# IOs and the Technical Communities In The Internet Governance Institutional Complex: Strategies and Perspectives

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Suggested citation: Nanette S. Levinson, Meryem Marzouki. IOs and the Technical Communities In The Internet Governance Institutional Complex: Strategies and Perspectives. *The ECPR 2015 General Conference*, Aug 2015, Montreal, Canada. <http://ecpr.eu/Events/EventDetails.aspx?EventID=94>. <hal-01214864>

# IOs and the Technical Communities In the Internet Governance Institutional Complex: Strategies and Perspectives

Paper Prepared for the ECPR General Conference August 2015

(Preliminary version)

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## Abstract

While the term 'multistakeholderism' has become one of the most commonly used words in Internet governance (IG) studies, only three main categories of stakeholders are almost always highlighted in IG arenas: Governments, Businesses, and Civil Society. However, initial findings from our two-year transatlantic research project show that the technical community and Intergovernmental Organizations (IOs) also are crafting roles for themselves as IG actors. This paper focuses on the Technical communities - composed of organizations such as ICANN, ISOC, and other bodies primarily dedicated to the technical management of the Internet - as another IG actor, and its interaction with IOs. Using a framework from political science, communication theory, and organizational sociology, it analyzes (with interview, observational, and archival data) the emergence of this stakeholder, its strategic interactions with IOs, and highlights new trends of the Global Internet Governance institutionalization.

## Introduction

The Internet as we know it today began as a result of the work of what we call the 'technical community'. Originally designed as a Defense Advanced Research Projects Agency (DARPA) project, the 'technical community' created this network of networks and soon realized that it had potential and power beyond that of a defense technology. The initial usage of 'technical community' refers to those scientists and engineers who designed and/or operated Internet or Internet-related infrastructure. An exemplar at the individual level is Vinton Cerf, a pioneer in architecting the early Internet. Moving from the aforementioned DARPA to the private sector, Cerf worked at MCI, a U.S. private sector major corporation, and later co-founded the Internet Society. He was an early Board member of ICANN, the Internet Corporation for Assigned Names and Numbers, and was also active in the IETF (discussed below.) Today, he serves as the "Chief Internet Evangelist" for Google, working at the interstices of technology and policy at the U.S. and global levels.

Cerf's career trajectory at the individual level is a microcosm of the evolution of organizations now involved in global and regional Internet governance[1]. Indeed, in 1991, Perrow argued that organizations were becoming major phenomena of the times. Post 2000, we contend that the inter-organizational level is a key phenomena of our times and must be understood in any examination of Internet governance. Thus, we need to turn to an analysis of organizational and inter-organizational policy spaces. See Lambright (1976) for an in depth discussion of policy spaces in the context of the U.S. government,)

[1] Details of Vint Cerf profile come from: <http://Internethalloffame.org/inductees/vint-cerf>

Reviewing the history of Internet development, Internet policy moved from a policy space of one U.S. technical organization (the purview of DARPA and the U.S. Department of Defense) to a more increasingly fractal policy space crossing technical, private, public, not-for-profit sectors as well as across national boundaries. Within the U.S. government, the trajectory of policy space went from one single agency (first the Department of Defense, and then, as those in the technical community realized there was both commercial potential related to the Internet and, at the same time, internationalization potential, to the Department of Commerce) to a more complex policy space. Today, this 'space' spans a number of U.S. agencies and especially the Department of Commerce and the Department of State. It also spans national and regional boundaries, bringing in international organizations, the focus of our multi-year research project. This movement also parallels the evolution of the technical community's roles -- beyond the technical, into deep involvement in Internet policy issues. This transformation over time of the roles of the technical community is part and parcel of the growth of the term and the practice of 'multistakeholderism'. (For an important discussion of multistakeholderism, see Raymond and Denardis and Raymond (2015) and Carr (2015).

There never has been a precise definition of the technical community especially at the individual level, except for the self-identification process that, for example, membership in the IETF highlights. Further evidence of self-identification is provided at the organizational level at OECD where technical community

organizations can become members of ITAC[2]. More recently the technical community at the organizational level came together as the "I*" (as the Internet technical organizations are sometimes called) signatories in the "*Montevideo Statement For the Future of Internet Cooperation*" signatories list[3]. Indeed, it is the organizational level that even today characterizes discussion about who and what the technical community is! Just as there are no hard and fast rules about who is civil society, there are no strict definitions of 'technical community'. Rather there is self-identification and sometimes multiple identities and overlapping identities.

One of the oldest participant organizations in the 'technical community is the earlier mentioned IETF (the Internet Engineering Task Force). It is a voluntary international organization involved in setting standards for the Internet (Braman, 2011). Indeed, its 'organizational home' is the Internet Society, one of the major actors in the technical community today. While the IETF notes that it is a "loosely self-organized group of people who contribute to the engineering and evolution of Internet technologies…. It is the principal body engaged in the development of new Internet standard specifications. The IETF is "unusual in that it exists as a collection of happenings, but is not a corporation and has no board of directors, no members, and no dues", although it receives funding from the Internet Society.

