Technological Revolutionization of Communications Marketplaces

Technology has revolutionized the communications marketplace. When a consumer wants to rent a movie, he is more likely to get it on demand from his cable or satellite provider, download it, or stream it online then go to a video rental shop. Teenagers text thousands of short messages to their friends. Grandparents videochat with their grandchildren across the country. I have more computing power in my pocket today than I had on my desktop ten years ago. And for the first time, the number of cellphones in America has exceeded the number of Americans.\(^1\)

The Internet is at the heart of the new communications marketplace, causing market incumbents to rethink their business models and adapt. Local papers and magazines now display their stories online, and many have recruited bloggers to supplement their coverage. Local broadcast television stations digitize their newscasts so viewers can watch them online at any hour, day or night. Radio stations stream their audio feeds across the Internet to reach listeners wherever they may be. Internet applications offer free long-distance calling. Cyber Monday has become the new Black Friday; the search engine has replaced the encyclopedia.

And yet, our laws have not evolved with the changing telecommunications landscape. Congress passed the Communications Act in 1934, for a world where analog, black-and-white television broadcasts were new and a regulated monopoly was the best hope for bringing telephone service to the far corners of

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America. Congress substantially amended the Communications Act in 1996 with the Telecommunications Act. But fifteen years ago, no one foresaw how quickly the communications marketplace would converge, and no one understood how far reaching the Internet’s impact would extend.

Evidence of the outdated priorities of communications law still abounds. The Communications Act, for example, is still divided in titles based on the technologies used by providers—wireline telephone providers are regulated under Title II, wireless telephone providers and broadcasters under Title III, and cable operators under Title VI. The Communications Act still requires the Federal Communications Commission to look into competition between telephone providers and telegraph providers—despite the evolution of the market away from Samuel Morse’s hundred-year-old technology.2 Until this past summer, the Fairness Doctrine had remained on the Commission’s books, despite the Commission’s own determination over twenty years ago that the Fairness Doctrine violated the First Amendment and had been used to intimidate broadcasters who criticized government policy.3 Media ownership rules are perpetually ping-ponging between the Commission and the courts because the Commission fails to elucidate coherent grounds for regulating some segments of the industry but not others, or neglects to account for competition between sectors.

As the 112th Congress moves into its next year, it is this age-old problem—keeping the law abreast of changes in society, new technology, and the swiftly evolving marketplace—that will keep us on our toes. In doing so, I hope we keep three principles close at hand. First, it is good legislative and regulatory hygiene to revisit existing laws and rules periodically to ask whether they still make sense in light of the changing marketplace. President Obama has recognized as much for executive agencies and so has the Commission.4 Second, just because a regulation has become outdated does not mean it needs to be replaced; if market changes have brought a rule to the end of its useful life, better to eliminate it. Third, the Internet has flourished in a “vibrant and competitive free market... unfettered by Federal or State regulation.”5

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3 See Letter from Representative Fred Upton, Chairman, Energy and Commerce Committee, and Representative Greg Walden, Chairman, Subcommittee on Communications and Technology, to Julius Genachowski, Chairman, Federal Communications Commission (May 31, 2011), available at http://go.usa.gov/5uN.
4 See Executive Order 13,563, Improving Regulation and Regulatory Review, sec. 6 (Jan. 21, 2011); Presidential Memorandum on Regulatory Flexibility, Small Business, and Job Creation (Jan. 18, 2011); FCC, Preliminary Plan for Retrospective Analysis of Existing Rules (Nov. 7, 2011), available at http://go.usa.gov/5uQ.
5 47 U.S.C. § 230(b)(2) (“It is the policy of the United States... to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation...”).
such, Congress must tread lightly when venturing into cyberspace. Better not to regulate in the first place absent evidence of market failure and clear analysis that intervention won’t cause more harm than good. With these principles in mind, here are some areas that I expect we will be looking into during this next year.

