

# 29 The Internet And Mobile

**THE GOVERNMENT'S ROLE** in creating the Internet started with the Pentagon's Advanced Research Project Agency (ARPA), which, in 1968 funded a network that would make it easier for researchers and computers at different locations and universities to share information.<sup>1</sup>

In 1985, ARPA transferred the network from the Pentagon to the National Science Foundation, which decided to open it up to commercial interests. In 1989, two European researchers, Tim Berners-Lee and Robert Cailliau, invented the World Wide Web, which allowed users to create locations on the Internet—what we now call websites—and link one piece of content on one site to another piece on another site.<sup>2</sup>

Several additional policy decisions helped foster and shape the Internet's development. The Communications Decency Act of 1996 immunized Internet service providers (through which you connect to the web) from liability for torts related to Internet content,<sup>3</sup> and the Internet Tax Freedom Act of 1998 decreed that products sold on the Internet would not be subject to state and local sales tax.<sup>4</sup>

One FCC decision that had a particularly profound effect came even earlier. In the 1940s and 1950s, the FCC had repeatedly supported prohibitions against any “foreign attachments” to phones. But in 1968 it ruled that the monopolistic AT&T could not ban such devices. In 1975, the Commission created the Part 68 rules, which entitled “any manufacturer to sell its wares to the public and demand cooperation from the telephone companies.”<sup>5</sup> “[W]ithout Part 68,” wrote FCC researcher Jason Oxman, “users of the public switched network would not have been able to connect their computers and modems to the network, and it is likely that the Internet would have been unable to develop.”<sup>6</sup>

## Current Policy Debates

The FCC has taken the lead on many issues related to the Internet. Rather than providing a comprehensive summary, we will focus on the aspects of FCC policy that are the most relevant to news, journalism, and civically important information.

## Access

Some 55 percent of adult Americans now have a broadband Internet connection at home,<sup>7</sup> whereas almost all have access to TV.<sup>8</sup> If traditional media companies devote fewer resources to accountability journalism, it becomes more important for all Americans to have access to a full range of comparable resources online. Those that have low quality newspapers or TV and limited Internet access end up with less useful news. Conversely, greater broadband penetration will make it more likely that local digital media efforts will succeed. Whether digital media companies focus on drawing income from advertising or subscriptions, a significant increase in the pool of potential consumers can only generate more digital revenue opportunities.

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The FCC's 2010 *National Broadband Plan* sketched a strategy for providing high-speed access for 100 million Americans over the next decade.<sup>9</sup> A key element of the strategy is to move communities toward less dependence on the two platforms that dominate today—cable and telephone wires—by encouraging the growth of the wireless Internet sector. This will expand access and, by bringing competition to the existing ISPs, potentially lower consumer prices. The plan also set a long-term goal for the United States to lead the world in mobile innovation and have the fastest and most extensive wireless networks anywhere.<sup>10</sup> In early 2011, President Obama announced an initiative to make available fourth-generation high-speed wireless services to at least 98 percent of Americans.<sup>11</sup>

As news media migrate to the Internet, and wireless becomes an increasingly common way of accessing the Internet, it follows that a flourishing wireless ecosystem is essential to the future of the news. To the extent that wireless provides an open, affordable, and innovative platform for civic discourse, this will likely be to the benefit of news producers and consumers alike. Among the most important actions that can be taken to ensure this outcome is to ensure an abundant supply of spectrum to feed the enormous growth in wireless. A healthy mix of licensed and unlicensed spectrum will promote innovation without permission, a competitive marketplace, and affordable access—all preconditions of a robust wireless sector and all conducive to effectuating the recommendations of this report.

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### **Adoption**

A murkier issue is how to deal with the substantial number of Americans, who live in communities with high-speed Internet service yet are not using it.<sup>12</sup> In some cases, this is because the service is too expensive. In other cases, people do not yet have a vivid sense of how the Internet can benefit them. For that reason, there is broad support for what is known as “digital literacy.” (See pp. 174–178 of the *National Broadband Plan* and Chapter 19 of this report.) A key part of the puzzle may be public libraries, which often provide Internet service for low income residents (See Chapter 18.)

Surprisingly, there may be a growing connection between digital literacy and public access channels. It turns out that the community media centers that arose as part of the public access system in the 1960s and 1970s have, in an effort to redefine their mission in the Internet age, increasingly taken on the role of training citizens in how to use the Internet and digital storytelling tools.<sup>13</sup> Whether training people to use the Internet for their own benefit or to shoot video as a professional skill or to become a citizen journalist who contributes occasionally, the net result will be a more robust local news and journalism ecosystem. (See Chapter 7, PEG.)

