Competition in Television and Digital Advertising

Transcript of Proceedings at the Public Workshop
Held by the Antitrust Division of the
United States Department of Justice

May 2-3, 2019

Liberty Square Building
Anne K. Bingaman Auditorium & Lecture Hall
450 Fifth Street, NW
Washington, DC 20530

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Opening Remarks

- Makan Delrahim, Assistant Attorney General for Antitrust

MR. DELRAHIM: Good afternoon, and welcome. Thanks. I'm sorry for starting off a little bit late. But I have anticipated this workshop, today and tomorrow. So hopefully we'll all learn a lot about this.

I'm also pleased to invite you to the Anne K. Bingaman Auditorium here at the Antitrust Division. As some of you may know, we dedicated this last month to Anne. Anne was the first woman head of the Antitrust Division and incredibly led the Division for almost four years under President Clinton, during his presidency.

So I'd like to also thank our panelists and their organizations for their participation in this workshop today. It's an honor to see such an esteemed group of industry experts, including academics and executives from all facets of the media advertising industry, who have taken their time out of very busy schedules to participate in this important discussion and to help us better understand if there are any changes that may be necessary to our approach in this sector.

I also would like to thank several of my colleagues, with your permission, from the Antitrust Division who were instrumental in organizing this workshop over the last six months. Attorneys Daniel Haar, Erica Mintzer, and Karina Lubell, along with Lee Berger and Carl Willner from our Media and Entertainment section.

Thanks to economists Matt Magura and our chief economist, Jeff Wilder, and to paralegals Daniel Stone and Danielle Norgren-Markley, and of course my colleague from the Division's leadership, Rene Augustine.

Today's workshop will explore industry dynamics in media advertising and the implications for antitrust enforcement and policy. Workshops like these give us the opportunity to have a candid dialog with relevant stakeholders and thought leaders to ensure that we stay current with emerging industry trends, new business models and the latest economics.

They help us to better understand where to focus our enforcement and advocacy efforts and how best to think about competitive dynamics in the markets those efforts address.

As Judge Bork wrote in the epilogue to The Antitrust Paradox fifteen years after it was originally published, and that was in 1993, he said, quote, "though the goals of the antitrust statutes as they now stand should be constant, the economic rules that implement that goal should not. It has been understood from the beginning that the rules will and should alter as economic understanding progresses." I think that's one of the lasting features in the flexibility of the antitrust laws.

When we think about the importance of advertising, I'm also reminded of a saying that sometimes has been attributed to Henry Ford, that, quote, "Stopping advertising to save money is like stopping your watch to save time."

Advertising of course is an important way through which many of us learn about new or improved products and services. Even more important to many of us, advertising revenue supports countless non-advertising institutions we value, from news media, to television to search engines and social media, and what appears to be almost every new business in the digital economy.

Ad-supported business models bring goods and services to customers who would otherwise be priced out. Thanks to revenue from advertising, consumers often pay lower prices and sometimes even enjoy goods or services free of charge. Studies demonstrate that many consumers prefer ads to paying for certain services.

For example, nearly eighty percent of respondents in one study reported in Recode represented that they would choose an ad-supported Facebook over paying one dollar a month. Some consumers may even prefer receiving targeted advertisements that are more likely to be relevant to their needs than ads that reach broad audiences.

Ad-supported business models are a form of multi-sided platform. They serve consumers who wish to digest content and advertisers who hope to influence those consumers with the ads that accompany the content.

In a speech I gave earlier this year, I noted that industries with zero-price strategies and multi-sided platforms have market complexities that antitrust enforcement must grapple with. That is why our job as antitrust enforcers in this industry requires rigorous dynamic analysis and economic understanding.

A mere twenty years ago, Mark Zuckerberg was in middle school. We were snapping pictures on rolls of film and cameras and we were renting our movies in VHS format from Blockbuster. “Google” and “friend” were not verbs yet.

Progress and innovation have changed our lives dramatically in the digital age and digital advertising has evolved and continues to evolve just as quickly as it has grown. Yahoo first introduced search ads in 1995, as I understand it. Several years later, Google developed AdWords, and it wasn’t long before digital advertising was ubiquitous.

What began with basic search and display advertising grew to include online video advertising, dynamic advertising, and localized digital advertising. Mobile devices such as smartphones and tablets have provided additional channels to influence consumers through advertising.

Bill Gates famously predicted in 2005 that, quote, “The future of advertising is the Internet,” and that more than half of all ads would be personalized. At the intersection of linear television and digital advertising, it is no surprise that connected TVs exist in nearly forty percent of homes across America today.

Looking at a visual of the players operating in this segment of the industry alone is enough to make your head spin, and it keeps on changing. Of the top ten companies that contributed to digital advertising’s revenue growth ten years ago, only three remain on the top ten list today.

This space, the digital advertising space that emerged in the late 1990s, was primarily contextual, delivering advertising messages without personal data about their audiences. Today, because of the wealth of data that ad networks and publishers are able to collect about a website’s audience, behavioral targeting now accounts for a large percentage of digital advertising.

Moreover, because ad networks represent multiple publishers at once, they are often able to offer publishers access to much greater quantities of such data that they would not otherwise be able to access individually.

At the same time, this data increasingly enables ad networks to adopt a new model that circumvents content providers and targets individuals directly for advertisements. The collection of data and the ability to carefully target audiences is a distinguishing feature of digital advertising, but also one that has attracted significant scrutiny in recent years.

Of course, those are policies outside of antitrust and no discussion about media advertising could be complete without hearing industry perspectives on the role of customer data.

Fortunately, the Division has significant experience with varied advertising markets, including newspapers, radio, billboard, movie theaters, television and the Internet.

Our investigations into Google's 2011 acquisition of Admeld focused on the potential effect of the merger on competition in the display advertising industry. Through our investigation, we came to appreciate the role of intermediaries, including ad networks, ad exchanges and ad servers in facilitating transactions between advertisers and web publishers.

Our in-depth reviews of Google's proposed advertising agreement with Yahoo in 2008 and then Microsoft's search agreement with Yahoo the following year gave us opportunities to learn about the importance of scale and the nature of competition for advertisers between search engines.

The parties abandoned the Yahoo/Google agreement after the division informed them it would file a lawsuit to block implementation of the agreement on the grounds that it would harm competition in search advertising and search syndication, in which the companies accounted for at least ninety percent of the combined market share.

By contrast, the Division closed its investigation of the Microsoft/Yahoo agreement on the grounds that it was not likely to reduce competition and could enable the companies to compete more effectively within that market.

We recently looked at several broadcast mergers. In late 2016, the Antitrust Division required Nexstar to divest seven broadcast television stations in order to complete its proposed acquisition of Media General. And more recently, we have reviewed Sinclair's proposed acquisition of Tribune, which the parties abandoned after reviews by the Justice Department and the FCC.

Advertising was also an important issue in the recent AT&T/Time Warner merger investigation. Dr. Susan Athey, a highly respected professor of technology economics at Stanford, testified for the government in that trial regarding AT&T's claimed advertising efficiencies.

We will hear from Professor Athey again today when she gives the opening lecture at our workshop this afternoon and from AT&T's advertising unit tomorrow regarding the status of its new platform initiative.

In addition to our merger work, our investigations into anticompetitive conduct have provided a wealth of information about media advertising markets.

Since last November, we have reached settlements with seven broadcast television companies who we alleged had colluded with their competitors to reduce competition in the market for broadcast advertising.

From our earliest enforcement actions against newspapers that colluded to pressure their advertisers into exclusive contracts, to our decision in late 2017 requiring Entercom to divest thirteen broadcast radio stations and select DMAs, we understand that advertisers often purchase advertising on a mix of media platforms, with each medium tending to serve a different function in meeting the advertiser's needs.

Advertising legend David Ogilvy once commented that, quote, "What really decides consumers to buy or not to buy is the content of your advertising, not its form." Yet for antitrust enforcers, defining the relevant market requires consideration of the forms of advertising, which continues to evolve.

Our experience with advertising markets has taught us that there are varying levels of substitution for ad placement across media. For example, through our investigations, we have found that even if it means absorbing a price increase, some of the evidence we have seen suggests that advertisers are unlikely to look beyond broadcast spots within a given DMA.

