THE INTERNET GOVERNANCE ECOSYSTEM

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Overview

- The Internet
- Governance
- Internet Governance
- The Internet Governance Ecosystem
- The future of Internet Governance
The Internet

- ARPANET – The first to implement the TCP/IP protocol suite
- X.25 – Competing protocol suite from ITU
- MINETEL
The Internet

Major layers of the Internet

• Infrastructure
• Technical standards
• Content and Application
<table>
<thead>
<tr>
<th>Layer</th>
<th>Function</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application (Layer 7)</td>
<td>User interface</td>
<td>Telnet, HTTP</td>
</tr>
<tr>
<td>Presentation (Layer 6)</td>
<td>Handles encryption &amp; changes to syntax</td>
<td>ASCII/EBCDIC, JPEG/MP3</td>
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<tr>
<td>Session (Layer 5)</td>
<td>Manages multiple applications and maintains synchronisation points</td>
<td>Operating systems, scheduling</td>
</tr>
<tr>
<td>Transport (Layer 4)</td>
<td>Provides reliable or best-effort delivery and (optional) error and flow control</td>
<td>TCP, UDP</td>
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<tr>
<td>Network (Layer 3)</td>
<td>Provides logical end-to-end addressing used by routers and hosts</td>
<td>IP</td>
</tr>
<tr>
<td>Data Link (Layer 2)</td>
<td>Creates frames from data bits, uses MAC addresses to access endpoints, and provides error detection but no correction</td>
<td>802.3, 802.2, HDLC, Frame Relay</td>
</tr>
<tr>
<td>Physical (Layer 1)</td>
<td>Specifies voltage, wire speed, and cable pin-out</td>
<td>EIA/TIA, V.35</td>
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Unique attributes of the Internet

- Borderless
- Distributed
- No central authority
- Based on packet switching / circuit switching
- Asynchronous / Synchronous
Governance

What is “governance”?

• Governance is not about government.

• Similarities between governance and government can be described as “goal-oriented behavior” and “systems of rule” but being essentially different:
  o “government” suggests activities that are backed by a formal authority
  o “governance” refers to activities backed by shared goals that may or may not derive from a formal authority.

• Governance is, from this perspective, a more widely encompassing concept that includes governmental policies, but also other mechanisms that structure behaviour (e.g. principles, norms, standards etc).
Internet Governance

Internet governance – how the term appeared

World Summit on the Information Society (WSIS)

• Geneva 2003 -> discussions on the governance of the Internet -> creation of the Working Group on Internet Governance:
  • ”[T]he development and application by governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.” (WGIG 2005)

• Tunis 2005 -> Tunis Agenda for the Information Society:
  • endorsement of the definition of Internet governance
  • creation of the Internet Governance Forum (IGF)
Internet Governance

Internet governance issues (WGIG classification)

- Issues related to infrastructure and the management of critical Internet resources.

- Issues related to the use of the Internet, including spam, network security, and cybercrime.

- Issues relevant to the Internet but that have an impact much wider than the Internet and for which existing organisations are responsible, such as intellectual property rights (IPR) or international trade.

- Issues related to the developmental aspects of Internet governance, in particular capacity building in developing countries.
Internet Governance

Key principles for Internet governance

- Multistakeholderism
- Openness and inclusiveness
- Transparency
- Accountability

Aimed at fostering the sustainability, robustness, security, stability and development of the Internet.
The Internet Governance Ecosystem

Who is involved? (Internet governance stakeholders)

- Governments (ministries; regulatory agencies; legislators; diplomats)
- Private Sector (Telcos, Internet industry)
- Technical Community (IETF/ISOC; W3C, RiRs and TLDs registries and registrars, ISPs)
- Civil Society (multiple NGOs, individual users, academia)
- Inter-Governmental Organizations (UN, ITU, UNESCO, OECD, Council of Europe etc.)
The Internet Governance Ecosystem
Main processes and organizations in the global ecosystem

WHO RUNS THE INTERNET?

NO ONE PERSON, COMPANY, ORGANIZATION OR GOVERNMENT RUNS THE INTERNET.
The Internet itself is a globally distributed computer network comprised of many voluntarily interconnected autonomous networks. Similarly, its governance is conducted by a decentralized and international multi-stakeholder network of interconnected autonomous groups drawing from civil society, the private sector, governments, the academic and research communities, and national and international organizations. They work cooperatively from their respective roles to create shared policies and standards that maintain the Internet's global interoperability for the public good.

WHO IS INVOLVED:

IAB
INTERNET ARCHITECTURE BOARD
Oversees the technical and engineering development of the IETF and IRTF.
www.iab.org

ICANN
INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS
Coordinates the Internet's systems of unique identifiers: IP addresses, Protocol-Parameter registries, top-level domain space (DNS root zone)
www.icann.org

IETF
INTERNET ENGINEERING TASK FORCE
Develops and promotes a wide range of Internet standards dealing in particular with standards of the Internet protocol suite. Their technical documents influence the way people design, use, and manage the Internet.
www.ietf.org

ISF
INTERNET SOCIETY
Facilitates the open development, evolution, and use of the Internet for the benefit of all people throughout the world. Currently, ISOC has over 100 chapters in around 80 countries.
www.internetsociety.org

ICANN
INTERNET REGIONS
Manages the allocation and registration of Internet number resources, such as IP addresses, within geographic regions of the world.
www.regions.icann.org

GOVERNMENTS AND INTER-GOVERNMENTAL ORGANIZATIONS
Develop laws, regulations and policies applicable to the Internet within their jurisdictions; participate in multilateral and regional stakeholder and technical communities; and have a say in how the Internet is run.

INTERNET OPERATORS’ GROUPS
Discuss and influence matters related to Internet operations and regulation within internal fora made up of Internet Service Providers (ISPs), Internet Exchange Points (IXPs) and others.

This graphic is a living document, designed to provide a high level view of how the Internet is run. It is not intended to be a definitive guide. Please provide feedback at www.epinions.com/whosrunstheinternet.
The extended Internet Governance Ecosystem?
The Internet Governance Ecosystem

Internet governance at a national level – few examples

- Management of ccTLDs – ccTLD registries
  - Many such registries have a multistakeholder structure (.br, .fr, .rs, etc.)
- National IGF initiatives
- ISOC local chapters
- National bodies entrusted with setting up policies for the Internet (ex. CGI.br)
The Internet Governance Ecosystem

Evolutions and current challenges in the Internet governance ecosystem

• WSIS + 10 review & IGF renewal
• ICANN/IANA stewardship transition /ICANN accountability
• Netmundial
• Netmundial Initiative
• Global Internet Policy Observatory
The future of Internet Governance?