COMMENT ON EXPANDING CONSUMERS' VIDEO NAVIGATION CHOICES

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BEFORE THE FEDERAL COMMUNICATIONS COMMISSION

1. My name is Benjamin Edelman. I am an associate professor at Harvard Business School. My research, writing, and teaching explore Internet architecture and business opportunities. I have focused in large part on advertising markets, the primary economic model for most online media and services, and I have identified factors that impede competition and efficiency in online advertising markets. I have also explored dominance of certain large firms in crucial online markets, most notably Google's dominance in search and certain adjacent sectors. In this comment, I draw on these lines of research to evaluate the FCC's proposed rulemaking in the matter of Expanding Consumers' Video Navigation Choices (MB Docket No. 16-42).[*]

2. The proposed approach would facilitate a consumer purchasing a set-top box from a third-party manufacturer unaffiliated with the consumer's MVPD. The proposed approach presents alternative set-top boxes (ASTBs) as reducing customer expense, e.g. by eliminating monthly fees in favor of an up-front purchase. The proposed approach also posits that ASTBs will facilitate innovation because multiple manufacturers will compete by adding features. I credit these potential benefits but will leave it to others to assess their size and plausibility.

3. I write to focus on the impacts of the proposed rulemaking on advertising markets, including the complex incentives among content creators, distributors, advertisers, and consumers, as well as the impact of significant market concentration in

[*] I submit this comment, commissioned by the Future of TV Coalition, on my own behalf, not on behalf of Harvard Business School or anyone else. It reflects my views and opinions alone, and neither Future of TV nor anyone else directed its substance or had the right to revise it before submission.

related markets. My bottom line: The proposed approach would destabilize a delicate balance. The proposed approach would be a windfall to ASTB manufacturers, letting them reap where others have sowed, in that ASTBs would be able to claim substantial value that is actually created not by their hardware or software but by content creators' original programming and by video distributors' physical infrastructure. This windfall would dull the incentive to produce and distribute quality content, and it would make an ill-advised regulatory gift to certain technology companies at the expense of content creators. This approach would also further entrench the dominance of a single company, Google, already strikingly dominant in other sectors. At the same time, the proposed approach threatens a content ecosystem that creates both economic and cultural assets that are unrivaled worldwide. While the proposed approach styles itself as reshaping the market for set-top boxes, it would actually reshape the far larger advertising market, and harm in the advertising market would likely far exceed any benefit in the set-top box market.

4. For those reasons, I consider the proposed approach ill-advised. I share the Commission's praiseworthy objectives of reducing consumer costs, facilitating competition, and accelerating innovation. But these objectives would be better served through other mechanisms.

I. THE PROSPECT OF INTRUSIVE NEW ADVERTISING FORMATS

5. The proposed approach would precipitate fundamental changes to the market structure for television advertising. Consider the advertising formats available to an ASTB:

a) presenting video and/or banner advertisements in a channel guide or other display of available programming
b) inserting preroll video advertisements before programming begins
c) inserting video and/or banner advertisements in advertising panels adjacent to video content
d) superimposing video and/or banner advertisements in "slider," "toast," or other advertising formats that cover a portion of video content
e) inserting new advertisements into gaps within video content, i.e. inserting additional commercials in the same format as existing commercials.

6. One might question whether consumers would accept ASTBs that insert so much advertising. At the outset, I expect that new ASTBs would launch with little to no advertising—a special benefit for consumers who are early adopters (providing an incentive for customers to join quickly), and a natural way to reduce early concerns at the potential impact of ASTB on advertising markets. But the FCC should not read too much into an early dearth of advertising. Indeed, from Google to YouTube to Facebook, it is a widely-used strategy to launch a new service without little to no advertising, but to add substantial advertising once a service becomes established and competitors, if any, are far behind. Moreover, after ASTBs become widely deployed, manufacturers have every incentive to activate aggressive methods of advertising in order to increase their revenue. Notably, I expect that ASTB manufacturers will style these advertisements as consumer benefits—"relevant offers"—and in any event argue that the revenues from these extra advertisements are necessary for low up-front device prices and/or low or zero monthly ASTB fees.

7. In addition, an ASTB might remove advertising already present in programming. An ASTB manufacturer would style this removal as benefiting users. Consider the likely characterization: "replace regular television advertisements with targeted offers." Indeed, a timeshifting-capable ASTB might replace two minutes of regular advertisements with one minute of its own advertisements. Users who dislike advertisements would have every incentive to accept such an offer. Once one ASTB offers this feature, others will be virtually compelled to follow in light of likely consumer response. Though a reduction in the number of minutes of commercials might seem like a benefit, the actual effects are more complicated, as I discuss in the subsequent sections.