Price is not the only factor. We've heard advertisers express concerns about brand safety and ad fraud on digital platforms. In addition, our investigations involving Google have shown that search advertising is used by advertisers very differently than other forms of online or offline advertising.

Digital advertising offers an opportunity to target customers in a way that was unimaginable in traditional media advertising. Understanding the extent to which that distinction is significant from an advertiser's perspective is important to our analysis of these markets.

Although they may have embraced digital advertising, we must understand if advertisers view advertising on digital media as a substitute to television or as a useful complement.

Evidence uncovered during our investigations has shown that many advertisers indeed have embraced digital advertising. We also recognize that the media industry and the advertising landscape continues to evolve. That is why, as part of our analysis, we spend so much effort investigating the product market.

For more than half a century, television was the biggest advertising medium in the United States. Today, as I understand it, more than half of advertising occurs online. Digital ad spending is expected to reach nearly $130 billion this year and exceed television ad spending by $20 billion.

Disruption to traditional advertising markets by new media is far from unprecedented. We have seen throughout history, whether it's been newspaper or radio, there has been disruption that has continued throughout generations.

Different media channels may serve different roles in the eyes of advertisers, from brand awareness to sale. This is not to say that different channels do not compete. They certainly do on some level, and the question for us is how do they compete and how have these new challenges changed or should change the antitrust analysis.

While we're confident in how we have defined markets in our past cases, we recognize that industries change. In order to ensure that we continue to update our analysis of media markets, we need to take into account the latest industry trends, the latest technological evidence and the latest economics. Reason enough to hold this workshop today and tomorrow.

Moreover, as we consider the changing marketplace, it's important to keep in mind former Assistant Attorney General Anne Bingaman's comments in a speech she gave on competition and innovation, where she noted that, and I quote, "We're not the first generation to be confronted with increasingly rapid change. It's probably true that every generation since the beginning of the Industrial Revolution has worried about the impact of changes that they were experiencing."

Today and tomorrow, we will hear from academics and executives from leading companies, including buyers and sellers of advertising inventory. Professor Athey, as I mentioned, will begin the workshop with a discussion about why companies advertise, the history and economics of advertising through the introduction of digital advertising. She will also talk about the role of data measurement and attribution in advertising.

Following Professor Athey's lecture, we will hear from two panels this afternoon examining, first, television advertising and, second, internet and mobile advertising.

Tomorrow morning, our workshop will resume with panels discussing competitive dynamics in media advertising and also trends and predictions for advertising generally.

In conclusion, I would like to thank each of our panelists for your willingness to participate and to share with us your perspectives. I look forward to the discussion this afternoon.

I fear I would somehow be remiss if I gave remarks on advertising and failed to reference Mad Men character Don Draper. His wisdom will serve our panelists well throughout the workshop. He said, and I quote, "If you don't like what's being said, change the conversation."

And of course I always try to follow former House speaker Tip O'Neil's advice, which I quote, "Speak only when you can improve the silence."

To get started, let me introduce Professor Athey, who will deliver our opening lecture. She is one of the leading experts on the economics of digitalization, marketplace design and online advertising.

As one of the first tech economists, she served as a consulting chief economist for Microsoft for six years and currently is on the boards of Expedia, Rover, and Ripple. We could not have asked for a better presenter, and I'm personally grateful that she took the time to come here to share with us her perspectives. Thank you so much.

(Applause.)

Advertising 101: An Overview of Advertising and Key Issues to Be Explored by the Workshop

- Susan Athey, The Economics of Technology Professor, Stanford University Graduate School of Business

Professor Athey's presentation was accompanied by a slide presentation that is available on the event website.

DR. ATHEY: Thank you. Very good. I'm very grateful to have been invited here. And it looks like a really terrific group of people gathered. So I'm going to start with a fairly broad overview of a number of the issues that will get developed substantially further.

Before I kick off, I do want to reiterate I'm here on my own as a Stanford professor. But I have had a lot of interactions with this industry, with a variety of firms, including platforms as well as advertisers and other industry participants, including several of the cases that were referenced just now.

So to start out, I want to really just take a few moments to speak about the role of advertising. And I think most of the industry participants here today don't need to be convinced. But one of the frustrating things as an economist, as especially I went out in the early days to educate people about the issues coming up in digital advertising, was that so many people think about their experience as a user and they think, well, these advertisements, I never click on them. They don't matter. Nobody measures them. They're not very important for the economy.

And I think it's just really important to underscore the crucial role that advertising plays in the economy. I appreciated that, coming from the perspective of advertising platforms. But I appreciate it even more working with startups in Silicon Valley and so on.

And so, when you think about being a young company going to get funding, the first thing you need to do is figure out your customer acquisition cost. And basically you don't get funded if there's not a path to scale your business. You're going to put in a bunch of fixed cost investment. But you're going to make a plan for how do I expand, which markets do I go to, which countries I go to.

And small changes in the cost of advertising can actually make or break a company. And then, even with a large, well-established, multibillion-dollar company, if there is a change that affects the cost of clicks on Google or the efficiency with which you can reach consumers through TV, that is material. It's a board-level discussion that affects the bottom line and, again, it really affects strategy and investment.

Another thing that I've been involved in, both from the antitrust perspective and from the industry perspective, is just how does this affect consumers.

The fact that these advertisements are what's alerting you to the existence of new products. When people don't even know what your product is, you need advertising. You can't survive without it. And then later, when you're engaged in price competition, again, it's a very important way.

So we should all know this. But especially for economists, I get very frustrated when people think advertising isn't important, because how do we think people get information? How do we think the economy actually works without this in the middle?

And then, it's also easy to forget the content producers and what their incentives are. And I've actually spent a lot of time myself studying the news industry.

And that's something where you have to get up every day and decide where to send a reporter, how much to pay a reporter. And as we see, they have stopped doing that quite so much in a fairly larger way. Newsroom employment has gone way, way down per unit of population.

And so, you're basically having to make an economic decision every day based on the return on investment of your R&D. You're doing R&D and it only pays off if you can get consumers. And of course, how you get consumers is also affected by all of these platforms, how many consumers you get and certainly how much you make for consumers is affected by the ad platforms.

And so, generally, like our democracy, our markets, at the very core, advertising is crucial. And then, of course, we can think about all these producers of content. And how do you think all these — why do you think all these things that you find on the Internet exist?

Well, they exist either because they're reaching consumers by finding them by advertising and then they're monetizing with advertising once they get there.

So the canonical economics view about the economics of advertising is to think about it as a two-sided market. And some of the early economic theories really were motivated by traditional media.

And the idea is that media is basically a platform for matching advertisers and users and consumers/viewers. And so, the viewers are just going to choose which content by how much they like the quality of the content and maybe the ad load.

And the advertisers are just trying to reach an audience and so they look across all the content and see how they can piece it together to reach the audience that they're interested in. And then, from the perspective of the media, they're basically trying to get a hold of these consumers and then basically auction them off to advertisers. And they're basically selling access to the advertisers.

And of course, especially in the news media, there were problems of having sort of local monopoly. And in fact, one of the main roles of antitrust for news for a long time was actually that they were badly behaved monopolists instead of now kind of barely surviving things that we need to subsidize.

And it's really interesting how just the change in technology took them from one extreme to the other. And the main thing in the old world was that they, for a variety of technological reasons, had sort of unique access to a set of consumers. And when you have that, you can then really exploit the advertisers for access to those consumers. But one of the things that changed in the digital world was the fragmentation.

So when I think about TV — I started working in this digital part of the industry in 2007, and at that point, things had gone very quickly with search and display advertising. And so, there was a group of people that thought that sort of TV was going to follow very quickly.

And there were very heated arguments within the industry about whether TV would move sort of quickly to look like digital or not. Most of the people who had been in the industry a long time were on the side that it was not going to move fast.

And I think part of the logic behind that was just that this was an industry where the content producers and the advertisers were already connected. They were connected in an offline world.

There just weren't that many of them — so fairly highly concentrated, the top 200 advertisers now account for sixty-six percent of TV spend. It's always been pretty concentrated like that.

