Regulatory Federalism in the Age of Broadband: A U.S. Perspective

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Abstract

Broadband is poised to transform many sectors of the economy in the United States. Indeed, the federal government, via the President, Congress, and the Federal Communications Commission, has identified this technology as a key tool for realizing an array of “national purposes,” including fundamental changes to how healthcare, energy, education, and an array of other services are delivered to and consumed by citizens. However, as broadband begins to inure itself into the business models of services that are largely regulated by the states, novel questions regarding the proper scope of regulatory federalism—that is, the ways in which federal and state government share oversight of a wide range of industries, from telecommunications to energy to healthcare—are likely to arise. This article examines the historical balance of federalism in the regulation of communications services, healthcare, and energy, identifies novel issues that have arisen and that are likely to arise as broadband is used to transform these services, and proposes a framework for efficiently and effectively addressing these issues.

Keywords: broadband, regulation, federalism, healthcare, energy

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Introduction

Federalism in the United States describes a system of shared power between individual state governments and the federal government. The framers of the U.S. Constitution devised this system in order to “invigorate” a fledgling central government that many believed was in danger of fracturing due to competing and overlapping interests of the individual states (Coenen 2007, 59–60). A rebalancing was necessary in order to transition the young country from a loose confederation of territories to an interdependent union of states. The enduring “genius” of this system reflects the boldness of the U.S. constitutional experiment, one that vests citizens with “two political capacities, one state and one federal, each protected by incursion from the other” (U.S. Term Limits v. Thornton 1997, 838).

In practice, however, the appropriate scope of federal and state jurisdiction over a wide range of issues has been disputed ever since ratification of the U.S. Constitution and the Bill of Rights, both of which only barely sketched the outline of American federalism. As a result, divergent concepts of the limits of state and federal power have collided over myriad issues throughout the history of the United States. Recently, for example, almost half of the states have challenged the legality of federal healthcare legislation, arguing that a mandate requiring the purchase of health insurance by all citizens in the United States runs afoul of accepted limits on federal authority to regulate commerce (Commonwealth of Virginia v. Sebelius 2010a), while the federal government has sought to preempt an immigration law enacted by the state of Arizona, arguing that the power to implement immigration policy is exclusive to the federal government (U.S. v. Arizona 2010). These cases illustrate an enduring uncertainty regarding

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1 The original, unamended text of the U.S. Constitution (1787) included several clauses regarding federal power: Article I, Section 8, Clause 3 (“The Congress shall have power … to regulate commerce … among the several states.”); Article I, Section 8, Clause 18 (“The Congress shall have power … to make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by [the] Constitution in the government of the United States.”); and Article VI (“[The] Constitution, and the laws of the United States which shall be made in pursuance thereof … shall be the supreme law of the land; and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.”). The 10th amendment in the Bill of Rights (1791) is traditionally cited as the source of state power, reading “The powers not delegated to the United States by the Constitution or prohibited by it to the States, are reserved to the States respectively, or to the people.”
the ability of the states to regulate and police certain sectors and behaviors that may be of national importance.\(^2\)

This uncertainty takes on additional salience for those industries that are on the precipice of radical transformation by broadband Internet technology. Indeed, the United States, via its Federal Communications Commission (FCC), has outlined a vision for leveraging this technology to revitalize whole sectors and reorient how citizens receive critical services like healthcare, education, and electricity (FCC 2010c). In its *National Broadband Plan*, which was prepared at the behest of Congress, the FCC provided a detailed analysis of how broadband will further certain “national purposes” (American Recovery and Reinvestment Act 2009, 516; FCC 2010a). According to the *Plan*, three key aspects of this technology will facilitate sector-wide transformation: its ability to “enable [] the free and efficient exchange of information,” its power to “remove barriers of time and space,” and its facility in the “aggregation of information” (FCC 2010a, 193). These aspects reflect the borderless and inherently “national” nature of this service. To this end, only 34 of the over 200 recommendations included in the *National Broadband Plan* referenced the states as a key party to realizing a specific national goal (Benton Foundation 2010). Indeed, many of these recommendations call on the states to lower or eliminate barriers that the FCC identified as potential impediments to accomplishing certain goals. These recommendations, which seek to realize the many national purposes that the FCC, Congress, and U.S. President foresee for broadband, raise important questions regarding the traditional balance of regulatory power between the states and the federal government vis-à-vis not only broadband, but also a variety of sectors and services that have historically been regulated at the state level.

This article focuses on the impact of broadband on traditional notions of regulatory federalism in the United States—i.e., the ways in which federal and state government share oversight of a wide range of industries and sectors, from telecommunications to energy to healthcare—and analyzes how this technology is poised to alter the ways in which certain services and industries are regulated. This article also provides U.S. policymakers with a proposal for a flexible framework to address these emerging questions. Going forward, this framework could be of value to

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\(^2\) Coenen (2007, 60) argues that “[a]t the heart of the Constitution … was the reservation to the state of the basic ‘police power’ to safeguard the safety, health, and welfare of the people.” The Supreme Court, however, has found that federal power to regulate interstate commerce can supersede states’ police power so long as “the means [of achieving it are] reasonably adapted to [its] attainment” (*U.S. v. Darby* 1941, 112).
policymakers in other countries who will undoubtedly face similarly novel issues arising from transnational uses of broadband-enabled technologies.

The Evolution of Regulatory Federalism for Telecommunications: From the Telephone to the Cellphone

This section provides an overview of how the concept of regulatory federalism in the telecommunications market has evolved over the last century. Identifying the boundary between state and federal regulatory authority over communications technologies has become increasingly complicated as these services have evolved from basic telephony to mobile telephony to broadband-enabled communications. In general, regulation, particularly at the state level, has decreased significantly as communications technologies have become more complex and “borderless” in nature.