I. UNDERSTANDING THE CONVERGED MARKETPLACE

With the convergence of the communications marketplace, one might think that the Commission regularly takes a broad look to ensure that it understands how all the different market segments interact with each other. It frequently does not, instead examining things in isolation. It produces annual reports on broadband subscribership and local telephone competition, on trends in telephone service and cable pricing, and on satellite competition generally as well as the effects on competition of the privatization of two intergovernmental satellites.

To be fair, some of the blame lies with federal law. The Communications Act, for example, requires the Commission to produce eight separate reports on the communications marketplace, including both reports on satellite competition, two reports on cable competition, two reports on broadband deployment, a report on wireless competition, and a report on market entry.


13 See 47 U.S.C. §§ 703, 765e.

14 See id. §§ 543(k), 548(g).

15 See id. §§ 1302(b), 1303(b).

16 See id. § 332(c)(1)(C).
barriers for small businesses. Commissioner Robert McDowell has called annual reports “monumental and costly undertakings” and the Commission’s track record in producing these reports bears out his point: the Commission only recently adopted a satellite competition report covering the years 2008, 2009, and 2010, and it is still working on its annual report on cable competition for 2007 through 2010.

What is more, it is unclear how helpful some of these statutorily mandated reports are. For example, the Open-Market Reorganization for the Betterment of International Telecommunications (“ORBIT”) Act sought to promote competition in the satellite services market by privatizing Inmarsat and INTELSAT, two intergovernmental satellite operators. Despite the fact that this privatization occurred more than a decade ago, the Commission must still report each year on the effects of that privatization on competition. As might be expected, the additional information provided by each new report has declined, raising the question of how valuable this annual exercise is.

Our Subcommittee has examined an alternative approach to this reporting scheme with the Federal Communications Commission Consolidated Reporting Act. That Act would consolidate these eight separate, mandatory reports to Congress and instead require the Commission to produce a single report every two years on the communications marketplace as a whole. That consolidated, comprehensive report would focus the Commission’s attention on intermodal competition, deploying communications capabilities to unserved communities, eliminating regulatory barriers, and empowering small businesses. The focus on intermodal competition, including competition from Internet-based services, is particularly important given market convergence, which the Commission itself has recognized in the context of its video competition report.

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17 See id. § 257(c).
II. SPECTRUM

As the Internet goes mobile, spectrum is increasingly becoming the lifeblood of the communications sector and the economy. That’s why one of my focuses this year has been the Jumpstarting Opportunity with Broadband Spectrum (“JOBS”) Act. The legislation would clear additional spectrum for broadband use, generate $16.5 billion in spectrum auction revenue for the American taxpayer, help create a nationwide, interoperable public safety network, promote innovation, and boost the economy. Indeed, according to one study that FCC Chairman Genachowski has highlighted, spectrum legislation could create 771,000 jobs and generate $50 billion in investment.\(^23\) The legislation passed the U.S. House of Representatives as Title IV of the Middle Class Tax Relief and Job Creation Act, which also includes a year-long extension of expiring payroll tax relief.\(^24\) The Senate version of the legislation unfortunately refused to grant American workers the full one-year extension and dropped the spectrum provisions, among others. As a result, consideration of our spectrum legislation may extend into next year.

Among other spectrum issues receiving increased attention is receiver performance. Current technological limits make finite the amount of spectrum usable for communications purposes. One way to address this is, of course, to improve technology so more frequencies become usable. Another, however, is to make more efficient use of the frequencies we harness today. One problem that is becoming increasingly clear is that many receivers currently in use are designed in a way that listens outside the spectrum bands they are specifically authorized to use. As a result, when authorized users of neighboring spectrum try to operate on the bands allocated to them, the receivers listening in to those neighboring bands run into operating difficulties. The most recent example of this problem can be seen in the current dispute between the Global Positioning Satellite community and would-be broadband provider LightSquared, but it is certainly not the first. Better receiver performance could avoid these issues and it’s something that warrants examining if we are going to make more efficient use of our spectrum resources.

