

## Internet Governance



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Today, more than 3.7 billion<sup>1</sup> people across the globe – or over 50% of the world’s population – can access the Internet.

The Internet is a “network of networks” that connects us seamlessly over multiple telecommunication networks. Queries are resolved in milliseconds. Large files such as full-length feature films are transported across the world, in a matter of minutes, depending on your location’s Internet speed.

For many Internet end-users, the access to Internet at a “reasonable cost” is a fundamental right. There is no need to be concerned about how the Internet is governed or how Internet policies are developed, as long as the Internet continues functioning.

But, should this be the case? The purpose of this article is to introduce the subject of Internet governance, and highlight how you, as an Internet end-user, can participate in shaping the future policies and standards to keep the Internet stable, secure and resilient.

### **How did the concept of Internet governance begin?**

The process of recognizing that the Internet needed to be governed in a unique manner started in 1998.

### **The United Nations and the Internet**

The global conversation around using information and communication technologies (ICT) as tools for solving the global developmental problems started from the late 1990s, at various United Nations forums.

The International Telecommunications Union (ITU) – the United Nations (UN) specialized agency for ICTs – put forth a proposal in 1998 to the UN to hold a World Summit on Information Society (WSIS). The chief aim of WSIS is to bridge the global digital divide.

After further deliberations, a UN resolution on 21<sup>st</sup> December 2001 endorsed holding the WSIS. Two such summits were planned. The first WSIS was held in Geneva in 2003, and the second WSIS was held in Tunis in 2005.

### **WSIS Summit in Geneva in 2003**

At the first WSIS summit in Geneva, the path forward was laid out for nations to follow. The focus was on capacity building on norms for public governance, ICT applications, media, cultural diversity and international and regional co-operation.

One thing was clear at the end of the summit: due to the global nature of the Internet, the management of the Internet should be through the engagement of multiple stakeholders.

This is known as the **multistakeholder model**, where stakeholders from completely different backgrounds, functions or geographies work together based on a system of voluntary participation, best practices, cooperation and trust.

Since then, many multilateral organizations have publicly endorsed the multistakeholder approach as the way for Internet governance:

2008 – Organization for Economic Cooperation and Development (OECD)  
2009 – The Council of Europe  
2010 – ITU Plenipotentiary meeting  
2011 – G8 at Deauville  
2014 – NETmundial meeting in Brazil  
2015 – UN General Assembly WSIS+10 High Level Event

### **WSIS Summit in Tunis in 2005**

The WSIS meeting at Tunis 2005 can arguably be termed as groundbreaking – it resulted in the declaration of the historic “Tunis Agenda for the Information Society”.

Known as the Tunis Agenda in short, this document has been enshrined in development manifestos for ICT by governments around the world. Emerging out of the 2005 meeting were also some other important decisions:

- The Internet Government Forum (IGF) – a multistakeholder dialogue on public policy issues related to Internet governance would be held every year. This process started in 2006 and has continued since.
- A WSIS review would take place at the end of 10 years (WSIS+10). This review took place in December 2015 when the UN General Assembly assessed the progression of the WSIS goals till that point in time.