The Internet Society, while considering itself as a part of the technical community, also encompasses policy formation. In its recent policy paper on "*Perspectives on the*

[2] See <http://www.Internetac.org/members>

[3] See <https://www.icann.org/news/announcement-2013-10-07-en>

*IANA Stewardship Transition Principles*" of 29 July 2015[4], the Society argues that "Indeed, the model of technical and stakeholder "collaboration" is one of the fundamental "invariants" of the Internet that has guided its successful evolution." This wording is very interesting, given the traditional use of the term 'multistakeholder' to cover civil society, governments and the private sector. Additionally, the document highlights the roles of IOs and their emphases on multistakeholderism when it posits "Other key organizations, including the OECD, UNESCO, and the Council of Europe have all committed to preserving and working towards enhancing an inclusive, multistakeholder method of working". In so doing they reference the following documents: The OECD Ministerial *"Declaration on Policy Coherence for Development"* of 4 June 2008 [5] ; The OECD Council *"Recommendation on Principles for Internet Policy Making"* of 13 December 2011[6]; The UNESCO Document entitled *"Towards Knowledge Societies for Peace and Sustainable Development: First WSIS+10 Review Event" of* February 2013[7]; and The Council of Europe's "*Declaration by the Committee of Ministers on Internet governance principles*" of 21 September 2011[8].

ICANN (The Internet Corporation for Assigned Names and Numbers) is one of the most fascinating members of the technical community (Antonova, 2008). Originally it was created to serve as a technical clearinghouse/authority on domain names and

[4] Available at : <http://www.Internetsociety.org/blog/public-policy/2015/07/perspectives-iana-stewardship-transition-principles>

[5] Available at : <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=138>

[6] Available at : <http://www.oecd.org/Internet/ieconomy/49258588.pdf>

[7] Available at : <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_outcomes_en.pdf>

[8] Available at : <https://wcd.coe.int/ViewDoc.jsp?id=1835773>

numbers. Its early leadership emphasized that it was NOT a policy organization. Over time, however, with the co-evolution of the technical community and the Internet governance policy space, ICANN has taken on significant policy roles (Mueller, 2002). One of the most recent was the role of ICANN and its leadership (CEO Fadi Chehade) in partnering with the government of Brazil to catalyze NetMundial, certainly not a technical meeting. ICANN also began to work with the World Economic Forum to design/catalyze a follow-up to NetMundial. As noted elsewhere, ICANN is very present at IGF meetings and in other IO venues, both informally and formally.

Other major members of the technical community include the IAB (Internet Architecture Board), in charge inter alia of Internet standards process oversight[9]; the IANA (Internet Assigned Numbers Authority), which is in charge of the core technical management of the Internet's most critical resources (names and protocols)[10] the W3C (World Wide Web Consortium), which mission is to develop standards for the Web[11]; and the five Regional Internet Registries for geographic top level domain names (AfriNIC for Africa; APNIC for Asia-Pacific region; ARIN for North America and parts of the Caribbean region; LACNIC for Latin America; and RIPE NCC for Europe and surrounding areas). Similarly to the one already mentioned, these organizations or communities have strong links between, in terms or structure, management, funding, operations, membership, etc.

This paper reports on the strategies developed by members of the technical

[9] See IAB presentation on its website at: <https://www.iab.org/about/>
[10] See IANA website at: <http://www.iana.org>
[11] See W3C presentation on its website at: <http://www.w3.org/Consortium/>

community to channel their main issues, positions and visions related to Internet governance using primarily the Internet Governance Forum (IGF), and their interactions in so doing with IOs, as the continuation of the authors' larger three-year project on international organizations and Internet governance (Levinson and Marzouki, 2015a; 2015b).

This research uses multiple methods. Interviews with key leaders in some of these organizations constitute a major data gathering function. Additionally, content analysis of documents and archival analysis amplifies and provides a foundation for interview findings. Finally, observation and participant observation at key Internet governance meetings adds to data gathering and data analysis. For the specific analysis of their participation in the IGF proceedings since 2006, quantitative analysis of IGF sessions was also used.

**International Organizations As Actors in IG**

In previous work, we have shown how IOs have managed to establish themselves as actors in Internet governance processes (Levinson and Marzouki, 2015a; 2015b). In summary, they worked hard over time to move away from a traditional view of their "facilitating role in the coordination of Internet related public policy issues" where paragraph 35 of the WSIS Tunis Agenda[12] confined them, in the shadow and at the service of their member states. Studying the UNESCO, the OECD, the Council of Europe, and the ITU (the latter only through its participation at IGF proceedings),

[12] All WSIS-related documents can be found at <http://www.itu.int/wsis>

our findings so far have shown the following main IOs actions to achieve this objective:

