

How To Get Broadband On Planes -- And Everywhere Else

“You may now use your [mobile](#) devices from gate to gate,” is the new pre-flight announcement on U.S. airplanes. That’s all most Americans want or care to know about the Federal Communications Commission and its new chairman, Tom Wheeler. Inflight mobile usage is popular and long overdue, and Mr. Wheeler shrewdly made it one of his first acts.



New FCC Chairman Tom Wheeler

But if we want the capacity to use all our proliferating devices anytime, anywhere, with continued innovation in content and digital services, we better pay attention to the rest of Mr. Wheeler’s agenda. That agenda will include crucial decisions on wireless spectrum, Internet regulation, the transition from old copper telephone wires to modern all-IP networks, and unforeseen contingencies in a rapidly changing “cloud computing” environment.

“I am an unabashed supporter of competition,” Mr. Wheeler says, making “competition” the watchword of his reign. Few question his assertion that competition is preferable to heavy handed regulation or uncompetitive industries. But what is competition?

In the old textbooks, competition meant lots of similar firms serving up homogeneous products and competing on slim price differentials enabled by temporary efficiency gains. Real world competition, however, especially in the digital realm, has little in common with the old textbook description.

The dynamism and unpredictability of the Internet ecosystem is its chief virtue. [Google **GOOG** +1.06%](#), Amazon, [Apple **AAPL** +0.55%](#), [Microsoft **MSFT** +0.54%](#), [Facebook](#), and Netflix are today major Internet infrastructure companies. We used to think of them as, respectively, search, ecommerce, computer, software, social, and motion-picture-delivery firms. But today they build and operate vast data farms and fiber networks. Several build mobile devices. Several build operating systems and browsers. All are competing to be the hub – or at least *a* hub – of the consumer’s digital life. Each, however, approaches the converged digital world from a different angle and with a distinct business model.

This is possible in large part because the network – the Internet – supplies a standard infrastructure that supports multifaceted content, services, and devices.

The traditional telecom companies are of course a central factor in the digital equation. Here, too, the field is shifting. Cable disrupted telecom through broadband cable modem services, but now cable is being challenged by free content from YouTube and subscription services like Netflix. Mobile is a massively successful new business, yet it is cannibalizing wireline services, and is itself facing disruptions from Skype and IP messaging apps. Mobile service providers, moreover, used to control the handset market, but today handsets have become mobile computers that wield their own substantial power with consumers. The iPhone, in other words, reorganized the whole mobile industry.

Internet companies, however, also offer synergistic benefits to telecom, cable, and mobile firms. Netflix, YouTube, and Skype, for example, promote strong demand for broadband Internet access services. In the same way, the iPhone both challenged mobile carriers’ control of the handset market and yet dramatically boosted demand for mobile services. Many firms and technologies are thus often competitors and complements at the same time.

The competitive arena is not characterized chiefly by slim price differentials among a few narrow, unchanging products in well-defined markets. Instead, new and existing

firms make risky, multibillion dollar investments that produce rapid innovation, extreme product differentiation, and huge shifts in consumer and enterprise behavior. All these firms, moreover, are hyper-connected and engage in constantly shifting partnerships within multi-sided markets, where technology's perpetual see-saw of modularity and integration alters the relative value of hardware and software, content and conduit, network and service. The hyper-growth of Amazon's cloud services is just the latest example of an outsider completely reorienting the competitive landscape.

"We must protect competition where it exists," Mr. Wheeler says. "We must promote competition where it may not be fulsome." But to the FCC of the late 1990s, promoting competition meant "open access" mandates that funneled capital not into real network infrastructure but into Competitive Local Exchange Carriers (CLECs), regulatory arbitrageurs who delivered slightly cheaper versions of existing services on the old networks. Every single CLEC failed.

Late-1990s "competition policy" also meant requiring six or seven mobile providers in each market, which wasted capital through duplicative investments and temporarily handed Europe the mobile edge. Only when these policies were erased or relaxed in the 2000s did U.S. broadband and mobile rocket to world leadership, with broader coverage, faster speeds, more usage, and most of the world's innovations in digital content, services, and apps.

The key factors that delivered to consumers much more powerful products at much lower prices were new technologies and new platforms from new firms, new players, and huge new investments from existing firms, not regulatory management of market shares or business plans.

In early December, Reps. Fred Upton (R-MI) and Greg Walden (R-OR) said they will, over the next few years, attempt a major rewrite of the outdated communications laws. These laws still treat too many firms like old "natural monopoly" utilities, labeling networks, services, and firms according to narrow "stovepiped" technological and industry definitions that have long since melted away into a general, hyper-connected

Internet.

Fortunately for the U.S. digital economy, Mr. Wheeler has also insisted that “Regulating the Internet’ is a non-starter.” This basic “un-regulation” of the Internet has produced over \$1.2 trillion in broadband investment in the last 15 years. Regulators in less dynamic U.S. industries should take note.