So you just don't really need a lot of intermediation to come in and solve the problem of connecting these small groups of people. So if you bring in digital or you bring in a platform in the middle that tries to take a cut, what's the point.

That platform in the middle would have a hard time taking much surplus, which is really very different than the environment in digital where things are so fragmented, both on the advertiser side and the publisher side, that the role of intermediation was much more important from the very beginning.

So when you think about some of the things that change in this model when you go to digital, first of all, people worried about how just there was going to be so much content. There would be an infinite amount of content. But of course what matters is consumers' time.

So there could be more and more web pages. But there's still a limited amount to consume them. And I think through this sort of first generation, the time people were spending was the limiting factor.

But as mobile has come along, we've actually gotten more addressable time from people. You can consume content in places where you couldn't before. And so, that's really sort of changed the sort of supply of user attention as well. And then, we have these more recent trends of digital video and cord-cutting.

On the advertiser side, when you go out to this digital world, all this fragmentation creates a bunch of possibility, but also challenges. So the advertisers in digital are typically perceiving the possibility to be much more careful with ROI measurement.

And indeed when you're using digital to acquire consumers, most sophisticated firms, the good, big firms, are all doing a ton of experimentation, a ton of measurement to see how effective is each ad on each channel and so on.

But they are sort of thwarted in this attempt to be good at measurement by a whole variety of challenges. First of all, it's difficult to track users across these different channels. We had cookie problems and now these different types of changes in how people are using devices make it harder for advertisers to do that. And of course solutions to that then start running afoul of increased privacy regulation.

And so, we have to be cautious about the unintended consequences of regulations that make it difficult for advertisers to go across channels. They can in principle advantage the big companies that can track their users within that single publisher. And I have a paper in *Management Science* that fleshes out some of the theory around this.

They also have to worry about duplication. When they can't track the consumers, then they keep giving the same consumers the same ad over and over again to when it's ineffective. They have to worry about attribution and fraud and safety.

And so, it's maybe not surprising that as we're going to get in sort of potential issues of market power, that when firms do have market power, there are quality issues that can arise, both in terms of information that are being given to the participants and their ability to control their experience. And so, we've had all sorts of different types of scandals around advertisers' ads appearing where they didn't want to, as well as advertisers paying for things that were never viewed by a human.

But they can't really escape all of this now because if they're trying to reach all consumers at all different points they want to reach them, it's hard to get out of these things.

So just really quickly, this isn't — this conference is mostly not about digital. But just to kind of give a little bit of grounding on some of the different types of advertising and the way that it occurs, search advertising was the early really super profitable thing.

As users, we all think about that we do a search on Google or Bing and then we see an ad there. So we can think about this as sort of this is like first-party, that Google has an ad platform that serves ads directly for Google. It's also a form of native advertising where the ads are specifically designed to be effective on Google.

And one of the things that's really special about search is the consumer goes there hoping to click on a link. That is their goal — to put in a search and click on a link. And so, if you show an ad that gives you a link that might serve your need, you're really in the mood to do something right that second.

And even if you see that same consumer somewhere else doing something else, if they're surfing Facebook, they're actually not in the mood to click on a link to buy auto insurance. That was two hours ago.

And so, they have sort of a temporal monopoly on the person's attention of a specific sort. They're able to both identify it right at that very moment. And so, they've been able to really sell access to their users.

Now, it's less known to the casual consumer that there's actually a whole platform on the other side where there's intermediation in search advertising. There are publishers who are making money by putting search boxes. There are browsers and so on that are funding themselves by directing consumers to search engines.

So there's another side of this market as well. But people — end consumers don't see it. But that's a very large part of the market and actually that part of the market turned out to be very important for entry in competition.

Now, you could think about the Yahoo deal with Microsoft where all of Yahoo's searches were served on Microsoft as a way to acquire traffic. And it was really probably the only way left for them that Microsoft could achieve a break-even status by acquiring more traffic.

AOL was also another example. But over time, there were also lots of deals with distributors, with companies like Comcast and AT&T. They all had deals to distribute search.

First-party display advertising — or so-called walled gardens — have gotten really big and popular today and they're really getting a lot of attention. So Facebook and YouTube would be big examples where, again, you have a special kind of content. And users are spending enough time there that you can make ads that are specifically for that content and sell directly to advertisers.

And of course you can only do that because you're big. Newspapers would love to do this. But none of them are big enough to really get the scale to get advertisers interested in creating specialized ads or to be able to operate the platform or do the targeting.

So they all end up using intermediated display advertising and going through middlemen like Google's Ad Exchange, which was previously known as DoubleClick. And that's a way to intermediate between publishers and advertisers.

And competition at that level can be very, very important because, if you think about it, you have two advertising exchanges competing against each other. They're both kind of giving publishers money. That's like perfectly substitutable. Money is money to a publisher.

And the advertisers are trying to reach users. If you have two exchanges that are similarly sized and are monetizing similarly, that's very tough competition. In fact, like it could be like kind of zero-profit competition where all the advertising dollars go straight to the publishers.

But partly because it's so cutthroat and there are so many economies of scale, you end up being very vulnerable to having one company get big and then taking a lot of the surplus. So the advertiser pays money, but only a small amount of it goes to the publishers. So competition among these exchanges is super important.

It's a very complicated industry. You could spend two hours explaining how the digital industry works. There are ad exchanges, ad networks, supply-side platforms, demand-side platforms. They've all been renamed and rebranded a thousand times.

But all of these parts of the industry tend to be pretty concentrated. And so, we have to look out for what's happening in all of them and also interplay between the different markets.

But let me now move on and talk about a broader set than just digital. When you think about why companies are advertising, there is — this is classic kind of Marketing 101 class type of material here. We talk about something called the marketing funnel and it's becoming — also we can talk about a consumer journey, which these are closely related.

So if I'm trying to tell people about a new product, like I've got this great new marketplace and it's a service and people just didn't know that you could get this great service, then you need to tell people about it.

And one of the big ways to do that is to do a TV campaign or some kind of video campaign. And that's going to give you maybe thirty seconds to talk to your consumer and really tell your story. That's going to be — then you're trying to get people interested. And then, you can go all the way down to intent, evaluation, and purchase.

Now, a consumer actually isn't going to go linearly through that. They may have a journey back and forth. And so, then the advertiser is going to be trying to reach the consumer at different points of the journey. But the message will be different. And also the format and the time when you want to find that user will be different, depending on your purpose.

So advertisers are really not monolithic. We can tend to say, oh, they're a brand advertiser and, oh, they're a direct marketer. But a lot of the studies that I've done, many large companies are doing both. The companies that I work with are definitely doing both.

And then also, as was alluded to in the opening remarks, these things — not only are they different and not only are they not directly substitutes, but actually they're often complements.

And just in a classic example, you can think about running a TV campaign for a clothing brand and then mailing out a catalog. And people are less likely to throw your catalog in the trash if they saw your TV campaign.

And so, you're typically coordinating these campaigns and thinking about one and the other. And in the digital world the TV campaign can go along with search engine optimization to make sure that when people come and look for you, they then find you on the Web.

So these things often are going together rather than being substitutes. So we can't think of this as just all one big soup where everybody's competing with everybody.

Now, I've kind of put some rough labels for where different types of advertising go. But I can say that there are exceptions to every rule and there are different ways the media can be used.

But roughly people are thinking about television and now digital video in this awareness and intent part and things like search and performance best response at the bottom of the funnel. And of course in the old world that was also going to be the catalogs and the mailings and so on that are trying to get people to buy at that moment.

Some challenges and changes to this view is that it is really more and more of a nonlinear journey and also the fact that you're going to be interacting with this consumer on different platforms and really have a hard time knowing whether this is the same consumer you've seen somewhere before and therefore knowing exactly how to talk to the consumer.

So now that we've talked a little bit about channels, let me give a little historical perspective. So this is a chart going from 1926 to 2012. And it shows the evolution of advertising shares. And it shows — here's radio, this stripe at the bottom, which is amazingly constant over time.

After the entry of TV, it's basically stayed about the same. TV came in and of course took a big share of revenue. And then, the Internet came in. It didn't grow as fast as TV did initially. But it's certainly getting much larger. And then newspaper share has shrunk all the way through this period.