- In terms of intra-IOs developments and agenda setting: an evolution from coordinating mechanisms for nation-states (issues, preferences, participations, politics) to stakeholders in their own right (agenda and opportunities) in IG arenas;
- In terms of partnerships: from serving and interacting with member states to subtly broader focus on interactions with civil society, the private sector, and other contemporary stakeholders (such as the technical community) to help institutionalize IG processes;
- In terms of positioning themselves from periphery to core of IG: they heightened the link at each IO between IG policy issues/spaces and the IO's policy purviews and mandates as they change over time; they increased the number of people within the IO working on topics related to IG; they linked IG-related topics to more central/powerful elements/sections/divisions of the IO;
- In terms of issue/policy entrepreneurship efforts: From secretariat members role as "*civil servants*" ("*We are the member states*", as interviewed key leaders from different IOs repeatedly told us) to the crafting of their own ideas to link IG to their core missions and mandates, with help of allies/partners, mainly from civil society and technical community organizations (examples: The OECD made a strong link at the Seoul Ministerial meeting in 2008 between IG issues and the Internet economy;

The CoE made human rights in IG a priority in its internal strategy; The UNESCO crafted the concept of 'Internet Universality' to channel almost all issues within its mandate in IG discussions, as detailed later in this paper);

- In terms of using the IGF as a main vehicle: IOs bringing back home and institutionalizing collective IGF work (example: the CoE Council of Ministers adopted a *Recommendation on a Guide to Human Rights for Internet Users* in 2014, that stemmed from the IGF's Internet Rights and Principles Dynamic Coalition (IRPDC) *Charter of Human Rights and Principles for the Internet* developed in 2010 as a basis. This Recommendation was drafted by a multistakeholder CoE committee of experts which included members of this dynamic coalition); IOs as Backbone of IGF (Example: IOs involvement in IGF main discursive activity accounts for 31% of all IGF Workshops in the period from 2006-2012).

**International Organizations and the Technical Community**

The work of Nay (2014) is extremely useful in understanding the co-evolution of technical communities and the Internet governance policy space over time. While Nay focuses on the OECD and the World Bank and examines their creation and dissemination of the concept of 'fragile states', his conception of the international organizations he studied as "transfer platforms" and as shapers of international norms related to development and security by crafting transnational knowledge that combines the views of their most powerful member states with a range of views

from “national bureaucracies, governments from developing countries, and the various non state actors engaged in the production of knowledge worldwide” (p. 229) echoes well the practice of the international organizations we study with a focus on Internet governance. Additionally, just as in the Nay (2014) study, power and the ‘production of hegemonic knowledge’ (p.210) as well as informal membership in policy-related networks also play key roles in the Internet governance policy spaces we examine. Yet, one further Nay finding, informs well the study reported here. Nay concludes that despite powerful member states initial conceptualization and direct access to the IOs in which they hold membership, information dissemination flows and processes do not always maintain or perpetuate the exact concepts as originally defined by member state governments; the actual ebb and flow of dissemination and the variegated contexts in which these flows are set help to shape the final versions of ideas. In other words, the Nay study, while not dealing with Internet governance, does find that multistakeholder processes that international organizations encourage do truly play a role and that, in our view, the presence of these processes, highlights the IO activities and behaviors we have identified elsewhere in our research (Levinson and Marzouki, 2015b). International organizations are vibrant actors on the world stage not merely puppets of member governments. In such a way, and we would argue, especially through networked relationships, both formal and informal, with the technical community, international organizations maintain their relevancy and roles.

***Technical Communities as Epistemic Communities in Multistakeholder Processes***

This paper reports on selected international organizations and their relationships with the technical community. There are several ways to map these interconnections, if present. One is to look at a technical organization and see if it lists partners on its websites. Are any of these partners international organizations? Partnerships provide the networks across which ideas can flow. Epistemic communities (Adler and Haas, 1992) such as the technical community in Internet governance can play key roles in establishing principles and norms. One example is the Internet Society. It lists the following international organizations as partners and identifies their roles, as summarized in Table 1.

| **Partner IO** | **ISOC Status in partnership** |
|---|---|
| Council of Europe (CoE) | Observer Status in Consultative Committee of the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (T-PD), as well as in the Steering Committee on Media and Information Society (CDMSI). |
| Global Alliance for ICT and Development (GAID) | Partner |

| | |
|---|---|
| United Nations Human Rights Council | Participation following being awarded the UN ECOSOC status in 2010. Main focus: issues related to Internet and freedom of expression. |
| Inter-American Telecommunication Commission of the Organization of American States (CITEL) | Memorandum of Understanding signed in September 2008 |
| International Telecommunications Union (ITU) | ITU-D and ITU-T sector member |
| New Partnership for Africa's Development Planning and Coordination Agency (NPCA) | Memorandum of Understanding signed in January 2011. They work together to develop ICT in Africa by creating an enabling environment for Internet development, promoting the development of local content and enhancing the capacity of African ICT specialists to deal with Internet-related technical and policy issues. |
| Organization for Economic and Cooperation Development (OECD) | Coordination of the Internet Technical Advisory Committee (ITAC) to the OECD's Committee for Information, |

| | |
|---|---|
| | Computer and Communications Policy (ICCP) |
| United Nations Economic Commission for Africa (UNECA) | Memorandum of Understanding signed in May 2008 |
| United Nations Economic and Social Council (UN ECOSOC) | Consultative status since 2010 |
| United Nations Educational, Scientific and Cultural Organization (UNESCO) | Official recognition as "an NGO in operational relations with UNESCO" and part of UNESCO's Communication and New Technologies Joint Program Commission |

