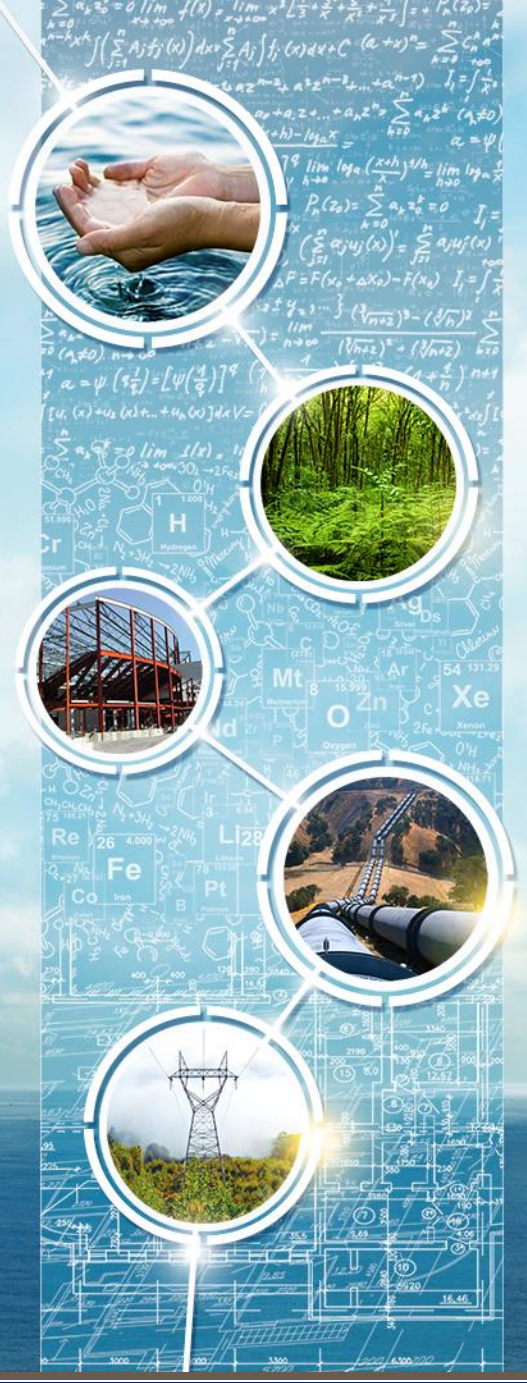

Internet Governance

September 20, 2019

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Internet Governance, History & Principles

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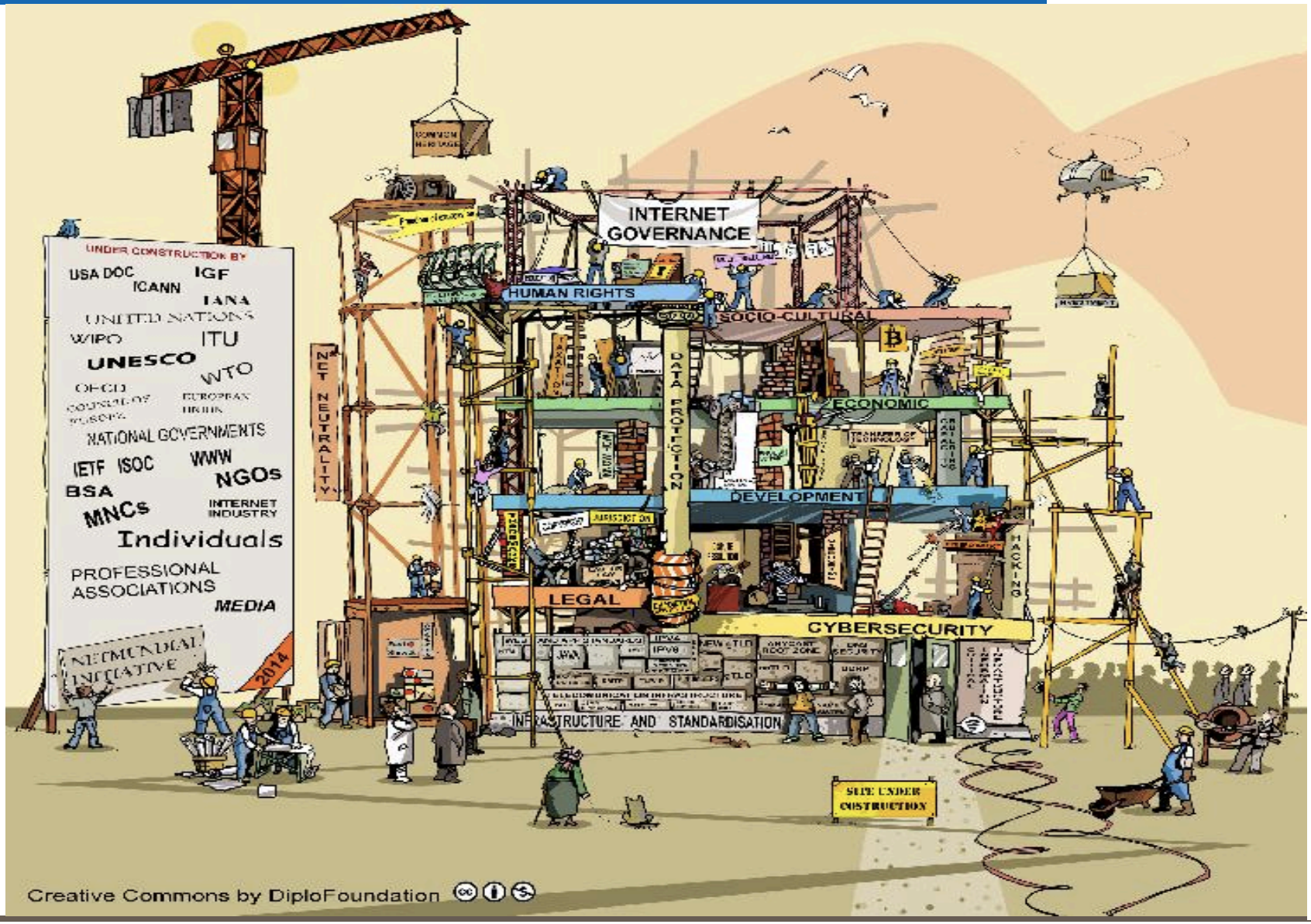
Definitions and History