The Origins of Federalism in the Regulation of Telecommunications

Historically, the states have played an important role in the regulation of basic telecommunications services (Teske 2007). Soon after the emergence of “plain old telephone service” (POTS), and in the absence of federal guidance, some states regulated POTS via existing public utility commissions (PUCs) (p. 58). In general, jurisdictional boundaries for the states and the federal government differ depending on the activity at issue (Lyons 2010, 384). For the states, these boundaries are predicated on whether the activity has clearly identifiable intrastate aspects. Thus, POTS was heavily regulated at the state level for much of the early twentieth century because the telephone network evolved out of many smaller networks that connected residents in local areas. However, once a single dominant firm emerged, one that was able to leverage its scale to force competitors out of business by refusing interconnection, the federal government intervened and enacted legislation aimed at more assertively regulating the provision of telephone service and realigning the regulatory balance between state and federal entities.

Among many other notable aspects, the resulting legislation—the Federal Communications Act (1934)—created the FCC “[f]or the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States … a rapid, efficient, Nationwide, and world-wide wire and
radio communication service” (§151). Equally important was the Act’s recognition of state interests, experience, and competencies in regulating these services (Lyons 2010, 389). Thus, even though previous laws and court decisions had granted a predecessor federal agency—the Interstate Commerce Commission—with extensive authority to regulate telecommunications (Dixon and Weiser 2006, 326–327), the Federal Communications Act explicitly carved out two distinct sets of jurisdictional boundaries—one for the states and one for the FCC—for the regulation of these services.

Perhaps the most extraordinary aspect of the legislative response to the emergence of a monopolist in the telecommunications market was that Congress, rather than mandating interconnection among all service providers, seemed to accept that having one telephone provider was the most efficient way to ensure universal service. As a result, the regulatory approach to telecommunications for much of the twentieth century centered on ensuring that the dominant firm—AT&T—provided affordable service to every consumer in the United States. This regulatory quid pro quo recognized that the goal of universal service required a firm that was able to deploy its network to every part of the country (Shelanski 2007, 59–62). Federal and state regulatory authorities enacted extensive rate regulations and other types of economic oversight of the dominant firm, and also collaborated on a number of policies to assure universal service (McMaster 2002, 78–79).

This regulatory approach, although largely successful in spurring network deployment and increasing household penetration of POTS, prevented competitors from emerging (p. 84). As a result of this carefully managed regulatory relationship, AT&T was able to live a “quiet life,” undisturbed by new entrants or new technologies (Ginsburg 2006, 5). Such an environment, although superficially beneficial to consumers who were guaranteed stable rates and reliable service mostly as a result of aggressive regulation by the states, was not conducive to innovation by third parties.3 But in the context of the telephone market, this approach was deemed necessary to protect the integrity and safety of the underlying network and to ensure universal service (Benjamin et al. 2006, 714).

Thus, the first stage of evolution in the regulation of telecommunications services was characterized by a relatively stable relationship between the states and the federal government, each of which operated within clearly defined jurisdictional boundaries in the oversight of a

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3 Hovenkamp (2005, 13–14) has noted that innovation is generally stifled in a monopoly market, and consumers ultimately suffer as a result.
technology that exhibited readily identifiable intrastate and interstate characteristics (Sicker 2005, 130–133).

**Regulatory Federalism and Technological Innovation**

After decades of innovative stasis, it became clear in the late 1960s and early 1970s that the telecommunications landscape was finally changing (Bailey 1986, 4). The emergence of competition in the market for long-distance telephone service and the development of computer technology that could be linked using the telephone network presaged a new age of convergence in the communications space (Lyons 2010, 389–390). Faced with the advent of new technologies, cheaper equipment and distribution methods, and an increasingly dynamic marketplace, policymakers responded by relaxing the rules that had insulated the telephone monopoly (Nuechterlein and Weiser 2005, 60–64). Influential proceedings at the federal level signaled a new approach to emerging technologies, one that recognized the rapidly changing nature of communications services (pp. 152–153). By 1984, AT&T was forced to divest various components of its business—equipment, local service, and long-distance service (*U.S. v. AT&T*). After divestiture, a period of regulatory and political tumult ensued, especially as it pertained to recalibrating regulatory federalism in a post-AT&T world (Lyons 2010, 390; Teske 2007, 59). The federal–state dynamic was further complicated by the emergence of wireless telephone service in the early 1980s.

Wireless telephony, which was initially viewed as a complement to basic telephone service, was, at the outset, heavily regulated at the federal level since the new service relied upon a scarce federal resource—spectrum—for its delivery (FCC 2002c, 5). The rationale behind this approach was to protect established services that also used spectrum—e.g., television—from harmful interference (Weiser and Hatfield 2008, 558–559). In addition, a significant number of states imposed traditional telecommunications regulations—e.g., rate and entry regulations—on cellular firms in an effort to ensure that all voice providers were regulated in a similar fashion (Kennedy and Purcell 2004, 498–499). This piecemeal approach to regulating a rapidly evolving and increasingly popular service, however, created a bifurcated marketplace for service providers. Kennedy and Purcell (2004, 499) have observed that the regulatory approach of about half the states in America in the early 1990s was “clearly harmful to consumers”

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4 The foundation upon which many of these changes were based arose in a series of FCC decisions beginning in the mid-1950s (FCC 1955; 1968).
since it resulted in “higher prices and lower output relative to states that did not have such regulation.”

The tension between the aspirations of wireless innovators, who sought a more consistent regulatory approach to a technology that was interstate in nature, and regulators at the state and federal levels was eventually resolved by Congress. The resulting framework implemented a national approach to regulating wireless telephony that barred the states from setting rates or market entry conditions (Omnibus Budget Reconciliation Act 1993). Indeed, only a very narrow role was carved out for the states. While this approach did provide wireless service providers with sufficient regulatory certainty to continue investing in and deploying networks (Clark and Santorelli 2009, 6), the states and the FCC have clashed consistently over the precise extent of federal jurisdiction (Kennedy and Purcell 2004; 1998). Yet this regulatory design underscores the ability of the federalist approach to accommodate and adapt to changes in the marketplace. However, recalibrating this design in response to technological change oftentimes requires federal legislation to authoritatively redraw the regulatory boundaries for the states and the federal government.

