

## Boston College Law School

---

From the Selected Works of Daniel Lyons

---

April 8, 2015

# Beyond Net Neutrality: International Examples Enabling Innovation and Consumer Choice in the Mobile Internet Ecosystem

Daniel Lyons, *Boston College*

---

Available at: [https://works.bepress.com/daniel\\_lyons/71/](https://works.bepress.com/daniel_lyons/71/)





BOSTON COLLEGE LAW SCHOOL  
LEGAL STUDIES RESEARCH PAPER SERIES

RESEARCH PAPER 356

April 8, 2015

# Beyond Net Neutrality: International Examples Enabling Innovation and Consumer Choice in the Mobile Internet Ecosystem

Daniel A. Lyons

Associate Professor  
Boston College Law School



## Beyond Net Neutrality: International Examples Enabling Innovation and Consumer Choice in the Mobile Internet Ecosystem

Daniel A. Lyons\*

The Open Internet movement originated as a means of protecting consumer welfare in cyberspace. The Federal Communications Commission's Four Principles of Internet Freedom, first adopted in 2005, emphasized that consumers should have access to the lawful Internet content of their choice, to run applications and use services of their choice, to connect the devices of their choice to the network, and to benefit from competition among broadband and app providers. *Consumer choice* originally was, and always should be, the guiding principle for policymakers when determining broadband policy.

But something strange happened on the path from idea to implementation. Open Internet advocates shifted their focus from the welfare of consumers to that of Internet-based application providers, colloquially known as "edge providers," such as incumbents Netflix and Facebook. When President Obama pushed the FCC to reclassify broadband providers as Title II common carriers, he emphasized the need to protect a "level playing field" for edge providers and to reduce barriers for the hypothetical "next Facebook"—themes that are echoed in the FCC's recent net neutrality order. In addition to banning blocking and paid prioritization, the FCC has adopted an amorphous standard that prohibits broadband providers from "unreasonably" interfering with or disadvantaging consumers' ability to access online content, or edge providers' ability to reach consumers online. The order lists several open-ended criteria against which reasonableness may be determined—a list that some net neutrality advocates hope to use to prohibit new business models such as sponsored data that provide consumers unconventional alternatives to traditional broadband plans.

While many believe that by protecting Netflix we protect consumers, the reality is somewhat more complex. For example, Sprint has announced plans to introduce a social media plan under its Virgin Mobile brand that would allow voice service customers to access Facebook, Twitter, Instagram, or Pinterest on their phones for an additional \$12 per month. Similarly, T-Mobile has launched a data plan that includes unlimited access to select streaming music services such as Pandora or iHeartRadio without counting against the customer's monthly data limits. These innovative new service models benefit consumers by offering them new options better tailored to their preferences and by reducing the cost of bringing mobile connectivity to customers. They also help Sprint and T-Mobile compete more effectively against larger rivals Verizon and AT&T. Yet numerous net neutrality supporters have condemned these new service models, claiming they interfere with competition, "lock in the existing choices and not let the new ones grow more organically. That's just not the way the Internet has worked."<sup>1</sup> They have also

---

\* Associate Professor of Law, Boston College Law School. This white paper is a distillation of a more detailed article, titled *Innovations in Mobile Broadband Pricing*, 92 *Denver Univ. L. Rev.* (forthcoming 2015), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2418563](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418563). This white paper is made possible in part by support from Broadband for America, and the underlying article by the BC Law School Fund and the Mercatus Center at George Mason University.

<sup>1</sup> See Ryan Knutson, *Sprint Tries a Facebook-Only Plan*, *Wall Street Journal* July 20, 2014, available at <http://online.wsj.com/articles/sprint-tries-a-facebook-only-plan-1406724847>.

condemned sponsored data as “a lose-lose for customers and app makers”<sup>2</sup> and a “tremendous loss for all of us.”<sup>3</sup>

But as discussed in further depth below, this assumption about the need for a homogenized broadband experience is at odds with an increasingly heterogeneous customer base. Some of us are light users, and some are heavy. Some visit many websites, and some only use a handful on a regular basis. Some consumers cannot justify paying high prices for a mobile plan that largely duplicates the access they already have at home or at work, but might pay less for access to limited mobile content. And some may not wish to pay for content, but would gladly enjoy it if the content provider wished to give it to consumers for free. In short, a one-size-fits-all broadband model is ill-fitted to today’s diverse user population.

International markets are figuring this out and showing how broadband and edge providers can innovate to meet consumers’ changing needs. This is especially true with regard to mobile networks: fierce competition for subscribers and the desire to serve unconnected populations have spawned numerous alternatives to the traditional access plans favored by net neutrality purists. From Facebook phones and flip-phone services to bundled apps and free premium content, the diverse array of alternatives available internationally illustrates how consumers can benefit from innovation by broadband providers, and from cooperation between wireless companies and app developers.