**Table 1. ISOC partnership with IOs (Source: http://www.internetsociety.org)**

During our interviews with ISOC representatives, one interviewee pointed out that ISOC is much more active now than a decade ago. Another interviewee observed that ten years ago, ISOC spoke for the technical community and even the IETF. Today "the landscape has fundamentally changed." Yet even during WSIS the regional Internet Registries (RIRs) played an important role. Between WSIS phase 1 and WSIS phase 2, the technical community really emerged as a player. While there was resistance to naming the 'technical community' in the WGIG Report, that report did ultimately recognize the technical and academic communities as a subcategory of business and civil society. When the IGF was created, the technical community

was recognized. As an interviewee put it, " the U.N. accepted that (recognition of the technical community); it gave the iGF credibility. OECD also followed this IGF recognition of the technical community, following the OECD ministerial in Seoul.

ISOC designed and implemented a questionnaire in 2015 to gather ideas about Internet governance key questions. It also sees its role as a coordinating one for the technical community where today there may be some turf concerns. ICANN and ISOC and other technical organizations may have differing interests and agendas. With regard to capacity building, ISOC definitely sees itself as playing a role with developing countries. When it comes to the private sector, it talks with the business community. It is interesting to note that ISOC has offices in Geneva, Switzerland and in the Washington, DC area. This co-location is, in our view, important for the flow of ideas among the technical community and international organizations and governments as well. Additionally, even when not co-located, ISOC representatives do go to New York and realize that they may need to change their language and framing of things to match a specific IO's culture and context.

One interviewee did point out that the UN does have some traditions of successful working with the technical community. The example is UNCTAD where there is a clear tradition of working with the technical/scientific community.

### *Participation of Technical Communities to the IGF Proceedings*

A second way of mapping is to examine the program of, for example, the Internet Governance Forum (IGF), an innovative institution created in 2006 as a result of the

Working Group on Internet Governance report for the World Summit on the Information Society. One can look at this mapping in at least two ways. To what extent are technical community members participants and/or speakers at an IGF? Do technical community organizations organize or co-organize workshops or events at an IGF or a regional or national IGF? Is the technical community the subject of a panel or workshop at an IGF?

In 2013 at the IGF held in Bali, members of the technical community organized a workshop discussing the technical community's role in Internet governance. A review of the transcript[13] of that workshop indicates the same fuzziness of definition of technical community that we highlight. Indeed, speakers from the technical community at this workshop indicated that they had over a period of time multiple identities. One began in the technical community and currently works in what we would call a civil society organization. Another came from business and notes that she identifies herself as a member of the technical community, going on to argue that most of the employees in her company would identify themselves as members of the technical community. All agreed that the role of the technical community has changed since the creation of the Internet. Several highlighted the capacity building role that the technical community plays in a multistakeholder context whether for governments or for civil society. One speaker observed that the technical community itself needed capacity building in terms of participation in Internet governance policy matters. (It may be helpful to note that this workshop was held at a time when plans for the Sao Paulo meeting in Brazil (the original

[13] See workshop transcript at : <http://tinyurl.com/nvekul6>

NetMundial) were being made, following the publication, right after the Snowden's revelations on surveillance, of the "Montevideo Statement For the Future of Internet Cooperation[14]", signed by the so-called "I*" organizations, in other words the main members of the Internet Technical Community; at some point, there may have been a concern among some that technical community was working directly with a nation state government to plan that meeting. What is particularly fascinating about this workshop is that while it was held at a United Nations related yet multistakeholder entity, the IGF, no mention was made at the workshop of the technical community role in formally or informally working with international organizations.

We have analyzed in (Levinson and Marzouki, 2015c) IOs' strategies in the course of their participation in the IGF proceedings over time. While many IOs with different mandates participate each year in the IGF, we identified four that demonstrate a more regular and important participation; these four IOs are: the OECD, the UNESCO, the CoE and the ITU.

For comparison purposes, we analyzed here the main Technical community organizations' participation to the same events. These organizations are the "I*" signatories of the above-mentioned "Montevideo Statement", namely; IAB, ICANN, IETF, ISOC, W3C, AFRINIC, ARIN, LACNIC, RIPE NCC. Depending on the point we discuss, the latter five are sometimes grouped into a single entity, the RIRs (Regional Internet Registries).