Now, looking at a chart like this makes you think about competition. But I want to be very clear that we have to think about competition on different sides of the market. So if the dollars per hour stay constant, then — this could be consistent with not having a lot of competition for advertising dollars and just competition for user time.

So going back to the initial framing, it would be possible that you would see a chart like this. But the advertisers are not treating any of these things as substitutes. It's just that different media are attracting the consumer time and then advertisers are following the consumers where their time is.

So my colleague Matt Gentzkow wrote a nice paper in 2014, so the data ends there. But he tried to compare the entry of TV in the '40s to the entry of Internet.

And so, he shows over here that when TV comes in, radio gets hit in terms of time spent. There were people listening to the radio at home and they stopped doing that and they started watching TV. And so, radio lost time.

When the Internet came in, newspapers and magazines really took a hit in terms of time. But then if you look at these, the top chart now is a repeat of this minutes per day. The bottom chart is revenue per hour.

What Matt was arguing was that when TV came in, radio's revenue per hour kept right on growing and it grew for another twenty years pretty steeply after they lost that time. So it doesn't look like the competition between TV and radio were pushing down ad prices.

But when you look at the newspapers, they really take a hit in terms of revenue per hour after the entry of the Internet. And so, it looks like they may have been hit more in terms of the competition for ad dollars.

Here's a more recent chart just put together with some eMarketer data to show the revenue per hour in recent years. A few more things you can notice — we do see again the magazine, print, and newspaper, the top ones all like getting worse even faster.

We see this rise of social, which is going to be, basically you can think of Facebook is getting better and better at monetizing it. First, like they had no ads. And then, they had really bad ads. And now, they're sort of getting better and better, growing their network, more advertisers, better matching with advertisers and consumers, video ads and so on.

So they're just making more per hour while — and we also see this light blue line, digital display and search continues to rise. And video, non-TV video also going up a bit in terms of revenue per hour, again as we're starting to see things like YouTube and so on monetize.

Now going into thinking a little bit more about trends in TV and video, we see that the average time per day with video by U.S. adults has been relatively flat. We're seeing a bit, especially coming in very recently, a sharper rise in digital video versus TV.

And then, we're also seeing changes in the mix. The top highlighted is pay TV viewer growth, which is negative, and non-pay TV viewer growth, which is positive.

And then, I also want to highlight that some things are changing actually very rapidly very recently. So this picture is just showing that how, according to PubMatic, that digital video ad spend went from eighty-three percent desktop in 2017 to fifty-four percent in 2018, so just a very rapid sort of shift of advertising dollars just like in the last year.

We're also seeing other trends of course, the rise of streaming services, in fact such a proliferation that we're starting to see some people are claiming that they're reinventing cable because you're going to re-aggregate all of these different streaming services.

But we also see a little bit of a plateau and these are Statista projections. But they're projecting that the subscription-based video like Netflix is going to be more flat going forward.

An interesting thing from the advertising market perspective is that a subscription-based service that takes consumer time and doesn't have ads on it of course creates scarcity for the time that's left. And so, in fact, that can raise advertising prices just by sort of restricting the amount of time that you can reach certain consumers.

And while that may be less of a big deal overall, it can be a bigger deal for different kinds of consumers. And of course you all know the younger consumers, certainly my teenagers are spending a lot of time on YouTube.

Even my eight-year-old is spending a lot of time on YouTube. And spending less time and then on Netflix. And like they hardly know what a TV ad looks like basically. The young people are like, what's that? I don't get it.

So and then from a marketer perspective, it then becomes difficult to reach these people. They're saying — they call them the unreachables, these Millennials and Gen Xers that are mobile-first or mobile-only can be harder to reach.

And then, that means that marketers have to go across a wider range of channels. And in some sense they might want to deliver them a thirty-second video, but they can't because these people are never in a context where you can actually shove thirty seconds down their throat. They'll take ten, but they won't take thirty — there's like the browser tab — and maybe they'll take seven, depending on where you are.

So it actually — the advertisers' demand for this just can't get met for some of these people.

And so, then they end up having to go across channels to try to reach these people.

And you can think about, there are going to be some inefficiencies because when they go from ad and desktop to TV, they're going to reach some people they already reached and that's going to be inefficient.

And then, they add in mobile. They're going to double the reach again. But they have to go there if they want to get this other set of consumers. So these are some of the challenges that advertisers would have.

A few other kind of trends to highlight, we're certainly seeing changes in monetization models for publishers broadly. So for a while, the idea was that — and a lot of economists, I was very skeptical actually about how successful newspapers would be in reintroducing subscriptions. Some of the elite newspapers have been pretty successful with that. And then, we're also seeing lots of other services using a freemium model.

And so, actually from inside of a freemium company, they think about the free users as actually part of a marketing funnel. So they're going to attract users. They'll show them ads to kind of keep the lights on and pay for the services.

But actually the main reason to get all those free users is that it's a conversion funnel that some of them will then convert into paid users or they'll also attract more friends to get paid users.

And they need scale economies. They may need lots of users in order to optimize their algorithms that they're recommending music or something else. So they need the scale. But they're going to basically not be making much money on those. And then, they want to get them through this purchase funnel. So of course there are lots and lots of thriving freemium businesses coming out.

And just to sort of think about these are just kind of sort of, quote, unquote, "typical" numbers for like a young freemium company. They might have 95% to 98% of their users would be free.

But their revenue share might be more like 20% to 50% because the ads are just not monetizing them that well, while 2% to 5% of the users are covering the rest of the revenue from the subscription.

But from those kinds of numbers, you can see that if you have a middleman that is taking a large share of the advertising money before you get it as a service, that's going to be a big problem for you.

And even cutting the margins of all the intermediaries a little bit can make a big difference for investment in picking the right songs for people and new innovations in providing these services that we all love.

So small increases in efficiency can make a big difference. Here's just showing *The New York Times* subscription revenue has grown quite a bit and subscriptions have grown for a number of players.

A next challenge is measurement and attribution. As I mentioned to start with, advertisers are trying to get better and better and really putting — there are huge R&D teams. There are actually like probably a hundred PhD economists out there whose full-time job it is to do advertising analysis for top firms, especially tech firms.

But they face challenges. Some tech economists who work inside of tech companies have papers showing that the signal-to-noise ratio is just really hard. But then, ignoring — running experiments is really difficult. You don't get enough data. It's hard to measure success. But then, if you don't run them, you get really misleading results.

So companies are still using a lot of fairly crude tools. So just as an example, when you're going across channels, the standard thing to do is what's called a marketing mix model. I teach about these in my classes but not with a lot of enthusiasm. They're not very rigorous from a statistical perspective and can lead to misleading results.

But basically, you say here are my brand sales, like when did I do all of my different advertising campaigns and I just run a big statistical model to try to say gee, did sales tend to go up around the time I did this, that and the other thing. And it's really pretty rough.

Now, one of the things that's been really exciting is that people are trying to make that better and better with microdata. So we've moved away from like the very simplistic things from the past. But it remains a challenge to actually do this well.

And some of those challenges arise from the difficulty getting data and getting the right tools. And some of those are not being provided by the folks that the advertisers are trying to work with. So the advertisers actually have to go and lobby and put a lot of pressure on the intermediaries to try to get them to give them enough data to actually do the analysis. And sometimes that is successful, and sometimes not.

So here I'm arguing that you can randomize and one of the interesting things is now you can link ad delivery to purchaser. You can do that potentially with lots of different data. Geolocation data is becoming a new source of — you show somebody that and then you can see if that phone actually went into the car dealership.

But this measurement again is imperfect. There are lots of different challenges. Advertisers might have to put data into a company. But then, that data might be shared with their competitors indirectly in creating audiences.

So when you put the data in, you're leaking some of your knowledge about your customers to competitors. And then we're having again this big focus on location. But some people have a lot more access to location data than others.

The advertisers have also been saddled with problems of targeting delivery, like they ask for things and it's not getting done the way they specified. They have viewability problems. So you're paying for ads that no human could ever have viewed. You have fraud that people — publishers are just faking impressions entirely.