Internet Governance Definition

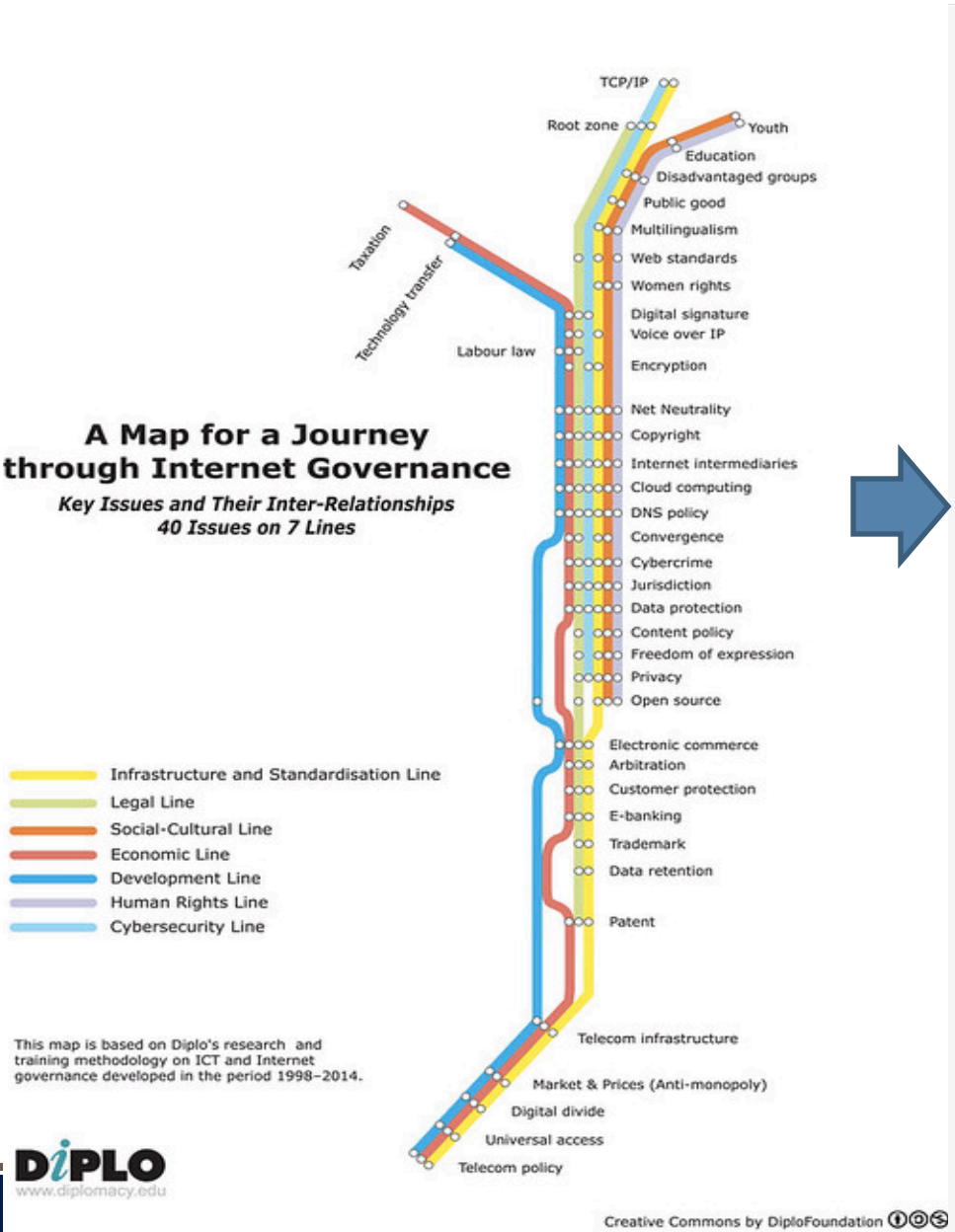
Internet Governance Definition

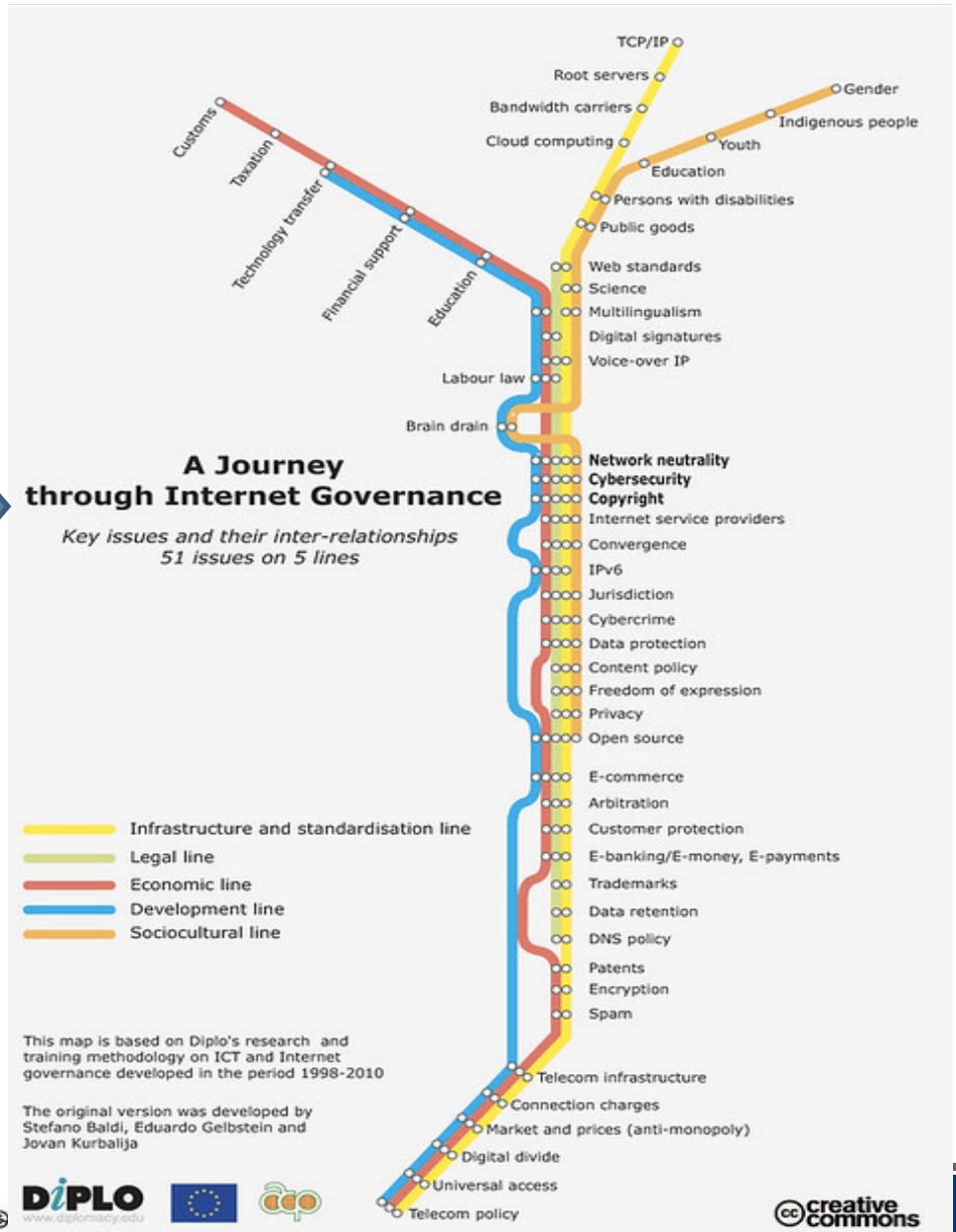
- *Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet*

Map of Internet Governance



And keeps getting complicated





History of Internet Governance

- First reference to Internet Governance was at the 1998 Plenipotentiary Conference held in Minneapolis.
- It is here that other countries first pushed to have the ITU recognize the need of the private sector and other governments to adopt resolutions on governance of the Internet
- The Conference adopted a resolution calling for the creation of a World Summit on the Information Society and asked the ITU Council, the governing body of the ITU, to authorize the Summit.

History of Internet Governance: 1998 Plenipot

- This Conference
  - Called for greater ITU participation in the evolution of the Internet
  - Adopted Resolution 73 which created a World Summit on the Information Society and put it forward to the United Nations.
- On 21 December 2001, the United Nations General Assembly approved Resolution 56/183 endorsing the holding of the World Summit on the Information Society (WSIS) to discuss on information society opportunities and challenges

UN Resolutions

- It also emphasized that the conveners of the WSIS use a multi-stakeholder approach and include civil society, technical communities, the private sector, and not just governments.
- The ITU was given the leading role to organize the event in cooperation with other UN bodies and other international organizations.
- The ITU recommended that preparations for the Summit take place through an open-ended intergovernmental Preparatory Committee – or PrepCom Declaration of Principles and the draft Plan of Action
- In 2001, the ITU Council decided to hold the Summit in two phases, the first from 10 to 12 December 2003, in Geneva, and the second from 16 to 18 November 2005 in Tunis

Creation of WSIS

- One of its chief aims was to bridge the global digital divide separating rich countries from poor countries by spreading access to the Internet in the developing world.
- The conferences established 17 May as World Information Society Day.

FIRST WSIS 2003

- The first WSIS was held in 2003 in Geneva,
