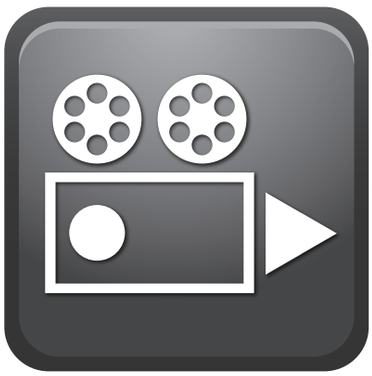
CHAPTER 4 ETHICAL, SOCIAL, AND POLITICAL ISSUES IN E-COMMERCE

CASE 1 What Net Neutrality Means for You



SUMMARY Net neutrality refers to the pricing of Internet broadband service by the telephone and cable companies that provide the Internet backbone (Internet Service Providers or ISPs).Facing very large investment costs, ISPs would like to be able to charge more for heavy users of their networks—people, who, for instance, watch a large number of Netflix streaming movies each week. In some cases, ISPs have suggested they would like to eliminate or slow down certain traffic altogether, like BitTorrent music files, or Skype VOIP phone calls. The FCC and public policy advocates claim any discrimination against certain types of files, or charging more for heavy bandwidth use, is unfair, discriminatory, and will likely hurt innovation and the Internet. If Netflix and YouTube customers had to pay more for their videos, they might not watch so many.

(a) The FCC's new net neutrality rules, explained in 172 seconds

URL https://www.youtube.com/watch?v=sBKPacCuXsw; L=3:06

(b) CNET News—What the FCC Net neutrality rules will mean for Internet users

URL https://www.youtube.com/watch?v=84r3qd19tZU; L=1:37

CASE Net neutrality is the idea that ISPs like Comcast, Time Warner, Verizon, and AT&T, must allow customers equal access to content and applications, regardless of the source or nature of the content. ISPs may not discriminate against any content, or types of files, by refusing to transmit these files, charging more for these files and content, or providing special high speed access for some users, like Netflix or Google.

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It also means that everyone will be charged the same flat fee regardless of how much bandwidth they consume. This means that people who download very large video files pay no more for service than people who just send emails. The Internet currently fits this description, but service providers are increasingly interested in changing this fundamental principle to respond to recent trends in Internet usage.

Currently, most Internet traffic is treated equally (or "neutrally") by ISPs in the sense that someone who streams a Netflix movie each day to their computer pays no more for Internet service than someone who uses the Internet for email and Web surfing.

However, ISPs would like to be able to charge differentiated prices based on the amount of bandwidth consumed by content being delivered over the Internet, much like a utility company charges according to how much electricity consumers use. The carriers claim they need to introduce differential pricing in order to properly manage and finance their networks. Critics worry about ISP conflicts of interest: AT&T may want to prevent Skype traffic on its Internet connections in order to force customers to use the AT&T cell network.

There are three basic ways to achieve a rationing of bandwidth using the pricing mechanism: cap plans (also known as "tiered plans"), usage metering, and "highway" or toll pricing. Each of these plans has historical precedents in highway, electrical, and telephone pricing. Cap pricing plans place a cap on usage, say 300 gigabytes a month in a basic plan, with more bandwidth available in 50 gigabyte chunks for, say, an additional $50 a month. The additional increments can also be formalized as tiers where users agree to purchase, say, 400 gigabytes each month as a Tier II plan.

A variation on tier pricing is to offer speed tiers, charging more for higher speed Internet service. An alternative to cap plans are metered or usage-based billing charging on the basis of metered units of Internet service. One variation on metering is congestion pricing, charging more for peak hour Internet service congestion pricing, where, as with electric "demand pricing," the price of bandwidth goes up at peak times, say, Saturday and Sunday evening from 6:00 P.M. to 12 midnight—just when everyone wants to watch a movie!

