WAS THAT A BOOK REVIEW?

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I. INTRODUCTION

Professor Yoo apparently believes that whatever intervention the government carries out in the highly concentrated high-speed Internet access market in America will lead ineluctably to deeply negative — if unintended — consequences for that industry. Yoo simply has an opinion: everything the government does is bad and everything private industry does is good. Yet he does not consider whether the absence of any intervention might similarly lead to negative unintended consequences for American consumers. By failing to engage seriously and directly with these concerns, Yoo also fails to provide a robust response to *Captive Audience*.[1]

I wrote *Captive Audience* because the FCC told America in March 2010 that for fixed high-capacity Internet access connections, cable would be the only choice for the vast majority of Americans.[2] It troubled me that because of (1) the enormous barriers to entry that exist in this market, (2) the dominance of single large cable incumbents (Comcast, Time Warner Cable) in each major metropolitan area, (3) the necessity for any new entrants to enter the market for both transport and content (particularly sports content) at the same time, (4) the control over and advantages in the programming market held by cable companies, and (5) the absence of regulatory oversight in this area, American innovators and households were paying artificially high prices for what are basic, general-purpose communications facilities.

Yoo's response suggests that he thinks most of my concerns are irrelevant. If I'm a "pessimistic, technological determinist,"[3] then he's a "technological solutionist": in his view, there is always a technological advance right around the corner that voids the rationale for government intervention. But Yoo's arguments are extraordinarily slender:

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1 SUSAN CRAWFORD, CAPTIVE AUDIENCE (2013).

2 "[I]n areas that include 75% of the population, consumers will likely have only one service provider (cable companies with DOCSIS 3.0–enabled infrastructure) that can offer very high peak download speeds . . . ." FED. COMMC'NS COMM'N, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 42 (2010), *available at* http://www.broadband.gov/plan/4-broadband-competition-and-innovation-policy/#s4-1.

3 *See* Christopher S. Yoo, *Technological Determinism and Its Discontents*, 127 HARV. L. REV. 914, 915–16 (2014) (book review).

he pays no attention to industry structure or pricing, gives far too much credit to the competitive pressures exerted by emerging technologies, and dramatically underestimates the risks posed by vertical integration. Because of these oversights and omissions, Yoo's proposed solutions do not constitute a real alternative to the kinds of regulatory responses I support in the book.

II. MARKET DEFINITION METHODOLOGY

Yoo's market definition is sweeping: his view is that the high-speed Internet access market should be defined extraordinarily broadly, to include every form of access that is faster than dial-up. The reason I focused on fixed high-speed, high-capacity Internet access as the relevant market for *Captive Audience* is that there is a major difference between the 2GB *capacity* cap that is common in the wireless industry and the 250–300GB *capacity* caps that are being introduced by the cable players. Even if mobile wireless *speeds* increase, no rational consumer would consider using these mobile connections to do what is possible over a cable wire. They will be socked with high overage charges if they do. Mobile wireless is not substitutable for cable modem access because of these enormous *capacity* differences.[4]

Yoo includes a very strange section in which he suggests that some Americans may be relying wholly on mobile wireless for high-speed Internet access.[5] He never discusses whether switching away from a wire (or never adopting in the first place) could be prompted by the high price of a fixed connection. Surely price and value are relevant. Along these same lines, although Yoo asserts that Americans do not buy cable's 100 Mbps service because it isn't needed, he says nothing about how expensive this service is in America. Penetration at monopoly prices will always be less than penetration at competitive prices. Low adoption in a one-firm market is not evidence that consumers need less competition. It may be evidence of the opposite. Indeed, it makes no sense that people would drop a cable high-speed Internet connection that could be used for a wide variety of functions because of the price pressure exerted by a mobile wireless connection they use primarily to send email.[6] These are complementary, not substitutable,

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[4] HIBAH HUSSAIN ET AL., NEW AM. FOUND., CAPPING THE NATION'S BROADBAND FUTURE? 1 (2012), *available at* http://newamerica.net/publications/policy/capping_the_nation_s_broadband_future. Sandvine reports show that mobile wireless connections are used differently than fixed connections. *See* SANDVINE, GLOBAL INTERNET PHENOMENA REPORT: 2H 2012, 6–7, 9–10 (2012), *available at* https://www.sandvine.com/downloads/general/global-internet-phenomena/2012/2h-2012-sandvine-global-internet-phenomena-report.zip.

