Internet Governance: Challenges, Issues and Roles — A Taxonomy Discussion

WSIS+10 Workshop
9 June 2014
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“The views expressed in this presentation are my own personal views, and are not necessarily the official views of any organization, specifically those of ICANN, the Internet Corporation for Assigned Names and Numbers.”
Presentation outline

• 1. Evolution of “Internet governance”
• 2. Issue space and institution mapping
• 3. Three suggested approaches
• 4. Unidimensional spectrum/stack view
• 4. Governance OF and ON the Internet
• 5. Level of defining and solving issues
• 6. Broaden scope to “ICT governance” for social and economic development
• 7. Summary
History: Evolution of Internet governance

• 1969 – early 1990’s: Building the Internet
  – decentralized institutions, cooperative arrangements
  – RFCs for standards, Postel’s IANA for names, numbers

• Early 90’s - 2002: Commercialization accelerates
  – Acceptable use policies
  – Domain name industry takes off

• 2003 - present : Entry of governments, WSIS,
  – Governments take Internet seriously
  – WSIS, WGIG, IGF, National IGFs, Net Mundial
Working Group on Internet Governance

• “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 programmes that shape the evolution and use of the Internet.”

• Demonstrates inclusivity

• Constructively ambiguous?

• Substantiated by the WSIS process
Mapping internet issues: in detail

David Souter – Networking
Networks in Internet Public Policy
APC Symposium, Ancona, July
Individual users

- IGF and regional IGFs
- IANA, ICANN
- RIRs
- DCs

Internet coordination

Internet standards (IETF, W3C)

Supply side
- Internet firms and ISPs
- Telcos
- Content producers inc. Web 2

Demand side
- Business users of the internet
- SMEs
- Micro-businesses

Mainstream government departments (users, intermediaries)

- United Nations
- ITU
- WIPO
- WTO

Standards bodies
- Coord-agencies & agreements e.g. Interpol, cybercrime, IAP spam
- Regions e.g. EU, CoE
- ICT ministries
- ICT regulators
- Content regulators
- ISOC chapter
- ccTLD registrar

Content producers

- Diplo
- Internet advocacy organisations & networks
- Access
- Development
- Internet rights

- Giganet
- IGC
- Academics
- IGP

- Individual
- Governance
- IRP DC
- APC
- Consumer rights
- Media
- Development
- Environment
- Mainstream civil society organisations
- Women’s movement
- Trades unions
- Faith groups

- APC Symposium, Ancona, July

David Souter – Networking Networks in Internet Public Policy
Mapping internet issues against decision-making entities (illustrative)

- **Development agencies** – World Bank, UNDP, UNESCO, sectoral UN agencies, National governments, Bilateral donors, ICT4D NGOs
- **World Bank and IFIs**
- **ITU**
- **ICANN**
- **UNGA**
- **IETF**
- **MAG**
- **RIRs**
- **Content regulators**
- **Sectoral ministries**
- **Trade ministries**
- **Trade and tax**
- **WTO**
- **W3C**
- **IXPs**
- **Private sector standards bodies**
- **Economic growth**
- **Access to networks**
- **Access to information**
- **Digital divide**
- **LAP**
- **Spam**
- **Cloud computing**
- **Convergence**
- **IPV6**
- **Radio**
- **Social cooperation**
- **Founding principles**
- **IDNs**
- **Multi-stakeholderism**
- **Participation & transparency**
- **Empowerment & transparency**
- **Policing and security agencies**
- **Interpol**
- **ISP role**
- **Access to knowledge**
- **kp generation**
- **New media**
- **Exclusion/inclusion**
- **Migrant rights & issues**
- **Disability**
- **Youth empowerment**
- **Multilingualism, language, literacy**
- **National courts**
- **Content regulators**
- **WIPO**
- **Media regulators**
- **Energy ministries**
- **Smart grids**
- **Dematerialisation**
- **Environmental agencies**
- **Development domains**
- **Changing consumption**
- **Energy ministries**
- **Natural and international courts**
- **Fraud**
- **Consumer protection agencies**
- **Rights**
- **Fraud**
- **Consumer protection agencies**
- **Rights**
- **Networks in Internet Public Policy**