### **Openness**

The effort to protect Internet freedom and openness, or “net neutrality,” had been far more bipartisan traditionally than recent debates might indicate. Michael Powell, a Republican FCC Chairman, espoused “four freedoms” on the Internet.<sup>14</sup> In 2005, the FCC, under Chairman Kevin Martin, also a Republican, unanimously voted to build on Powell’s framework by adopting principles to:

“...preserve and promote the open and interconnected nature of public Internet: (1) consumers are entitled to access the lawful Internet content of their choice; (2) consumers are entitled to run applications and services of their choice, subject to the needs of law enforcement; (3) consumers are entitled to connect their choice of legal devices that do not harm the network; and (4) consumers are entitled to competition among network providers, application and service providers, and content providers.... All of these principles are subject to reasonable network management.”<sup>15</sup>

Martin attempted several times to enforce the principles and in 2008, while chastising Comcast for possibly violating them, he asked:

“Would you be OK with the post office opening your mail, deciding they didn’t want to bother delivering it, and hiding that fact by sending it back to you stamped ‘address unknown—return to sender?’ Or if they opened letters mailed to you, decided that because the mail truck is full sometimes, letters to you could wait, and then [they] hid both that they read your letters and delayed them?”<sup>16</sup>

While there is considerable disagreement about how to insure Internet openness—including what the government’s role should be—there has been a relatively broad consensus that openness should persist.

In December 2010, the FCC adopted three rules codifying open Internet principles:

*“Rule 1: Transparency:* A person engaged in the provision of broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.

*“Rule 2: No Blocking:* A person engaged in the provision of fixed broadband Internet access service, insofar as such person is so engaged, shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.

“A person engaged in the provision of mobile broadband Internet access service, insofar as such person is so engaged, shall not block consumers from accessing lawful websites, subject to reasonable network management; nor shall such person block applications that compete with the provider’s voice or video telephony services, subject to reasonable network.

*“Rule 3: No Unreasonable Discrimination:* A person engaged in the provision of fixed broadband Internet access service, insofar as such person is so engaged, shall not unreasonably discriminate in transmitting lawful network traffic over a consumer’s broadband Internet access service. Reasonable network management shall not constitute unreasonable discrimination.”<sup>17</sup>

The Commission also noted that “pay for priority” arrangements—commercial arrangements between a broadband provider and a third party to favor some traffic over other traffic—were “unlikely to satisfy” the “no unreasonable discrimination” rule.<sup>18</sup> Although the rules were the subject of some political controversy, many in the technology sector supported them on the grounds that, as venture capitalist John Doerr put it, “maintaining an Open Internet is critical to our economy’s growth.”<sup>19</sup>

These rules have great significance for the development of news, information, and journalism. The rules forbid an ISP from blocking one news provider in favor of another with whom it might have a business relationship. By expressing skepticism that pay-for-priority arrangements would be acceptable under open Internet rules, the rules make it far harder for large, established news organizations to collaborate with ISPs to squelch competition from upstart news websites.

Whatever one’s views on the mechanism for preserving openness, everyone can agree that the Internet has been an extraordinary gift to free speech, because the barriers to entry are low to non-existent. The ability to communicate freely online requires that those entities that control the infrastructure over which communications travel do not block or degrade particular traffic or pick winners and losers among content, applications, or services. But as the FCC’s open Internet order noted, broadband providers have natural business incentives, and the demonstrated ability, to act as gatekeepers, favoring or disfavoring particular content, applications, and services that traverse their networks:

“The record and our economic analysis demonstrate, however, that the openness of the Internet cannot be taken for granted, and that it faces real threats. Indeed, we have seen broadband providers endanger the Internet’s openness by blocking or degrading content and applications without disclosing their practices to end users and edge providers, notwithstanding the Commission’s adoption of open Internet principles in 2005.”<sup>20</sup>

That is why the conservative group, Christian Coalition, has backed open Internet rules:

“We believe that organizations such as the Christian Coalition should be able to continue to use the Internet to communicate with our members and with a worldwide audience without a phone or cable company snooping in on our communications and deciding whether to allow a particular communication to proceed, slow it down, or offer to speed it up if the author pays extra to be on the ‘fast lane.’