8. Concerns about advertising are reinforced by the FCC's changing tentative position in this area. Upon announcing the proposed approach, FCC Chairman Tom Wheeler stated that nothing in the rule would allow third parties to sell additional advertising around programming,[1] and at a later hearing he promised that the original programming "should remain sacrosanct and untouched,"[2] reassuring a skeptical Ranking Member that the proposal would not undermine advertising markets. His remarks were unequivocal:

> Q: I want to ask about the issue of advertising in third-party set top boxes. You said nothing will change that. What prevents a set top box maker from putting advertising in? ...
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> A: The rule will prohibit it. You need to have the sanctity of the content. Nobody is going to insert ads into it. Nobody is going to make a split screen where they're putting ads next to it. Nobody is going to say it's a frame around it, where you can say "Go to Joe's Auto Repair." It's going to require the sanctity of the content be passed through unchanged.
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> Q: Does that include the neighborhood agreements?
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> A: Programming agreements are included. Programming agreements are part of the sanctity of the content. ... That's still there.
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> Q: So the rule will specifically prohibit extra advertising?

A: Yes sir.[3]

9. Wheeler was correct in his instinct that such a rule is appropriate and should be included if the proposed approach is to proceed at all. But in fact the Notice of Proposed Rulemaking offers no such protections. Quite the contrary, paragraph 80 of the Notice specifically considers and rejects such protections. The failure to address this issue in the actual NPRM is a serious shortcoming that calls into question the Chairman's well-advised verbal reassurances.

II. PROPOSED APPROACH WOULD DESTABILIZE A DELICATE BALANCE BETWEEN RIGHTS-HOLDERS AND CONSUMERS

10. The current television ecosystem relies primarily on advertising revenue, and any proposed shift in video distribution must consider effects on advertising and incentives. At present, advertisers pay more than $70 billion per year for television advertising, funding more than 400 new scripted shows (as well as countless reruns and unscripted programming). Advertising contracts typically specify the program where advertising is to be shown as well as the position in that program and assurance that the advertising will play intact (without banners or other intrusions from content creator or distributor). Contracts also often specify prohibited adjacencies, for example disallowing two advertisements for automobiles from running back-to-back or even assuring that a given advertiser is unique in its category (such as the sole advertiser promoting beverages during a given program). ASTBs threaten to undermine each of these commitments, leaving the advertiser much less certain what placement it will receive, and hence less willing to pay.

11. One might hope that principles of copyright would disallow ASTBs from inserting and removing advertising. Indeed, there are fine arguments that an ASTB makes a derivative work, requiring permission from the underlying rights-holder, by inserting ads within video programming or by removing existing ads. One might also argue that even slider, toast, and frame-based advertising formats similarly require permission from the rights-holder. But an ASTB would cast itself as an agent of the user who purportedly "requests" these additional advertisements. Indeed, such arguments have had some success. In 2001-2003 litigation, television networks and cable companies sued ReplayTV, which had provided hardware and software to automatically skip television commercials. The litigation was hard-fought and culminated in ReplayTV's bankruptcy, without a clear ruling as to the legality of the underlying conduct.[4] Similar questions repeatedly arose in the context of adware, intrusive advertising software that bombarded computer users with extra advertising and in some instances removed publishers' existing ads in order to make room for more adware ads.[5] In fact, Google defended adware methods in litigation, arguing in an amicus brief that adware companies should be free to use web sites' trademarks to cover web sites with competitors' ads.[6] The FCC should not presuppose that principles of copyright will prevent ASTBs from modifying video programming to add or even remove advertising. Litigation of these questions would be uncertain and extended.

12. The uncertainty of copyright litigation makes the FCC's approach particularly intrusive. Knowing that they cannot rely on copyright protection to protect themselves from advertising insertion and removal, video creators and distributors have every reason to be cautious in allowing their content to be delivered through unknown

and potentially-untrustworthy devices. Prior FCC proceedings amply reflect their care and indeed their hesitance including their attempts to protect video content through encryption, cryptographic verification of media and player, and efforts to identify material not to be stored or redistributed. In contrast, the FCC's proposed intervention would upend that balance—compelling video distribution through firms that are likely to offer exactly the features the video creators and distributors find destructive. Consider especially the combination of a *de facto* compulsory license (requiring MVPDs to provide content to ASTBs) with unclear copyright requirements—a combination that prevents MVPD's and content creators from withholding their content from untrusted devices as they surely otherwise would. The proposed change would reduce the value available to content creators and undermine their ability to control how and under what circumstances their work is monetized by advertising.