David Souter – APC Symposium, Ancona, July 2010
A complex picture

• Many issues, many institutions
• Rapid technological progress
• Rapid societal impact
• How do we make sense of all this from a governance perspective?
  – Need structure, abstraction, models, taxonomies
• That is the conundrum that we’re faced with today
Three suggested approaches

• A unidimensional model of governance issues
  – A spectrum of issues from technical to societal
  – Institutions tend to be fixed within the spectrum
  – However, interaction exists across the spectrum

• A defining question:
  – Did this issue exist before the Internet existed?
  – If not, it’s governance OF the Internet
  – If so, it’s governance ON the Internet

• At which level(s) is a given issue present?
  – Local, national, regional international?
  – At which level(s) can it best be addressed?
Unidimensional model of the Internet

**SOCIAL LAYER**
- Trust and identity
- Human Rights Applied to the Internet
- IG Principles (e.g. Net Neutrality)

**CONTENT LAYER**
- Intellectual Property Rights
- Cybercrime
- SPAM
- MOOCs
- Digital Libraries
- Collaborative Applications

**TECHNICAL LAYER**
- Internet Naming and Numbering
- Protocols & other Standards

- Connectivity & Universal Access
- Net Neutrality
Governance OF the Internet

• Better defined as Internet administration (IA)
• Largely separate from governance ON the Internet
• Actors are telcos, IETF, ISOC,RIRs, ICANN
• Decentralized functions, cooperative relationships
• Administration requires skill, engineering talent, discipline to keep complex system running
# DeNardis Disaggregation

## Disaggregated Internet Governance Taxonomy

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Tasks</th>
<th>Primary Institutional Actor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Control of “Critical Internet Resources”</strong></td>
<td>Central Oversight of Names and Numbers</td>
<td>ICANN, IANA, US Department of Commerce</td>
</tr>
<tr>
<td></td>
<td>Technical Design of IP Addresses</td>
<td>IETF</td>
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<tr>
<td></td>
<td>New Top-Level Domain Approval</td>
<td>ICANN</td>
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<td></td>
<td>Domain Name Assignment</td>
<td>Internet Registrars</td>
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<tr>
<td></td>
<td>Oversight of Root Zone File</td>
<td>US Department of Commerce/NTIA</td>
</tr>
<tr>
<td></td>
<td>IP Address Distribution (allocation/assignment)</td>
<td>IANA, RIRs, LIRs, NIRs, ISPs</td>
</tr>
<tr>
<td></td>
<td>Management of Root Zone File</td>
<td>IANA</td>
</tr>
<tr>
<td></td>
<td>Autonomous System Number Distribution</td>
<td>IANA, Regional Internet Registries</td>
</tr>
<tr>
<td></td>
<td>Operating Internet Root Servers</td>
<td>VeriSign, Cogent, others</td>
</tr>
<tr>
<td></td>
<td>Resolving DNS Queries (Billions per Day)</td>
<td>Registry Operators (VeriSign, others)</td>
</tr>
<tr>
<td><strong>II. Setting Internet Standards</strong></td>
<td>Protocol Number Assignment</td>
<td>IANA</td>
</tr>
<tr>
<td></td>
<td>Designing Core Internet Standards</td>
<td>IETF</td>
</tr>
<tr>
<td></td>
<td>Designing Core Web Standards</td>
<td>W3C</td>
</tr>
<tr>
<td></td>
<td>Establishing Other Communication Standards</td>
<td>ITU, IEEE, MPEG, JPEG, ISO, others</td>
</tr>
</tbody>
</table>
Internet Administrative organizations utilize Multistakeholder Model (MSM)

