



**Thinking & Starting Anew:
Modernizing Communications Law for American Consumers**
*American consumers, not technology, should be the organizing
principle and top priority in modernizing communications law*

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April 4, 2014

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* NetCompetition[®] is a pro-competition e-forum supported by broadband interests. www.NetCompetition.org

** Precursor[®] LLC is a research consultancy serving Fortune 500 clients. www.Precursor.com

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Outline

- Introduction: Foundational Concepts
- Problem: Technology-based Communications Law
- Solution: Consumer-centric Communications Law
- Consumer Harms from Technology-based Law
- Historical Examples of Major Consumer Harm
- Conclusion: So What? Why Modernize?

Introduction: The Foundations of a Modern Communications Law for American Consumers

- Central Idea:
 - American consumers, not technology, should be the organizing principle and top priority in modernizing communications law
- Problem:
 - **Technology-based communications law** naturally obsolesces increasingly harming American consumers, innovation, competition and growth.
- Solution:
 - **Consumer-centric communications law** advances enduring consumer values and the modern dynamism of innovation, competition and growth.
- Foundation:
 - Build modern law on enduring consumer communication values/principles -- like competition, consumer protection, universal connectivity, and public safety -- not temporary technology or market assessments that obsolesce.
 - Modernize communications law to remain dynamic, not static, in order to promote innovation, competition and growth benefits for consumers.

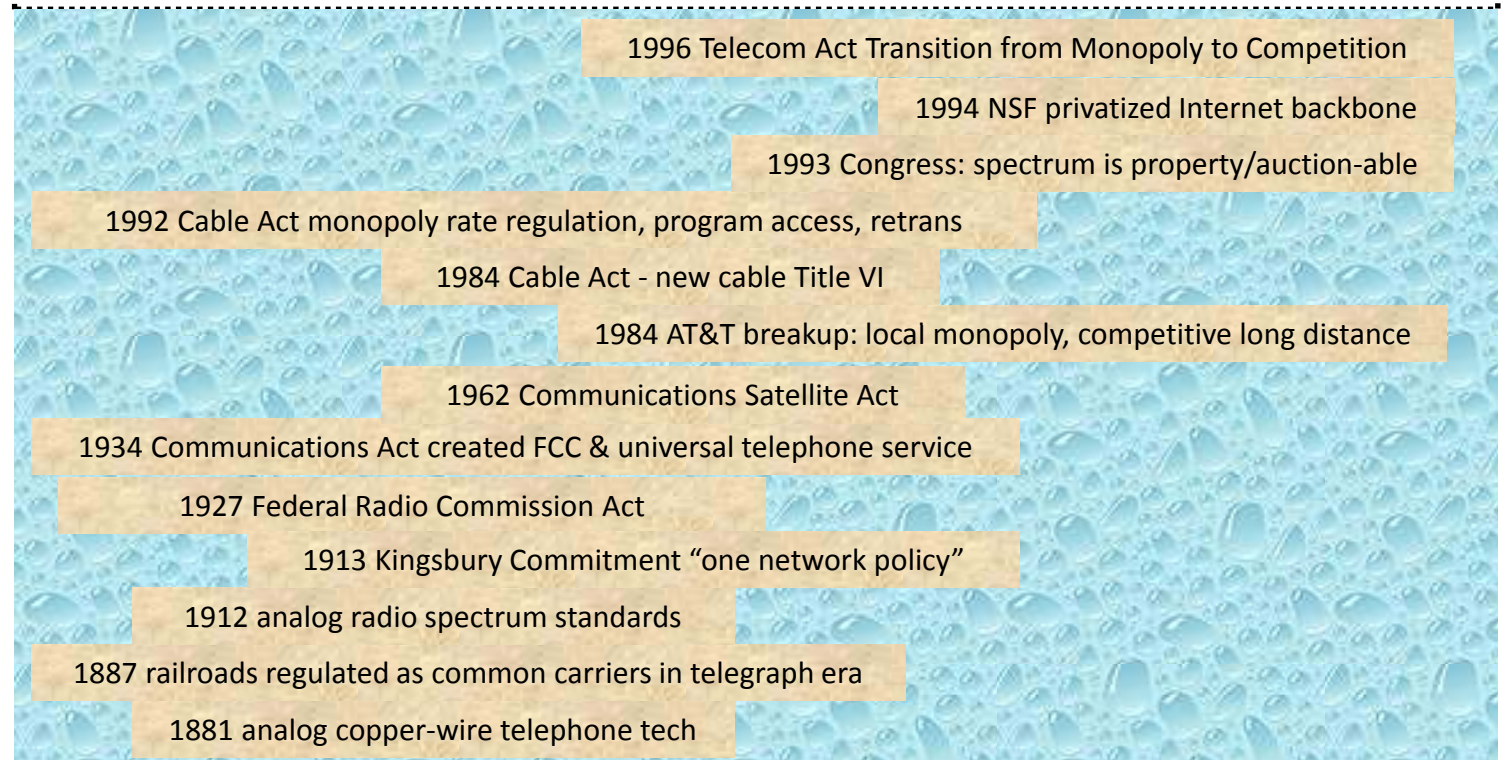
Modern Problem:

Technology-based communications law naturally obsolesces, increasingly harming consumers, innovation, competition and growth.

*The
Dysfunction of
Obsolescence*

**Unstable Uncertain Unreliable Inefficient Inert
Incoherent Confusing Complex Arbitrary Factional
Delaying Distorting Wasteful Counter-productive**

*Temporary
shifting
obsolete
foundational
layers
based on static
tech/market
assumptions*



Modern Solution:

Consumer-centric communications law based on enduring consumer values and the dynamism of innovation, competition and growth

Dynamism

A lasting foundation of enduring American consumer values



Consumer Harms from Technology-based Communications Law

- **Inconsistent consumer protections expose arbitrary, confusing, & harmful gaps**
 - Overall consumers can't know what protections, if any, protect them on which communications technology
 - Current day communications suffer from a piecemeal analog mess and jumble of consumer protections
- **Consumer protection obsolesces with technology but isn't replaced like technology**
 - Communication technologies unanticipated by technology law drafters have no consumer protection.
- **Non-universal 911/e911 emergency response is unsafe**
 - In an emergency, a consumer needs to immediately reach public safety; it should not matter what communications technology they use.
 - For example, legacy telephone technology law discourages Google Fiber from offering voice/911 services
- **Non-universal security and privacy protections leave consumers vulnerable to harm**
 - Consumers expect their personal information and communications to have the same security and privacy regardless of the entity communicating it, or the technology, medium or format used.
- **Non-universal consumer protections for the disabled, leave the disabled behind**
 - As legacy technologies obsolesce, the ongoing consumer protection needs of the disabled too frequently are overlooked and left behind.
- **Consumer benefits are long delayed unnecessarily by technology-based law because:**
 - Technology is viewed in the law as a consumer problem with consumer harms, not a consumer solution with consumer benefits;
 - Makes government the de facto approver of new innovations, not consumers in the marketplace; and
 - Forces companies/innovators to compete for approval from Government not for consumers' business

Historical Examples of Major Consumer Harm from technology-based communications law obstructing, impeding and delaying consumer benefits of innovation