Regulatory Federalism after the 1996 Telecommunications Act

Jurisdictional tension between the states and the federal government intensified after passage of the 1996 Telecommunications Act, legislation that focused primarily on reorienting the provision of POTS (Crandall 2005). In particular, the Act sought to manufacture competition by requiring local telephone incumbents to make available certain elements of their networks to competitors at regulated prices (Federal Communications Act 1934, §251(c)(3)). In theory, such “unbundling” was thought to lower the barriers of entry into a market characterized by high sunk costs. In reality, however, competition stalled, due primarily to the FCC’s inability to provide adequate guidance to the states regarding how to monitor network unbundling requirements and how to structure corresponding rates for access to these elements. To this end, Crandall (2008, 487–489) has observed that the costs of manufacturing competition in local telephone markets far outweighed any perceived benefits that resulted from FCC policies.

The 1996 Act was also notable for the continuation of the “silo” approach to regulating communications technologies that was set forth in the original Communications Act (Blevins 2009, 590–595). Indeed, the Act’s various titles specified a wide range of detailed regulations for discrete services—POTS and broadcast, among others—but largely failed to build in sufficient flexibility for new technologies. For example, the Internet was
mentioned only in a small number of clauses, outlining a preference for a
deregulatory approach to the then-emerging service. This regulatory design,
while drawing helpful bright lines between state and federal authority for a
number of services, proved to be too rigid to accommodate new
communications platforms like broadband (Epstein 2005, 320). As a result,
assumptions regarding the balance of regulatory federalism for new services
have been challenged by the emergence of broadband Internet access and the
many services that it enables.

Regulatory Federalism and Broadband: The Paradigm
Begins to Shift

Several commentators have observed that regulation of telecommunications
generally and state regulation of it specifically has decreased significantly
over the last several years (Lyons 2010; Teske 2007). This dynamic is a
direct result of the rapid emergence of broadband Internet access in the
United States. As previously discussed, the policy of the United States vis-à-
vis the Internet and access to it has been largely deregulatory in nature.5 In
practice, this has meant that, while the federal government retains some
regulatory authority over broadband, the states have no direct jurisdiction
over it. The states do, however, have the authority to indirectly influence a
number of aspects related to broadband deployment, and have been recently
called upon by the FCC to assist in spurring adoption and utilization of this
technology. This section analyzes the current balance of federalism in the
regulation of broadband in the United States.

5 This section includes only a carefully selected sampling of the literature on the larger
issue of broadband regulation in the United States. The literature is indeed vast and
continues to grow. A representative sample of recent leading works on this issue
includes van Schewick (2010) (discussing the interplay of Internet architecture,
regulation, and innovation), Speta (2010) (analyzing the legal foundations for regulating
broadband Internet access services), Benkler (2010) (providing a comparative analysis of
how various European, Asian, and North American countries currently regulate
broadband), Spulber and Yoo (2008) (assessing potential changes to the U.S. regulatory
paradigm for broadband Internet access necessitated by technological innovation and the
emergence of competition in the provision of these services), and Wu (2004) (providing
a “user’s guide” to the debate over broadband regulation in the United States).
Overview of the Federal Approach to Broadband Regulation

Even though the 1996 Telecommunications Act barely mentioned the Internet, most agree that Congress’s intention was to “limit the [FCC’s] authority” over it (Werbach 2010, 558). Congress, however, did delegate several important powers to the FCC for monitoring new communications services, including the authority to ensure that these technologies were universally available to all Americans (FCC 2002a). In carrying out this mandate, the Commission has recognized that a limited federal role is essential to a robust and innovative Internet market and broadband service sector (FCC 2010a, 5). As a result, state-level authority to regulate Internet access has been severely restricted. Indeed, Nuechterlein and Weiser (2005, 205) have noted that myriad decisions at the federal level over the last several decades reflect a “critical policy judgment” that a national regulatory framework for Internet-related services is the most efficient approach to regulating this borderless technology. Moreover, the authors observed that:

“[b]alkanizing Internet-related services into 50 different schemes of state-level common carrier regulation would be deeply inconsistent with several of the Internet’s defining characteristics. Among these … are the geographical indeterminacy of Internet transmissions; the Internet’s traditional freedom from regulatory intrusion; and, more generally, the Internet’s celebrated tendency to obliterate political boundaries of all kinds.”

A primary tool for regulating broadband at the national level, rather than in tandem with the states, was the classification of the technology as an “information service” under the 1996 Telecommunications Act. Classifying it as such allowed the FCC to shield the technology from inconsistent and overly burdensome state-level regulation while also intentionally limiting its own ability to regulate it. Indeed, information services are largely unregulated (Cannon 2003, 183) and subject only to the FCC’s ancillary regulatory authority under Title I of the Communications Act (FCC 2002a, 3028).

The information service designation was important not only for regulatory purposes but also for signaling how the FCC viewed broadband from a technological standpoint. Indeed, the information service classification reflected an affirmative decision by the Commission to recognize the hybrid nature of broadband Internet access service, which “fuse[s] communications power with powerful computer capabilities and
content” (p. 3027). In other words, the various components of broadband Internet access—including underlying “basic” components like transport and more “enhanced” services that allow customers to “manipulate” data—provide consumers with a “comprehensive” user experience that allows them to “run a variety of applications” via an “integrated service” offering (FCC 2002b, 4822–4823). Moreover, even though information services by definition include a telecommunications component, which is traditionally regulated in tandem with the states, the FCC has noted that “transmission is not necessarily a separate ‘telecommunications service’” for the purposes of regulating it as a common carrier (p. 4823). This observation bolstered an FCC determination that “information services” are primarily interstate in nature and thus under its exclusive purview (p. 4832). This classification has withstood judicial scrutiny (NCTA v. Brand X 2005) and has been applied to all broadband Internet access services.