And then you — also an advertiser might say please don't show my ad more than ten times to a user. But in fact if you audit it, they're getting shown a hundred times to the same user. And so, all of these are sort of symptoms of also an immature industry but also sometimes insufficient incentives to provide high quality.

And there's been a bunch of attention in the industry and some of the industry associations have pushed here. We've got this case where P&G tells digital to clean up, lays down new rules, and so on. And just here's one of the studies that was done that sort of kind of targeted a lot of this. You had gross impressions. So this is what the advertiser was paying for.

The legitimate ones was a smaller set. And they found — this was an audit study that was done — and only 43.2% of the impressions that were paid for were actually even possibly getting shown to someone and forget about if they actually scrolled down the screen and actually saw it, but that it would even be possible for them to see it. There was a lot of fraud and waste.

This is of course an antitrust agency here. So I've been talking more from an economics and business perspective in the talk. But let me just close up with a few thoughts from antitrust perspective.

First of all, as has been very well documented in search and in other related markets, every time you look at these, every textbook treatment of all of these things, you start with economies of scale. More users, more advertisers. More advertisers, more users. More data, better algorithms. Fixed costs of all the R&D, all the science and so on.

And in particular one of the places where economies of scale are the most important, and I really feel this acutely having worked with a well-funded startup inside of Microsoft that was a search engine that had 6% market share when I started working with it, as well as lots of actual startups.

In your early days in a platform setting, trying to get enough scale is really crucial. That's when you're very vulnerable. And anybody that does something, either accidentally on purpose that pushes you down — for some reason, Google's algorithm, you know, kicks you off the page for a little while, that's like make or break for these firms.

And so, anything the big platforms do to stop someone from getting — solving the chicken and egg problem — stop them from getting a toehold is incredibly important.

So I spent a lot of time in search thinking where could you get a chunk of users that could actually get that scale going. If you were somehow excluded from getting those, that would be very challenging to ever get started. Market power is ubiquitous, but not inevitable in ad tech. And so, we do have examples where there are competing platforms. Even now, like Uber and Lyft, a lot of surplus is going to drivers and users while they subsidize every ride. You can read about it in all of their filings, right?

So in the process — especially in the time of intense competition for the market, competing platforms will be anticipating, hoping for the future to have more pricing power, they will subsidize services on the way up the scale curve. And stopping that competition can be challenging for a welfare perspective.

And generally we just need to be very cautious at the entry point where somebody's coming in and trying to gain scale against an incumbent. That's a very delicate matter and they can be squashed pretty easily along the way.

And again, I've talked about some of the consequences — low quality, low transparency, high prices, high take rates of the intermediaries, product markets that rely on advertisings function less well and are less competitive and entry can be — entry of all the companies that we know and love that have brought us so much surplus can be jeopardized if these markets don't work well.

So this is just a summary slide. I think I've covered most of the points. But just really to sum up, advertising plays this outsized role. Competition and efficiency are super important. Media has traditionally been viewed as this two-sided platform with monopoly power over users and selling access to advertisers.

Things have gotten much more complicated. And that creates all sorts of issues on both sides of the markets — the publisher side and the advertiser side. Video is now this digital battleground for consumer attention. But seeing what's going to happen on the advertising side of the market will be quite interesting.

So we can see the consumers moving. But what is that going to do to the advertising markets? That's really the big open question that we're all grappling with. The advertisers are going across media for balanced audience reach, but their tools are still maturing. And I think a lot of these quality and fraud issues are really just starting to get the full attention that they deserve.

And I'm hopeful that as people go out and measure and they get educated about what's going on, they can do a better job identifying problems and getting better quality services for all the participants. So I will stop there. Thank you.

(Applause.)

MR. LAPLATNEY: So why don't we dive right in, if we can? Advertising in linear television has been historically Gray's core product. There are three types of ad inventory. There's network, like primetime, local news and local programming where the broadcaster owns and sells all of the inventory. And then, there's syndicated programs, syndicated inventory where the inventory is divided between the syndicator and the station.

It's sold three ways — locally, regionally, and nationally. And for Gray, in 2018, local and regional was roughly eighty percent of our advertising revenue, excluding political. But the reality is viewing patterns, and shifts in technology are changing the business fundamentally.

Today, Gray distributes content through mobile apps, websites, social media, and OTT platforms, in addition to linear.

I'm going to walk you through a typical media sale here in a local market. And our example or our illustration today is a local agency that places the media for a Kia, Dodge Chrysler, Jeep dealer, essentially a local car dealer, a family business.

The client's a typical large advertiser in a small market. The agency has determined that college football viewers are key to selling cars. And they go out and they produce multiple commercials featuring different models, trucks, Jeeps, SUVs.

So, I'll take you back to 2005 when reaching college football video viewers was much, much simpler. There were essentially four sources: the local ABC, CBS or NBC affiliate and the local cable company who sold five cable networks, some national, some regional, but four sources.

And according to the agency, the buy would have looked something like this. You've got 86% of the buy goes to broadcast, 14% of it goes to cable — a much more simple, but more profitable time for local broadcasters. You can tell by the number of logos on this page that times have changed.

The four network affiliates still sell college football. But the local cable providers individually or through an interconnect can sell national sports networks, conference networks, and regional sports networks.

But wait, there's more. In addition to the networks, you can buy from cable. You can also buy Big Four and national cable mobile apps, essentially portable and handheld devices.

You can buy video from over-the-top outlets, which is essentially digital video primarily on the big screen. And then, there are other college sites, including national college sites and national non-live sports content sites. There's a very fragmented marketplace today for sports, very fragmented.

So, I'm going to take a minute — I'm trying not to rush through this. But I'm going to take a minute on this one with you because it's rather important. This is an actual media plan for that local car dealer in a small Southeastern market. The ABC network — I'm going to walk you through each one of these components. It's a $20,000 video-only buy.

So, this is strictly video. The five percent in the upper left is essentially a geo-targeted pre-roll on ESPN sold through ABC. If you go to the SEC network piece on the right, in the middle, that's essentially the same product. It's a geo-targeted digital video.

The piece labeled "digital" is video targeted college football fans, and that's 100% funded by Kia. So Kia's directing their dealers into that medium.

Then you've got cable company number one, cable company number two. There's no interconnect in this market. Taking 25% of the plan, and then local broadcast is targeted for 20% of this buy with an over-the-top provider targeted at 5%.

So if you think about that for a second, roughly half this buy is targeted to handheld devices, half. Very different than two years ago, really very different than a year ago. And the reality is that these different alternatives create a constraining impact on pricing for broadcasters.

Fragmentation is the issue — reduced viewership for any one game, a lower reach, lower value to the advertiser. The top-rated game in the DMA may be on broadcast, it may not. And by the way, the top-rated game in a market A may not be the top-rated game nationally. And at the end of the day, broadcasters can be bought around.

Rates end up getting reduced to maintain share or just simply get on the buy. And here are the numbers for that station from this advertiser over the last six or eight years. It's pretty stark and pretty painful. This is happening with big local clients across our universe, a lot of car dealers.

I'm going to switch gears for a minute and go to the news market. You can see from the headline there that Nielsen has had some methodology changes, and those methodology changes have resulted in increased ratings to cable at the expense of local news.

I don't know if you can see that chart very well. But I'll try to do my best to explain. So, the four sets of bar charts on your left would be local television stations. And the bars in purple are pre-change in methodology. The bars in green are post-methodology. But the way, this is not just Colorado Springs. This is the entire country for Nielsen.

You can see the drop in ratings for the local news stations. And if you look off to the right, that's the aggregate cable universe, and they're essentially the beneficiary for that. The reality is more rated cable networks means more sellable inventory in the local market and more competition for broadcasters.

So just a quick reminder, digital advertising has numerous advantages. There are strong targeting capabilities that yield higher CPMs. It's cheaper to buy. And increasingly, the big guys are setting up local sales capability.

Gray is investing in automated media buying to help address this, and as is the broadcast industry. Still at the developmental stage. But essentially what we're trying to do is make our buying process more like digital. Ad buyers are telling us that the dollars will shift back to local broadcast with the implementation of automated buying.

