U.S. National Broadband Plan

CYBR 4400/5400: Principles of Internet Policy, Lecture 2-1

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Today's Lecture

✤ Code 2.0 Discussion and Unit #1 Summary

✤ Unit #2 Roadmap

✤ U.S. National Broadband Plan

Unit #1 Summary

✤ Goals (unit aspirations)

  ✤ Know course objectives and course design to establish *student engagement*

  ✤ *Understand expectations* upon students for successful course completion

  ✤ Understand the following terms and concepts
    ✤ *interdisciplinary policy framework*
    ✤ problems *best* solved by regulation
    ✤ *market and regulatory failures* justifying regulation

Unit #1 Summary (cont'd)

✤ Learning Outcomes

  ✤ Using key concepts introduced in Unit, be able to answer following questions

    ✤ Why should we care about Internet and telecom policy?

    ✤ What are the reasons for regulation in the Internet and telecom sectors?

    ✤ What are the steps to apply the interdisciplinary telecom framework to recommend new or revised policies or regulations?

    ✤ Should there be a difference in how the Internet is regulated compared to traditional telecommunications regulatory models?

  ✤ Complete first exposure to applying portions of the interdisciplinary policy framework to a real-world policy problem

Unit #1 Additional Key Concepts

✤ History, structure, and roles of the FCC

✤ Justification and obligations of common carrier regulation

✤ Types of market failures justifying regulation

✤ Lessig's view of the generational stages of develop for the Internet over time and their implications for civil liberties on the Internet

Interactive Questions

✤ Question 1

   ✤ "The struggle in that world will not be government's. It will be to assure that essential liberties are preserved in this environment of perfect control."

✤ Question 2

   ✤ "What values should be protected there? What values should be built into the space to encourage what forms of life?"

✤ Question 3

   ✤ Which regulator do we prefer? How does society exercise control over the regulators?

Interactive Questions

✤ Question 4

   ✤ Borders: Should we code problems away, rather then learn to work them out, or punish those who cause them?

   ✤ Governors: How is life on the Net less "regulable" than life off the Net?

   ✤ Jakes Communities: What should society do about virtual lives that have negative impacts on non-virtual lives?

   ✤ Worms that Sniff: Is freedom inversely related to the efficiency of the available means of surveillance?

Unit 2

Achieving Broadband Universal Service through Regulation and National Broadband Plans

Unit 2 Roadmap — Goals

✤ Understand terms and concepts of national broadband plans, universal service, cross-subsidy and factors incorporated into the definitions of broadband

✤ Deepen understanding of the interdisciplinary policy framework to develop and analyze policy positions and proposals

Unit 2 Roadmap — Learning Outcomes

✣ Explain goals of U.S. Broadband Plan, efficacy of national broadband plans on global basis

✣ Develop knowledge of U.S. universal service programs for broadband services

✣ Describe common focus of national broadband plans across countries in the world

✣ Using terms and key concepts introduced in unit, provide answers to questions:

　✣ What is the scope and purpose of a national broadband plan?

　✣ Define universal service and describe how it is being applied to broadband?

　✣ What key metrics and factors are used in the definition of broadband service?

　✣ What has been the efficacy of national broadband plans?

　✣ What are the prospects for Gigabit broadband in urban and rural locations?

✣ Develop policy position on the definition of broadband

National Broadband Plan

"Broadband is the great infrastructure challenge of the early 21st century."

✢ Microsoft TW White Spaces Proposal (July 2017)

✢ Need for Speed (August 2017)

Congressional Mandate (Recovery Act)

FCC to develop National Broadband Plan:

"Ensure that <u>all</u> people of the U.S. have access to broadband capability and establish benchmarks for meeting that goal."

"[I]nclude…a detailed <u>strategy</u> for achieving affordability… and maximum utilization of broadband infrastructure"

"[I]nclude . . . an <u>evaluation</u> of the status of deployment of broadband service"

Congressional Mandate (cont'd)

FCC to develop National Broadband Plan:

"[I]nclude . . . a <u>plan</u> for use of broadband . . . in advancing consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes."

Announcing the National Broadband Plan (March 2010)

Long-Term Goals

1. At least 100M U.S. homes have affordable access to download speeds of at least 100 Mbps and upload speeds of at least 50 Mbps

2. The U.S. should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation

3. Every American should have affordable access to robust broadband service and the means and skills to subscribe if they so choose

4. Every American community should have affordable access to service of at least 1 Gbps to anchor institutions (schools, hospitals, etc.)

5. To ensure safety, every first responder can access a nationwide, wireless, interoperable broadband public safety network

6. Every American should be able to use broadband to track and manage their real-time energy consumption by 2020

Plan Summary

Competition

> Design policies to ensure competition that maximizes consumer welfare, innovation and investment

Government Efficiency

> Ensure efficient allocation of government assets (e.g., spectrum, poles, and rights of way)

Availability and Affordability

> Reform universal service for broadband deployment in high-cost areas and ensure its affordability for all

Capture Benefits

> Reform policies to maximize benefits to public education, health care and government operations

Establishing Competition Policies

1. Plan recommends market-by-market report on broadband pricing and competition

    - FCC Reports (<u>Measuring Broadband America 2011 - 2018</u>)

    - Report uses measurement hardware and software – developed by Samknows – deployed in the homes of thousands of volunteer consumers to conduct automated, direct measurements of broadband performance

Establishing Competition Policies (cont'd)

2. Develop disclosure requirements for broadband service providers

- Pricing and performance information to ensure consumers are able to find best broadband provider

- Transparency drives service providers to compete for customers on the basis of actual performance

- <u>FCC's Open Internet Rules and Restoring Internet Freedom Rules implements transparency recommendation</u>