**Carving out a Role for the States**

Even though the states lack formal regulatory authority over broadband, they do possess oversight responsibility for a number of important inputs that are essential to broadband deployment. In addition, the federal government has engaged the states in a number of joint policymaking efforts in order to ensure that state core competencies inform critical rulemakings. Indeed, the states, by virtue of their proximity to residents, possess unique policy expertise that has been recognized by Congress and the FCC as a valuable resource during federal policymaking efforts. As a result, several federal–state joint initiatives have been launched over the last decade to explore a number of issues.6 These included a Joint Board on Universal Service that has been tasked with “mak[ing] recommendations to implement the universal service provisions of the [Communications] Act”;7 a Joint Board on Separations, which was convened to assist in the “process of apportioning regulated costs between the interstate and intrastate jurisdiction” of POTS8; and a Joint Conference on Advanced Telecommunications Services, which “provide[s] a forum for an ongoing dialogue between [the FCC], the states, and local and regional entities regarding the deployment of advanced

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6 The Communications Act (1934, §410) explicitly delegates to the FCC the authority to “refer any matter arising in the administration of this Act to a joint board to be composed of a member, or of an equal number of members, as determined by the Commission, from each of the States in which the wire or radio communication affected by or involved in the proceeding takes place or is proposed.”


telecommunications capabilities” (FCC 1999, 17623). However, despite the collaborative nature of these enterprises, the input of the states is not binding on final FCC determinations.

The states and the federal government have also recently worked together to allocate funding for broadband network expansion (Committee on Energy & Commerce 2009). To this end, the U.S. Department of Commerce’s National Telecommunications & Information Administration (NTIA), the federal agency tasked with allocating a majority of broadband-related stimulus funding, recognized that the states could play a role “in identifying unserved and underserved areas within their borders and in allocating grant funds for projects in or affecting their jurisdictions” (NTIA 2009, 33107). However, NTIA articulated only a limited, consultative role for the states. In particular, the states were allowed to review grant applications and make non-binding recommendations regarding the viability of certain projects. NTIA retained exclusive authority to approve or deny grant applications.

Finally, the states possess a wide range of powers to implement policies that indirectly impact broadband service providers. For example, states and municipalities retain primary authority over the zoning of land within their borders and how local rights-of-way are managed (Federal Communications Act 1934, §332(c)(7)). In the broadband context, “operators must generally obtain State and local zoning approvals before” deploying network infrastructure components (FCC 2009). An example of a “structure” critical to network build-out is a telephone pole, which serves as a hub for various broadband service providers. In addition, each state and many municipalities also have the ability to levy taxes on a wide array of items related to the provision of broadband services.

The Current Balance of Regulatory Federalism for Broadband

Despite a seemingly coherent federalist design for the oversight of broadband Internet access services—one that has empowered the FCC with exclusive but limited authority over it—several attempts have been made to recalibrate this balance. Indeed, over the last few years, courts have rebuked attempts by both federal and state government entities to widen the scope of regulation for broadband.

The most notable recent example came in April 2010 when a federal Court of Appeals vacated an attempt by the FCC to enforce its network management policy for broadband service providers (Comcast v. FCC 2010). The FCC had censured a broadband provider, which was accused of violating the Commission’s network management policy by throttling web...
traffic originating from a peer-to-peer video service (FCC 2005). The service provider appealed, arguing that the FCC lacked the authority to enforce its policy under the existing legal framework for broadband. The court agreed and nullified the censure, holding that the Commission had failed to demonstrate that its authority to enforce its policy was “reasonably ancillary to the … effective performance of its statutorily mandated responsibilities” (FCC v. Comcast 2010, 644). In other words, the court determined that the FCC failed to ground its authority to regulate the network management practices of broadband service providers in the Communications Act. As the court observed, “administrative agencies may [act] only pursuant to authority delegated to them by Congress” (p. 654). Since the FCC has classified broadband as an information service to be regulated under Title I of the Communications Act, the FCC can only regulate this service if its regulations are reasonably grounded in specifically delegated powers under the Act, i.e., those included in other Titles of the Act (pp. 654–655). The court found that the FCC’s justification for enforcing its network management policies was insufficient.

In response, the FCC initiated a rulemaking proceeding in June 2010 to reclassify broadband Internet access service as a “telecommunications service” subject to Title II of the Communications Act (FCC 2010b). The goal of this proceeding was to clarify whether the existing regulatory framework “adequately supports the [FCC’s] … stated policy goals for broadband,” as set forth in its National Broadband Plan (¶28). In particular, the FCC sought to change the underlying assumption upon which all existing broadband policy had been founded by treating broadband Internet access services as akin to basic telecommunications services that are used to transport data to consumers (¶¶64–65). The impact of this overhaul is unknown but might result in several unintended consequences that could inject uncertainty into a marketplace that has thrived under the current framework.

States, for example, could seize upon this regulatory overhaul as a way to assert jurisdiction over broadband services. While reclassification as a Title II service would not automatically confer regulatory authority to the states (FCC 2010b, ¶¶109–110), the states could make a persuasive case for overturning legal precedent that has prevented them from regulating broadband services (NARUC 2010b). For example, cases that have struck down attempts by individual states to regulate broadband-enabled VoIP services could be nullified. These cases rested on an “impossibility exception,” which insulates many broadband-enabled services from state

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9 Crawford (2009) provides a comprehensive argument in favor of this approach.
regulation because they “cannot be separated into interstate and intrastate communications for compliance with [a state’s] requirements without negating valid federal policies and rules” (FCC 2004; Minnesota PUC v. FCC 2007). Reclassifying broadband as a telecommunications service could create a presumption that the service is not exclusively interstate in nature.