- Delegates from 175 countries took part in the first phase of WSIS where they adopted a Declaration of Principles.
  - They also adopted an Action plan, along with goals and objectives
  - The plan did not spell out any specifics of how this might be achieved.
- The Geneva summit also left unresolved more controversial issues, including the question of Internet governance and funding.

Working Group on Internet Governance

- After the 2003 summit failed to agree on the future of Internet governance it created a Working Group on Internet Governance (WGIG) and tasked this group to work on these issues and report back to the main body.
  - The main activity of the WGIG was to investigate and make proposals on the governance of Internet by 2005.
  - The WGIG was also asked to present the result of its work in a report "for consideration and appropriate action for the second phase of the WSIS in Tunis 2005

WGIG (continued)

- The WGIG had 40 members drawn from Governments, private sector, and civil society, who all participated on an equal footing and in their personal capacity.
- They had three objectives
  - Develop a working definition of Internet Governance;
  - Identify the public policy issues that are relevant to Internet Governance;
  - Develop a common understanding of the respective roles and responsibilities of governments, existing international organizations and other forums as well as the private sector and civil society from both developing and developed countries

WGIG Continued

- The WGIG held four meetings in Geneva: 23-25 Nov. 2004; 14-18 Feb. 2005; 18-20 Apr. 2005; and 14-17 June 2005.
- While there was a common understanding of the Internet, there was not a shared view of Internet governance, hence the mandate from the WSIS for the WGIG to develop a working definition of Internet governance.
- The WGIG considered five criteria in crafting a definition
  - *adequate*, *generalizable*, *descriptive*, *concise* and *process-oriented*.
- Second, group looked at a wide range of governance mechanisms both public-sector, private-sector and multi-stakeholder that currently exist.
- Finally, the WGIG assessed a number of alternative definitions proposed by various parties in the course of the WSIS process and related international discussions.