We consider similarly in this paper all kind of IGF sessions, using a living archive of

[14] See footnote 3 supra

the IGF meetings since Athens in 2006. "Friends of the IGF[15]" is a community-based project set up by a small consultancy company based in New Zealand[16]. It provides a searchable and browsable repository of transcripts and video of all IGF sessions. Currently, there are all in all 1035 sessions archived, from IGF Athens 2006 to IGF Istanbul 2014. It is, to our knowledge, the most complete IGF sessions archive and could constitute a good basis for empirical research on the IGF discussions. Considering that only the 10 main sessions are available for the Athens 2006 edition of the IGF, we will discard this meeting from our analysis.

We considered the level of involvement of the ten identified members of the technical community (IAB, ICANN, IETF, ISOC, W3C, and the 5 RIRs) in IGF sessions, either as organizer, co-organizer or participant in a given session of any kind. We also wanted to evaluate the evolution of this involvement over meetings, from Rio in 2007 to Istanbul in 2014. To this end, we evaluated for each entity the number of sessions it participated in, and calculated the percentage of the total number of sessions this participation represents, as shown in Table 2 and represented in Figure 1 (with each RIR's participation provided) as well as in Figure 1a (with all five RIRs grouped, for better readability).

[15] Available at <http://friendsoftheigf.org>

[16] Chalmers and Associates. See the project description at <http://chalmers.associates/pdf/FoIGF-info_sheet.pdf>

| | IAB | ICANN | IETF | ISOC | W3C | AFRINIC | APNIC | ARIN | LACNIC | RIPE NCC |
|---|---|---|---|---|---|---|---|---|---|---|
| **Rio** | 1.82 | 31.82 | 13.64 | 16.36 | 4.55 | 8.18 | 1.82 | 2.73 | 7.27 | 1.82 |
| **Hyderabad** | 0.97 | 16.50 | 6.80 | 18.45 | 1.94 | 3.88 | 2.91 | 2.91 | 4.85 | 0.97 |
| **Sharm** | 0.00 | 21.55 | 3.45 | 15.52 | 6.03 | 6.03 | 3.45 | 4.31 | 7.76 | 4.31 |
| **Vilnius** | 0.88 | 51.75 | 14.04 | 28.07 | 14.04 | 9.65 | 7.02 | 4.39 | 8.77 | 7.89 |
| **Nairobi** | 1.71 | 39.32 | 11.11 | 22.22 | 5.98 | 5.98 | 3.42 | 3.42 | 3.42 | 5.13 |
| **Baku** | 1.37 | 28.77 | 8.90 | 20.55 | 3.42 | 5.48 | 6.16 | 0.68 | 2.05 | 6.16 |
| **Bali** | 0.00 | 7.55 | 1.89 | 5.66 | 1.89 | 2.52 | 1.89 | 0.63 | 1.26 | 0.00 |
| **Istanbul** | 0.63 | 23.75 | 2.50 | 15.63 | 2.50 | 5.00 | 3.75 | 0.63 | 3.00 | 1.88 |