[5] *See* Yoo, *supra* note 3, at 924–25.

[6] *Contra id.* at 927.

products. Moreover, as I explain in the book, the separate mobile wireless market is also highly concentrated.

III. Illusory Competitive Pressures

Cable could lower its prices and upgrade if it had to, but it doesn't. Google Fiber is providing a tiny amount of competition, serving (or potentially serving) one-half of 1% of Americans (in Kansas City, Provo, and Austin). Where that tiny and nonscaleable competitive pressure is exerted, it does force cable to change its tune: in Provo, after Google announced its plans to provide households with $70/month gigabit service, Comcast suddenly announced a $70/month 250 Mbps download/50 Mbps upload service — a service that it does not make available anywhere else in America.[7] Municipal competition could also have a chastening effect on cable. But because of deregulation, problems with access to programming, and a host of state laws' raising barriers to municipal efforts, limited competition has emerged thus far. Yoo may say he is optimistic; as Keynes famously put it, "in the long run we'll all be dead."

Yoo also asserts that DSL over copper wires will constrain cable high-speed Internet access pricing. Yes, AT&T has claimed that upgrades to its U-Verse product, which generally includes fiber to neighborhood nodes and then copper wire into homes, will provide 45 Mbps download speeds. But this claim should be taken with a giant grain of salt: most of AT&T's 76 million household footprint will not get an upgrade to 45 Mbps because the houses are too far from network boxes.[8] Even those households that do get the 45 Mbps upgrade will be worse off compared to cable: if they use their lines for pay TV services from AT&T as well as data, they will be eating into the speed and capacity that AT&T offers for high-speed Internet access. That does not happen with cable's data connections. And more than half of AT&T's

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[7] Jesse Harris, *Feeling the Google Heat: Comcast will bump speeds to 250Mbps/50Mbps in Provo*, FREE UTOPIA! (August 27, 2013), http://www.freeutopia.org/2013/08/27/feeling-the-google-heat-comcast-will-bump-speeds-to-250mbps50mbps-in-provo/ ("I spoke with one of their sales guys who confirmed that Comcast will be offering a package of 250Mbps/50Mbps for $70 starting in September, but only in Provo.").

[8] The best estimate is that approximately 43% of AT&T's footprint, or 33 million homes, will have at least 24 Mbps download speeds and the ability to subscribe to pay TV from AT&T as well as data; some subset of that number will be upgraded to 45 Mbps. AT&T does not provide information about availability in mapped form, making it necessary to search each individual address. *See Investments in Wireless and Wireline Broadband Networks and IP Services*, AT&T (Nov. 7, 2012), http://www.att.com/gen/press-room?pid=23506&cdvn=news&newsarticleid=35661 ("AT&T plans to expand U-verse (TV, Internet, Voice over IP) by more than one-third or about 8.5 million additional customer locations, for a total potential U-verse market of 33 million customer locations."); *AT&T U-verse Availability Notification*, AT&T, http://www.att.com/u-verse/notify-me/ (last visited Jan. 8, 2014).

footprint will not be able to buy pay TV services from AT&T (again because of speeds and distance between houses and boxes), giving cable bundles an advantage. Meanwhile, AT&T plans to relegate a quarter of its territory to wireless connections alone. To put AT&T's upgrade claims in perspective, AT&T has returned roughly as much money to its shareholders in *each year* from 2006 to 2012 as it has announced it will invest in its network in *total* from 2004 to 2013. It is not prioritizing network investment and has no grand plans to take on the cable industry by building fiber all the way into people's houses around the country.

