda. Each involves intellectual property rights (IPRs), and -- given ICANN's historical relationship with the US Department of Commerce -- each is close to the US government.

Let us continue our survey with a look at each of them, and see then what conclusions can be drawn from their developing power relationships. One stands to profit from the value of the root, and the other is driven by the aggressiveness of trade motives.

The structure of ICANN is described in [O'Siochru /Girard / Mahon]. These authors relate how the United States is the only country in the world where the Internet first developed nationally. Only later did the Internet spread internationally, then impacting other countries nationally.¹¹ One of the implications of this difference is that the root remains in American hands. Other differences in the impact of the Internet on Europe and the United States are dealt with in [Ruddy, 2001B].

¹¹ O'Siochru et al., page 99

The struggle for power over the common-pool resource domain name space in ICANN has been documented in detail by [Mueller] applying concepts from institutional economics such as transaction costs. Network externalities and economies of scope are explained in terms of the Internet economy by [Shapiro / Varian].

ICANN was to bring about a shift in mentality from one typified by "Bellheads", as those in telecommunication companies and the ITU could be called, to the newer generation of "netheads".¹²

Citing Oran [Young] on regimes, Mueller takes a more political view of the break from the past. He sees a shift from a tradition of territorially based regimes in nation-states to a new global regulatory regime institutionalized in ICANN. "The most wrenching conflict" in this shift was in Mueller's opinion "between trademark owners on the one hand and domain name registration business and domain name registration business and domain name registration the other".¹³

Mueller calls the phase "appropriation" by which one side takes a stand to which the other must react in order to bring about the institutionalization phase. In this case it was the Internet Society and Network Solutions that provoked an "outright power struggle" with the Internet Ad Hoc Committee (IAHC), which became "the turning point in the evolution of Internet governance".¹⁴ The Memorandum of Understanding produced at that juncture was unsatisfactory to the U.S. government, Mueller claims, because of the prominent role it gave the ITU. In fact, Mueller has a lot to report on changes inflicted on the ITU by ICANN developments. Finally in 1998 the U.S. government with Ira Magaziner and big business in the GIP consortium produced the White Paper by means of which "ITU in particular lost status and influence".15

Another aspect of ICANN institutionalization was the establishment of a WIPO dispute resolution mechanism (DSM) to be implemented by ICANN, the Uniform Domain Name Dispute Resolution Policy (UDRP). A DSM is a powerful instrument because it strengthens agreements against abuses such as non-compliance or free-riding. Dispute resolution mechanisms induce parties to seek out their venues for respite to problems, especially if there is the "club effect" of sole jurisdiction, as there is the WTO with its DSM.

Thus the ITU suffered a reduction in its stature in the late Nineties due to both the U.S. government's reasserted control of the root directory and ICANN's emergence equipped with a DSM.

¹⁵ Mueller, page 172.

THE U.S. DIGITAL TRADE AGENDA

The U.S. government not only retained control of the root directory in the Nineties. It was also defining its digital trade agenda, which puts developing countries on the defensive.

Many developing economies rely on commodities and low-tech exports. The industrialized countries have a competitive advantage in services, and now are promoting an aggressive stance in exporting those services with a protectionistic IPR regime, as Stanford law professor Lawrence Lessig called it at the second WSIS preparatory meeting. This protectionistic barrier is greater than what the industrialized countries had to face themselves when they were developing. The Bush Administration is pursuing a contradictory combination of policies that demands free trade for e-commerce, but protectionism for IPRs, as is outlined in greater detail by Wunsch-Vincent.¹⁶

The magnitude of the disadvantages imposed on the developing world in international trade policy has the capacity to reverse any philanthropic benefits agreed at WSIS.

The Clinton Administration was able to get a duty-free moratorium for electronic transactions accepted by its trading partners. Clinton, though, lacked the authority from Congress originally known as "fast-track" to pursue trade deals that Congress can either ratify or not *in toto*, but can no longer alter in details. This is now called "Trade Promotion Authority" (TPA), and the Bush Administration has recently succeeded in gaining it. Such "package deals" with an all-or-nothing effect are offered to WTO member states, and increase the power of the "club". Under TPA the Administration developed its digital trade agenda.