These recent actions suggest that regulatory federalism for broadband services is in flux. Uncertainty regarding the authority of federal and state entities to regulate broadband has important impacts not only on the investment decisions of broadband service providers (Crandall and Singer 2010), but also on innovation throughout the broadband ecosystem (Sidak and Teece 2010). Moreover, an unbalanced system of federalism in the regulation of current-generation broadband services raises a number of key questions regarding the ability of this regulatory approach to accommodate the next generation of broadband-enabled services. Indeed, as discussed in the next section, broadband will serve as an innovation platform in sectors beyond the communications market, presaging several likely challenges to existing notions of regulatory federalism.

**Regulatory Federalism 2.0: Emerging Challenges to the Federal–State Dynamic as Broadband is Used to Realize National Purposes**

Broadband has a unifying power. It eliminates geographic borders by providing people and institutions with high-speed connections to the global Internet. Thus, the Internet, and broadband connections to it, has transformed traditional notions of commerce, trade, and knowledge production, and has created a “global grid” of interconnected businesses, consumers, and governments, each of which now use digital technologies to participate in a growing array of activities that had, up until a few decades ago, been conducted exclusively in the analog world (Bisson, Stephenson, and Viguerie 2010).

That broadband and broadband-enabled technologies are transforming the way in which business is conducted is not a new phenomenon. Businesses have typically been on the cutting-edge in terms of adopting new information and communications technologies to enhance efficiency, expand footprints, and embrace trends in globalization. However, the disruptive power of broadband is new to industries that have resisted or ignored the potential for this technology to radically alter traditional business models. Indeed, as discussed in this section, broadband is poised to
fundamentally alter how a range of healthcare and energy services are delivered and consumed. As stakeholders in these sectors use broadband to innovate and deliver new services, a number of issues of first impression are likely to arise regarding the appropriate approach to regulating these services.

Previous sections demonstrated that federalism in the regulation of communications services has been continuously disrupted by the emergence of new technologies. Each time a new communications service has emerged, the borders of state regulatory jurisdiction have narrowed. Understanding the mechanics of recalibrating regulatory federalism in this context is essential to appreciating the many novel questions that are likely to emerge as broadband embeds itself within sectors that have historically operated in and been regulated by individual states. Indeed, since broadband, which is inherently interstate in nature, will be the driving force behind these transformations, the likelihood of federal preemption increases as the nation attempts to realize myriad national purposes for this technology. The key question in these scenarios will be whether and to what extent the states will challenge this drastic recalibration of regulatory federalism.

The Road Ahead: Broadband, Innovation, and Regulatory Federalism Beyond the Communications Sector

Notions of federalism have evolved rapidly over the last six decades. Older, more traditional conceptions, which “created enclaves of state authority in which distinctive social practices could flourish” and where states “formed distinctive communities of value,” have given way to a modern federal–state design where “a broad national consensus on certain fundamental issues” exists, imbuing the federal government with a “duty” to realize certain goals of national importance (Schapiro 2009, 47–55). Thus, federal policymakers have proposed and implemented a variety of reforms for institutions and industries that had traditionally been monitored and regulated by the states. These efforts, many of which have been based on a “muscular reading of the Commerce Clause,” include national healthcare, education, and family law reforms (Issacharoff and Sharkey 2006, 1365). As a result, the once-bright lines separating federal and state jurisdiction over certain issues have been “blurred … to render them of little conceptual use” (Schapiro 2009, 103).

Broadband is poised to further cloud the federalist paradigm in the United States by providing a platform for “nationalizing” a variety of services that have typically operated at the local and state level. In the communications realm, new technologies like the Internet have already “rendered state boundaries less significant” than in the past (p. 10). As
discussed below, this dynamic is no longer unique to the communications sector.

**National Purposes for Broadband**

In the United States, broadband will increasingly be used to realize a range of national purposes, including the modernization and transformation of key sectors of the American economy. In its plan for achieving these goals, the FCC observed that broadband is a “platform to create today’s high-performance America—an America of … unceasing innovation … an America with world-leading, broadband-enabled healthcare, education, energy, job training, civic engagement, government performance and public safety” (FCC 2010a, 3). The emergence of a broadband “ecosystem” has made many of these goals possible. Indeed, the ecosystem concept is important to understanding the FCC’s full vision for broadband in America. The ecosystem describes a “virtuous cycle” of innovation where improvements at the network level spur experimentation and improvements at its edges, which in turn spur the production of new devices to access networks and content (p. 15). The ecosystem has driven innovation and fundamentally altered how people communicate with one another, how consumers buy and sell goods and services, and how citizens interact with government. At the core of these advances is the broadband network, which has quickly become more than just a series of cables and routers. Indeed, the broadband network has become an inseparable element of the ecosystem, the backbone upon which an “Internet of things” has emerged, connecting people and machines in a vast web of data and services that is poised to undergird the U.S. economy going forward (Chui, Löffler, and Roberts 2010).

The FCC’s *National Broadband Plan* sought to ensure that the innovative power of the ecosystem is successfully leveraged by all sectors of the U.S. economy. Recognizing that many of these sectors are resistant to change in the absence of properly structured incentives to “motivate the use of broadband,” the FCC’s *Plan* articulated a number of recommendations for overcoming “entrenched interests and even deeper entrenched ways of thought” that have impeded utilization of the technology (FCC 2010a, 193). According to the *Plan*, a primary means for overcoming these barriers will be the close collaboration of federal, state, and local government, private sector companies, and other institutions (p. 194). However, the principal force behind the realization of these goals will be the way in which the FCC and other federal entities view and craft their regulatory roles going forward. To this end, the *Plan* seems to indicate that, since its core goals are in fact
national purposes “vital to the nation’s prosperity,” the FCC has endorsed a substantial rebalancing of the federal–state dynamic beyond the communications sector (p. 194).