And though the goal of the net neutrality proceeding is to protect consumers by protecting competition in cyberspace, the international experience suggests that strict net neutrality rules may harm both. This paper examines some of the diverse business models that have emerged in international markets and the nascent attempts to bring these innovations to the United States. These case studies illustrate the potential benefits to consumers, and to competition, that can flow from innovation within broadband markets. As the FCC fleshes out its new “unreasonable interference/disadvantage” standard, it should be careful that its rules do not preclude Americans from sharing in the global revolution currently taking place for mobile services.

### ***Meeting Niche Consumers’ Needs***

One benefit of broadband innovation is the ability to better serve consumers whose needs are imperfectly met by traditional broadband offerings. As the universe of Internet-based products and services grows, there is an increasing diversity among consumers regarding how often they access the Internet, for what purposes, and from which devices and networks. A diverse array of plans is far more likely than a one-size-fits-all Internet plan to meet so many different consumers’ needs.

For example, numerous international providers offer voice-plus plans (like the one Sprint has proposed) that pair traditional voice/text service with access to selected online content or apps. A particularly popular variant of this model pairs traditional service with access to popular social

---

<sup>2</sup> Press Release, AT&T Sponsored Data Scheme is a Lose-Lose for Customers and App Makers, <http://www.freepress.net/press-release/105490/att-sponsored-data-scheme-lose-lose-customers-and-app-makers>.

<sup>3</sup> Michael Weinberg, *AT&T’s New “Sponsored Data” Scheme Is a Tremendous Loss for All of Us*, PUBLIC KNOWLEDGE BLOG (Jan. 8, 2014), <http://www.publicknowledge.org/news-blog/blogs/attas-new-asponsored-dataa-scheme-tremendous>.

media sites such as Facebook or Twitter. The plans are popular with consumers who seek some online access, but are unwilling or unable to pay for a traditional wireless Internet plan. Some consumers may simply be uninterested in purchasing full mobile Internet access, especially if it is duplicative of services they already have at home or at work. Others may be cost-conscious and are unwilling to pay high prices for mobile access to the entire Internet. But these consumers may be interested in paying less for the ability to engage in a handful of activities while on-the-go, such as tweeting or updating their Facebook status. These plans may also be attractive to technophobic consumers who are unsure whether mobile broadband is a worthwhile purchase. A low-priced social media plan allows these consumers to “sample” the mobile broadband experience at a lower cost than a traditional plan.

*Case study: Turkcell, Turkey*

In 2010 Turkey’s Turkcell gave all customers mobile access to a text-only version of Facebook for free. In 2012 it launched a similar promotion with Twitter. Once the promotional period ended, the company replaced the free, stripped-down service with a paid package that included traditional Facebook or Twitter access for a set fee. Currently, Turkcell allows customers to add 500 megabytes of Facebook and Twitter access, plus 20 megabytes of general data, to a basic voice plan for 7 TL/mo (approximately \$2.67). This is about one-third the cost of the company’s cheapest traditional data plan, which begins at 19 TL/mo (approximately \$7.25) for 250 megabytes of data.

Turkcell representatives reported that the free Facebook offer helped spark an 820% increase in mobile Facebook use in 2010. By the end of the year, 6.5 million Turkcell customers were accessing Facebook on their phones each month. And Twitter Zero led to a 340% increase in mobile Twitter use. 30,000 consumers signed up for the Turkcell Facebook add-on in the first week alone, and 600,000 customers in the first four months. It is difficult to determine how many of these customers would have purchased a higher-priced full-Internet plan in the absence of the Facebook-only alternative, and which would have foregone access completely. But both groups are better served by giving them the option to purchase access to the services they most desired at a lower price than Turkcell’s traditional wireless data plan.

***Narrowing the Digital Divide***

Diversification of the broadband product can also help narrow the digital divide between connected and non-connected consumers. While there are numerous reasons why some consumers lack Internet access, affordability of Internet access plans is one key variable. On their own or in partnership with edge providers, carriers can develop alternatives that can reduce consumers’ cost to get online and in the process can stimulate local Internet ecosystems in places where the network is less developed.

*Case study: Facebook Zero and Internet.org, global*

Facebook has long focused upon improving global connectivity. In 2010, the company launched 0.facebook.com, which offered a basic version of the company’s ubiquitous social-networking service for older feature phones. Although smartphones dominate the postpaid market in the United States and Europe, previous-generation feature phones comprise 65-75% of the global wireless market. Most lack data plans, and if they have Internet access at all, it’s through an older protocol. Through 0.facebook.com, Facebook worked with fifty wireless carriers around the

world to allow feature phones on their networks to access the service without charge. The service has proven popular, particularly in Africa, where most consumers are on prepaid plans and services that do not debit one's prepaid account are a significant lure. In the first 18 months after launching the service in Africa, Facebook saw a 114% increase in the number of Africans using the service. It has proven similarly popular in the Philippines, Vietnam, and Latin America.