“Simply put, free speech should not stop when you turn on your computer or pick up your cell phone. The Christian Coalition testified some time ago on this issue and many members of Congress promised to act if network operators blocked political speech. We are here today to say, ‘network operators are blocking political speech.’”<sup>21</sup>

**A healthy mix of licensed and unlicensed wireless broadband spectrum will promote “innovation without permission,” a competitive marketplace, and affordable access.**

In addition, ISPs may favor some types of content in more subtle ways not apparent to consumers—such as by transmitting some content more slowly or charging some content creators more to reach broadband subscribers, in effect disadvantaging less-well-capitalized operators. Would these practices become commonplace? It is hard to know. It would likely depend on how much competition there is in the market and how well-hidden the discrimination is. The fact that an ISP can prefer one entity over another without anyone noticing is one of the strongest arguments for the transparency rule passed by the FCC.

The open Internet debate has several implications for news. First, if the Internet were to evolve toward a tiered system in which preferred customers get better service, it could end up privileging certain types of content over others without regard to consumer demand. Public and nonprofit media would be particularly vulnerable, as it is likely that such a structure would reward established, well-heeled companies over less-well-capitalized start-ups, possibly commercial over nonprofits. It also is plausible that a broadband Internet provider with strong political views might wish to minimize the dissemination of antithetical viewpoints. On a local level, one could easily imagine that a cable provider that controls broadband distribution might discriminate against a news website that had published an investigative report presenting that company in an unfavorable light. This would happen not because the companies have naturally bad intent but because they will inherently seek ways to maximize their profit and/or market penetration.

These tendencies are particularly troublesome when it comes to the evolution of journalism, because we are in a moment when no business model has proven itself viable for the financing of labor-intensive, local accountability journalism. Some of the incipient optimism about media innovation comes from the emergence of small, independent, web-based news providers—precisely the sort that would be at a disadvantage in a tiered pricing system. A world without an open Internet would be one in which the very innovation we are depending on to save journalism would lose its oxygen before it had a chance to flourish.

More recently, some Internet companies have begun to call for “search neutrality,” meaning search engines should not favor products or services offered by the company that owns the search engine. This newer idea comes in part from concerns about concentration and the potential for unfair discrimination in the online search market, where Google now accounts for 66 percent of U.S. searches.<sup>22</sup> Over time, Google has become more than a search engine, offering products that compete with other companies’ services: Google Maps competes with MapQuest; Google owns YouTube, which competes with other video services; Google powers the Android phone, which competes with Apple’s iPhone. This has led consumer watchdog groups to worry that Google skews its search results to advantage its own products and services over those of competitors.<sup>23</sup> In November 2010, the European Commission launched a formal investigation in order to look into that issue.<sup>24</sup>

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### **Aggregation, Summarizing and Revenue Sharing**

Much criticism has been leveled at those who generate page views, and attract ad dollars, by summarizing the content created by others—as well as those who outright copy such content. (See Chapter 34, Copyright and Intellectual Property.) Less discussed is the role of Internet Service Providers. As noted in Chapter 20, News Consumption, Americans spend more money than in the past for access to content. In the case of cable, the holders-of-the-pipes share some of the revenue with content creators. There is debate about how exactly the revenue should be divided, but there is agreement that it should be shared. ISPs have a different relationship with content providers: they do not share revenues the websites people visit. There have been a few proposals to change this paradigm, though none have gained traction. The Writers Guild of Canada has proposed that ISPs pay content creators. Stephen Nevas of the Yale Law School Information Society Project argues, “Internet Service Providers (ISPs) sell access to free content but pay nothing for the privilege.”<sup>25</sup> He suggests that every service provider and cell phone provider should collect content license fees, which would be passed on to a new division of the Copyright Office.<sup>26</sup>

However, even if there were agreement that ISPs should pay—and there is not—there is no agreement on how such funds would or could be distributed.

### Licensing and Regulation of Mobile Services

Over the past two decades, mobile service has developed from a niche voice service offering to a mass-market voice and data service. During this time, the Commission’s regulatory framework for mobile service generally has focused on fostering competition and establishing key public interest obligations unrelated to content regulation.

In recent years, the Commission has emphasized policies to expand deployment of mobile services, including broadband. The continued development of these policies likely will have a positive impact on the delivery of local information to communities, given that mobile service has become a major delivery mechanism for news, particularly among population groups that are less likely to have regular access to a PC.