Internet Governance Definition

- *Definition: Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet.*
  - This definition reinforces the concept of inclusiveness of Governments, the private sector and civil society in the mechanisms of Internet governance.
  - It also acknowledges that with respect to specific issues of Internet governance each group will have different interests, roles and participation, which in some cases will overlap.
  - Internet governance includes more than Internet names and addresses, issues dealt with by Internet Corporation for Assigned Names and Numbers (ICANN): it also includes other significant public policy issues, such as critical Internet resources, the security and safety of the Internet, and developmental aspects and issues pertaining to the use of the Internet.

Problems with Definition

- Early on controversy arose over the term ‘governance’ and its various interpretations.
- Many languages do not have a translation for the word governance and in many cases governance is synonymous with government.
- In the early WSIS process, many national delegations thought that Internet governance should be the business of governments and consequently addressed at intergovernmental level with the limited participation of other, mainly non-state actors.
- These interpretations clashed with a broader meaning of the term ‘governance’, which includes the governance of affairs of any institution, including non-government ones. This was the meaning accepted by the Internet community.

Goals of the Working Group on Internet Governance

- One of the main aims of the WGIG was to foster full participation in Internet governance arrangements by developing countries.
- The WGIG placed this aim in the context of one of the priorities it had identified in the course of its work, namely, capacity-building in developing countries.
- This is what lead to the creation of the Internet Governance Forum (IGF)
- The IGF's Mandate comes from Paragraph 72 of the Tunis Agenda

Internet Governance Forum

- The Internet Governance Forum (IGF) serves to bring people together from various stakeholder groups as equals, in discussions on public policy issues relating to the Internet.
- While there is no negotiated outcome, the IGF informs and inspires those with policy-making power in both the public and private sectors.
- At their annual meeting, delegates discuss, exchange information and share good practices with each other.
- The IGF facilitates a common understanding of how to maximize Internet opportunities and address risks and challenges that arise.

IGF

- The first IGF was in Athens Greece and, in many ways, it was an experiment in multilateral diplomacy. It was truly multistakeholder. All players – states, businesses, academic and technical communities, and civil society – participated on an equal footing.
- Since then there have been 13 other IGFs
  - 2007-Rio de Janeiro, Brazil
  - 2008-Hyderabad, India
  - 2009- Sharm El Sheikh, Egypt
  - 2010- Vilnius, Lithuania
  - 2011- Nairobi, Kenya
  - 2012-Baku, Azerbaijan
  - 2013-Bali, Indonesia
  - 2014-Istanbul, Turkey
  - 2015-Joao Pessoa, Brazil
  - 2016-Jalisco, Mexico
  - 2017- Geneva, Switzerland
  - 2018 Paris, France
  - 2019 Berlin, Germany

WSIS Second Phase

- The second Phase of WSIS in November 2005 in Tunis resulted in agreement on the Tunis Commitment and the Tunis Agenda for the Information Society.
- This phase also codified the definitions created by the WGIG and also created the IGF.
- It also created the WSIS Action Lines

WSIS Action Lines

- C1. The role of public authorities & all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- C3. Access to information and knowledge
- C4. Capacity building
- C5. Building confidence and security in the use of ICTs
- C6. Enabling environment
- C7. ICT Applications:
  - E-government, E-business, E-learning, E-health, E-employment, E-environment,
  - E-agriculture, and E-science
- C8. Cultural diversity and identity, linguistic diversity and local content
- C9. Media
- C10. Ethical dimensions of the Information Society
- C11. International and regional cooperation

WSIS Stocktaking Process

- The WSIS Stocktaking Process is a follow-up to WSIS. Its purpose is to provide a register of activities carried out by governments, international organizations, the business sector, civil society and other entities, to highlight the progress made in meeting the action lines.
- The ITU has been maintaining the WSIS Stocktaking database as a publicly accessible system providing information on ICT-related initiatives and projects related to the 11 WSIS Action Lines.
- The purpose of the regular reports is to update stakeholders on the various activities related to the 11 Action Lines identified

Commission on Science, Tech & Development

- Since 2006, the CSTD has been mandated by ECOSOC to serve as the focal point in the system-wide follow-up to the outcomes of the World Summit on the information Society (WSIS) and advise the Council on any recommendations aimed at furthering the implementation of the Summit outcomes.
  - The CSTD is a subsidiary body of the Economic and Social Council (ECOSOC) and was charged by the United Nations to provide the General Assembly and ECOSOC with high-level advice on relevant issues through analysis and appropriate policy recommendations or options to enable those organs to guide the future work of the United Nations, develop common policies and agree on appropriate actions.