### **United Nations Conference on Sustainable Development**

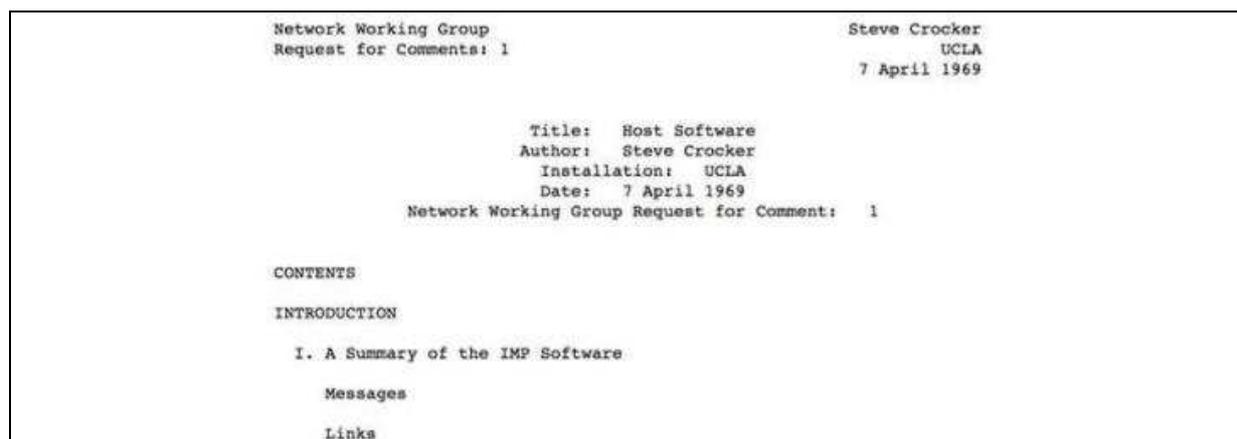
In 2012, at the United Nations Conference on Sustainable Development in Rio de Janeiro, a new development took place. The conference identified 17 Sustainable Development Goals (SDGs) to meet the meet the urgent environmental, political and economic challenges facing the world.<sup>2</sup>

One important point that the SDGs had in common, was that the implementation had to be accelerated by ICT. This clearly defined the relationship of the Internet to sustainable global development.

### **Who is involved in the Internet?**

Before the global conversation on ICT started, research and development of the Internet had already begun.

In the late 1960s, research and development on “packet switching” of data across telecom networks started. On 7<sup>th</sup> April 1969, Dr. Steve Crocker authored what would become the basis of the multistakeholder consultative process, Requests for Comments (RFC) 001. This was the first of its kind, seeking “peer review” for establishing technical standards. (Full RFC 001 document available at <https://tools.ietf.org/html/rfc1>)



From that time on, Crocker and his two other colleagues, Vint Cerf and Jon Postel, worked on different elements of the Internet.

Postel, amongst other things, kept track of the protocols, identifiers, networks and addresses in this new and emerging universe. The function that Postel was performing since 1972, would later be known as the Internet Assigned Numbers

Authority (IANA). IANA would later be subsumed by the Internet Corporation for Assigned Names and Numbers (ICANN) in 1998.

Others also contributed to the development of technical standards of the Internet, including Bob Kahn. In 1986, the Internet Engineering Task Force (IETF) was established as a standards-making body. The IETF would be subsumed by the Internet Society (ISOC) in 1992.

## ICANN

The core principle behind the Internet is the ICANN tagline, "One World, One Internet". ICANN was established in 1998 with the mission to coordinate, at the overall level, the global Internet's systems of unique identifiers, and in particular to ensure the stable and secure operation of the Internet's unique identifier systems. In particular, ICANN:

1. Coordinates the allocation and assignment of the three sets of unique identifiers for the Internet, which are
  - a. Domain names (forming a system referred to as "DNS");
  - b. Internet protocol ("IP") addresses and autonomous system ("AS") numbers; and
  - c. Protocol port and parameter numbers.
2. Coordinates the operation and evolution of the DNS root name server system.
3. Coordinates policy development reasonably and appropriately related to these technical functions.

As the Internet evolved, so did ICANN's role. Apart from performing the critical IANA functions listed above, ICANN also undertakes the following activities:

- Delegates top-level country code domains
- Hosts the L-Root server as one of the 13 root infrastructures and its instances in over 150 locations worldwide
- Supports inclusive, open and bottom-up, multistakeholder policy development
- Supports and grow the community

ICANN is a community-led organization with three core elements –



- The ICANN community, which consists of supporting organizations and advisory committees;
- The Board, made up of representatives of the communities;
- ICANN organization, which helps to implement policies that the community and the board have created.

