

The Internet, Governance and You

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A Discussion in 3 Questions

- What would modern life be like, if the Internet went away?
- Who determines the Internet's fate?
- Why are we talking about the Internet going away?

**WHAT WOULD MODERN LIFE BE LIKE, IF
THE INTERNET WENT AWAY?**

Internet Conveniences

- Online banking
- Purchase research
 - Reviews
 - Fact-finding
 - Tech specs
 - Small and large – books to real estate
- Digital downloads
- Purchasing
 - Amazon led the way
 - Booking travel (buses, ferries, planes, rentals, ski chalets)

Communications

- Cost-free voice across town, the country, the globe
- Staying in touch
 - Photos
 - Video
- Social media
 - Making friends and staying in touch across time and geography
 - Becoming someone important in the twitterverse or blogosphere
- Tele-working
- Distance education

Pastimes

- Fan sites
- Crafting groups
- Whatever obscure hobby you have...
 - ... someone else on the planet has already put up a website to share info
- Entertainment
 - “Who was the actor that...”
 - “Whatever happened to”
- News & opinion-sharing

Online services

- Search
 - Google, Bing
- Facebook
- eBay
- Etsy
- Edmunds.com

Businesses

- Large
 - United Airlines – largest online booking service
- Small
 - B&B bookings
 - Soap-makers in remote places

The Internet “reduces friction” and expands horizons

- Makes it easier for you to get on with your own business
- Makes it possible to start up your own activity
 - information site
 - opinion soap box
 - storefront
 - business

The Internet is a Key Part of Our Lives

- The Internet has allowed explosive growth
- There are issues – things done with or to the Internet that are questionable
- But it would be pretty hard to go back now to pre-Internet life
- Key to all of this is permissionless engagement
 - you can get on the Internet
 - you can set up services and resources on the Internet
 - you don't need to get prior approval

What Really Matters (1/5)

- <http://www.internetsociety.org/internet-invariants-what-really-matters>
- The Internet has global reach and integrity, and is not constrained in terms of supported services and applications:
 - ***Global reach, integrity***: Any endpoint of the Internet can address any other endpoint, and the information received at one endpoint is as intended by the sender, wherever the receiver connects to the Internet.
 - ***General purpose***: The Internet is capable of supporting a wide range of demands for its use.

What Really Matters (2/5)

- The Internet is for everyone – there is no central authority that designates or permits different classes of Internet activities:
 - ***Supports innovation without requiring permission (by anyone)***: Any person or organization can set up a new service, that abides by the existing standards and best practices, and make it available to the rest of the Internet, without requiring special permission.
 - ***Accessible – it's possible to connect to it, build new parts of it, and study it overall***: Anyone can “get on” the Internet – not just to consume content from others, but also to contribute content on existing services, put up a server (Internet node), and attach new networks.

What Really Matters (3/5)

- The Internet requires some basic agreements and social behaviour – between technologies and between humans:
 - ***Based on interoperability and mutual agreement:*** The key to enabling inter-networking is to define the context for interoperation – through open standards for the technologies, and mutual agreements between operators of autonomous pieces of the Internet.
 - ***Collaboration:*** Overall, a spirit of collaboration is required – beyond the initial basis of interoperation and bi-lateral agreements, the best solutions to new issues that arise stem from willing collaboration between stakeholders. These are sometimes competitive business interests, and sometimes different stakeholders altogether (e.g., technology and policy).

What Really Matters (4/5)

- Although no specific technology defines the Internet, there are some basic characteristics that describe what works:
 - ***Technology*** – reusable building blocks:
Technologies have been built and deployed on the Internet for one purpose, only to be used at a later date to support some other important function.

What Really Matters (5/5)

- And, finally, the more the Internet stays the same, the more it changes:
 - ***There are no permanent favourites***: While some technologies, companies and regions have flourished, their continued success depends on continued relevance and utility, not strictly some favoured status.

As compared to Traditional Telecomms networking

- Owned by corporations
 - private or government monopolies
- Developed through national standards bodies agreements
 - and operated by treaty-based legislation, as opposed to collaboration
- If you're not the phone company, you can't build or introduce a new phone service

**WHO DETERMINES THE INTERNET'S
FATE?**

Related questions

- Who made the Internet evolve that way?
- How can we make a difference?

Evolution of Internet Institutions

Internet Engineering Task Force (IETF)

- The first IETF meeting was on January 16, 1986, consisting of 21 U.S.-government-funded researchers.
- During the early 1990s the IETF changed institutional form from an activity of the U.S. government to an independent, international activity associated with the Internet Society
- Since that time all IETF meetings have been open to the public. The majority of the IETF's work is done on mailing lists, and meeting attendance is not required for contributors.
- There are no “members” – everyone is a *participant* in the process, and represents their own technical viewpoint (not corporate or national affiliation)
- The basic mechanism remains publication of draft specifications, review and independent testing by participants, and republication. Interoperability is the chief test for IETF specifications becoming standards. Most of its specifications are focused on single protocols rather than tightly interlocked systems.
- *(This slide borrows heavily from http://en.wikipedia.org/wiki/Internet_Engineering_Task_Force)*

Internet Architecture Board (IAB)

- Appointed technical experts (12 + IETF Chair)
- A major role of the IAB is long range planning and coordination between different areas of IETF activity. The IAB, both collectively and on an individual basis, is expected to pay attention to important long-term issues in the Internet, and to make sure that these issues are brought to the attention of the group(s) that are in a position to address them. It is also expected to play a role in assuring that the people responsible for evolving the Internet and its technology are aware of the essential elements of the Internet architecture.