CSTD (Continued)

- The CSTD has forty-three member states elected by ECOSOC for a term of four years.
  - Experts nominated by their governments are supposed to possess the necessary qualifications and knowledge.
  - There are eleven members from African States, nine members from Asian States, eight members from Latin American and Caribbean States, five members from Eastern European States, and ten members from Western European and other States
- Along with its Mandate the CSTD convened two working groups.
  - Working Group on Internet Governance Forums
  - Working Group on Enhanced Cooperation

CSTD Working Group on the IGF

- In 2012 the CSTD convened a Working Group to discuss improvements to the Internet Governance Forum
- This Working group held five meetings and these discussions covered:
  - How to develop more tangible and robust outputs to the IGF
  - How to Improve the visibility of IGF Outcomes and their accessibility
  - How to improve the outreach and cooperation with other organizations and fora dealing with Internet governance issues
  - How to improve working modalities of the IGF, through open consultations, improvements to the MAG and the Secretariat
  - How to improve Funding of the IGF
  - How to broaden participation
  - How to Link the IGF to other related processes/bodies

CSTD-Working Group on Enhanced Cooperation

- In 2012, the CSTD also created a working group on enhanced cooperation to examine the mandate of the World Summit on the Information Society regarding enhanced cooperation as contained in the Tunis Agenda;
  - The group was composed of 22 Member States (four per regional group, plus the two that have hosted the World Summit on the Information Society); five from the private sector; five from civil society; five from the technical and academic communities; and five from intergovernmental and international organizations.
  - This group met four times and was supposed to report on its progress to the CSTD group in 2014.
    - However, in 2014, it was unable to offer any recommendations to the full group

Enhanced Cooperation (Continued)

- In 2014, the Chair re-authorized this group for another four years in the hopes that it would be able to come to some conclusions and provide recommendations.
  - The group met five times over the four years and their last meeting was held in January 2018
  - At the 2018 meeting the group was again unable to agree on any outcomes

WSIS +10 Review Process

- The Tunis Agenda called upon the UN General Assembly (UNGA) to conduct an overall review of the implementation of WSIS outcomes in 2015
  - The WSIS+10 Process marked the ten-year milestone since the 2005 Summit.
- In 2015, the stocktaking process culminated with a High-Level meeting of the UN General Assembly in December in New York.
- In December 2015, the UNGA reviewed whether sufficient progress has been made to achieving the WSIS goals over the past 10 years. They also decided on the future of the WSIS process beyond 2015
  - They reviewed the progress made in the implementation of the WSIS outcomes and provided a vision on a post-2015 WSIS agenda
  - the discussion focused on the benefits and challenges of the multistakeholder approach in implementing the WSIS Action Lines.

Internet Governance Today

WSIS + 10 Review

- The WSIS+10 overall review provided an opportunity to revisit the outcomes of WSIS, assess the progress made, and look ahead at challenges to be focused on in the coming years.
  - Just as WSIS sought to address pressing internet issues of the day, WSIS+10 addressed the current challenges facing today's global community.
- Two of the lead UN agencies identified to implement the Tunis Action Plan are the ITU & the UN Educational, Scientific and Cultural Organization (UNESCO).
- The CSTD also continues to play a key role, having been tasked with assisting the UN's ECOSOC as the focal point for the system-wide follow-up of WSIS.
- In the run up to the WSIS review several agencies held their own review process and provided these outputs to the UNGA

WSIS + 10 Review Process

- UNESCO, in collaboration with the ITU and other UN agencies, held the first WSIS+10 event in Paris in early 2013
- The ITU, in collaboration with UNESCO and other UN agencies, hosted a WSIS+10 High-Level Event in Geneva from 9 to 13 June 2014.
- During 2014, the CSTD collected inputs from all WSIS Action Line facilitators and stakeholders about the progress made in the implementation of WSIS outcomes. These results were collated into a final report, which was presented at the CSTD's 18th Session in May 2015, and then presented to the UNGA.
- All three of these processes have been open to contributions from all stakeholders in the WSIS process.
- Collectively, these preparatory activities in the lead-up to the final UNGA WSIS+10 review are known as the "WSIS+10 process".

WSIS + 10 Review

- One of the successes of the WSIS +10 review by the different UN bodies was that the Outcome Document produced shows that there is no longer an issue of Internet governance being only -Governments only (multilateral) but is now understood to include all stakeholders– *multistakeholder.*
- The WSIS+10 process recognized the "Internet as a global facility that includes multilateral, transparent, democratic and multi-stakeholder processes, with the full involvement of Governments, the private sector, civil society, international organizations, technical and academic communities"
- This is an evolution from the 2005 Tunis Agenda, which used the terms "international management of the Internet", and was specific that it should be "multilateral, transparent and democratic."

WSIS- IGF

- In 2003, at the beginning of the WSIS process, most countries addressed Internet governance issues through telecom ministries and regulatory authorities – which meant the ITU
- However, the growing impact of the Internet on the political, social, economic fabric of today's society has lead to other government departments being involved in Internet governance along with civil society, technical institutions, academia, the private sector, international organizations, and individual end-users and consumers
- Today the groups working on Internet Governance are very diverse.
- The IGF also has grown and now there are national IGFs in over 70 countries.
- There are 17 sub-regional and regional IGFs and 9 Youth IGFs, organized on national or regional levels.

Map of the National- Regional Initiatives

National & Regional Initiatives of the IGF

- National and Regional IGF initiatives (NRIs) are independent groups of people that have come together to discuss issues pertaining to Internet Governance from the perspective of their respective communities
- A shared objective of all NRIs is adhering to the core values of the IGF, and contributing to Internet Governance related matters, nationally, regionally, and globally.
- Youth IGFs are specifically organized Forums that discuss the issues pertaining to the Internet arena from the youth point of view.
- All NRIs are required to support the main IGF criteria and principles to be listed on the IGF website.

IGF

- As a result of the review process, the UNGA then re-authorized the IGF for ten years
  - This was a big victory for the IGF as previous renewals of the IGF mandate were had been only for five years
- Today the IGF has grown significantly from when it was first created 12 years ago
- Many countries use national IGF initiatives as a way to engage the various stakeholder groups in Internet governance and digital policy processes
- The IGF created Dynamic Coalitions as a way to continue the discussion on a variety of topics through out the year
  - The concept for Dynamic Coalitions first emerged at the IGF's inaugural meeting in Athens, with a number of coalitions establishing themselves at that time. The coalitions are informal, issue-specific groups comprising members from various stakeholder communities.