Yoo tells my story for me. He says that *as of 2006* cable could have offered 160 Mbps download speeds for high-speed Internet access.[9] Seven years later, the large cable companies, who never enter each others' territories, don't offer these speeds and yet are able to keep raising their prices even as the price of actually delivering a gigabyte of data continues to decline. (Time Warner Cable raised its Internet access prices by more than 12% over the last year.[10])

How could that be? The answer is that cable companies feel little pressure from competition or oversight to either raise their speeds/capacities or lower their prices. Verizon FiOS fiber optic access is substitutable for cable modem DOCSIS 3.0 access — in fact, it is better because it offers symmetrical uploads as well as downloads — but Verizon announced in 2010 and recently reconfirmed that it would not be expanding its franchise areas beyond the 14% of the country's population that it serves;[11] it is not even going to wire Boston with FiOS.[12]

Yoo would have to agree that in places where Verizon FiOS isn't, and where (at least) 45 Mbps AT&T U-Verse with video isn't, local cable monopolies dominate. For example, in the fourteen states that make up the former US WEST area, now controlled by CenturyLink,

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[9] Yoo, *supra* note 3, at 919; *see also CableLabs Issues DOCSIS 3.0 Specifications Enabling 160 Mbps*, CABLELABS (Aug. 7, 2006), https://web.archive.org/web/20060813154432/http://www.cablelabs.com/news/pr/2006/06_pr_docsis30_080706.html ("The new specifications describe downstream data rates of 160 Mbps or higher and upstream data rates of 120 Mbps or higher.").

[10] *See* MOFFETTNATHANSON RESEARCH, TIME WARNER CABLE Q3 2013 EARNINGS 2 (2013).

[11] Interview by Jason Armstrong, Analyst, Goldman Sachs, with Fran Shammo, EVP and CFO, Verizon Communications Inc., at the VZ–Verizon at Goldman Sachs Communacopia Conference (Sept. 20, 2012) (edited transcript), *available at* http://www.verizon.com/idc/groups/public/documents/adacct/goldman_vz_transcript_092012.pdf ("So that is kind of the way that we look at it and this is not — we are not passing more than we originally said. We will still end up at around that 18 million to 19 million mark from a pass perspective. And at this point we won't build beyond that, because at this point we have to capitalize on what we have invested.").

[12] *Wahlberg FiOS Commercial Missing One Thing: FiOS in Boston*, BOS. GLOBE (Oct. 8, 2013), http://www.bostonglobe.com/business/2013/10/08/wahlberg-fios-commercial-missing-one-thing-fios-boston/QFGH3MmBU19XSZu826t2IN/story.html.

cable faces vanishingly little competition. At best, we have got a very tight oligopoly, and regulation is arguably as necessary for consumers in these markets as in monopoly markets.[13]

IV. VERTICAL INTEGRATION

Yoo's skewed view of industry dynamics — and consequent blindness to consumer-welfare issues — extends to his opinions concerning vertical integration.[14] The Department of Justice was certainly worried about vertical integration in the Comcast/NBCUniversal (NBCU) merger.[15] Its own guidelines caution that vertical integration may harm consumer welfare where entrants to one market (say, high-speed Internet access) also would have to enter the other market (video programming) simultaneously, and the first market is sufficiently conducive to noncompetitive performance.[16] The bundle of high-capacity Internet access and programming (particularly sports programming) is very attractive to Americans, and most distributors believe they have to offer both programming and data in order to build their subscriber bases.[17]

Both Comcast and Time Warner Cable buy local sports rights for their local footprints, and use these local rights to block competition from anyone else planning to enter the market for high-capacity communications. Google Fiber had great trouble getting a license from Time Warner Cable to show local sports in Kansas City.[18] And who

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[13] *See, e.g.*, N. Nat'l Gas Co. v. Fed. Power Comm'n, 399 F.2d 953, 965, 977 (D.C. Cir. 1968) (natural gas pipeline industry a "tight oligopoly," *id.* at 965, where competition might be desirable).

[14] *See* Yoo, *supra* note 3, at 929–40.

[15] *See* United States v. Comcast Corp., 808 F. Supp. 2d 145, 146–47 (D.D.C. 2011).