In 1981, the FCC adopted a framework for licensing spectrum for mobile services in the cellular band—assigning one license in each market to the incumbent wireline company, and awarding another license in the market to a non-wireline applicant based on an FCC comparative review process.<sup>27</sup> Since 1993, after Congress authorized the FCC to award licenses through auctions, licenses for most commercial mobile services (including cellular, PCS, SMR, and paging) have been issued by auction.<sup>28</sup>

The Communications Act provides a regulatory framework for mobile services, requiring that commercial mobile radio service (CMRS) providers be regulated as common carriers under Title II of the Act,<sup>29</sup> and otherwise providing the Commission the authority to impose public interest obligations on mobile service providers that are spectrum licensees.<sup>30</sup> Under this framework, the FCC has adopted a variety of public interest obligations, including enhanced 911 location capability,<sup>31</sup> local number portability,<sup>32</sup> hearing aid compatibility,<sup>33</sup> roaming,<sup>34</sup> surveillance assistance for law enforcement,<sup>35</sup> and build-out of networks.<sup>36</sup> Because the Commission has regulated CMRS providers

as common carriers, it generally has not imposed content-related public interest obligations on them, and policymakers have not viewed CMRS providers as having the same “trustee” obligations as broadcasters.<sup>37</sup>

The wireless industry has undertaken certain voluntary programs to provide particular types of information targeted to specific groups, often through partnerships with public interest organizations. For example, CTIA joined forces with parenting groups to develop text4baby, which provides free informational updates and reminders to pregnant women and new moms.<sup>38</sup> As yet, however, CTIA has not proposed partnerships geared toward providing civically important information on a local level.

The FCC has taken a number of steps to encourage the deployment of mobile service, including broadband, such as: providing “rules of the road” for an open Internet;<sup>39</sup> establishing requirements to promote the availability of data roaming arrangements;<sup>40</sup> removing obstacles to deployment of infrastructure for mobile networks;<sup>41</sup> modernizing the Universal Service Fund;<sup>42</sup> and other steps to make mobile service more available.<sup>43</sup> In

addition, the Commission has recently taken steps to expand access to communications service, including mobile service, across the nation,<sup>44</sup> for low-income consumers,<sup>45</sup> Native Americans,<sup>46</sup> and persons with disabilities.<sup>47</sup>

As part of a strategy to make significant additional spectrum available for mobile broadband, the 2010 *National Broadband Plan* proposed a system of “incentive auctions” to encourage some broadcasters to put their spectrum back into auction in exchange for a piece of the proceeds.<sup>48</sup> The goal is to reallocate 120 MHz of spectrum from broadcast to wireless broadband usage, and the FCC has initiated some preliminary steps toward this goal, in the event that Congress provides the FCC with authority for incentive auctions.<sup>49</sup>

### FM Chips on Mobile Phones

In addition to mobile Internet, applications, and messaging, discussed in Part One, another source of news and information for mobile subscribers is the FM chip—a small receiver placed in the phone that allows the headset to act as an antenna, so the phone can function as an FM radio.

**Broadcasters have claimed that the inclusion of FM chips increased access to local information, particularly during emergencies. Mobile service providers argue, on the other hand, that an FM chip mandate would be costly to implement and is unnecessary.**

This has been a topic of great controversy. Broadcasters have argued that American consumers have less access to the service than those in Europe and Asia.<sup>50</sup> An Insight Research Corporation report for NAB estimated that the penetration of broadcast radio capability in mobile phones was just 9.5 percent in the U.S. in 2009.<sup>51</sup> On the other hand, wireless companies and device manufacturers argue that numerous phones offer the service, and that the government should not get involved in what is a private marketplace issue.<sup>52</sup>

Putting aside the debate as to whether it is appropriate for government to force device manufacturers to include FM chips as opposed to the parties working out commercial deals, we recognize that FM chips in mobile devices can provide a number of benefits to consumers. For example, they could enhance the value of the Public Localized Alerting Network (PLAN) during disasters; after getting a short text about the emergency, they could tune into radio news broadcast for more information (particularly if congestion on mobile networks or power outages make it hard to get on the Internet). Moreover, given that both radio and mobile phone adoption are disproportionately high among minority populations, the FM chip could be a particularly effective way to broaden information dissemination in their communities. Further, public radio stations have argued that FM chips would make it possible for listeners to access their content on their phones without having to go through the Internet (which requires public radio stations to pay streaming costs).<sup>53</sup>