

OECD High Level Meeting on  
Internet Economy, Paris 2011  
Balancing policy goals to strengthen  
growth

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# Introduction

- First, I would like to acknowledge the positive and collaborative approach the OECD has taken by inviting the Internet technical community, the private sector and civil society to participate in the OECD HLM. This underlines the OECD's recognition of the need to involve all stakeholders in discussions of the Internet's future development.

# The Internet Model

- From my perspective, the true value of the Internet is its nature as a catalyst for innovation, economic growth and social development of globally unprecedented levels.
- The Internet is successful in large part due to its unique model:
  - shared global ownership,
  - collaborative engagement models,
  - development based on open standards (and those standards being openly developed),
  - key principles such as end-to-end connectivity
  - and freely accessible public processes for technology and policy development.

- Together, these elements have become known as the “Internet Model”. It relies on collaboration and processes that are local, bottom-up and accessible to individuals around the world, whether they be from academia, research, governments, business, or civil society. In short -- they present a low barrier to entry in the Internet and its economy.

- However, these are not merely idealistic tenets.
- The Internet pervades all aspects of our lives. The widespread international adoption of the Internet and the consequent ease with which organisations and individuals are able to send, receive and exchange data (and content) across borders presents new challenges for policy makers in areas that, traditionally, have been principally handled by national laws, guidelines and strategies. Increasingly, there is a realisation that more integrated international approaches, as well as compatible and interoperable national legal frameworks, are needed.

- The openness and transparency of the Internet's technical development and its associated policy development processes, are intrinsic to the success of the Internet itself, and to maintaining this single, interoperable system of networks - the global Internet. This openness and accessibility drives much of the value of and in the Internet.

# Tussles



- There are, however, a number of areas where we now see tussles between the natural growth of the Internet, and governments' interests in ensuring the safety and wellbeing of their citizens. These are challenges, but they present opportunities for developing new approaches to governance and leadership in the world.

# [Internet-as-a-Service]

- The technology that supports the Internet (the “Internet Protocol”, version 4 or 6), has proven its viability for a number of dedicated network-based services. We can expect to see an increasing array of IP-based services – we already have managed video and voice services from providers, and many parts of the world are developing standards for network-based management of electricity to the home, for example.

- It is important, going forward, not to confuse those managed services with the global Internet.
  - The Internet is, simply, the system of interconnected networks that use IETF-specified best current practices and protocols, including the Internet Protocol, for communication with resources or endpoints reachable via a globally unique Internet address.
  - Other IP-based managed services can be operated compatibly, and regulations should reflect and support that need for co-existence, without confusing all IP-based services in one bucket.

- In the context of this meeting, and the call for deployment of universal high-speed access networks, it is imperative that call include support for, monitoring, and assurance of the Internet as an unimpeded, best-effort, end-to-end packet data service.
  - In the reality of today, that further means embracing, supporting, and vocally advocating the use and deployment of IPv6 to ensure continued end-to-end global addressability

# [Regional Resiliency]

- The underpinning of resilience of the Internet's services and applications is resilience of the Internet, itself
- The original design of, and lessons learned in deploying the Internet, favour diversity, redundancy and distribution of underlying infrastructure: network links, IXPs, regional DNS infrastructure, websites
- We've seen the effects of this illustrated in various regional disasters – this is why key elements of the Internet remained accessible in Haiti or Japan, after they were struck by earthquakes, for instance. Diversity ensured that not all key resources were located in a single region or infrastructure.

- Even as capacity scales such that a single organization can have a globe-spanning network, or an individual region can house all of its own resources within a data centre or two, doesn't mean that they should.
- The tussle here is that this diversity can challenge the locus of control or regulation of all components of the Internet serving a given region. But, the upside in acknowledging and supporting this diversity is a truly resilient Internet.

# [Behaviour-shaping through control of Internet infrastructure]

- We've seen increasing instances of attempts to shape behaviour by shutting down or controlling the use of Internet infrastructure that resides within a region's jurisdiction
  - E.g., changing DNS registrations within a registry, to prevent the use of the domain name to access materials deemed illegal in the DNS registry's jurisdiction, especially when the domain name registration is held outside the jurisdiction
  - E.g., requiring in-region service providers to return false information for domains deemed to host material considered illegal or improper in the region.

- This tussle indicates a need for better ways to address the legitimate, diverse regional desires for expressing "appropriateness".
- However, these specific approaches don't work, in that they are largely circumventable, and they break the building-block nature of Internet technologies, thereby stifling legitimate opportunities for growth and evolution of the Internet.
- It's a lose-lose situation, and we need better approaches.



# Conclusions: The principles (from the DNS blocking paper)

- In considering what new policy directions to take in the “new Global Economy”, it is important to critically assess the consequences (intended and unintended) and economic, social and other benefits/costs of all options, including the potential impact on the functioning and development of the Internet, innovation, Internet use, access and adoption.
- Imposing technical measures (to prevent or enforce policy objectives) that target the network and/or require examination of the content of Internet traffic pose a serious threat to the open Internet, privacy and trust, and consequently to innovation, growth and social development.

- Emphasis should be given to the preserving the Internet, and more specifically, its open, decentralised and collaborative governance characteristics.
- Notions of innovation without permission, global open standards, global interoperability are at the heart of the Internet's value to end users. Global interoperability is fundamental.

- Rather efforts should be placed on searching for innovative and positive solutions (education, new business models [etc.]), instead of reducing the openness of the Internet.
- We appreciate the OECD's efforts to always consider the delicate balance between on the one hand security/protection of IPR etc, and on the other hand preserving an open Internet. We call on OECD member countries to ensure the continued integrity of the Internet is one of their highest priorities.

- To be concrete, consider the following general principles of applying regional policy on global interoperable Internet technologies & protocols
- 1. Measures that may result in modification of the intended behavior and operation of the Internet protocols should be done with extra care
  - a. Implementation of such measures should be consistent with open standards
  - b. Policies that specify technical “fixes” to short-circuit due process or violate principles and operation of fundamental Internet protocols will result in unpredictable behavior and erosion of the Internet architecture.

- 2. Implementation of lawful emergency measures affecting global interoperable Internet technologies & protocols should be used as a last resort and should be as narrowly tailored, both in scope and time, as possible.
  - a. The measures must be limited in time, providing relief while the real/root cause of the problem is being solved.
  - b. The measures must be retractable, bringing the network behavior and architecture back to unmodified state as soon as possible.
  - c. The scale of the measures should be as small as possible.

# In conclusion...

- An open Internet for innovation, economic and social development should be considered as a fundamental public policy objective, and a grand challenge to be met.

# Expected Question 1

- Ms. Daigle, Tim Berners-Lee shared some of his insights into how to secure the Internet (see question to Tim Berners-Lee). In your eyes, from a technical perspective, what is the best way to move forward to enhance security online?
  - Collaborative action
  - Good operational practices, practised
  - Incremental improvements, not ultimate lockdown



# Expected Question 2

- What are the opportunities for and impediments to ensuring the Internet continues to serve as a global platform for innovation (social, technical, and commercial)?
  - The Internet has proven itself as a platform for service and application innovation, on a heretofore unseen scale
  - We, collectively, are struggling to grapple with the social and legal implications of some of those impacts: our laws are generally written on the expectation of physical barriers that simply do not exist on the Internet
  - Opportunity: identify and remove real world obstacles to economies (and supporting legislation) following suite in terms of growth
  - Threat: instill in the Internet the analogs of those real world barriers