III. EXAMINING FEDERAL BROADBAND SUBSIDIES

With the third anniversary of the American Recovery and Reinvestment Act of 2009 just around the corner and the FCC’s universal service reform order barely off the presses, broadband subsidies will likely continue to be a topic of


discussion. Notwithstanding that 95 percent of the country already has access to broadband and two-thirds of households subscribe, the ARRA gave the National Telecommunications and Information Administration and the Rural Utility Service $7.2 billion to allocate for broadband subsidies. The wisdom of creating the subsidies, as well as whether the money should have been better targeted to households completely unserved by broadband, has been the subject of debate from the outset. Further fueling the debate is the fact that by December 2010 more than 90 percent of the money the ARRA allocated for broadband still remained obligated but unspent and by April 2011 approximately 15 awards worth close to $100 million had been returned or rescinded. Those were among the reasons the House passed H.R. 1343, legislation originating in my Subcommittee to improve oversight of the funds and ensure returned or rescinded funds go back to the U.S. Treasury.

The Commission’s order shifting Universal Service subsidies in the high-cost segment of the fund from telecommunications services to broadband will undoubtedly add to the conversation, especially since the FCC recently announced that the cost to subscribers of the existing program just reached a record high of 17.9 percent of the monthly long-distance bill. Whatever one thinks about the particular policies adopted by the Commission, its initiative in reexamining the Universal Service Fund in light of the evolving communications marketplace should be lauded.

But the Commission’s work is not done, and 2012 may be an even bigger year for the Fund. For one, the Commission has outlined a framework for reform of the high-cost program, but much of the actual implementation was left for later. In this next year, the Commission will presumably move forward to create explicit broadband subsidies for rate-of-return carriers, adopt models for limiting waste and

25 See H. Rept. 112-228.
26 Id.
30 Do not read my praise for the fact that the Commission attempted comprehensive reforms to the high-cost program of the Universal Service Fund as praise for all aspects of that proceeding. For example, the Commission dumped 104 documents into the record of the proceeding in the final days of public comment and took three weeks to release the text of the order it adopted, despite repeated calls from Congress for the Commission to act in a transparent manner. See Letter from Representative Fred Upton, Chairman, Energy and Commerce Committee, and Representative Greg Walden, Chairman, Subcommittee on Communications and Technology, to Julius Genachowski, Chairman, Federal Communications Commission (Nov. 28, 2011), available at http://go.usa.gov/Nnj.
distributing support in price-cap territories, prevent duplicative support in areas with an unsubsidized competitor, and create an ongoing Mobility Fund. That is no small order. For another, the Commission is now facing 13 separate challenges to the reforms it has already adopted. If the Tenth Circuit invalidates some parts of those reforms, the Commission will need to return to the drawing board for another go at it.31

Setting aside the remaining work left on the high-cost program, the Commission must still tackle two other aspects of the Universal Service Fund that are ripe for reform: the low-income program and the contributions mechanism. Regarding the former, it has now been more than a year since the Government Accountability Office and the Federal-State Joint Board on Universal Service pointed out significant gaps in the Commission’s oversight of that program.32 Ensuring that all Americans can afford telephone service is a noble goal, but that is no reason to turn a blind eye to the very real waste, fraud, and abuse that have been identified in that program’s current structure.33 Regarding the latter, the National Broadband Plan recommended that the Commission “broaden the universal service contribution base” in light of the fact that the Fund has grown over the last decade whereas the contribution base has stagnated, leading to an unsustainable situation.34 However when the Commission ultimately decides to reform the contribution mechanism, it must do so in a competitively and technologically neutral manner and it must do so swiftly.