Back to college football for a minute, which is big in our part of the world, broadcast television had only one of the top-rated bowls and three of the top twenty in 2018. Essentially broadcast is losing the battle for sports viewership. And when you lose viewers, you lose revenue. And when revenue declines, business reality dictates that you cut costs.

And as an example here, in the past there were robust big sports departments in certain markets. Today you're down to one or two people doing two minutes on the local news. And that's really unfortunate.

But what's more important is that further competitive dilution into local news and weather will diminish our ability to serve our communities, particularly in smaller markets.

So, we believe the Division should recognize the impact of increased competition and allow broadcasters to achieve the economies of scale necessary to continue to provide our vital service. Thank you very much.

MR. WILLNER: Thank you, Pat. And now, let me turn to our second speaker, Mark Lieberman of Viamedia. We need to get the second presentation loaded.

MR. LIEBERMAN: I can do Gray again, if you want.

MR. LAPLATNEY: It's all ready.

MR. LIEBERMAN: Gray, Gray Television?

MR. WILLNER: There we go.

MR. LIEBERMAN: All right. Let's continue to drink out of the firehose here. There'll be a test at the end of the conference.

This is a chart which I like, which just shows how the TV programming industry is exploding with the different types of content and different types of devices.

And television is actually going through a renaissance with consumers being able to watch any kind of content they want, whenever they want, on multiple different devices. However, this is creating a huge challenge for advertisers. And the advertisers, what they want is they want data, as Professor Athey said before, in order to drive targeted advertising and reduce waste.

And where does that data typically come from? It comes from the last mile or the edge, that closest to the viewer. And that data typically comes from the MVPDs, who both have video programming as well as ISPs. And we're going to be talking a lot today about TV and digital.

And from my standpoint, TV and digital are not equal and they're not yet considered a holistic buy for a few reasons. One is, is that, as the professor talked about, television provides a brand-safe environment, something I'm sure that we're going to hear about more.

Second is that the agencies actually have different buyers. So the same agency may have a TV buyer, a video buyer, a digital buyer, and maybe a strategic person perhaps even overlooking it. But typically there are three different buyers.

Fourth is that, from an ad tech standpoint, there's no connective tissue between the digital world, digital ad tech, and TV ad tech. And as has been touched on before and I think will be touched on later is measurement, there's no unified cross-media measurement platform.

And then lastly is that when it comes to privacy, again, something that I'm sure will be discussed, is that there's a privacy paradox, which is data is the oxygen that drives the media economy. However, regulations will inhibit the use of that data to do better targeting, to hit those fragmented audiences.

So the result of which is at least one analyst, MoffettNathanson, said that digital is not yet cannibalizing TV advertising. If it's cannibalizing anything, it's cannibalizing at the local level, direct mail and newspapers.

This is a slide I'm not going to go into any detail with, but it's similar to the slide the professor had, that video ad tech is incredibly complex. Overlay on top of that, when it comes to advanced television advertising, whether it's addressable or programmatic or the other forms, is that each agency has their different solution.

Each MVPD has their own solution. And the networks now actually are embarking upon their own solutions. So again, no unified platform, which makes it that much more challenging for an advertiser.

So let's talk a little bit more about television. And Pat talked about the broadcast industry, and I'll talk a little bit more and in more detail about local cable and cable specifically.

But TV is a brand-safe environment. It's foundational. Think of television advertising — a little bit like that Henry Ford quote — as painting your house. You've got to paint your house. Why? Yeah, it'll make it look better, but you have to protect the wood. The wood is your brand. You don't paint your house? The wood is going to rot. So television is a must buy.

On broadcast, you can see the breakdown here between national broadcast and local broadcast. And broadcast tends to be at the top of the funnel, of the path-to-purchase funnel that was discussed earlier, which is that brand-building and awareness exercise. Local cable, where I live, is typically both at the top of the funnel sometimes for those local merchants. But it's also at the bottom of the funnel where you can actually have an outcome, a business outcome, which is a purchase.

So, let's dig deeper into spot cable. Spot cable is two to three minutes an hour and the derivation of those two to three minutes an hour is that when the cable networks are negotiating a carriage deal with the MVPDs, the MVPDs keep two to three minutes an hour.

Seventy-five percent of that is for advertising. Twenty-five percent is typically for the MVPD to market their own services. It's in aggregate just under a $6 billion industry, growing about $1 to $7 billion in a political year.

There are 120,000 local merchants that advertise on television. And these local merchants, you may have heard a lot about DTC or direct-to-consumer brands. They have the attribute of a direct-to-consumer brand because they have a direct relationship with that consumer. And why? Because it's in a geo-targeted area.

The geo-targeted area is what's called an ad zone. And the ad zone, there are 210 DMAs in the United States. There are 4,500 ad zones in the United States that allows that MVPD to target in their particular geographic region.

How are the sales happening? And here you can see the biggest players in local spot cable ad sales. And some of these numbers you'll see are a little bit larger than what you might expect because the large MVPDs actually run the ad sales for many of their competitors in a particular market.

And so, this includes both the O&O subscribers as well as the subscribers for the MVPDs whose ad sales these MVPDs run. And interestingly enough, they're not just running the advertising. They're running the marketing. So they're running the marketing for their competitors in that market to compete against their own subscriber acquisition.

So, let's drill down a little bit further. And this pie chart is not indicative of Viamedia. It's indicative of our assumption around the entire industry. There are three types of advertisers that access the geographic, geo-targeted ad zone approach.

There's national, and that's sold through a rep firm called NCC, who the entire industry has relationships with. There's regional, and regional is typically sold through what's called an interconnect, which Pat referred to before.

An interconnect, think of as a joint selling arrangement amongst competing MVPDs in a market. It's generally run by the largest MVPD in that market. Think of it almost like a mutual fund in which the mutual fund manager actually owns one of the stocks.

So what that really means is that the mutual fund manager — the interconnect manager —

really has to be like Caesar's wife, has to be above suspicion and run this fairly on behalf of the entirety of that particular market.

And how are these ads inserted? — national, regional, and the local-local ads, as we sometimes say, which are those local merchants. Those ads are inserted. They're trafficked. They're remotely monitored. They're encoded. They're all done by the MVPD or a third-party representative.

In terms of pricing, and I won't go into detail here because Carl may have some questions about it. But suffice it to say that the CPMs will actually be greater when there's more targeting; in this case, geo-targeting. So local are going to be higher CPMs than maybe national.

One particular category that I want to highlight — we're in Washington, D.C. — which is the second largest category in the space behind auto, is political.

And you can see here in the last several years how political has grown enormously and who knows what's going to happen in 2020, given what's happening in this town. It could be a total eclipse of the sun in terms of the amount of advertising on television.

But this really brings home the point about geo-targeting and going after that swing voter or swing purchaser in the case of a brand. And if you're let's say a Northern Virginia congressman or congresswoman, you may not want to advertise on broadcast in the whole DMA because there's going to be wasted advertising in the District and in Maryland. You want to advertise just where your voters are. And that's really the advantage that spot cable has. It brings it home for all the different types of advertisers.

Just a quick snippet on Viamedia and where we fit into the ecosystem is that we do focus, like Pat, on cross-media selling, so beyond cable. But we run the cable advertising sales for sixty different MVPDs around the country as a third-party representative.

But it's a lot more than that. We insert one million ads every day in 140 different head-ins around the country in 30 states. And we have 6,000 advertisers. And who do we compete with? We compete with other MVPDs to run third-party representative services for other MVPDs in that market and we compete against those MVPDs as well for ad sales.

Here's just a map of where we sit and logos of the different operators whose ad sales that we run and around the country, all run out of one center in Kentucky.

And this is a snapshot of the different advertisers that we have, local, regional, and national. Thank you.

MR. WILLNER: Thank you. Now, let's turn to our third speaker, Rick Ducey of BIA, to address some of the perspectives on industry analytics.

MR. DUCEY: Great. Thank you, Carl. So I'll get started here. We are an advisory services firm. And — let me get the deck up here.

We provide information services, analytic services, and advisory services to companies in the local media business particularly and also to government agencies. Let me see if I can get this up.