**Table 2. Rate of Tech Orgs participation in IGF sessions, per meeting (%)**

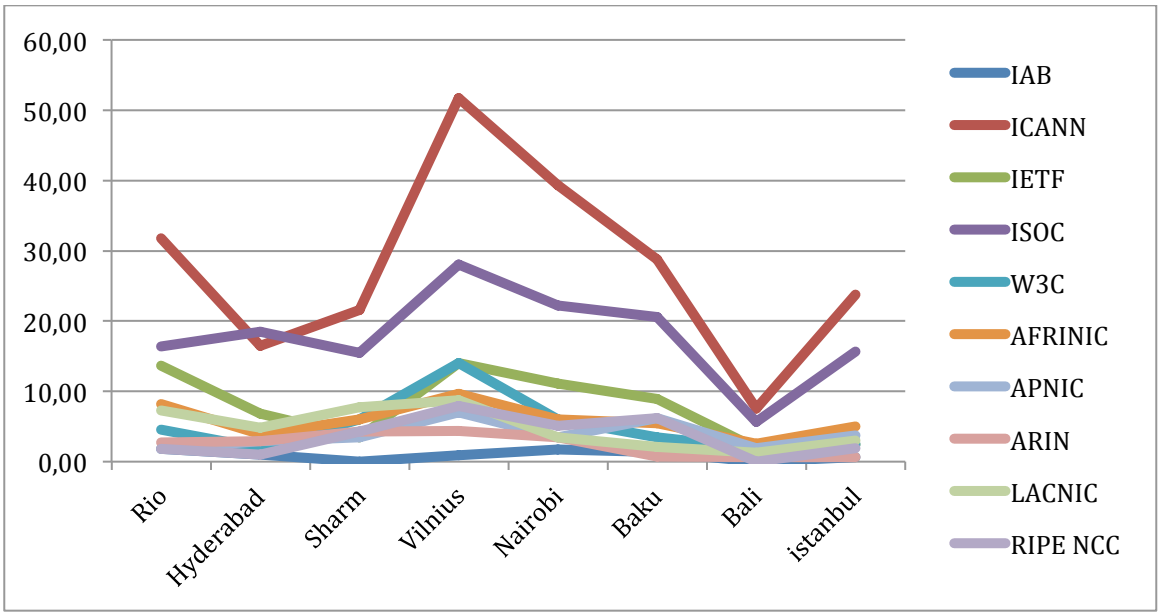


**Figure 1. Representation of Tech Orgs participation rate in IGF sessions (with 5 RIRs individually identified)**

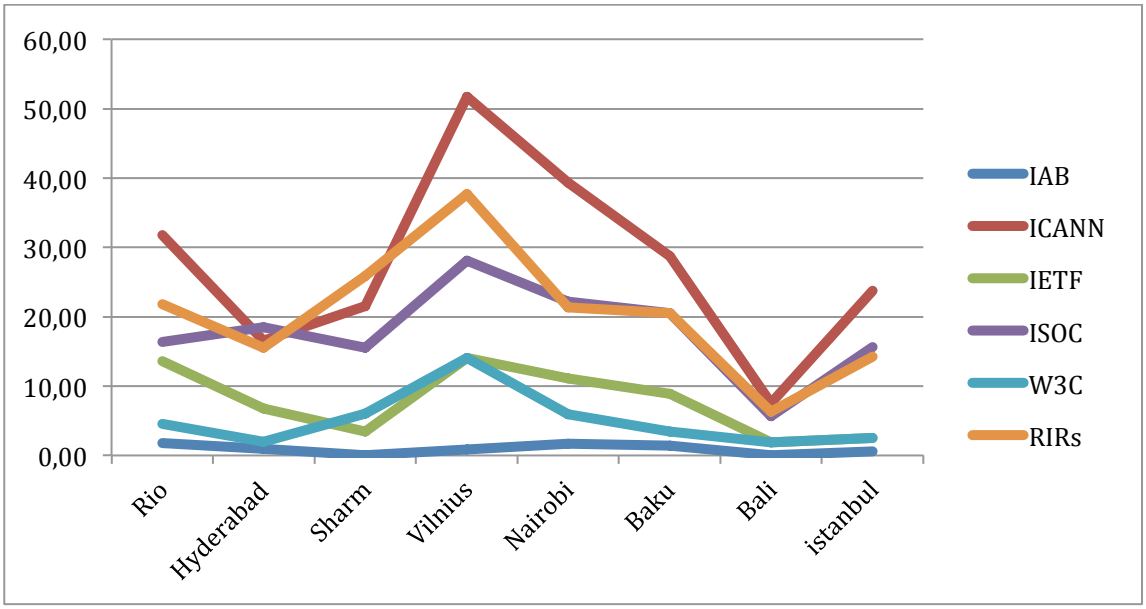


**Figure 1a. Representation of Tech Orgs participation rate in IGF sessions (with 5 RIRs grouped)**

With the exception of the Bali meeting, where all the considered technical organizations drastically reduced their attendance, and thus their participation to IGF sessions, due to budget issues (exactly in the same way and for the same reasons as the IOs considered in Levinson and Marzouki 2015c), we can identify a rather strong participation of technical organizations to all sessions (as a reminder, we mean by participation either taking part in the organization of a session or at least speaking as panelist). Figure 1 also singularly highlights the role of ICANN and ISOC, among other technical organizations, with a major involvement in IGFs. While the IAB's participation in IGF meetings is almost inexistent, the IETF and, to a lesser extent, the W3C keep an interest in participation to these policy meetings. The peak of participation shown for all organizations at the Vilnius meeting in 2010 reflects the fact that stakes were high at this meeting, since was held two months before the

United Nations General Assembly with the renewal of the IGF mandate on its agenda (Levinson and Marzouki, 2015a).

Figure 1a shows quite an important level of participation from the RIRs – even more than ISOC - when taken all five together. However, when taken individually as shown in Figure 1b for better readability, it appears that each one's participation remains under a 10% rate. Notwithstanding a normal increase in each RIR's participation when an IGF meeting is held in its own region, the most active among the RIRs in IGF proceedings all in all are AFRINIC and LACNIC, and the one showing the less participation is ARIN. This can be explained by the role played by these entities in their respective regions. In both Africa and Latin America, where the general economic and social conditions strongly impact the level of interest in Internet-related issues, and where the average knowledge in the field of policy makers, academics and civil society organizations do not allow a larger and more diversified involvement in Internet-related issues, the RIR plays a major role in policy making and implementation, far beyond their allegedly sole technical role. The situation is very different in North America, where the RIR remains much more confined to technical operations.