The ICANN community is comprised of three supporting organizations (SOs) and four advisory committees (ACs).

## The ICANN Multistakeholder Community



More information on ICANN is available at [www.icann.org](http://www.icann.org).

## ISOC

ISOC is a non-profit organization founded in 1992 to provide leadership in Internet-related standards, education, access, and policy. Its mission is "to promote the open development, evolution and use of the Internet for the benefit of all people throughout the world". ISOC plays a very strong role in in setting technical standards relating to the Internet.

In ISOC, policy-making also emerges through a multistakeholder process. As an example, the Internet Protocol Version 6 (IPv6) standard was proposed in Request for Comments (RFC) 3513<sup>3</sup> by Hinden and Deering in 2003 at IETF.

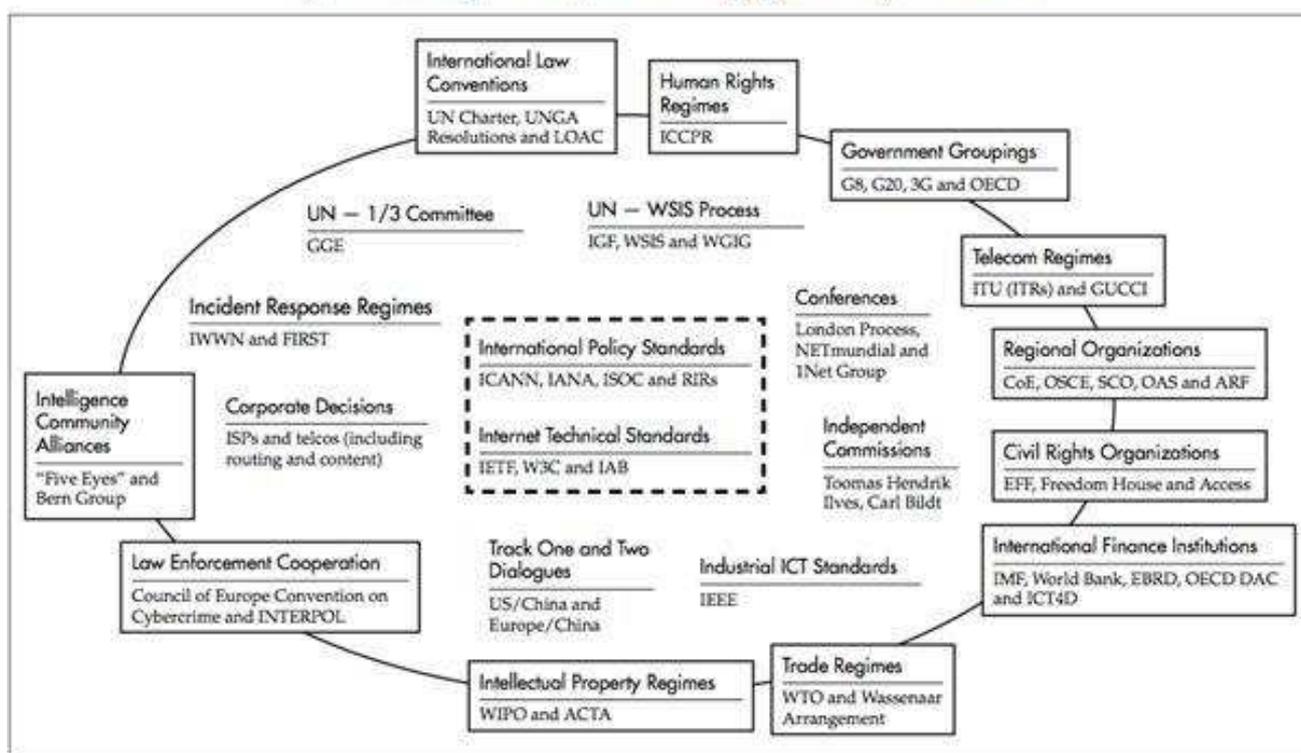
### How does it all add up?