So this is sort of a snapshot of some of the companies we work with, media companies, some digital companies, and we also provide our data services and analytics to some government agencies, the FCC and to the Department of Justice as well, all trying to understand what's going on in a market.

So Pat and Mark gave deep views of what's going on from the local broadcast perspective and the local cable perspective. We track all of the ad movement and the dynamics going on in local advertising — activation in local markets. So we do a forecast looking at sixteen different media platforms providing local advertising, from direct mail to broadcast TV and a lot of digital entities in that space as well.

We'll look ahead five years. People need to see what's coming up next. Pat would like to know what his market will look like and what the opportunities are for adjustable markets and certainly the local cable wants to see that too. So we try to inform leaders in the industry, trying to see where things are headed.

So for 2019, the total sum across the U.S. of the local kind of spending that Pat and Mark have been talking about sums to about $146 billion or so. And we heard how that is a fragmented market just within the video slice for broadcast and for cable.

But it's actually even more fragmented. We look at, as I mentioned, sixteen different media platforms. So that $146 billion that gets spent targeting local consumers at a TV market level or, in some of the zones that Mark was talking about, gets split up among a number of different kinds of advertising categories:--direct mail was one of the ones we were talking about, radio, outdoor.

There are a number of different ways that advertisers want to reach out to consumers to influence, as Professor Athey was saying, that purchase funnel or the journey to purchase.

What we're seeing when we're looking at how the advertising gets invested in different media activations in the local markets, just as Pat showed in detail what Gray Media's experience has been as the competition gets a little bit more fragmented within video, it's even more fragmented across the board.

But generally we're seeing a lot more digital competitors coming in as media platforms into local marketing and advertising. So the ad spend going to these different digital platforms was maybe a third or so as recently as last year.

We see that by 2020 approaching half. I mean, so almost one out of two ad dollars targeting local audiences will come from some sort of a digital platform, whether that's Hulu or Google AdWords or email has become a particularly viable advertising medium and has new technology capabilities.

If we look just at video, I think, Mark, you mentioned that video is foundational. And we certainly see that. If we look at just the video world, again, Pat gave us that more detailed view of what's happening from an operator's perspective.

We see the same thing. So the blue bar in the bottom, that's the amount of advertising dollars invested in local broadcast TV stations. The bar sitting on top of that, that's the world that Mark lives in and he was talking about that was sort of $6 billion-ish. That's local cable, that two or three minutes that local cable networks make available.

And you can see the blue bar is fairly stable across our forecast period going out to 2023; roughly the same for the orange/reddish bar, which is cable. There are some ups and downs a little bit in the even years, as we were talking about, eclipsing the sun, political spend in the even years, and Olympics spend gives a lot of lift opportunity for cable and TV and local markets.

But together the cable and the TV ad forecast spending, from Marc Pritchard's perspective, or revenue, from the perspective of Pat and Mark, relatively stable. So it's kind of foundational. It does its job.

But the ability to target by geo and by demographics and get some additional data about return on investment, attribution, things like that — those kinds of tools and datasets and practices are much more prevalent in a digital world. That's starting to attract a lot of spend, eventually, perhaps as much as fifty percent of the ad spend targeting local audiences.

So in the video world, those top bars are relatively small compared to broadcast and cable. But that's where the growth is. So there's a lot of spend being attracted into over-the-top, mobile, and desktop video. And that's significantly reshaping the dynamics of the local marketplace.

If we look at Washington, where we all are today, about $3.6 billion is being spent if you're from Washington to target you. And if you're here today from out of Washington, you're still being targeted anyway since you're here. So the details are a little bit too small. But you can see that pie, kind of we call it the share of wallet.

There's a certain amount of money that advertisers are investing to reach people in Washington. The pie has a lot of different pieces. And Professor Athey was talking about that purchase funnel. Somehow that all gets sorted out into how advertisers and agencies are trying to reach their target consumers in a market like Washington through local kinds of activation.

In this chart what we're showing is how print and traditional media and other media kind of shape up. And you can see the blue is the digital. That's going to be increasing. That's digital. And if you look over there, $413 million or so goes to Google on the digital side out of the Washington, D.C. market.

Let me just back this up a little bit. Local TV — the red bar over there — takes away less than Google. So all the TV stations in the Washington, D.C. market earn from their advertising revenue less than just one of the digital providers, Google. Just sort of a fact that's interesting to contemplate.

I'll spend a couple of minutes before I close to talk more about that purchase funnel. It is complicated. And this is a study that was sponsored by Google, Millward Brown, and Polk looking at automotive. We've been talking about automotive, a very important advertising category.

So what is that actually like? Pat did a great job walking us through what that's like from the TV operator's perspective. From the advertiser and consumer perspective, according to this study, from the moment we say, geez, I think I'll buy a car to the time you turn the key and drive off the lot, according to this study, there are about twenty-four steps along that consumer journey.

And each of those steps involves a touchpoint for an advertiser, a marketing touchpoint to influence whatever that person is thinking about then. And again, it's not necessarily a linear process. But at each of those twenty-four touchpoints, there's an opportunity for an advertiser to give a little nudge saying remember me, remember Kia, remember our local dealer lot. And the industry, both the advertising side and the media side, is trying to come up with a nice set of solutions in that multisided market.

The media's job is to aggregate the audience as potential consumers, and the audience's job is to say I don't want to look for every single show individually. I'd like to go into some sort of official platform to find those shows.

And then, the advertiser says I want to get to all those audiences you're getting to. And I have that media split of choices of how I can influence each of the steps along this multipath decision tree basically for consumers as they do their journey.

So, nineteen of those decision-making points, touchpoints, are digital. And so, that has become very influential. That's why so much spend is moving into the digital domain. And media allocations for auto dealers and manufacturers, here we break it out.

And you can see that digital gets about forty percent, which is typical for a number of the different business categories. TV comes in heavily in this market. This happens to be a very strong newspaper market. So newspaper gets a little bit more ad spend than TV overall.

But just looking a little bit more from the Kia perspective in a Southeastern market that Pat was looking at, and more generally across the country, as he said, it's not just that one market. And that's what we're seeing too in our forecasts and our analytics looking at a category like auto and then more broadly across all of the local categories.

So, a few quick takeaways. I think the data shows and our forecast supports the notion based on our model and drivers that we're seeing. TV and cable, the media that Pat and Mark are talking about are foundational. They have an effect. They're effective.

But the data, the targetability, and the accountability that comes from digital media are pretty persuasive to advertisers. So they're allocating more spend there. And that's eliciting various competitive responses among all the players in the sixteen media platforms that we're looking at.

Growth in video is concentrated in digital — a lot of fragmentation, like Pat said. And all of these local media companies, there are twenty-four touchpoints along the way to buying a car. All of those media are competing to be part of each of those touchpoint spends. So, there's a lot of kind of fungibility among the different categories.

One example I was talking about earlier is there was one advertiser that was a 100% in direct mail, which typically takes about 25% of the total ad spend. Direct mail is huge. And a TV seller said just give me some of your budget for TV. We'll draw out some business metrics that were looking at search life and website lift. And those business outcomes were achieved.

And so, that buyer went from a 100% direct mail, convinced of the power of local TV stations and flipped, and they became a 100% local TV. So you don't normally think of direct mail competing with TV. But it happens. We see that. And that is my presentation. Thank you, Carl.

MR. WILLNER: Thank you. And now, we'll turn to our fourth speaker, Professor Ken Wilbur, who will provide some academic perspectives on advertising and its effectiveness. And take it away, Ken.

DR. WILBUR: Thank you. So —

MR. WILLNER: And let's be sure we have your presentation loaded.

MR. DUCEY: It's kind of a scary picture up there now.

MR. WILLNER: But you could do the BIA presentation too, I'm sure.

DR. WILBUR: So I'm going to try to provide maybe four relevant facts that I think might be relevant to the department's regulatory goals, based on high-quality evidence. If these slides cited research papers that might be useful, everything is freely downloadable on my personal website, which is under my own name.

So the first fact relates to the possibility for brand advertisers to discern the economic value of those expenditures. And much of the public discussion in this area is done by advertising agencies who talk a very good game.

However, if you scratch the surface, you find out that many of the people speaking don't seem to know what constitutes high-quality evidence. And they may have economic incentives to distort the evidence, such as the endemic principal-agent issues in this marketplace.