Per Wunsch-Vincent the plan has four sub-strategies:

- To make sure that WTO principles and commitments apply to e-commerce and to resolve the classification issues in the most liberal way for digital trade;
- 2. To use the following negotiation opportunities to secure improved market access commitments for digital products: negotiations relating to trade in goods (the Information Technology Agreement, ITA), trade in services (requests for cross-border trade commitments in the field of audio-visual, value-added telecommunication, and computer-related services, etc.), or other venues (e.g., duty-free moratorium for electronic transactions;
- 3. To create a regulatory trade discipline for ecommerce; and
- To ensure accelerated and full implementation and enforcement of the [Trade-Related IPRs] TRIPS"Agreement.¹⁷

¹² Frieden

¹³ Mueller, page 66.

¹⁴ Mueller, page 146

¹⁶ Wunsch-Vincent, p.14-18

¹⁷ Bipartisan Trade Promotion Authority Act of 2002 quoted in Wunsch-Vincent, p.12

The fourth of the above strategies is the most distasteful to developing countries, as it requires IPRs to be protected by WTO member countries passing national legislation. In the Information Society, this means imposing drastic measures to raise the percentage of software registered from its current level of below 50% for many of them. That would represent a massive transfer of funds away from the developing world into the industrialized countries.

One of the proposals floated in the WSIS context was to give the developing countries a discount on software licenses. This proposal forwarded by Rainer Kuhlen of the University of Constance, Germany, would be fashioned on a model comparable to the deal on HIV/AIDS called "Access to Essential Medicines" However, like the software idea, the AIDS deal has just been delayed by a lack of consensus among negotiating parties in the run-up to the Doha trade talks in December of 2002. Now at WSIS even the idea of creating an international digital solidarity fund is impractical, and was soon replaced by another proposal to set up only national funds.1

However TRIPS is not cited as often in connection with information and communication technology as it is in connection with IPRs on agricultural products. "...TRIPS still only derives its main content by making reference to treaties of the World Intellectual Property Organization (WIPO) that were concluded before the Uruguay Round," as Wunsch-Vincent recalls. These had to do mainly with agricultural products. Then he mentions an Electronic Age "modernization development" that "WIPO and its Member States have followed, [which] in 1996 led to the two so-called 'WIPO Internet treaties': the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) that both entered into force in 2002".19

Unfortunately for the Bush Administration, the success of the multilateral trade talks envisioned as a "Doha Development Agenda" is currently fraught with great doubt. Meanwhile, the U.S. has recently concluded bilateral treaties instead with Singapore and Chile. When multilateral cooperation appears too ambitious, governments often resort to regional and bilateral models. In these bilateral deals, Wunsch-Vincent relates, Singapore and Chile are "adopting some standards that reflect U.S. internal IPR legislation" from the controversial Digital Millennium Copyright Act (DMCA).²⁰

Thus the U.S. Digital Trade Agenda appears to be doubly threatening to the developing world: firstly because of its TRIPs component, and secondly because the more successful "emerging market" countries in the developing world are already being induced to adopt features of the DMCA

CONCLUSIONS

This paper has looked at major forces in the context of WSIS, attempting to put them into perspective, and judge their relative magnitudes. Power struggles among regimes with different values and measures of value are converging, and an event such as WSIS makes their diversity evident. Now we can see them more clearly in the layer model with trade policy, the WTO, at the bottom pursuing telecommunications liberalization. Trade policy can, though, also affect the upper level, the information/ content layer, as we see in the US digital trade agenda, where both orders for tangible goods can be placed, and e-services can be delivered directly over the Net. Despite the difficulty of classifying such diverse outputs, the WTO is a power center to be reckoned with on the multilateral level. The US digital trade agenda is able to act, however, not only there, but on the bilateral level as well. In some instances the different regimes can work out a division of labor, in others, though, conflict with one another. The ITU has suffered setbacks during such conflicts, and is now relegated to the role of showcase and philanthropy to combat the global digital divide.

WSIS was planned in a phase of generosity in the Nineties, but remains to be implemented in the more austere aftermath of a sharp stock market decline. The technological innovation from the computer revolution bred strong economic growth. However technological innovation disperses unevenly, and so did the growth in this case. Affluence created a heady atmosphere that favored philanthropy, as WSIS was being planned before the dot-com gold rush ended in a stock market crash.

The new division of labor to be arranged among the regimes involved and the ways that the regime conflicts are resolved in Kofi Annan's new working group on Internet governance will affect the future of the information society in ways not anticipated when WSIS was conceived.