13. As Chairman Wheeler clearly recognized in his unambiguous oral commitments of February 18, 2016 (quoted within paragraph 8), the business model of advertising-supported video requires respecting and preserving "the sanctity of the content" including the exclusive right, by video creators and distributors, to control the advertising shown in and around that content

III. PROPOSED APPROACH WOULD UNDERMINE THE INCENTIVES RIGHTLY GRANTED TO VIDEO CREATORS AND DISTRIBUTORS

14. The proposed approach would create the odd situation of multiple firms competing to sell ads within each video program. Consider an advertiser who wishes to advertise during The Walking Dead or Mr. Robot. At present, the advertiser must go to AMC or USA, which set prices reflecting market demand. But under the proposed approach, the advertiser could simultaneously approach both these programmers and

ASTB providers. If the advertiser finds the network prices unduly high, the advertiser can instead buy placements from ASTBs. Then the advertiser achieves the same advertisement delivery, reaching viewers watching the specified shows. But suddenly the creators of those shows and the networks delivering them get none of the benefit and no assistance in defraying production costs. Meanwhile, ASTBs are handsomely rewarded—reaping windfalls as gatekeepers guarding access to consumers, despite doing little or nothing to facilitate users' interest in these shows.

15. Furthermore, if content creators lose control of the advertising within their programs, content creators will be unable to offer valuable advertising packages for which they currently command a premium. For example, some content creators are currently able to charge extra for advertisers that wish to have some form of exclusivity, perhaps as the sole advertiser promoting automobiles during a given program. If ASTBs can insert ads at will, this exclusivity collapses, preventing the content creator from providing this distinctive benefit to the advertiser and preventing the content creator from capturing the value it created.

16. The proposed approach would thus reduce the prices advertisers are willing to pay to content creators and MVPDs to present their offers within video content. With lower revenue from advertising, some content creators will scale back operations, and some with marginal businesses may elect to cancel shows or cease operations altogether. The content creators most likely to be affected are those whose businesses are struggling, i.e. new entrants and those with specialized offerings achieving modest appeal. This likely explains the extensive filings in the record from independent and diverse programmers and content creators opposing the idea.

17. We need not look far for other markets similarly affected. In online news, for example, aggregators collect stories from myriad publishers, linking users to individual stories in a way that creates modest revenue for publishers, while aggregators reap substantial earnings from the audiences they assemble. Similarly, YouTube presents videos from a wide variety of content creators, historically offering zero compensation to any, and historically including even content that YouTube staff knew was unauthorized[7]—yielding no revenue to content creators, and notably no payments to offset their costs of producing original content. In each instance, the fundamental market structure is similar: Intermediaries index and organize third-party content and refer users to same, incurring zero cost to create content and usually zero to low cost in licensing content; yet the intermediaries enjoy the user agglomeration, advertising, and platform benefits of the services they create. In the markets previously at issue, a dissatisfied content provider could at least potentially seek to exclude its content (e.g. by opting out of Google News or, in principle albeit with likely limited effectiveness, sending voluminous take-down requests to YouTube). In contrast, in the proposed ASTB environment, licenses would be truly compulsory for all MVPD content creators and channels, further increasing ASTB market power and reducing the options available to content creators.

IV. DISPROPORTIONATE BENEFITS TO ALREADY-DOMINANT GOOGLE

18. The proposed approach appears to be distinctively beneficial to some of the most powerful companies, most notably Google. Consider the likely opportunity for Google if the proposed approach moves forward. By asking users to sign into their ASTBs with their Google Account, Google can deliver users with advertisements that

respond to their activities in computers, phones, and tablets where Google uniquely collects exceptional data about user activity.

19. Indeed, Google collects exceptional information about user activity, well beyond any other firm. Google knows every search a user makes, including even the partial searches a user types but does not complete. (Users' search entries are transmitted, letter by letter immediately after each key is pressed, to Google servers.) Google knows the web pages users visit if the web pages include Google Analytics tracking tags, advertisements sold by Google AdSense, advertisements sold by Google DoubleClick, social widgets from Google+, embedded videos from YouTube, or any of a variety of other Google components. Google also knows the web pages users visit if they run Google Toolbar in its default installation, and other web browsers (including Safari and Google Chrome) widely report user browsing data to Google as part of Google's "safe browsing" and other initiatives. Separately, Google also knows the full location history of users with Android smartphones, including users' locations when phones are not in use. For Gmail users, Google sees all correspondence including order confirmations revealing what users purchased; and even non-Gmail users have their messages to Gmail users similarly scanned and analyzed by Google software. No other firm engages in even a fraction of this tracking.