Related activities – IANA, RFC Editor

- RFC Editor
 - RFC 1 in 1969
 - Steve Crocker, “Host Software”
 - <http://www.rfc-editor.org/rfc/rfc1.txt>
 - Now more than 7,000 documents
- Internet Assigned Numbers Authority
 - Management of allocation of limited resources

Regional Internet Registries (RIRs)

- Allocation of IP addresses
 - Initially, structure-based allocations (classes)
 - IPv4 only has about 4 billion addresses – as the Internet grew, had to go to needs-based allocation
- 1992 – RFC1366 published by the IETF
 - growth & globalization of the Internet
 - proposes evolution of IP address registry process
 - single registry in each geographical region of the world
 - each registry would be charged with allocating remaining address space in a manner compatible with potential address aggregation techniques

RIRs today

- Operate independently on a basic principle of open, transparent, consensus-based decision-making, following self-regulatory practices that exist elsewhere in the Internet and other industries.
- Five regions
 - North American (ARIN)
 - Europe (RIPE)
 - Asia Pacific (APNIC)
 - Latin America (LACNIC)
 - Africa (AfrinIC)

Internet Corporation for Assigned Names & Numbers (ICANN)

- Created in 1998 to handle the increasingly commercial domain name “industry”
 - creation of top level domains
 - accrediting operators of registries and registrars
- Also the current operator of IANA
 - maintaining the registries of protocol parameters
 - maintenance of the domain name system root zone
 - IP address allocation
 - which is carried out by the RIRs
- Holds public meetings 3 times a year

Internet Service Providers & other companies

- The Internet started as a research tool, operated by researchers at (chiefly) academic institutions
- Today, what does/not happen on the Internet is determined by what gets deployed and built
 - Internet access providers – consumer and business
 - globe-spanning networks
 - web hosting, service hosting
 - services
 - ...

Summary of what you should take away

- Organization where necessary, but not necessarily organizations
- Growth in process and structure to meet demands of the growing Internet – as a system, as a technology
- Very much hands-on, voices heard
 - *you* can participate and make a difference

WHY ARE WE TALKING ABOUT THE INTERNET GOING AWAY?

SOPA/PIPA

- Stop Online Piracy Act / Protect IP Act
 - IP == Intellectual Property
- Proposed US law to require ISPs to “block” domain names of “foreign” services that contain “substantial” copyright “infringement”
 - blocking – does not work
 - foreign – every service has something from everywhere
 - substantial – still means collateral damage
 - infringement – is a matter of locality of jurisdiction
- Would make ISPs “gatekeepers” on what you could see/do
- Shelved due to popular (individual and corporate) outcry

WCIT-12

- World Conference on International Telecommunications (WCIT)
 - Treaty conference of the International Telecommunications Union
 - November-December 2012
 - Previous one – 1988
- 152 participating countries
 - One country one vote
 - Sector members – no votes
- Substance
 - Important for updates in telecomms reality
 - E.g., mobile phone requirements are different now
 - Tried to make telecomms mean Internet
- Outcome
 - 89 of 152 countries have signed the outcome
 - US did not sign the outcome
 - Accused of failing to negotiate (but facts are not negotiable)
 - Pulled out on the grounds of trying to bring human rights into the telecomm treaty

NETMundial

- “Global Multistakeholder Meeting on the Future of Internet Governance”
 - Sao Paolo, Brazil, April 23-24 2014
 - Called by Brazil – inviting minister-level participation from other governments, private sector/technical community, civil society
- Not part of a formal organization or meeting structure
 - Not a technical community meeting
 - Not a traditional government meeting
- Produced a non-binding statement in favor of consensus-based decision-making
 - Represented a level of agreement of those present
- Further evidence of “organization where necessary...”?

Welcome to the Internet era

- The Internet has demonstrated explosive growth
 - beyond all reasoning or reasonable prediction.
 - of itself
 - of any number of personal, commercial, and philanthropic efforts
- What are the limits?
 - collectively, we don't seem interested in finding/imposing them
- But the world is anything but homogeneous

And, why should *you* care?

- The Internet is impacting everything, disrupting every level of of how we do things, and how we think about things
 - are governments necessary?
 - what is public administration, at the end of the (Internet) day?

More importantly, what are *you* going to do about it?

- We don't fully understand (in terms of impact or future growth)
 - crosses national and other jurisdictional boundaries as if they didn't exist
- What you want is to understand how this is playing out so that
 - the Internet survives
 - we learn what it means to do this sort of thing on the global stage

GOOD LUCK 😊

ANY QUESTIONS?

<http://www.thinkingcat.com>

This I believe...

The Internet was created for connecting and sharing — initially, connecting research networks and sharing (computing) resources. Ever since it “escaped” the research lab, it has provided a basis for individuals of all age and background to connect and share in ways previously unimagined. The things we’ve seen in the last twenty years would surely have been deemed *impossible*, except that they have been achieved. As long as the Internet remains open and non-discriminating to all-comers, the people (individuals, communities and organizations) of this planet will continue to amaze each other with the creative uses to which they put the Internet.

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