- **Wireless consumer benefits were held back from American consumers for decades.**
 - Bell Labs invented mobile phones in 1947; and AT&T requested mobile spectrum from the FCC in 1947 & 1968.
 - The FCC didn't approve consumer commercial mobile use until 1982, three years after Japan first commercialized American-developed mobile technology in 1979.
 - Then in 1984, then monopoly telephone provider AT&T chose to jettison the nascent wireless business to the Baby Bells in the 1984 breakup of AT&T, based on an infamous McKinsey & Co. estimate that there would be only one million mobile consumers by 2000, a monopoly estimate that turned out to be wrong by a factor of 100.
- **Internet consumer benefits were held back from American consumers for at least a decade or more.**
 - U.S. Government researchers invented the original Internet, ARPANET, in 1969, and used it for two decades within the government and academic community.
 - The revolutionary Internet Protocol packet-switching technology was not commercialized for the American consumers' use and benefit until the early 1990s.
- **Dial-up, & broadband service, consumer benefits were held back from American consumers for decades, and roughly a decade, respectively.**
 - Bell Labs invented the computer modem for the U.S. military in the mid-1950s.
 - The broad consumer commercialization of:
 - 56k dial-up modems were delayed until the late-1990s; and
 - Faster broadband modems were delayed until after 2000.

Conclusion: So What?

What's the problem with obsolete technology law? Why modernize?

- **The most modern part of U.S. economy is burdened with most obsolete law/obligations**
 - Limits user benefits, savings & productivity by discouraging adoption & commercialization of *existing* network innovations; and discourages *new* network innovations that could solve niche user wants & needs; and
 - Strangles, distorts, and rations investment, economic growth & job creation by incorrectly assuming networks are monopolies and by forcing network innovation 'round pegs' into obsolete network 'square holes'
- **Anti-technology law perversely harms consumers and innovation**
 - Technology is viewed perversely in law as a consumer problem/harm, not a consumer solution/benefit; &
 - Inconsistent consumer protection exposes consumers to arbitrary, confusing and harmful gaps in 911/e911 service, basic security and privacy protections, essential services for the disabled, etc.
- **Increasing uncertainty/contention/inefficiency over what's legal & the FCC's authority**
 - This dead weight loss ill-serves consumers, industry, and the Nation; it only benefits lawyers & lobbyists.
- **The Public Switched Telephone Network (PSTN) is a dying national albatross**
 - Telephones changed little 1934-84; monopoly regulations discourage legacy network innovation/investment
 - 75% of Americans have abandoned legacy telephone service for wireless, the Internet, and competitors, so only 25% of people are paying only for an obsolescing telephone infrastructure designed to be paid for by everyone.
 - It's so obsolete there no longer are spare parts available to fix it or enough trained engineers to maintain it.
 - It is a cost sinkhole, a nonsensical waste of resources that are an unnecessary drag on modernizing networks
- **Growth cap on mobile revolution; spectrum is Nation's worst-managed/most-wasted critical resource**
 - Consumer demand and taxpayer interests come last under current law because there is no modern management of this critical natural resource, which is the essential fuel necessary to continue powering the mobile technology revolution of smart phones, tablets, video streaming, and the Internet of things.

Appendix: NetCompetition, Precursor LLC, & Scott Cleland

- **NetCompetition** is a pro-competition e-forum supported by broadband interests that promotes competitive Internet choices for consumers.
 - See: www.NetCompetition.org
- **Precursor LLC** is a proven thought leader and industry research consultancy for Fortune 500 companies. It specializes in the future of: Internet competition, property rights, privacy, cyber-security, and cyber-ideology; algorithmic markets; and communications competition and de-regulation. Precursor's expertise is anticipating, bringing clarity of thought, and applying framework analysis to emerging problems and issues before others.
 - See: www.Precursor.com
- **Scott Cleland** is a precursor: a proven thought leader with a track record of industry firsts. He is Chairman of NetCompetition, President of Precursor[®] LLC, and author of the widely-read PrecursorBlog. During the George H. W. Bush Administration, he served as Deputy United States Coordinator for Communications and Information Policy at the U.S. Department of State. Eight Congressional subcommittees have sought Cleland's expert testimony and *Institutional Investor* twice ranked him the #1 independent telecom analyst. Scott Cleland has been profiled in *Fortune*, *National Journal*, *Barrons*, *WSJ's Smart Money*, and *Investors Business Daily*.
 - See: www.ScottCleland.com