20. The proposed approach creates the prospect of ASTBs that rely on all of the information enumerated in the preceding paragraph. For example, if a user searches for "hotel in venice" on any of his electronic devices, a Google ASTB may show that user all manner of related ads during subsequent television viewing. So too if a user activates Google Maps to browse that city, if the user explores Google Flight Search for

airfare quotes, or if the user receives an eticket confirmation in Gmail reflecting travel plans.

21. In contrast, no competitor is positioned to link user activity in this way. For example, Apple and Facebook lack substantial information about user' searches, as few users run searches on Apple or Facebook properties. Though Apple may know an iPhone user's location during travel, that information is no longer commercially valuable for key travel purchasing decisions (e.g. airfare and hotel) and would not be useful in typical ASTB advertising for such services. Similarly, Facebook may learn a user's location from wall posts or photo uploads, but that information is similarly untimely for advertising. Amazon knows about users' purchases and browsing, but that behavior captures only a fraction of commerce—and there too, would be unlikely to reveal early travel plans. Meanwhile, MVPDs are prohibited by FCC rules from examining user searches at third-party sites such as Google.com and so would not be able to match the Google service sketched above even if they sought to do so.

22. From Google's perspective, the proposed ASTB approach would be strikingly profitable. When Google shows ads within or adjacent to third-party content, Google usually needs to pay Traffic Acquisition Cost (TAC) to the content creator. For example, when Google shows ads on nytimes.com, Google pays the New York Times a commission for allowing Google to sell that site's advertising inventory. When Google shows ads on YouTube.com, Google now pays some content creators (albeit at a level that is the subject of ongoing disputes). In contrast, Google does not need to pay TAC for advertisements shown on Google.com, in Gmail, in Google Maps, and in other properties wholly controlled by Google. One might think that ASTB delivery of

advertisements would be in the former category, requiring Google to pay TAC since the advertising importantly relies on intellectual property from others. But in fact, under the proposed approach, Google would not need to pay TAC to a MVPD or anyone else for showing ads that appear before, on, or within MVPD video programming. Thus, Google could retain the entirety of advertisers' payments for ASTB advertising. This windfall would encourage Google to embrace the ASTB opportunity, and in fact Google might be willing to subsidize ASTB hardware in anticipation of profits from subsequent advertising.

23. A related set of concerns result from Google's dominance in search, search advertising, and other forms of online advertising. At present, television is one of a very few electronic advertising spheres where Google is not dominant. Consider the options available to an advertiser dissatisfied with the pricing and terms of Google's online advertising offering. Prior competition regulators have found that search advertising (which Google dominates) is a separate market from other forms of advertising such as social media, banners, and, to be sure, television. But if Google gains a dominant position in those other markets, advertisers will become even more reliant on Google—and even less able to redesign their advertising strategies to reduce dependence on Google. Advertisers' dwindling options for non-Google advertising should give special pause to any effort that further expands Google's sphere of control.

V. THE SPECIAL REASONS TO BE SKEPTICAL OF A MOVE TOWARDS "INTERNET-STYLE" ADVERTISING

24. It seems likely that ASTB advertisements will be sold via mechanisms closer to those typically used in online advertising markets than in television advertising

markets. This change raises a variety of additional concerns that should give the Commission pause.

25. For one, the move towards Internet-style advertising will have grave privacy consequences. ASTBs will likely be able to target ads to specific individual consumers, based on programming information (what show a customer is watching), demographic information (such as age and region), and crucially consumer identity (including linked accounts from search engines, social networks, and other online services; and thus online behavior on computers, phones, and tablets, including search and browsing activity as well as purchases). In some respects, these may be steps forward, for example in improving advertisement targeting so that advertisements are more relevant to customer interests. But these benefits come with important challenges and downsides. For example, one member of the household might run a search or browse a web site reflecting interest in one subject, and then another member of the household would see interest-based ads on an ASTB revealing an interest the first person had intended to keep private. Consider one member of a household searching for a medical condition on a desktop PC, tablet, or phone, alerting search engines to that condition and prompting the display of related advertising on a shared household television for the entire household to see. MVPD video content has never before suffered this type of problem, but the proposed approach makes this entirely possible.

26. Additional concerns arise from the measurement and accountability of the increasingly complicated advertising mechanisms. In online advertising, advertisers must be wary of advertising platforms that charge for clicks that were simply not delivered,[8] that place ad in locations and formats other than those agreed by contract,[9] that withhold

promised discounts,[10] and that circumvent even advertisers' best efforts at measurement and auditing.[11] In response to these and other problems, a large business has developed to audit and manage online advertising campaigns and attempt to protect advertisers' interests. The proposed approach would likely require advertisers to purchase similar measurement and management services in a new format – increasing costs and complexity. Moreover, when such measurement and management services are being devised and improved, advertisers would likely be substantially unprotected.