IGF: Dynamic Coalitions

- Once established, Dynamic coalitions must follow three basic principles of inclusiveness and transparency for carrying out their work: open membership, open mailing lists, and open archives. They must also ensure their statements and outputs reflect minority or dissenting viewpoints
- In 2015, in response to the CSTD work on enhancements to the IGF, the IGF created a series of Intercessional work in an effort to provide more tangible outputs to the IGF.
- The IGF intercessional work focused on Connecting and Enabling the Next Billions.

Intercessional Work

- Since 2015 there have been three phases to this work on Connecting the Next Billion and three reports published
  - In 2015 the work and the report was called Connecting and Enabling the Next Billion
  - In 2016 the work focused on Policy Options for Connecting and Enabling the Next Billion
  - In 2017 the work continued its focus on Policy Options for Connecting the Next Billions.
  - All of these reports can be found on the IGF Intercessional page, https://tinyurl.com/y9vbjs9c

Best Practice Forums

- In 2016, the IGF created Best Practice Forums (BPF) in response to the CSTD work on enhancements to the IGF.
  - BPFs offer substantive ways for the IGF community to produce more concrete outcomes.
  - BPFs have the freedom to define their own methodologies; tailored to each theme's specific needs and requirements.
  - Each year the MAG agrees on the different themes for the BPFs

Multi-stakeholder Form of Governance

- Multi-stakeholderism is a type of governance structure that brings together all stakeholders to participate in the dialogue, decision making, and implementation of solutions to common problems or goals.
- A stakeholder refers to an individual, group, or organization that has a direct or indirect interest or stake in a particular organization, these may be businesses, civil society, governments, research institutions, and non-government organizations.
- The principle behind this is that if enough input is provided by all actors involved in a question, the eventual consensual decision will gain more legitimacy, and therefore better reflect a set of perspectives, rather than a single source.

Internet
Governance & Geopolitics
Ecosystem

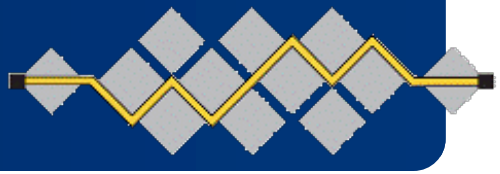
Various key organizations

Stakeholders in Internet Governance

- Stakeholders involved in Internet Governance
  - Technical Groups: I* Organizations ISOC, IANA, IETF, W3C, IEEE, ICANN, IAB, RIRs, ASOs/NROs
  - Governments & International Organizations such as the UN, ITU, UNESCO, UNCTAD- CSTD, OECD, Council of Europe,
  - Private Sector & Associations: ICC, WEF, CCIA, companies like Apple, Google, Amazon, etc
  - Civil Society, APC, Public Knowledge, Access Now, Article 19, EFF, IGC, Best Bits, AT Large, NCSG
  - Academia
  - Individual Consumer groups.

Internet Society

- Founded in 1992
- Non-profit organisation founded to provide leadership in Internet related standards, education, and policy.
- Tagline is the Internet is for everyone and the goals is to promote the open development, evolution, and use of the Internet for the benefit of all people throughout the world
- Acts as the legal home for the IETF and the IAB
- Has chapters and special interest groups around the world spreading its mission and goals



IP3
A TETRA TECH COMPANY

IAB

- Internet Architecture Board
  - Is chartered as a committee of the Internet Engineering Task Force and as an advisory body of the Internet Society
  - Its responsibilities include
    - architectural oversight of IETF activities,
    - Internet Standards Process oversight and appeal
    - appointment of the RFC Editor
  - Is responsible for the management of the IETF protocol parameter registries
  - http://www.iab.org/

IETF®

- Internet Engineering Task Force
- Is a large, open, global community of
  - network designers
  - operators
  - vendors
  - researchers
- Concerned with
  - the evolution of the Internet architecture
  - the smooth operation of the Internet.
- It is open to any interested individual
  - http://www.ietf.org/

What is ICANN ?

Internet Corporation for Assigned Names and Numbers (ICANN) is a non for profit multi-stakeholder and global organization for coordinating the Internet resources maintenance in the public interest

ICANN coordinates the first level of the Internet's unique identifier system through global, multi-stakeholder, bottom-up consensus-based policy processes, the results of which are implemented by the IANA functions

Definitions - ICANN

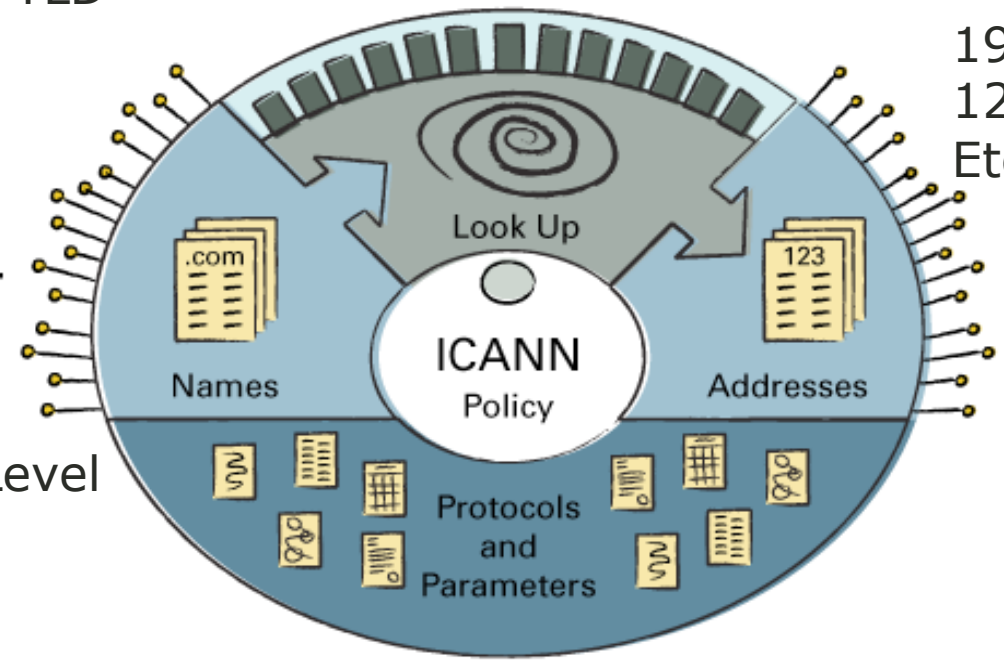
- Founded in 1998
- Not-for-profit public-benefit corporation with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers:
  - Domain Names
  - IP Addresses
- Took over these functions from the US Government
- Composed of three Supporting Organizations (SOs) and four Advisory Committees (ACs)
  - Address SO, Country-code & Names SO, and Generic Names SO
    - Registry SG, new GTLD registry SG, Commercial SG & Non-Commercial SG (NPOC and NCUC)
  - Government Advisory Committee
  - At Large Advisory Committee
  - 2 Technical Advisory Committees (RSAC & SSAC)
- Governed by a Board of Directors appointed by this community