So how do all these different organizations come together? The WSIS, IGF, ICANN, IANA, IETF and a multitude of organizations such as the UN, Interpol, Institute of Electrical and Electronics Engineers (IEEE) work with each other in a dynamic atmosphere.

In 2014, social scientist Joseph Nye, proposed the "Regime Complex for Managing Global Cyber Activities" in explaining how both multilateral and multistakeholder organizations work with each other, at the Global Commission on Internet Governance.

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Figure 1: The Regime Complex for Managing Global Cyber Activities



In this diagram, the core of the Internet governance activities are issues related to International Policy Standards and Internet Technical Standards. In the middle circle around it are both institutions and processes such as The UN and the WSIS process, IEEE and industrial ICT standards and so on. In the outer circle are institutions including INTERPOL, International Monetary Fund (IMF), Organization for Economic Co-operation and Development (OECD), ITU, G8, G20 and Freedom House.

Organizations and processes within this ecosystem collaborate with each other. The multistakeholder model is particularly relevant to the core activities i.e. International Policy Standards and Internet Technical Standards.

### Key issues of discussion in Internet Governance:

There are broadly 9 areas of discussion that take place in the Internet Governance space.

Global Internet Governance Architecture	Cyber Security
Sustainable Development	E-commerce and Internet economy
Digital Rights	Jurisdiction and legal issues
Infrastructure	Net neutrality
New technologies – Internet of Things, Artificial Intelligence, etc.	

Many of the above are everyday issues which have taken on greater significance with the emergence of ICT and the Internet. Each of the above issues carries significant bearing to communities around the world.

For example, the net neutrality debate in India a couple of years ago was significantly different from the one in the United States of America. A key discussion that is gaining momentum these days is related to regulations around Internet of Things or IoT. Equally, the topic of Digital Rights of underserved communities bear significance in its context.

### You need to participate

“ICT is the most powerful new tool we have for solving the world’s major challenges—ending poverty and hunger, ensuring universal access to basic services, and making the transition to a low-carbon economy. Past generations were empowered by steam engines, the telegraph, automobiles, aviation and mass communications. Ours benefits from the extraordinary surge of information brought by the Internet and the breakthroughs, immediacy and flexibility enabled by mobile broadband.”<sup>4</sup>

-- Professor Jeffrey D. Sachs, from his 2016 report titled “ICT and Sustainable Development Goals (SDGs)”.

There is no denying the importance of ICT, and why you need to get involved. There can be many ways in which you can play a part, as seen from the many topics of discussion in the Internet Governance space.

You can participate through think tanks, non-governmental organizations, technical bodies and business associations which deal with several of these issues. A first step would be to get engaged with one of these organizations and start participating.

Another way of getting engaged would be via the local ISOC chapter or directly with the ICANN community groups. For both ICANN and ISOC, much of the work take place through online mailing groups and periodic face to face meetings.

For instance, ICANN holds three face-to-face meetings a year across the world to allow stakeholders to engage directly with each other. More information can be found [here](#).

I hope you will find participating in Internet governance discussions meaningful. I hope to see you participating in an Internet governance event soon.

### References:

<sup>1</sup> Source: Digital in 2017 <http://bit.ly/2rvcmGk>

<sup>2</sup> United Nations Development Program: Background on the Sustainable Development Goals: <http://www.undp.org/content/undp/en/home/sustainable-development-goals/background.html>

<sup>3</sup> <https://tools.ietf.org/html/rfc3513>

<sup>4</sup> ICT & SDGs: <http://unsdsn.org/resources/publications/ict-and-sdgs/>

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Apple briefly touched \$900 billion market capitalization,. It added \$77 billion in valuation in Oct, an amount equal to the combined value of eBay, Twitter, Yelp, AMD, and GoDaddy.