

Reflections on Broadband Communication Policy

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The New Realities of ICT Market

- ICT is a \$4 trillion global market (computer hardware, software, and services plus communication) that is converging.
- Pro-active regulations have boosted competition and innovation.
- Policy needs a vision of the next frontier

Public Policy and ICT Information Infrastructure's Evolution:

The U.S. Experience

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Four Norms of US ICT Policy

1. “No harm to the network”
2. Technology neutrality
3. Modularity
4. Provide competitive value-added services without undermining basic pricing or service structure of public network.

Four Worldwide ICT Trends

1. More ICT Competition
2. Regulatory Independence
3. Modularity
4. The “Cheap Revolution”

Modularity Promotes

1. Mix & match ICT building blocks / interoperability
2. The “cheap revolution”
3. Lower prices, higher performance, and broad extension of ICT infrastructure into human experience and environment.
4. Ubiquitous broadband extends intensive networked information apps beyond traditional business and academic centers.

Four Modular Revolutions

1. Microelectronics
2. Networks
3. Software
4. Content

10 Obama ICT Goals

1. Invest in Innovation and for Economic Stimulus and Growth (not FCC)
2. Preserving Free, Open & Robust Internet
3. Extending Broadband Access (Goal is Universal Access)
4. Seizing the Opportunity of Mobile
5. Promoting Competition to Fuel Economy

Other Concerns

6. Transparency
7. Affordability to consumers
8. Freedom of expression online
9. Cyber-security (and Trade)
10. Technology and Development

The Current Stage of of US Broadband Policy Discussions

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The Four “Net Freedoms” - 2004

1. Freedom to Access Content
2. Freedom to Use Applications
3. Freedom to Attach Personal Devices
4. Freedom to Obtain Service Plan Information

FCC Chairman Powell, February 8, 2004

Two New “Net Freedoms” to Provide Network Neutrality

5. Nondiscrimination: Must treat lawful content, applications, and services in a *nondiscriminatory* manner.
6. Transparency

NPRM 2009

The Broadband Mandate from Congress

“I want to see concrete action to ... extend broadband service to underserved and unserved areas, boost adoption among the 33% of citizens who choose not to subscribe and dramatically increase the speed and capacity of broadband networks.”

Senator Jay Rockefeller

Senate Commerce Chairman

Knowledge-based Infrastructure

- Goal: Knowledge based infrastructure that supports applications that facilitate exchange of information in commercial, civic and personal spheres.
- Ingredients: Physical communication networks, end-user devices, software apps, human capital, legal framework.

Current US Broadband Status

- US Home Broadband adoption rate: 63-67%
- Median advertised speeds 10-25 MBPS, but median actual speeds are lower
- Competition issues: Perhaps 50%-80% of homes with broadband access get desired speed from only a single provider

But, US lags on Broadband

- Australia plans huge public broadband investments
- Finland declared a legal right to at least 1MB of broadband connection now (to 100 MB by 2015)
- Korean and Japanese citizens already get 100 MBPS in many cases.

FCC National Broadband Plan

- Scheduled for February 2010 release
- Purposes and examples include:
 - Health care: Electronic records, remote/home monitoring, telemedicine
 - Energy/Environment: Smart grid, smart home applications, telework
 - Education: eBooks and content, electronic student data management

FCC National Broadband Plan

Additional purposes and examples include:

- Government Operations: Service delivery/ efficient government, civic engagement
- Economic Opportunity: Job training, placement, and creation; economic development
- Public Safety: Interoperable voice-broadband network, next-generation 911, emergency alerts

Questions for Broadband Policy

- Why aren't more people connected?
- How to create incentives for investment?
- How to promote innovation?
- Is competition needed?
- The role of wireless broadband?
- The need for additional spectrum?

Balancing public and private actions

1. Government monopolies stumble.
2. Completely free markets do not work either.
3. Bottom-up, grassroots decision-making may help with agenda setting, but has limits.
4. Each country must find its own balance

In other words ...

“I don’t want too much government or minimum government either. Brazil has found a middle path.”

President Luis Inacio Lula da Silva

Business Week, October 12, 2009

The Challenge

Where to Draw the Line?

Each Country will Decide for Itself

Finally

Three Looming Challenges
for ICT

1. The Broadband Tipping Point

- A real 50 MBPS broadband could be the next big change in behavior in content markets for consumers.
 - If consumers can reliably download a movie in < 3 minutes, this wipes of the DVD market

2. International Governance

Huge Progress Was Achieved on Telecom during the 1990s, but Principles, Norms, and Rules for Global Governance of the Internet are uncharted territory.

www.globalinfoandtelecom.org

3. “The Cloud”