[16] U.S. DEP'T OF JUSTICE, U.S. DEPARTMENT OF JUSTICE MERGER GUIDELINES, § 4.21, at 26–27 (1984), *available at* http://www.justice.gov/atr/public/guidelines/2614.htm. The sorry tale of the Tennis Channel, and its failed three-year effort to get wide distribution on Comcast, demonstrates the power of a vertically integrated distributor to dictate the destiny of smaller content providers. *See* Meg James, *Tennis Channel Loses Bid for New Hearing in Comcast Dispute*, L.A. TIMES (Sept. 4, 2013), http://articles.latimes.com/2013/sep/04/entertainment/la-et-ct-tennis-channel-comcast-dispute-20130904.

[17] Comcast is certainly reaping the benefits of this integration. The company greatly accelerated the timing of its second tranche of payment for NBCU — evidence that Comcast was rushing to leverage the power of the combined company as soon as it could. *See* Amy Chozick & Brian Stelter, *Comcast Buys Rest of NBC in Early Sale*, N.Y. TIMES MEDIA DECODER (Feb. 12, 2013, 4:54 PM), http://mediadecoder.blogs.nytimes.com/2013/02/12/comcast-buying-g-e-s-stake-in-nbcuniversal-for-16-7-billion/. The unwinding of the America Online (AOL)/Time Warner merger, used by Yoo as evidence of failed verticality, Yoo, *supra* note 3, at 917, is inapposite: AOL was never a last-mile conduit provider, and its ability to do business as an ISP depended wholly on access to someone else's — the local phone company's — physical network. AOL's access to that physical network was (in a nice irony) safeguarded by the very same common carrier regulations that Yoo opposes.

[18] *See* Reply Comments of Google Fiber Inc. at 3–4, Revision of the Commission's Program Access Rules, MB Docket No. 12-68 (Fed. Commc'ns Comm'n Jan. 14, 2013).

would enter the Los Angeles market, where Time Warner Cable has both the Lakers and the Dodgers?[19]

Thus, even though fiber is a better technology than cable, even though other countries in Northern Europe and Asia have far higher fiber adoption rates than we do (and will thus be the places where new ideas for uses of high-capacity networks come from),[20] and even though the cost of installing fiber is dropping, because no new fiber entrant will ever get the programming terms that the major cable players get, entry remains difficult for competitive fiber providers. The major cable players pay far less for programming per subscriber than any independent fiber provider would (or any existing telco would), because they have far more subscribers.

This is why the direct-to-consumer model of Netflix is so disruptive, and why cable wants to be careful about Netflix or create its own Netflix, as Liberty Media Chairman John Malone has suggested.[21] The ability of consumers to buy programming directly could be a great leveler between the cablecos and independent fiber competitors: where this ability exists, cable loses the scale advantages that it otherwise has over any new entrant when it comes to programming costs. For this reason, Time Warner Cable acted to constrain CBS from sending out its programming online, leading to the recent standoff in Dallas, New York City, and Los Angeles.[22] And this is why the cablecos have been introducing usage-based billing: if a consumer discovers that he or she will hit a cable company's data cap and incur overage charges by substituting independently sourced online television for the cable company's pay-TV package, that online television subscription fee will start looking very expensive.

All of these barriers — discriminatory interconnection, usage-based billing, vertical integration — can be used by the cable industry collectively to keep competition in both the distribution and online content markets at a minimum. The risk of collusion and cartelization in high-

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[19] Joe Flint, *Time Warner Cable Chief Defends Pricey Sports Deals*, L.A. TIMES (Jan. 31, 2013), http://articles.latimes.com/2013/jan/31/entertainment/la-et-ct-time-warner-cable-dodgers-lakers-20130131.

[20] *OECD Broadband Statistics*, OECD (Dec. 2012), http://www.oecd.org/sti/broadband/1l-PctFibreToTotalBroadband-2012-12.xls.

[21] Todd Spangler, *Malone: Cable Operators Create Netflix Killer*, VARIETY (Oct. 10, 2013, 9:26 AM), http://variety.com/2013/biz/news/malone-cable-operators-should-create-netflix-killer-1200712224/.