IV. PROTECTING ONLINE PRIVACY

Many of our nation’s privacy laws were written back when electronic communications were still emergent, when the Internet was a specialized government service and not yet a transformative medium for consumer communications. Congress adopted cable subscriber privacy protections in 1984,35 passed Electronic Communications Privacy Act in 1986,36 adopted the


Telephone Consumer Protection Act in 1991, and then codified the Commission's telephone subscriber privacy protections in 1996. Given the age of these statutes, it is no surprise that Congress did not frame them with Internet communications in mind.

One consequence of the age of these statutes is that they impose much more stringent restrictions on traditional communications providers—cable operators, satellite television providers, telephone carriers—than on providers of new and emergent communications services, such as social networks, computer-to-computer videoconferencing, and microblogs. As consumers are using increasingly diverse means to communicate, the divergent protections for consumer privacy have become more and more apparent. For example, the Communications Act singles out location-based services for regulation, but applies that regulation only to carriers. In practice, this means that when a consumer uses a location-based service on her smartphone, the manufacturer, the operating system designer, and the application provider could all record and use that location largely without constraint whereas a wireless carrier could not.

In other words, today's privacy regime is neither technologically nor competitively neutral. This situation is unfair to American consumers and businesses. For consumers, the lack of technological neutrality means that their privacy protections are highly dependent on the particular means they use to communicate, and sometimes vary depending on whether their carrier, their device, an application on the device, or a web site they visit with the device is collecting and using their data. That is something that can be hard for the user to know. For businesses, the lack of competitive neutrality reduces competition by forcing one set of providers to abide by one set of rules and allowing another set of providers to follow a different set.

As Congress moves forward with an examination of online privacy, I hope we keep in mind the importance of rethinking existing privacy laws in light of the converging marketplace. And while we want to make sure that Americans have adequate protections regarding how online companies collect, use, and share data about them, we must balance that need with the recognition that regulatory overreach may curb the ability of entrepreneurs to invest and create the innovative services we all enjoy.

V. SECURING CYBERSPACE

Americans are spending increasing amounts of time on the Internet and

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increasingly are doing so through the use of smartphones and tablets. Small businesses are leveraging the scope and scale of cloud computing solutions to lower costs and offer new and innovative services. The convergence of the communications marketplace has accelerated this trend, as industry has started storing intellectual property online for streaming and consumers have used the Internet to shop, to chat, and to network.

As more and more of our communications and information go online, however, the threats of malware, hacking, cyberfraud, and cyberwarfare have increased significantly. Successful cyberattacks can interrupt commerce and communications, undermine consumer privacy, raise fears of identity theft, and even threaten national security. Cyberattacks can be costly even when they are unsuccessful. Our broadband networks are constantly bombarded with millions of external threats, diverting scarce resources from legitimate network management to intrusion detection and prevention.\(^3\)

Industry has already taken steps to protect our nation's networks from unwanted intrusions and external threats and, accordingly, any legislation in this area should seek to capitalize on commercial sector expertise and existing cybersecurity organizations and infrastructure.\(^4\) Indeed, the pervasive role of the private sector in this area and the historic lack of federal intervention should make us skeptical of intrusive or "comprehensive" federal intervention.\(^41\) If Congress does act, it should proceed cautiously, in a targeted and deliberative manner, so that we do not squelch the investment and innovation already occurring in this sector.

There are a number of questions that will need to be answered as we move forward with a deliberative approach to cybersecurity.\(^42\) For example, what has been the role of federal agencies in securing cyberspace? In what ways can federal agencies better partner with private enterprise to improve the

\(^3\) Indeed, according to one study, there was a "huge increase" in the number of external threats that successfully breached cybersecurity defenses. See Wade Baker et al., 2011 Data Breach Investigations Report 18 (2011), available at http://commens.org/sahYeh (reporting results of a study by Verizon, the U.S. Secret Service, and the Dutch High Tech Crime Unit).