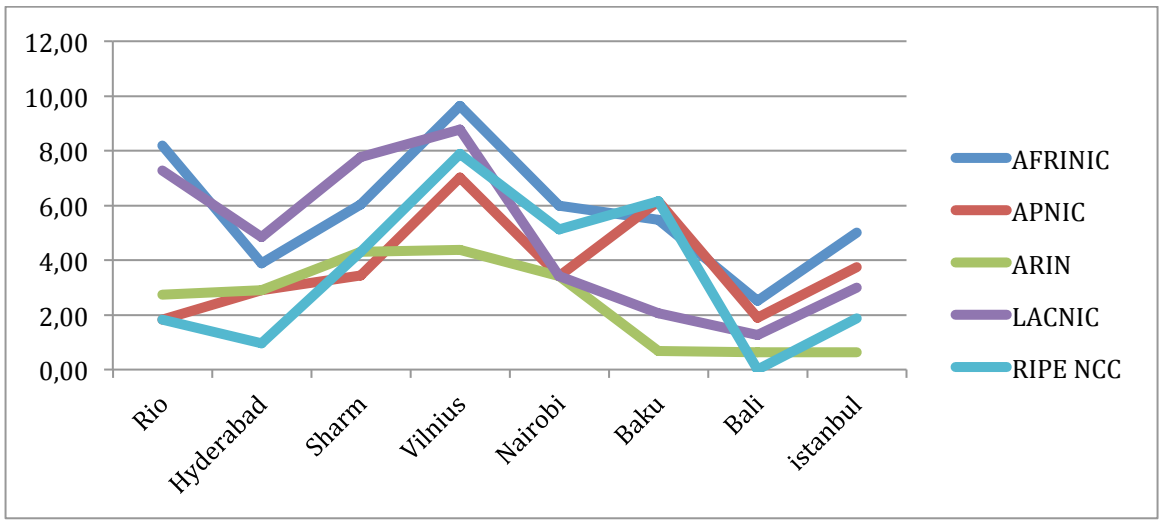


**Figure 1b. Representation of RIRs participation rate in IGF sessions**

***Networking and Interaction between IOs and Technical Communities***

Our previous researches have shown that, among IOs, four can be identified as the most active in IGF meetings and more generally speaking Internet governance related discussions: ITU, UNESCO, OECD, and CoE. Among the Technical community, we showed in this paper that ICANN and ISOC are the most active in these fields. Analyzing the level of networking and interactions between these main players of each category thus comes naturally as the additional question to address.

In (Levinson and Marzouki, 2015a), we identify such interactions through the analysis of involvement in IGF workshops only (this category constitutes more than half of all IGF sessions). The result of such analysis is reproduced in Figure 2, where the existence of an arrow symbolizes the co-organization of one or more workshops. The arrows are colored according to the workshops themes as follows : red for Access and Diversity issues, blue for Security and Openness, green for Critical Internet Resourses

and yellow for Stocktaking activities (which mainly concern, as a reflexive exercise, political discussions about the IGF itself and its future). The period considered here is 2006-2012, i.e. from Athens to Baku meetings included.

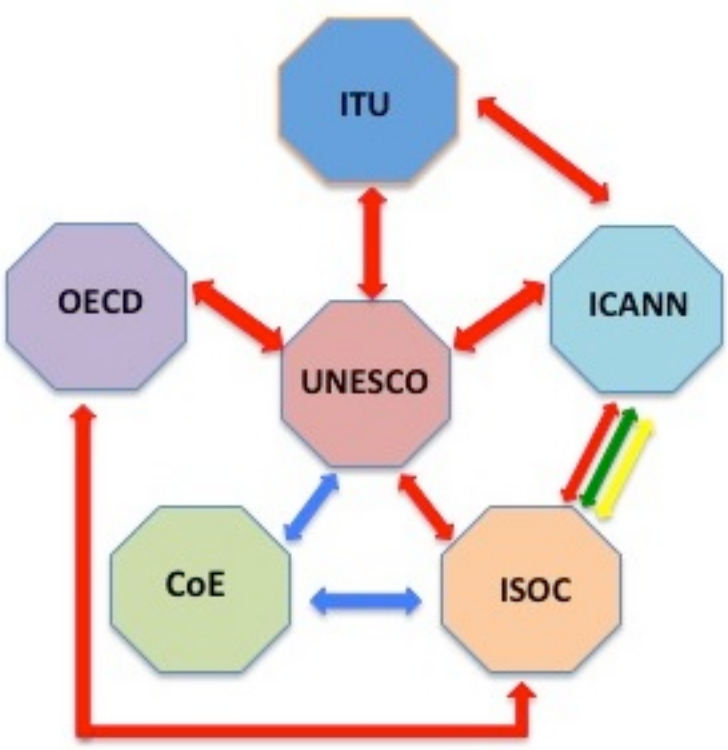


**Figure 2. IGF workshops co-organization and their themes for considered organizations (Source: Levinson and Marzouki, 2015a)**