More recently, the company has launched Internet.org in partnership with mobile phone operators and wireless providers to bring affordable Internet access to the developing world. Through Internet.org, wireless broadband providers agree to "zero-rate" certain categories of broadband traffic, meaning that a consumer can access zero-rated services without cost. While one can argue that Facebook has business incentives to pursue Internet.org as a way to extend the company's brand into developing markets, CEO Mark Zuckerberg emphasized to a skeptical investor on a recent earnings call that this is not the company's primary motive, nor does it expect Internet.org to be a profitable venture anytime soon. Rather, it flows from a corporate dedication to expanding connectivity and allowing underserved communities worldwide to benefit from the digital revolution. To that end, many sites zero-rated by Internet.org within a country are based in that country and offer country-specific news, weather, and services responsive to the needs of those local consumers. In this way, Facebook hopes that Internet.org can help build a large enough base of wireless customers within a developing country to "jump-start" a local Internet ecosystem within that country. It is currently available in numerous countries including Zambia, Tanzania, Kenya, and India.

### ***Promoting Competition in Broadband Markets***

As the Internet.org case study suggests, it is not just consumers who may benefit from innovation within the broadband market. Competition can benefit as well. Many net neutrality proponents decry innovative practices such as bundling or zero-rated services as ways for entrenched providers to exploit their positions as owners of the broadband networks through which consumers access the Internet. But the case studies below show how innovation can help smaller broadband providers who lack the scale and infrastructure to compete against entrenched providers, by changing the rules of the game.

#### ***Case Study: Orange Swapables, United Kingdom***

Orange, a French wireless provider and the United Kingdom's third-largest mobile company, has long been known for content-based wireless promotions. From 2011 until 2013 the company offered Swapables, a premium data package that allowed top-tier customers free access to one or two subscription-based services from a wide menu of popular content including Sky Sports Mobile TV, the Times of London, a game download service, and the Deezer music streaming service.

By partnering with popular Internet content providers, Orange helped shake up competition in the UK wireless market, offering a wireless plan plus premium content for one low price, below the cost of the two services separately. MBA students would recognize such partnerships as classic niche strategies that can be particularly helpful for smaller wireless providers that often lack the scale to compete on price or footprint alone. By offering content above and beyond mere Internet access, the carrier created a new front of competition and attracted niche customers who would otherwise pay for that content.

### ***Promoting Competition in Edge Provider Markets***

While net neutrality is pitched as necessary to protect competition among edge providers, partnership with broadband providers can be a fruitful way for a start-up Internet company to shake up the online status quo a well. The inclusion of Deezer as part of the Swapables bundle was particularly interesting, as the announcement coincided with Deezer's launch in the United Kingdom. Although Deezer had proven popular in its native France, it faced an uphill battle gaining traction in the British online streaming music market, where market leader Spotify has long held a commanding presence. The partnership was thus lucrative for Deezer, which immediately received built-in delivery over the Orange network, easy access to the company's installed customer base, and low-cost marketing in conjunction with Orange's Swapables advertising. Thus, the Orange-Deezer partnership not only offered Orange an opportunity to expand its presence in the wireless market, but it was simultaneously a way for Deezer to make a splash in the Internet music market.

#### *Case Study: 3HK/WhatsApp, Hong Kong*

In September 2012 the leading wireless provider in Hong Kong, 3HK, began bundling voice plans with the popular messaging application WhatsApp for HK\$8/month (about \$1.03), revenue that it split with WhatsApp. Though not popular in the United States, WhatsApp is the most popular paid app in over 100 countries, where it is displacing text messaging, which has traditionally been a significant profit center for carriers. Net neutrality proponents may find this partnership surprising: a key argument supporting net neutrality is that broadband providers would block edge providers who constitute competitive threats to traditional revenue streams. But the 3HK/WhatsApp partnership shows how the wireless model is evolving over time. This partnership helped WhatsApp break into the Hong Kong wireless market and achieve over 50% penetration in a very short time—over three million users.

#### *Case Study: Denmark*

In Denmark, partnerships between wireless providers and edge providers have helped streaming music providers disrupt older music business models such as physical CD sales and iTunes. Bundled content has become a significant plane of competition among wireless providers. Each major wireless provider offers at least one data package that includes a music bundle—and each provider has bundled with a different content provider. Incumbent TDC offers its own service, Play, while mobile operator 3 offers bundles with Deezer, and Telia offers Spotify. These agreements allow for robust competition among the three wireless providers—but have also helped the infant streaming music industry revolutionize the Danish music market. Denmark's first streaming music service was launched in 2008, but today the sector accounts for an astounding 63% of the nation's recorded music revenue.

### **Prospects for Innovation in America's Broadband Networks**

The potential loss of consumer-friendly alternative plans domestically shows the danger of enacting rules designed to protect edge providers rather than consumers. Ultimately, it is consumers who should command policymakers' attention – not the hypothetical “next Facebook” seeking its place in the rough-and-tumble commercial world. Admittedly, net neutrality advocates are correct that some broadband providers have incentives to act

anticompetitively. And regulators may conclude, as the FCC did, that this risk requires some government oversight, above and beyond the protection that antitrust law provides in other sectors of the economy. But going forward, the Commission’s enforcement of its new “unreasonable interference/disadvantage” standard should allow for pro-consumer innovations in broadband markets as well as upstream markets for Internet content and applications. Internet policy should encourage innovation that helps improve the way that consumers access the Internet-based content they desire – no matter where that innovation occurs in the Internet ecosystem.