The effects of this rebalancing—and the questions it raises—will likely be seen most immediately in two sectors that have long been subject to extensive state-level regulation: healthcare and energy. While the federal government does regulate and monitor the interstate aspects of each of these industries, the regulations that have the greatest impact on stakeholders in these sectors generally originate within the states. The following sections briefly detail how states have traditionally regulated healthcare and energy services, discuss how broadband will transform each of these industries, and highlight questions that may arise from an attempt to recalibrate regulatory federalism in each sector.

**Broadband and Healthcare**

The states possess extensive authority to regulate the provision of healthcare services within their borders. For example, up until the federal government enacted national healthcare reform, the states possessed almost exclusive authority to regulate how health insurance was provided to its residents (New 2005). The states also monitor the physicians practicing medicine within their borders by, among other things, administering licenses, credentials, examinations, and other permissions associated with the practice of medicine. Of course, the federal government also plays a significant role in U.S. healthcare. For example, the federal government has created national health insurance programs—e.g., Medicare and Medicaid—that provide coverage for a variety of vulnerable populations (e.g., senior citizens). However, the states play a significant role in administering these programs and ensuring that qualifying residents are able to avail themselves of benefits.

This approach to regulating healthcare was predicated on the highly localized nature of healthcare. Patients have historically consumed only local healthcare services. On the rare occasion when a particular doctor was not locally available, patients have always had the ability to see doctors in other states. This decentralized approach to healthcare was championed as a valuable way of bolstering innovation and experimentation, allowing individual states to tailor healthcare laws and regulations to meet the needs of their residents (Zelinsky 2003, 444).

Broadband is disrupting this traditional paradigm by fundamentally altering how healthcare is delivered and consumed in the United States. Among many other benefits, broadband-enabled healthcare, which is
commonly referred to as telemedicine or telehealth, is eliminating the geographic barriers that have been used to justify the existence of purely state-level oversight of medical care (Davidson and Santorelli 2009b). These tools are being used to deliver increasingly sophisticated healthcare services to patients regardless of location. The FCC has observed that, while “broadband is not a panacea,” emerging telemedicine tools that leverage broadband “offer the potential to improve healthcare outcomes while simultaneously controlling costs and extending the reach of the limited pool of health care professionals” (FCC 2010a, 199). These are certainly pressing national priorities for a country where healthcare costs represented 17 percent of GDP in 2009 (Truffer et al. 2010) and where 46 million people were without health insurance in 2009 (Reinberg 2010).

Realizing the full potential of broadband-enabled telemedicine will require the elimination of a wide array of legal and policy barriers at the state level. The FCC’s strategy for doing so centers on nudging states to modernize laws and regulations that are impeding progress. These include rules related to physician licensure and e-prescribing, both of which are primarily regulated at the state level (FCC 2010a, 206). Restrictive rules for licensure, for example, limit the geographic area within which a doctor can provide medical services. In the “borderless” world of broadband-enabled healthcare, these restrictions are inapposite. In order to eliminate these barriers, the FCC emphasizes that the states “should revise licensing requirements to enable e-care” and “should consider lifting restrictions that limit broader acceptance of electronic prescribing” (p. 206). Since the FCC lacks the formal authority to implement many of the recommendations included in its Plan, the Commission must rely on Congress to intervene in the event that the states do not heed its call for reform, or if progress is fractured or sluggish. Thus, the national imperative for realizing the full potential of broadband-enabled telemedicine could conflict with existing state authority to regulate an array of healthcare functions.

These potential conflicts raise important questions regarding the proper balance of federal and state authority over healthcare in a broadband world. For example, since broadband is an interstate technology that has been regulated as such for the last decade, the federal government, via Congress or the appropriately empowered federal agency, could use this reasoning to justify the preemption of inconsistent state behavior vis-à-vis telemedicine. Would Congress seek to preempt the states in this way? Recent history suggests that it would as part of a broader effort to alter the
healthcare paradigm in the United States.¹⁰ Doing so would not only recalibrate the existing balance of regulatory federalism in this sector, it would also raise a number of novel legal questions that will likely need to be resolved in court.

In addition, imposing a federal vision for these services could encroach upon commonly held values in certain states. One area where this dynamic is most evident is the regulation of abortion services. These services are beginning to be provided via broadband-enabled videoconferencing, mostly in an effort to provide access to rural residents in some states (Davey 2010). During broadband-facilitated consultations in Iowa, for example, a doctor asks the patient a series of questions before remotely dispensing the abortion drug mifepristone. In the United States, even though abortion is legal in most instances, individual states retain authority to implement a wide array of regulations so long as they do not unduly interfere with a woman’s right to choose to have an abortion before viability (Planned Parenthood v. Casey 1992). This latitude to regulate abortion services within a state’s borders, however, could be undermined if the federal government moved forward with its national vision for broadband-enabled healthcare services.

An alternative approach would be for the federal government to create a series of financial incentives for states to adopt standards in furtherance of the national purposes for broadband in healthcare. However, there is no certainty that this approach will work in the healthcare arena, especially at a time when nearly half of the states are challenging the authority of the federal government to implement nationally focused healthcare legislation (Schwartz 2010). Thus, preemption remains a viable option for the federal government going forward.

