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SI 507: Information Policy Analysis and Design

Wk 3: Telecommunications (Pt II)

Outline of the talk

- Review traditional telephone regulation
- Intercarrier compensation & interconnection policy
- Spectrum regulation & wireless competition
- Universal service in a post-subsidy world

Review: traditional telephone regulation

- Natural monopoly arguments and the regulated monopoly solution (vs. government ownership ("PTOs"))
- Dual jurisdiction (FCC and states) – rate of return regulation and the "filed rate doctrine"
- Universal service via. implicit cross-subsidies
- Regulatory concerns: price gouging + monopoly leveraging (local exchange, long distance services, equipment manufacturing)
- 1960s on, competition on the margins (equipment, LD, business services, etc.)
- 1984 divestiture: the 'old' AT&T (vertically integrated) becomes: 7 RBOCS/ILECS (local service) + AT&T (long distance) [Assets: $149 billion → $34 billion; Employees: 1,000,000+ → 373,000]

Intercarrier compensation

- Question: When a call starts in one network, and ends in another, who pays?
- Two solutions: "bill-and-keep" vs. "calling network pays" (requiring intercarrier compensation)
- Varieties of intercarrier compensation:
  - access charges (paid by LD to local telcos);
  - reciprocal compensation rates (local telco to local telco);
  - international settlement fees (nat'l carrier to nat'l carrier).
- Peering relations (Internet backbone providers)

Telephony in the 1996 TCA

For local telephone companies (ILECs, the 'baby Bells')

- Unbundling / 'wholesaling' requirements (resale competition)
- Number portability
- Dialing parity
- 'competitive checklist' in response for reentry into long distance markets (outside of the home service area), equipment manufacturing
- Limiting local cross-ownership of cable and telephone
- Explicit support for universal service in 'basic services'

Spectrum regulation

- Scarcity and interference: "trustees" and "traffic cops," enforced through the licensing system
- Allocation, allotment, and assignment – from comparative hearings ("command-and-control") to lotteries (just a really bad idea) to auctions (market efficiency, revenue generation, etc.)
- Post command-and-control:
  - property rights model (market efficiencies, innovation, etc.)
  - commons models (unlicensed users and frequencies, variable power, new receiver technologies, etc.)
- Problems and developments:
  - What to do with the incumbents?
  - How to go about band-clearing? (reallocating under-utilized spectrum)
  - "Smart" spectrum strategies (e.g. underlays, white spaces, etc.)

Universal service in a post-subsidy world

- Justifications: 'network externalities' (enhancing value of network by enhancing its reach); economic development; democratic participation; public safety.
- FCC's Universal Service Fund:
  1. Lifeline and Link-Up (need-based subsidies)
  2. subsidies for rural telcos
  3. broadband subsidies for libraries and schools
  4. broadband subsidies for rural hospitals and clinics
- Key question: is broadband now (or becoming) an 'essential service'?

Discussion:

What are the appropriate criteria or considerations by which public interest in telecommunications policy making ought to be assessed (price, access, efficiency, fairness, innovation, competition, etc.). How should these and other possible guiding principles be weighed against each other?

For the purposes of telecommunications policy making, describe the strengths and weaknesses of the three principle institutional actors in the regulatory triangle (Congress, courts, FCC). What is the appropriate division of labor between these three bodies? What opportunities or priorities do you see for institutional reform to improve the quality / accountability / representativeness etc. of telecommunications policy making? (cf. Neuchterlein and Weiser, 407-429)