\(^4\) For example, communications providers already work on cybersecurity issues with each other and the government through the Communications Sector Coordinating Council and the National Security Telecommunications Advisory Committee, among other organizations.


\(^42\) The House Energy and Commerce Committee asked the Government Accountability Office to address many of these questions earlier this year. See Letter from Representative Fred Upton, Chairman, Energy and Commerce Committee, et al., to the Honorable Gene Dodaro, Comptroller General, U.S. Government Accountability Office (Oct. 4, 2011), available at http://go.usa.gov/5hl.
cybersecurity defenses of our communications networks? How can we fairly address questions of national security when carriers and broadband providers want to incorporate hardware and software provided by non-U.S. vendors into their communications networks? What security features are included in consumer devices, such as smartphones and routers? How can we help consumers use best practices to secure their computers and avoid malware? Each of these questions is a separate link in the chain of a successful cybersecurity policy—and each can only be answered after a careful and deliberate examination of the new communications marketplace and how it is functioning today.

VI. REFORMING FCC PROCESS

Finally, we cannot ignore the importance of good regulatory processes to a well-functioning communications marketplace. When the Commission adopts rules without examining the marketplace or weighing the costs and benefits of its new regulations, the public cannot be assured that policy, and not politics, drove its decision. When the Commission leaves thousands of license applications and petitions unresolved, small businesses are left without the guidance and assurances they need for new investment. And when the Commission uses unreasonably brief comment periods or leaves consumer complaints unaddressed, consumers are left to wonder whether it really values public input.

Communications and technology companies and the public expect the most transparent and responsive government agency, but the Federal Communications Commission has not always lived up to that expectation. In 2008, the Democratic majority of the Energy and Commerce Committee released a report on flaws in the agency’s processes. Just days before the Commission adopted its network neutrality order in 2010, it dumped thousands of pages of information into the record, sending stakeholders scrambling to review those documents and determine whether a response was necessary. Just this past summer, the agency reported to Congress that it had a backlog of 5,328 petitions, 4,185 license applications, and more than a million

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45 See, e.g., Letter from Carol Simpson, Deputy Chief, Competition Policy Division, Wireline Competition Bureau, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 07-52, 09-191 (Dec. 13, 2010).
unanswered consumer complaints.\textsuperscript{46}

Although the Commission has substantially improved its processes and the handling of its workload since Chairman Genachowski was appointed in 2009, significant challenges remain before it. Perhaps more importantly, there is nothing to prevent the Commission from relapsing to its old ways should Chairman Genachowski depart—only a statutory change can ensure constituency from one administration to the next. And that’s exactly what the Federal Communications Commission Process Reform Act,\textsuperscript{47} introduced by myself and Representative Adam Kinzinger earlier this year, is all about.

In sum, our country has much work in front of it if our laws are to reflect today’s communications marketplace. Fortunately, the communications bar has the Catholic University of America Columbus School of Law and the CommLaw Conspectus to help sort through these issues. In this issue, for example, Larry Downes explores the appropriateness of the Commission’s network neutrality rulemaking—a topic all the more important given the economy’s recent stagnation and the courts’ impending review. Seth Cooper’s look at the Commission’s annual wireless competition report and its effect on transaction review highlights the importance of a close and accurate study of the communications marketplace—and the need to ensure that the Commission looks at the market as a whole so that it does not ignore intermodal competition and competition from Internet-based services. Similarly, articles and comments on updating the Electronic Communications Privacy Act, fighting online piracy, and instituting a regime to protect consumers from website tracking all highlight the need to rejigger our federal laws on privacy and piracy to reflect the Internet era we now live in. With these articles, the CommLaw Conspectus has prompted debate within academia, within the communications bar, and with the public at large. And it is the ideas that come out of these debates and deliberations that help our federal government to grapple with the age-old problem of making the laws on the book keep pace with new technologies and the evolving marketplace.

\textsuperscript{47} H.R. 3309, 112th Cong. (2011).