As we focus in the current paper on interactions both between IOs and technical communities, as well as among technical community organizations, Figure 2 shows much more interactions from ISOC than from ICANN with IOs. ISOC co-organized activities with UNESCO and OECD (on Internet access and linguistic diversity of Internet content and resources) and the CoE on human rights related issues (Internet security – which includes privacy - and openness). ICANN co-organized activities only with UNESCO and ITU, and in both cases they concerned Internet

access and linguistic diversity of Internet content and resources. It is interesting to note that ICANN restricted is interactions - at least those we consider here, in relation with IGF workshops in the 2006-2012 period - to two UN Agencies, both strongly related to WSIS and in charge of most of its follow-up Action lines. ISOC shows a wider interest, both in terms of its networking with IOs (it extends its interactions to regional and thematic IOs as well) and of the addressed issues. In terms of intra technical community interactions, Figure 2 also shows that they are important and diverse between ICANN and ISOC. These interactions obviously concern the access and diversity issues, as they encompass many technical dimensions. The same remark applies to Critical Internet resources. However, the fact that the political implications of the CIR theme in IGF discussions have always been a highly controversial issue, rather than a simple technical one, thus needing some common vision to be able to co-organize a workshop around it, explains the absence of interaction with the ITU on this theme, given its mandate. Obviously, and as the battle around the WCIT[17] (World Conference on International Telecommunications, convened by the ITU in December 2012 in Dubai) attests (Hill 2013), the ITU vision diverges completely from that shared by ICANN and ISOC. Finally, one would have expected the future of the IGF (through the Stocktaking theme) to be substantively addressed by IOs rather than by the Technical community organizations; our findings show exactly the contrary. Indeed, the only joint effort in terms of workshops co-organization by the six considered entities appears to be the one of ICANN and ISOC. Again here, this shows a shared vision of the issue by both organizations. Since the concerned workshop co-organized by ICANN and

[17] See dedicated page on ITU website at < http://www.itu.int/en/wcit-12>

ISOC was held during IGF Nairobi in 2011 (right after the IGF mandate renewal by the United Nations General Assembly), this also reflects the willing of technical organizations to bear some weight in Internet governance agenda setting.

**Conclusions**

In sum, the IOs studied in our long-term research project clearly have both formal and informal relationships with organizations from the technical community. IOs do not interact merely with their member states. Secretariats forge relations (informal or formal, depending upon the specific IO) with other entities, including technical community organizations. It is difficult to identify whether an IO or a specific technical organization reaches out first to form a connection of any sort. What is clear is that IOs in transforming themselves over time and in conducting their missions of crafting norms and coping with complex, uncertain Internet governance questions see a natural synergy with the expertise of the technical community. Just as epistemic communities have become powerful in dealing with complex cross-national environmental issues, the Internet-related technical community at the organizational level has 'grown' its role in Internet governance policy spaces over time.

Future work will explore in deeper details the strategies developed by technical communities and technical organizations to gain more weight in shaping discussions and policies related to Internet governance, and how truly global

organizations such as ICANN and ISOC manages to widen their missions, scope and modus operandi to almost become IOs' peers in their field.

## References


Adler, E. and P.M. Haas. (1992). Conclusion: epistemic communities, world order, and the creation of a reflective research program. *International Organization*. 46(01): 367-390.

Antonova, S. (2008). Powerscape of Internet Governance - How Was Global Multistakeholderism Invented in ICANN? VDM Verlag.

Braman, S. 2011. The Framing Years: Policy Fundamentals in the Internet Design Process, 1969–1979. *The Information Society: An International Journal.* 27(5): 295-310.

Carr, M. (2015). Power Plays In Multistakeholder Internet Governance. *Millennium - Journal of International Studies.* 43 (2): 640-659.

Hill, R. (2013). WCIT: failure or success, impasse or way forward? *International Journal of Law and Information Technology.* 21 (3): 313-328.

Lambright,W.H. (1976). Governing Science and Technology. New York: Oxford University Press.

Levinson, N. S. and Marzouki, M., (2015a). Internet Governance Institutionalization: Process and Trajectories, in Rioux and Fontaine-Skronski (Eds.), *Global Governance Facing Structural Changes: New Institutional Trajectories in the Internet Era*. 2015. Palgrave-MacMillan.

Levinson, N. S. and Marzouki, M., (2015b). IOs and Global Internet Governance Interorganizational Architecture, in Musiani, Cogburn, DeNardis and Levinson (Eds.), *The Turn to Infrastructure in Internet Governance*. Palgrave-MacMillan. Forthcoming.

Levinson, N. S. and Marzouki, M., (2015c). Straddling Hegemony and Resistance in Internet Governance: The Soft Power of International Organizations. Paper presented at the IAMCR 2015 conference in Montreal, Canada, July 12-16, 2015 , Communication, Policy and Technology (CPT) Section.

Mueller, M. (2002). *Ruling the Root: Internet Governance and the Taming of Cyberspace*. MIT Press.

Nay, O. (2014). International Organisations and the Production of Hegemonic Knowledge: how the World Bank and the OECD helped invent the Fragile State Concept. *Third World Quarterly*, 35(2): 210-231.

Perrow, C. (1991) A Society of Organizations. Theory and Society 20: 725-762.

Raymond, M. and DeNardis, L. 2015. Multistakeholderism: Anatomy of an Inchoate Global Institution. *International Theory*, available on CJO2015. doi:10.1017/S1752971915000081.