ICANN functions

Generic Top Level Domains
- .COM
- .ORG
- .NET

New Generic TLD
- .museum
- .plumber
- etc

100's of BNs per day



192.168.100.102
123.123.123.123
Etc.

182m+

1b+

Country Code Top Level Domains
- .DE
- .UK
- .CN
- .EG
- Etc.

1k

Source: http://www.icann.org/presentations/igf-internet-ecosystem-beckstrom-15nov09-en.ppt

Regional Internet Registries

- RIRs oversee the allocation and registration of Internet number resources IP addesses within a particular region of the world.
- All the RIRs together form the Number Resource Organization NRO
  - African Network Information Centre (AfriNIC)
  - Asia Pacific Network Information Centre (APNIC)
  - American Registry for Internet Numbers (ARIN)
  - Latin American and Caribbean Internet Addresses Registry (LACNIC)
  - Réseaux IP Européens Network Coordination Centre (RIPE NCC)
    - http://www.nro.net/

NRO / ASO = 5 RIRs

World Wide Web Consortium

- The World Wide Web Consortium (W3C) is an international community where Member organizations, a full-time staff, and the public work together to develop Web standards.
  - Led by Web inventor and Director Tim Berners-Lee and CEO Jeffrey Jaffe.
- W3C's mission is to lead the World Wide Web to its full potential by developing protocols and guidelines that ensure the long-term growth of the Web.
- The following design principles guide W3C's work.
  - Web for All—The social value of the Web is that it enables human communication, commerce, and opportunities to share knowledge.
  - One of W3C's primary goals is to make these benefits available to all people, whatever their hardware, software, network infrastructure, native language, culture, geographical location, or physical or mental ability.
  - Web on Everything—The number of different kinds of devices that can access the Web has grown immensely.

Web Accessibility Initiative

- Mobile phones, smart phones, personal digital assistants, interactive television systems, voice response systems, kiosks and even certain domestic appliances can all access the Web.

- The Web Accessibility Initiative (WAI), in partnership with organizations around the world, develops guidelines which are widely regarded as the international standard for Web accessibility. It has five primary activities:
  - Ensuring that core technologies of the Web support accessibility
  - Developing guidelines for Web content, user agents, and authoring tools
  - Facilitating development of evaluation and repair tools for accessibility
  - Conducting education and outreach
  - Coordinating with research and development that can affect future accessibility of the Web

WAI Guidelines

- Web accessibility depends on several components working together, and how improvements in specific components could substantially improve web accessibility. It is essential that several different components of web development and interaction work together for the web to be accessible to people with disabilities.
- The WAI web accessibility standards group is composed of three groups:
  - Authoring Tool Accessibility Guidelines (ATAG) addresses authoring tools
  - Web Content Accessibility Guidelines (WCAG) addresses web content, and is used by developers, authoring tools, and accessibility evaluation tools
  - User Agent Accessibility Guidelines (UAAG) addresses web browsers and media players, including some aspects of assistive technologies

Anatomy of the Domain

Anatomy of a Domain Name

IDNs

- In the early days, the characters available for registering domain names were limited to a subset of ASCII characters (letters a-z, digits 0-9 and the hyphen "-").
- In 1985, the number and characteristics of domain names have expanded.
- In 2003, the IETF released standards that provided technical guidelines for the deployment of **Internationalized Domain Names (IDN)** through a translation mechanism to support non-ASCII characters of domain names in geographically diverse local scripts
- ICANN later created a new subset of top level domain names that could be longer than 3 characters and could be in scripts other than English
- Today, the majority of Internet users are non-English speakers, however, the dominant language used on the Internet is English.

Longer Domains

- This allows website owners to create online identities that better match their requirements.
  - Examples include generic domains such as .photography and .blog; industry domains such as .bank and .insurance; geographical domains based on cities or regions, such as .london, .berlin; and brand domains, such as .bmw, .google and .apple.
- The process for registering and managing gTLDs and IDNs has not changed
  - It involves three key parties – registries, registrars and registrants – in addition to ICANN.
    - An Internet registry manages the administration of a domain
    - The registry certifies registrars to allocate names within a domain to registrants.
    - A registrant can be an organization or an individual who registers a domain name with online service such as websites and email.

Universal Acceptance

- Problems have resulted in that these new domain names are not universally accepted by all software, limiting the benefits from their introduction.
- Universal Acceptance (UA) refers to the process by which software and applications are updated to accept, validate, store, process, and display the new domain names correctly and consistently by all Internet-enabled applications, devices and systems.
- Today, organizations that choose a domain name that is in a non-Latin script, or one that is larger than 3 characters may find that their domain is not accepted by an organization, because of a software glitch in that the other firm's website or that website or application have not been updated to accept domain names longer than 3 characters or international domain names (domains written in a local non-latin language).