[22] *See* Joe Flint & Meg James, *CBS and Time Warner Reach a Deal; the Pact Ends Monthlong Blackout and Returns Network's Programs to Millions of Cable Subscribers*, L.A. TIMES, Sept. 2, 2013, at A1, *available at* http://articles.latimes.com/2013/sep/02/business/la-fi-ct-timewarner-cbs-deal-20130903; *see also Testimony of Martin D. Franks, Exec. Vice President, Planning Policy and Gov't Relations, CBS Corp., before the N.Y.C. Council Comm. on Consumer Affairs & Subcomm. on Zoning & Franchises* (2013), *available at* http://www.nab.org/documents/newsRoom/pdfs/080813_Franks_NYC_Testimony.pdf.

ly concentrated conduit markets of this character is far higher than Yoo seems to believe.[23]

Yoo's section on common carriage is particularly weak. He hasn't given a moment's thought to the successes of open access, including in the telecom industry. Nor has he looked at models like electric and natural gas where regulation is tough work but open access works quite well. Nor, strangely, does he mention that the FCC's Open Internet rules, in effect for nearly three years now, have served to constrain network access providers. There is no evidence that the providers have been harmed.

V. CONCLUSION: PRIORITIZING CONSUMER INTERESTS

Most perplexingly, Yoo sees the enormous positive social externalities generated by high-speed open Internet access as a *problem*, and argues that "the wedge between private and social benefit" should be eliminated in favor of allowing cable companies to internalize all the social value they create.[24] He seems to think that a super-centralized vertically integrated information-distribution cartel is fine; indeed, he suggests that innovation by edge providers or small businesses would be a bad thing.[25] This view is starkly at odds with the traditional aims of both communications law and antitrust law. Protecting consumer welfare — in all its forms — has long been the core objective of both antitrust and telecom regulation.[26] Yoo seems not to care about consumers at all.

Yoo cares most about imperfect regulation by the government. He believes it would be a blunt instrument and therefore cataclysmic. By contrast, in his view blunt instruments used by highly concentrated private industry network providers are wholly appropriate. For example, Yoo concedes that usage caps are imperfect but blithely says they are fine.[27] As the cable industry has acknowledged, usage caps are not about managing congestion but are instead designed to make more money from the same facility — to monetize the pipe.[28] I think

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[23] *See* C. Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182, 1230–31 (2013); Robert H. Lande & Howard P. Marvel, *Collusion over Rules*, ANTITRUST, Summer 2002, at 36, 37.

[24] Yoo, *supra* note 3, at 942.

[25] *Id.* at 943–44.

[26] *See* John B. Kirkwood & Robert H. Lande, *The Fundamental Goal of Antitrust: Protecting Consumers, Not Increasing Efficiency*, 84 NOTRE DAME L. REV. 191, 192 (2008).

[27] Yoo, *supra* note 3, at 937.

[28] As one report noted:

> National Cable and Telecommunications Association president Michael Powell told a Minority Media and Telecommunications Association audience that cable's interest in usage-based pricing was not principally about network congestion, but instead about pricing fairness.

usage caps can be used as sledgehammers in a noncompetitive distribution market to make it difficult for any high-capacity content or app provider to enter, expand, or thrive.

Ultimately, Yoo seems to think we must do nothing about high-capacity communications in America because to do anything would be too risky for the industry. I am concerned that cable's unrestrained pricing power over what has become an essential facility is dragging down the country's competitiveness. That's why I wrote the book.

> That came in a panel session billed as the first assemblage of four former FCC chairs — Powell is a former Republican chair — at the MMTC Broadband and Social Justice Summit.
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> Asked by MMTC president David Honig to weigh in on data caps, Powell said that while a lot of people had tried to label the cable industry's interest in the issue as about congestion management. "That's wrong," he said. "Our principal purpose is how to fairly monetize a high fixed cost."

John Eggerton, *NCTA's Powell: Usage-Based Pricing About Fairness, Not Capacity*, BROADCASTING & CABLE (Jan. 17, 2013, 12:23 PM), http://www.broadcastingcable.com/article/491396-NCTA_s_Powell_Usage_Based_Pricing_About_Fairness_Not_Capacity.php.