**Broadband and Energy**

Much like with healthcare, energy services in the United States are regulated primarily at the state level. State PUCs retain primary jurisdiction over the energy utilities operating within its borders. Most state PUCs regulate these companies as monopoly providers, which means that state regulators engage in exacting rate regulation, including the review and approval of an energy company’s rate structure (Mendiola 2008). Innovation is thus tightly

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¹⁰ One of the primary arguments made by the federal government in defense of recently enacted federal healthcare legislation is that the legislation’s constitutionality rests on the ability of Congress to regulate interstate commerce (Commonwealth of Virginia v. Sebelius 2010b).
controlled by PUCs, which must approve all expenditures by energy providers (Davidson and Santorelli 2009a, 59). The U.S. Federal Energy Regulatory Commission (FERC) regulates the interstate aspects of energy service and reviews applications for a variety of large-scale multi-state energy projects. The U.S. Department of Energy also monitors all aspects of the nation’s energy industry in an effort to realize certain national goals (e.g., energy security).

The emergence of broadband as a viable platform for innovation in the energy space has been hailed as a way to quickly modernize a sector that has evolved very slowly over the last century. In particular, broadband promises to be the backbone for a number of new services and programs targeted at making energy delivery and consumption more efficient and less carbon-intensive throughout the United States. Of most import is the ability of broadband to be the foundation for a national “smart” energy grid that will be used to bolster the reliability of energy distribution and to realize a variety of cost-savings in the transmission, distribution, and consumption of electricity in the United States (Davidson and Santorelli 2009a, 51–55). The smart grid will also enable a variety of related services in the home (e.g., smart meters) and throughout the economy (e.g., plug-in hybrid vehicles).

One of the chief impediments to realizing the full range of benefits enabled by broadband in the energy sector is the antiquated way in which state PUCs regulate energy providers. Although relatively stable, the existing regulatory approach has been criticized by a number of stakeholders who argue that it has stifled innovation and eliminated any incentive to implement new business models that might lower energy consumption by customers (Moynihan 2010, 45–46; U.S. Department of Energy 2009, 28). In addition, the FCC has noted that state PUCs “must ensure that utilities’ incentives do not lead them to make suboptimal communications and technology decisions” (FCC 2010a, 252). However, the states have consistently asserted jurisdiction over many items implicated by the deployment of the broadband-enabled smart grid (NARUC 2010a). Given the inherently national nature of a broadband-enabled smart energy grid, formal disputes over the proper balance of regulatory federalism in this context are likely to emerge.

For example, even though the United States has identified the deployment of a national smart grid as a top priority, and even though Congress has allocated billions of dollars to fund initial deployments, the actual construction of new infrastructure will be monitored by state PUCs (Johnston and Runningen 2009). Thus, the speed with which these new networks are built will be determined by the review and approval of utilities’ plans by individual state PUCs. Clashes between the federal government’s
desire to quickly achieve its policy priorities and states’ prerogative to review these projects have already emerged. In June 2010, a major smart grid project, which had received significant financial backing from the federal government, was held up at the state level. This proposed project was initially rejected by the Maryland PUC because the regulator, applying regulatory and legal precedent, determined that core elements of the utility’s proposal were unreasonable (Kay and Cho 2010). While the PUC has reviewed an amended proposal, the categorical dismissal of the original plan reflected the antiquated state-level approach to regulating energy utilities, which does not reward companies for innovating and taking risks.

Additional clashes between federal smart energy goals and state regulatory processes are likely as the federal government moves forward with a variety of additional smart grid-related efforts. For example, FERC has interpreted federal smart grid legislation to “mean that [it] has the authority to adopt … standard[s] that will be applicable to all electric power facilities and devices with smart grid features, including those at the local distribution level and those used directly by retail customers so long as the standard is necessary” to further federal smart grid priorities (FERC 2009, 14). Further, the FCC, in its *National Broadband Plan*, suggested a model of federal leadership on many of these issues, whereby the FCC, FERC, or other federal agencies would “develop best practices” to serve as a model for the states to follow (FCC 2010a, 256–257).

While explicit preemption on many of these issues appears unlikely in the near term, a number of federal government entities have interpreted U.S. smart grid policy as largely national in nature, tipping the balance of regulatory federalism in their favor. Legal disputes regarding the efficacy of these interpretations are likely as the states attempt to guard against total erosion of their jurisdiction over energy services.

**Conclusions**

A new generation of broadband-enabled services is poised to serve as the basis for a fundamental recalibration of regulatory federalism in an array of sectors across the U.S. economy. This trend follows a larger movement towards a more assertive national role in a number of industries where the states have historically retained primary regulatory authority (e.g., education). Whether and the extent to which the inherently interstate nature of new broadband-enabled services might erode state regulatory authority remains to be seen. Indeed, federal preemption in these contexts is not a fait accompli. As discussed above, federal government entities have signaled a desire to work with the states to resolve many of these issues. However, the
glacial pace of realizing national goals via the fragmented review and regulatory processes of 50 individual states could serve as a catalyst for preemption on issues of immediate importance to the federal government.

Recalibrating Regulatory Federalism for a Broadband World

The emergence of broadband as a platform for innovation beyond the communications sector will further disrupt an already muddled understanding of the proper regulatory balance between the states and the federal government in the digital age. With the power to eliminate the geographic boundaries that have traditionally separated state and federal authority in a number of contexts, broadband is rapidly becoming a vehicle through which local services are globalized. In a world where a patient can use a webcam to consult with a doctor located in the next state and where energy providers will be linked together via a national smart grid, novel questions regarding the proper regulatory role for the states and the federal government will likely arise with a velocity that will overwhelm even the most nimble policymaking body.

A Framework for Addressing Novel Federal–State Disputes in the Regulation of Broadband-Enabled Services in the United States

In order to ensure that new broadband-enabled services are deployed in a timely manner, any lingering uncertainty regarding who regulates what must be eliminated. Going forward, policymakers at the federal and state levels in the United States should adhere to the following set of principles when addressing challenges to the existing model of regulatory federalism arising from broadband-enabled services in sectors beyond the communications market.