¹⁸ Email from Chantal Peyer to Myriam Horngren dated 5th June 03 archived at

http://comunica.org/mailman/listinfo/crisinfo_comunica.org ¹⁹ Wunsch-Vincent, p.18

²⁰ Wunsch-Vincent, p.32

References

Centre for Global Studies: Digital Initiative for Development Agency, Workshop, September 01, <u>http://www.globalcentres.org/html/docs/DID%20Dis</u> <u>cussion%20paper.pdf</u> and

http://www.globalcentres.org/html/docs/DID%20Fin al%20Reporgt.pdf

Drake, William J.: The Rise and Decline of the International Telecommunications Regime (alternatively printed on paper in: Marsden, Christian C.: Regulating the Global Information Society. London: Routledge, 2000, p.124-177), <u>http://www.ceip.org/files/projects/irwp/pdf/draketele</u> com.pdf

Frieden, Rob, "Revenge of the Bellheads: How the Netheads Lost Control of the Internet (alternatively printed on paper, 26 Telecommunications Policy, No. 6, 125-144 (Sep./Oct. 2002)), draft paper online, <u>http://www.personal.psu.edu/faculty/r/m/rmf5/tprcpa</u> <u>per01.pdf</u>

Godell, Lars: cited by the Economische Faculteitsvereniging Rotterdam, Erasmus Universiteit Rotterdam, <u>http://www.efr.nl/6invulart25.html</u>

Hedblom, Milda: personal communication

Hufbauer, Gary Clyde / Erika Wada: Unfinished Business, Institute of International Economics, Washington DC, 1997.

Krasner, Stephen D.: "Regimes and the Limits of Realism: Regimes as Autonomous Variables," In: *International Organization* 36 (Spring, 1982).

Mueller, Milton L.: Ruling the Root: Internet Governance and the Taming of Cyberspace. Cambridge, MA: MIT Press, 2002.

O'Siochru, Sean: Will the Real WSIS Please Standup? The Historic Encounter of the 'Information Society' and the 'Communication Society'. Forthcoming in: Gazette - the International Journal for Communication Studies, Vol. 66, No. 3/4, June July 2004

O'Siochru, Sean / Bruce Girard /Amy Mahon: Global Media Governance: A Beginner's Guide, Oxford: Rowman & Littlefield Publ., 2002. Rood, Hendrik: Are naming and numbering systems natural resources? Delft University of Technology, 1999, Economics of Infrastructures Group and Stratix Consulting Group B.V., Schiphol, Amsterdam, page 4, http://www.tbm.tudelft.nl/webstaf/henrikr/MaastrichtPape r.pdf

Ruddy, Thomas F., 2001A: A Chronology of the Global Digital Divide, <u>http://www.hsw.fhso.ch/ruddy/chrono.htm</u>

Ruddy, Thomas F., 2001B: A European Perspective on the Global Digital Divide and International Development Cooperation. In: Hilty, Lorenz / Paul Gilgen (eds.), Sustainability in the Information Society. [Proceedings]15th International Symposium Informatics for Environmental Protection, Zurich; Marburg: Metropolis Verlag, pp. 939-948.

Ruggie, John Gerard: "International Regimes, Transactions and Change: Embedded Liberalism in the Postwar Economic Order." In: International Organization, 36 (2): pp. 379-415.

Shapiro, Carl / Hal R. Varian: Information Rules, Harvard Business School Press, 1999.

Shaw, Robert: Public Policy Issues, PPT presentation, Nov. 1998, <u>robert.shaw@itu.int</u>, advisor, Global Information Infrastructure, International Telecommunication Union, Geneva, <u>http://people.itu.int/~shaw/presentations/1</u>

UNCTAD: E-Commerce and Development Report, 2002, Table 4, page 7, <u>http://www.e-</u> <u>finland.org/material/unctad_ec_2002_p1_en.pdf</u>

Wunsch-Vincent, Sacha: The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization. In: Aussenwirtschaft, 58 (2003) I, Zürich: Rüegger, pp.. 7–46, http://www.siaw.unisg.ch/org/siaw/web.nsf/SysWebResso urces/h03waw31/\$FILE/Beitrag_Wunsch.pdf

Young, Oran B. (ed.): Global Governance, MIT Press, 1997.