Still a third pricing model is highway (toll) pricing where the firms that use high levels of bandwidth for their business pay a toll based on their usage of the Internet. Highway pricing is a common way for governments to charge trucking companies based on the weight of their vehicles to compensate for the damage that heavy vehicles inflict on roadways. In the case of the Internet, YouTube, Netflix, Hulu, and other heavy bandwidth providers would pay fees to the Internet carriers based on their utilization of the networks in order to compensate the carriers for the additional capacity they are required to supply to these heavy user firms. Presumably, these fees would be passed on to customers by the industry players by charging users a distribution expense. The only way to do this fairly is to charge fees to users based on how much they download, e.g., a short YouTube video might cost 10 cents, while a feature-length movie might cost $1.

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Plans to ration bandwidth are controversial and have brought legal, regulatory, and political scrutiny. For instance, in 2007, Comcast, the largest ISP in the United States, began to slow down traffic and specific Web sites using the BitTorrent protocol not because the content was pirated, but because these video users were consuming huge chunks of the Comcast network capacity during peak load times. Comcast claims its policy was a legitimate effort to manage capacity. In 2008 the Federal Communications Commission (FCC) disagreed and ordered Comcast to stop discriminating against certain Web sites. Comcast filed suit and in 2010, a federal appeals court ruled against the FCC and for Comcast, arguing that Comcast had the right to manage its own network, including charging some users more for bandwidth or slowing down certain traffic such as BitTorrent files (Wyatt, 2010).

In 2009, the FCC began developing a national broadband strategy. In December 2010, the FCC approved "compromise" net neutrality rules (Schatz, 2010). The rules forced ISPs to be transparent about how they handle network congestion, prohibited them from blocking traffic such as BitTorrent or Skype protocols on wired networks, and outlawed "unreasonable" discrimination on such networks. The regulations did not cover wireless cellular networks, nor did they prohibit paid prioritization, in which broadband companies could enable premium customers to have access to higher-speed, higher-priced "fast lanes." In 2011, Verizon sued the FCC to stop its net neutrality rules from going into effect and won their case, crippling the FCC's restrictions (Wyatt, 2011a).

In January 2014, a federal appeals court threw out the FCC regulations on blocking and price discrimination, but allowed the FCC to have some jurisdiction over Internet providers, and also upheld transparency rules (e.g., ISPs are required to make public their network management practices). In 2015, much of the debate centered on whether the FCC could classify ISPs as public utilities, giving them much more power to regulate their activities. In June 2015 the FCC issued its net neutrality regulations which defined Internet broadband providers as public utilities, subject to federal regulations. In December 2017, under the Trump administration, these regulations were reversed, and currently there are no federal net neutrality regulations. Broadband telecommunications firms are free to set prices and service levels as they see fit. This move was resisted by the major Internet content and service firms such as Alphabet (Google), Netflix, Facebook, and others. These content firms all have deep pockets, supported by subscription fees and advertising. ISPs and cell network providers believe they should be able to charge additional fees for the content they carry over their networks.

In the end, net neutrality is about distributing the costs of building high-speed broadband Internet networks. These costs are expected to mushroom as cell providers move to 5G high speed networks. Companies like YouTube and Netflix, very heavy users of Internet bandwidth, want no price rationing, caps, metering, or toll pricing

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in order to maximize their revenues. One price fits all. ISPs and landline carriers of the Internet want to charge heavy bandwidth users more than light users, in order to maximize their revenues. Although currently net neutrality regulations have been suspended, the same issues are expected to be debated in future years.

VIDEO CASE QUESTIONS

1. What did the FCC's net neutrality rules decide in 2015 about whether or not ISPs can be regulated as public utilities, and why is this important?
2. Are you in favor of network neutrality? Why or why not?
3. Do you believe broadband providers should be allowed to charge companies like Netflix and YouTube a premium for their bandwidth consumption?
4. What are some potential consequences for consumers of ending net neutrality regulations?