27. A separate concern with online advertising is that Google, and to a lesser extent other ad platforms, have aggressively sought to monetize other companies' trademarks. For example, if a user searches for "Geico," Google might show advertisements for competing insurance companies – dulling the incentive for Geico to build its brand name through costly efforts (e.g. print or television advertising) and preventing Geico from reaping where it sowed. Google has considerable success in broadening and defending these tactics (albeit also settling lawsuits strategically, seemingly offering some benefits to trademark holders in cases where Google perceives a risk of unfavorable results in litigation[12]). In the ASTB context, Google would surely deploy similar methods to monetize the trademarks of content creators and channels. For example, when a user entered the name of a desired program or channel, Google might offer advertising related to that trademark – allowing a competitor to access those users. Google would likely style this as a consumer benefit, i.e. "relevant offers." But here too, Google's approach would prevent rights-holders from enjoying the full benefit of the content and brands they created. Relatedly, Google's approach to trademarks would be a sea change for the video advertising industry: At present, channels and content creators

can and do reject ads for direct competitors, electing to decline short-term revenue due to the long-run damage to their brand and audience. In contrast, Google has no reason to protect a channel or content-creator's brand or audience, and Google would have no reason to decline any ad an advertiser wants to buy.

28. Relatedly, the proposed approach would let ASTB operate under a strikingly more favorable set of privacy laws than MVPDs. Others' comments have correctly flagged serious concerns about the implications of this asymmetry and the distortion and uneven playing field it would create. See especially the EPIC filing.

VI. CONCLUSION

29. I fully credit the principles behind the "unlock the box" aspiration. Indeed, some years ago I noticed the cost savings that would result from owning my own cablemodem rather than renting one from my ISP. Notably, my decision to buy a cablemodem imposed no apparent harm to content providers, advertisers or advertising brokers, or anyone else. But imagine if my cablemodem had instead been positioned to substitute the ads on publishers' sites with different ads chosen by (and benefiting) by cablemodem's manufacturer. Then the difference would have been very grave indeed, and I doubt that many people would view customer-owned cablemodems in a similarly positive light in that case. Although the rulemaking styles the proposed approach as the simple analogue of longstanding practice for cablemodems and indeed telephones, I submit that my analogy here is much closer. Considered in this light, the proposed approach is far less attractive.

Respectfully submitted,
/s/
Benjamin Edelman

References

[1] Jon Brodkin. "FCC Votes to 'Unlock the Cable Box' Over Republican Opposition" Ars Technica. February 18, 2016.

[2] FCC February 18, 2016 Open Commission Meeting at minute 129.

[3] *Id.*

[4] *Paramount Pictures Corporation v. RePlayTV, Inc.*, Case No. 02-04445 FMC (ex), C.D. Cal.

[5] Stefanie Olsen. "Software Replaces Banner Ads on Top Sites." C|NET News.com, January 2, 2002.

[6] *Brief of Amicus Curiae Google Inc. Supporting Neither Appellants Nor Appellee but Supporting Reversal*. *1-800 Contacts, Ing. v. Whenu.com, Inc., and Vision Direct, Inc.*, Case No. 04-0026-cv, S.D.NY.

[7] "Jawed, please stop putting stolen videos on the site. We're going to have a tough time defending the fact that we're not liable for the copyrighted material on the site because we didn't put it up when one of the co-founders is blatantly stealing content from other sites and trying to get everyone to see it." Email from YouTube co-founder Chad Hurley to YouTube co-founder Jawed Karim, July 19, 2005.

[8] *Lane's Gifts and Collectibles LLC v. Yahoo! Inc.*, Case No. CV-2005-52-1 (Ark. Cir. Ct. 2005).

[9] *Pulaski & Middleman, LLC v. Google, Inc.*, Case No. 5:2008cv03888 (N.D. Cal. 2008). See also *In Re Yahoo! Litigation*, 251 F.R.D. 459 (C.D. Cal. 2008).

[10] *Woods v. Google*, Case No. 5:2011CV01263 (N.D. Cal. 2011).

[11] Benjamin Edelman. "Google Still Charging Advertisers for Conversion-Inflation Traffic from WhenU Spyware." January 5, 2010. http://www.benedelman.org/news/010510-1.html .

[12] Amanda Scardamaglia and Angela Daly. "Google, Online Search and Consumer Confusion in Australia." *International Journal of Law and Information Technology* (forthcoming).