- All affected stakeholders to be involved
- Different implementations of MSM
- Challenge to multilateral decision making
- Traditional, between governments
- Multistakeholder approach demands new way of thinking about authority, responsibility
Authority and accountability

• With respect to Internet administration
  – (recent US government decision to “let go” of Internet)
• Do I* organizations have authority to run the net?
• Are I* organizations sufficiently accountable?
  – Accountability TO whom FOR what, and HOW implemented?
  – Internal and external accountability mechanisms
  – What process to correct for failure?
• What is accountability to the public interest?
  – To whom is an oversight organization accountable?
• This is a major current issue in internet administration
Governance **ON** the Internet

• Governance of issues pre-dating the Internet
• Issue is not new, but Internet causes significant qualitative or quantitative change
  – Institutions exist but may not be ready
  – Legal structure may not be ready
  – People and their expectations may not be ready
• Malefactors quick to identify such gaps
  – Extra-legal activities quick to exploit them
Responsibility for content, social issues

- Taxonomy of this IG space not well mapped
  - May often be country specific
- Key question: “Whose responsibility is _____?”
- Initial response: Whose responsibility is this in the non-Internet world
- There may be gaps, i.e. orphan issues
- Internet user forced to take additional responsibilities
  - New classes of intermediaries may be required
- This mapping is urgently needed
Identifying where the issue lives

• At what level does the issue exist?
  – Local, national, regional, international?
• Some issues demand international cooperation
• Many (most?) issues are national in scope
  – National IGFs to identify and solve them
  – Importance of multistakeholder approach
• Centrality of national policy and regulatory structure
Internet governance focus is too limited

• Larger objective is exploitation of ICTs for economic and social development
  – Internet governance alone could be a distraction

• Some questions that should be asked at the national level follow
  – Answers all depend upon nature of government regulation and policy in multiple sectors
  – Answers all describe the existing “ICT governance policy” of the country, including the Internet
National level issues (1 of 2)

- Is the telecom market non-competitive?
- Are regulatory processes closed or non-transparent?
- Do ISPs have high barriers to entry, such as strict licensing or high fees?
- Does the PTT or other organization have a monopoly on the Internet gateway?
- Are IXPs (Internet Exchange Points) prohibited?
- Is it difficult to start a business? Are there long delays?
- Are there high prices for computers and networking equipment relative to neighboring countries in similar circumstances, and if so, why?
- Are import duties prohibitive?
- Are local taxes high?
- Is customs clearance slow, inefficient or corrupt?
- Are existing networks closed to competitors, or are they open but with a non-level playing field?
National level issues (2 of 2)

• Are ISPs liable for transport only of illegal content?
• Is e-commerce legislation non-transparent or arbitrary?
• Are licensing requirements not predictable?
• Is there lack of information confidentiality, privacy?
• Are information services subject to content restrictions or censorship?
• Are e-business transactions insecure?
• Are security tools such as encryption forbidden?
• Are any laws or regulations not published or not available?
• Do e-government policy processes discourage or limit active public participation?
• Are intellectual property rights not respected?
• Are digital contracts & transactions not formalized in law?
Summary

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Thank you!

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Miscellaneous related detritus .....
The role of ICANN

• ICANN is a global organization
• ICANN operates in context of Internet ecosystem
• Coordinate the global Internet’s system of unique identifiers
  – Domain names, IP addresses (and AS numbers)
  – Protocol port and parameter numbers
• Ensure their stable and secure operation
• Coordinate operation and evolution of DNS
• Coordinate related policy development
• ICANN is not involved in content on the Internet
The NTIA announcement

• NTIA (USG) willing to cede control of IANA ...
  – In past, criticism of USG control of relationship
• ... IF community mechanism can be agreed upon
  – IANA functions are clerical
  – But basic problem is trust in ICANN
  – Legitimacy depends on acceptance of accountability
  – To whom would ICANN be accountable?
  – How do “we” decide?
• This is the current state of affairs