

The Times

Broadband Milkshake

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In the climactic scene of the Oscar-nominated film “There Will Be Blood,” the ruthless oil tycoon played by Daniel Day-Lewis explains that he has drained all the valuable oil from a neighbor’s land. “If you have a milkshake and I have a milkshake and I have a straw ... and my straw reaches across the room ... I drink your milkshake! I drink it up!” There could be no more apt analogy for the looming threat now facing our broadband infrastructure.

Today, a few savvy Internet users -- the bandwidth tycoons in this broadband Wild West -- are effectively draining everyone else’s Internet connections by using special “peer-to-peer” (P2P) software to automatically search the Internet, mining enormous quantities of music, video, games and other digital files. During peak hours, this P2P traffic can severely slow other users’ connections.

A debate about how to handle this bandwidth crisis is brewing in Washington, D.C. A group of political professionals claims the banner of equality is in fact spearheading a campaign to allow the P2P bandwidth tycoons to run amok on everyone’s connections, legally tying the hands of Internet Service Providers (ISPs) from taking steps to ensure a more egalitarian Web. At a time when the U.S. is ranked 15th in international broadband surveys and 70 percent of Latino adults don’t subscribe to broadband at home, allowing one segment of users to degrade everyone else’s on-line experience could set us even further back, slowing adoption rates in minority and low-income communities.

Popular at college campuses across the country, P2P applications are quite useful for the hardened download addict -- the software makes it easy to download hundreds of files by simply making a list in the program’s “queue.” The P2P program then actively searches for those files on “peer” computers, downloading them as they become available.

But this downloading ultimately takes a toll on the network: Experts at Cisco and Cachelogics have estimated that P2P transfers make up 50 percent to 90 percent of all Internet traffic. Thus, the P2P traffic from a few users can put a disproportionate strain on local broadband networks, degrading everyone else’s on-line experience. If a few college students all download advance copies of “There Will Be Blood” at 7 p.m. on a Monday, it could effectively slow their neighbors’ connections to a crawl, making it frustrating to even check e-mail.

Some Internet ISPs have taken steps to get all traffic flowing freely. One broadband provider recently announced a pilot program that charges users based on their bandwidth consumption, hoping to keep P2P users honest about the drain they put on the network.

And most companies use some type of “net work management” technique, which channels Internet signals through “routers” much like traffic lights usher cars through intersections. In periods of maximum congestion, the signals “flash yellow,” allowing P2P, e-mail and other types of traffic to flow without creating gridlock.

But the same political professionals behind the “net neutrality” campaign -- a somewhat naive push to outlaw efficiently managed networks -- have claimed that net work management is tantamount to discrimination: the disruption of an Internet utopia by meddling ISPs. There’s certainly a surface appeal to this argument, but by ignoring how the Internet works, these campaign professionals are missing the virtual forest for the digital trees.

The ISPs aren’t spying on which movies and music files users are sharing; they’re simply identifying P2P streams and ensuring that this traffic doesn’t bring other traffic streams to a screeching halt. That doesn’t sound like discrimination -- it sounds like a set of reasonable rules that renders the on-line Wild West a safe place for everyone’s traffic. On the other hand, the professional net-neutrality advocates are actually lobbying for a kind of net inequality -- regulations that would allow a handful of heavy downloaders to dry up the bandwidth for everyone else.

As this debate spirals out of control, it’s important to keep an eye on the ball. How do we retake the position as the global broadband leader? Network investment, not regulation, is the answer. For those awaiting the arrival of affordable broadband, Internet regulations that would slow investment could not come at a worse time. Giving the “green light” to investment drives efficient and intelligent broadband networks deeper into communities and gives minorities, small businesses and independent media voices a chance to compete in the digital economy. The last thing we need are misinformed, fear-driven regulations that scare any kind of broadband investment away.

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