Universal Acceptance and SDG 9

- Universal acceptance of domain names, including IDNs, are relevant to the achievement of the Sustainable Development Goals
- SDG 9 “Building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.”
- UA Readiness is a component of resilient infrastructure
  - The DNS, and the IP addressing scheme, comprise the system of unique identifiers which are essential for the functioning of the Internet. As such, domain names form a core part of the Internet’s infrastructure.
    - The domain name system’s distributed nature provides inbuilt resilience, so long as the individual names function in every language.
  - UA-readiness helps to promote local solutions to infrastructure problems. It can mean that people unfamiliar with English can still help build out, troubleshoot and repair infrastructure. Moreover, Infrastructure is made more resilient by having local resources capable of maintaining it.

Universal Acceptance and SDG 9

- UA-readiness promote inclusive and sustainable industrialization
  - UA-readiness will create a multilingual system of unique identifiers for the Internet, which will extend the reach of domain names beyond the developed world, into communities which are striving to achieve inclusive and sustainable industrialization.
  - A side effect of UA-readiness is that the pool of people available to promote the goal of inclusive and sustainable industrialization becomes larger
- UA-readiness fosters innovation
- UA-readiness significantly increases access to information and communications technology
  - Language is an access issue.
  - Where IDNs are in use, they support local languages, which are essential to motivate local language communities to come online

Universal Acceptance (continued)

- Many applications and services are not being updated to manage new TLDs.
- Although meaningful progress towards the implementation of UA amongst application owners has occurred, there is still several applications that do not accept the new domains.
- Software and applications typically run a check to ensure that the entered domain name or email address is valid. This is to make sure that the email address is usable, and partly for security reasons, to prevent attacks being initiated by inputting harmful code instead of an email address.
- One of the key impediments to UA is awareness of the issue, rather than the cost of implementation.
- Often when a case is flagged the other firm works to fix it, but this takes time and months could go by where a domain will still not work until a software fix is made.

Universal Acceptance (continued)

- Once a software and application owner has been made aware that UA is an issue, it has been able to address the problem.
  - The fix is often treated as a “bug fix” and dealt with as part of the normal software debugging and update process.
  - However, this process can take 4-6 weeks for a quick recognizable fix to months for a longer more difficult fix which involves new coding
  - 4-6 weeks on the short end and months for other solutions is an extremely long time for a non-profit and one that is very costly to them in terms of their social media planning and presence
- A final complication in the implementation of UA is in software systems that interact with each other.
  - For example, when an airline customer makes a booking for a flight, he or she provides an email address, which may use a new domain. In some cases, the email address was not transferred to because of limitations of the current intercarrier network based on standards

Universal Acceptance (continued)

- Very small local companies, such as restaurants, tradespeople, and small shops may use third-party software which have plug-ins that create online entry forms that can verify domain names.
- Mid-sized companies and Government agencies, especially those in industries that are not very technology- oriented, are just not aware of this issues and do not have the necessary software development resources to fix this issue.

Domain Related issues

Domain Related issues

- There are three key issues that all firms, including Government Agencies should focus on as concerns Internet Governance, specifically Domains.
- These are:
  - Administration
  - Social Media
  - Security and Stability

Administration of Domain

- Administration
- Registering your Domain
  - Who in your organization is in charge of this?
  - Are they using a generic email address for your firm or business or a business or personal one for the admin, technical and other official contact email addresses
  - Where is this information stored?
    - Is it secure? Or just on a public Google Doc or Post-It or Bulletin Board?
    - Who knows the User ID, Password, Registry (the company who you contracted with to purchase the domain), the hoster (company who hosts your website) for all of these firms
  - Do others know the Expiration dates, renewal dates or payments due for the Domain?
    - Renewal of Domain and payment of hosting services
    - Who receives these email notifications?

Social Media

- Social Media
  - Who is responsible for social media for your firm?
  - What platforms are used?
  - Where is this information such as user ID and passwords stored
  - Is this information stored in a secure location or is it on a public Google Doc or paper on a bulletin board for all to see.
  - Do others who take over this assignment know where the user names and passwords are stored
  - What happens if the person who had been in charge leaves?
    - Will others be able to continue the social media presence?

Security and Stability

- Is your website and email system secure?
  - What level of security do you pay for or provide?
  - Are you aware of the costs involved in ensuring that your website is secure and that the information on it is protected?
  - Is your website Encrypted?
    - If not, are you aware of Let's Encrypt. Let's Encrypt is a free, automated, and open certificate authority (CA). It allows people and organizations around the world obtain, renew, and manage SSL/TLS certificates. Their certificates can be used by websites to enable secure HTTPS connections.
  - Does your provider offer this service?
  - Is your website e-commerce ready?
- Who in your Organization is tasked with this information and what provisions are there if this person leaves?

Annual Strategy or Planning

- Does your firm go through an annual exercise or strategic plan
- Is this information included in the plan?
  - It is important that this type of information be included in your firm's Annual Strategy or plan and be assigned to a department or division so it will be tracked
  - The Key issue here is to ensure the viability of your domain, your firm's website and your firm's email address
  - Without a definite strategy to ensuring this your firm's most important assets and ability to achieve its mission and the issues could be in danger.

Conclusions

1. Internet Governance Definition
2. History of Internet Governance
3. Internet Governance Today
4. IGF: Intercessional activities, Dynamic Coalitions, Best Practices Forums
5. Various organizations ISOC / IAB / IETF ITU / W3C / IGF UN / I&J / ICANN
6. Anatomy of a Domain
7. New GTLDs and International Domain Names
8. Domain related Issues

Thanks
Questions, Comments, Suggestions

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