First, policymakers and regulators should continue forward with the current regulatory framework for broadband Internet access services. The success of this framework provides a compelling example of how a consistent approach to regulating a dynamic market can produce a vibrant ecosystem of innovation. Any attempt to recalibrate regulatory models in order to facilitate innovation must balance potential positive outcomes against the negative impacts associated with injecting regulatory uncertainty into the marketplace (Sidak and Teece 2010). To this end, the introduction of sweeping new regulations for broadband service providers would likely have
discernibly negative impacts on innovation going forward (Crandall and Singer 2010; Yoo 2008). As a result, such proposals should be seriously reconsidered in an effort to provide a consistent signal to innovators that broadband will continue to be lightly regulated at the federal level.

Second, in their pursuit of national purposes for broadband, federal policymakers should not use the interstate nature of broadband as a basis for preempting potentially inconsistent regulation at the state level. The likelihood of widespread federal preemption in the regulation of new broadband-enabled services in the healthcare and energy sectors is real. However, before moving forward with preemption, federal entities should first attempt to affect any necessary state-level reforms in a less combative manner.

One alternative approach involves the creation of incentives to adopt standards set by federal authorities. An illustrative example is the Race to the Top program administered by the U.S. Department of Education. This program allocated some $4 billion in 2010 to spur fundamental reforms in schools across the country (U.S. Department of Education 2009). In particular, Race to the Top rewarded schools and states that modeled reforms on predetermined federal criteria. Despite some resistance from states that are opposed to federal intervention in such a local matter, the vast majority of states applied for these funds in an effort to bolster current educational services (Dillon 2010a). In order to improve their chances of winning a grant, 23 states reformed existing education laws and regulations as a result of Race to the Top (Paulson 2010). These reforms included lifting the caps on the number of charter schools allowed in a state, adopting nationally approved academic standards for students, and altering the ways in which teacher performance is tracked and rewarded (Dillon 2010b).

Another approach would be for the federal government to encourage and support attempts at national reforms undertaken by state actors. For example, the enthusiasm for reform generated by the Race to the Top competition spurred a number of additional changes to state-level education policy, including a more concerted effort among the states to voluntarily implement national standards for teaching and testing (Duncan 2010). To this end, the set of national education standards that was developed set forth a framework for ensuring that every student in the United States has a basic understanding of core concepts. The federal government has endorsed these standards and incentivized adoption by linking adherence to a more favorable review of Race to the Top applications (Dillon 2010c).

These types of approaches provide the federal government with a range of less aggressive means for realizing national purposes for broadband. Forgoing preemption whenever possible lowers the risk of legal
challenges by the states and positions the federal government as a partner rather than an adversary. However, many of these alternative approaches require increased expenditures by the federal government. At a time when increases in federal allocations are subject to intense political scrutiny, constructing financial incentive programs to nudge along state-level reforms may be difficult. Nonetheless, federal entities should experiment with a range of incentive programs in lieu of outright preemption.

Third, if the alternative approaches described above prove impossible to implement due to financial or political pressures, then the federal government should attempt to collaborate directly with the states to affect necessary reforms. Indeed, the states possess a number of important core competencies that could inform federal efforts aimed at realizing the many national purposes for broadband.

To date, federal–state collaboration on broadband-related issues has positioned the states solely as passive consultants on discrete issues like universal service reform and the development of interoperability standards for a national smart grid. However, the alternative approach, where the states have the ability to offer binding suggestions on federal policies, seems untenable. Coming to a national consensus on issues that have been historically resolved at the state level (e.g., physician licensure or energy rate regulation) would involve lengthy negotiations among dozens of stakeholders. A possible middle ground might involve the creation of federal–state joint boards for discrete issues like broadband-enabled telemedicine and smart grid deployment. Clark and Santorelli (2009) proposed such an approach for addressing consumer complaints in the wireless telephone context. Of particular relevance here is a proposal to create a federal–state vehicle that “allow states a meaningful role in the formulation of wireless consumer standards” and that somehow compels the federal entity to “take … seriously its obligation to act in concert with the state representatives” (p. 18). One way to compel such behavior would be for the federal government to defer to the states implementation of the policies that result from the collaborative process. For example, a mutually agreed upon national framework for modernizing physician licensure rules could create a policy “floor” and “ceiling” within which individual states would be responsible for implementing reforms. If the states were unable or unwilling to implement these changes in a timely manner, then the federal government could reserve the right to preempt the states and move forward with an assertive national approach.

Fourth, federal and state regulators should defer to Congress for policy guidance if pervasive uncertainty exists regarding the proper balance of regulatory federalism for a specific issue. Congressional action has
outlined the parameters for realizing a number of national purposes for broadband and delegated specific responsibilities to certain federal entities. Moreover, Congress has, in the past, carved out specific regulatory roles for the states. Thus, Congressional guidance on many of the issues discussed herein would be beneficial. However, since enacting federal legislation is a laborious and time-consuming process, federal and state entities should pursue the myriad approaches described above whenever possible. Indeed, Congressional action should not be viewed as a panacea since federal legislation could result in rigid policy frameworks that might handcuff innovation. Deference to Congress should be reserved for clarification of federal goals (e.g., the ability of the FCC to implement its National Broadband Plan under the existing legal framework) and for resolution of fundamental questions that go beyond the existing mandate of federal regulatory agencies (e.g., modernizing the regulatory paradigm for energy services).

Conclusion

The federal imperative to leverage broadband for national purposes—e.g., transforming healthcare and enhancing energy efficiency—will soon collide with existing state regulations for doctors and utilities. In the wake of these collisions, federal regulators will have two options: preempt inconsistent state regulations in order to realize national goals or work collaboratively with the states towards mutually beneficial results. This article has outlined a framework for effectively pursuing the latter approach in the United States and in other countries that face similarly complex questions. Implementing a consistent yet flexible approach to new broadband-enabled services will assure that the full measure of resources at the state and federal levels are focused on supporting innovation rather than on squabbling over regulatory minutia.
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