So what I tell my MBA students is that brand advertising is much like human nutrition. We would like very much to have a formula that would tell us what combinations of foods to eat to achieve particular health objectives.

However, we have nothing even close to that. The reason is threefold. One, measurement is a problem. Two, statistical power is often a problem. We're talking about very fairly small effects in a very noisy environment. And three is attribution, which is just distinguishing causality from correlation. And you can go deeper on each one of those.

What I'm showing you here, the points, are brand attitude surveys. And the lines are moving averages. And the bars are the amount spent on advertising by each brand each week over a five-year period. It's true that many television ads provide new information. But many do not. They simply remind you about brands you already know about.

And when you look at that data, you see enormous variation in the advertising spend and very little variation in the favorable attitudes held by the consumers of those brands. And so, this just gives you a sense of the challenge in the statistical power aspect of estimating the economic value of brand advertising.

Now, there's a smaller proportion of advertisers where the situation is very different. We often call those direct response or performance advertisers. And as Susan said, this is more at the campaign level than the brand level. Many large brands are doing both types.

So what I'm showing you here is the Google Search volume for DraftKings and FanDuel minute by minute during the first full hour of the opening NFL football game in 2015. The light gray bars, which might not be showing up very well on the monitor, are the commercial minutes.

And I don't have to tell you which commercial minutes contained ads for DraftKings and FanDuel because the search for those brands jumps by a factor between fifteen and twenty-five each time one of their ads appeared on TV.

You also see positive spillovers to the competing brand. You see the effect die out within five minutes. You see no apparent hangover of the search volume after the ad. And you see no corresponding increase during the commercial minutes that did not have the ads, suggesting that it was the presence of the ads and not simply the absence of the game.

Now, similar effects have been found by quite a few researchers in quite a few contexts now. You might think that the industry would be jumping all over this to use this as a measure of advertising effectiveness. I've personally been a bit disappointed by how slowly the take-up has been.

As an example, I showed this graph to executives at one of the brands involved. And if you sell ads to them, you might be able to guess which one. And it was very clear that they had no idea this was going on.

And as the discussion laid bare, they had an external team that handled TV advertising. They had an external team that handled search engine marketing. And they had an internal team that handled search engine optimization and website analytics. And they had no structures in place for these teams to talk to each other.

In fact, the search advertising and TV advertising teams essentially were in competition with each other for budget. I hope we'll catch up here. But there's still a long way to go.

Now, third, the way consumers are consuming television has changed. There may be a little bit left to go. But it's mostly over. Television has mostly gone from a focal medium to a peripheral medium. There are many indicators of this. And I don't need to do much to convince you of this because you've observed it in your own households.

There are some very interesting new data sources. One example is a startup out of Cambridge called TVision Insights. And what they do is they pay a few thousand households to put their cameras in front of the TV.

The cameras run algorithms, which are very good at detecting household members that are in the room, identifying which household members each one belongs to based on facial recognition, identifying whose eyes are open and whose faces are pointed at the television screen. They do this about six times per second.

And here are some broad descriptives of their data. You might not be able to see the axis at the bottom. So let me summarize. Across a very large sample of TV advertising exposures, approximately 95% of households remain tuned for the entire ad duration.

However, only about 53% of the people remain in the room, and only about 7% of viewers point their faces at the screen during the TV ad. There is some variation across day parts and networks and program genres. But that variation seem to be limited.

However, this is promising. For the first time, advertisers may be able to get measures of how many people are actually consuming the ads as opposed to simply having the opportunity to see.

The final relevant fact goes to market definition for advertising. So what I did was I pulled some data from a source called Kantar Strategy, which is a pretty good database of expenditures on five different categories of TV advertising. It's not perfect, and it's not fully comprehensive. Unfortunately, it excludes local spot cable. However, what I did to get a sense —

(Laughter.)

MR. WILLNER: That's what it's all about.

DR. WILBUR: I wish it was comprehensive. This was the best I could do in the couple of weeks I had. What I did was first I ranked all the advertisers by their total spend in 2018 and I considered the top thousand, which accounted for about 85% of the measured TV revenues. And it's over $60 billion in spending last year. So it's appreciable.

And then I counted the proportion of those top thousand who spent at least five percent of their ad budget on each pair of TV advertising media. So on the diagonal, you have the proportion of those top thousand advertisers who spend at least five percent on each individual medium, and then you see sort of the intersection of those on the off-diagonal elements.

And to summarize, there is a very strong correlation in the advertisers served by all five categories of TV advertising, which I think could suggest that these markets are rival in expenditure within these advertising organizations. So partial evidence and a bit ad hoc, but perhaps relevant and perhaps useful for defining markets in future enforcement actions.

I'm not going to go through the full slide. I may have exhausted my time. I just wanted to explore one point that Susan touched on, which was one very different element of linear TV markets from digital advertising markets is that there are referees. Traditionally Nielsen had a monopoly on this. Now they have some good competition from ComScore and other firms in telling advertisers how many people may have seen their advertising.

By contrast, most digital industry estimates are that between 10% and 30% of advertising expenditures are paid for machines to view advertisements. Now, I don't know how they come up with those numbers. There are different estimates. This is an inherently unmeasurable phenomenon.

The important point I think is that the way the industry is currently structured is that Facebook tells its advertisers how many humans were exposed to the ads they buy on Facebook.

And Facebook assesses the probability that any given exposure is to a human or a machine. And Facebook does not reveal to the advertiser how they assess that probability and how they trade off the risk of a false positive versus a true negative.

So sometimes my students ask me is TV going away. I think that the only way that might occur is if the digital platforms find a way to appropriate the high-quality programming that's currently served by TV providers. But the marketplace characteristics for advertisers are I think much better in linear TV than they are in digital video.

So I think those were the main points I thought might be relevant and happy to pass the clicker.

MR. WILLNER: Great. Thank you very much, Ken. And can we put up the slide for the last presentation? And Marc, Marc Pritchard of P&G, of course, will be doing our last presentation today.

However, you're only going to see one slide during this presentation. There's nothing wrong with your monitor. It's just that he's delivering written remarks rather.

But we wanted to have at least a slide up during the course of the presentation so you wouldn't see a blank screen. You're not supposed to see that on TV.

MR. PRITCHARD: Yeah. Thank you, Carl. And good afternoon, everyone. You're probably familiar with most of our brands at P&G — Tide, Pampers, Crest, Charmin, Olay, Vicks, Head & Shoulders, Gillette. I could go on, another sixty-five.

And every day, P&G brands reach about five billion people on the planet. We spent about $7 billion last year on advertising and related merchandising, which is about ten percent of our sales. And we do so because it creates awareness of the benefits that these brands offer to consumers and hopefully converts that awareness into purchases.

Advertising has been crucial to the success of our business since P&G's been around for over 181 years. Back in the late 1800s, when the printing press was invented, Ivory soap ran print ads in local newspapers with the message "99 44/100 percent pure, so pure it floats."

In the 1920s, P&G pioneered radio soap operas, sponsored by brands such as Oxydol laundry detergent, hence the name soap operas.

We pivoted to visual television ads in the late 1940s and used the mass medium to reach nearly every household in the United States. And then, in the 1990s, as the Internet brought new ad formats, we got into search, social media, and online video.

Now today, advertising is being disrupted. Traditional TV continues to decline. Even networks are starting to cut back on the number of ads that they run.

Digital advertising is a leading form of media, but ad-blocking is increasing. Over-the-top streaming services are emerging with no ads at all. E-commerce is growing, which is driven by algorithms as opposed to ads.

The agency world is in flux. And data analytics and technology are pervasive in how we build our brands and how we do business every day.

So in the roughly $700 billion worldwide advertising market, there have never been more choices for how to reach consumers. But the famous quote by advertising pioneer John Wanamaker is as true today as it's ever been, which is, "Half my advertising is wasted. The trouble is I don't know which half."

While choices abound, the ad industry has too much waste, driven by lack of transparency. Buying practices favor providers, and too many middlemen are between advertisers and consumers.

This waste negatively affects consumers because seven out of ten people say that ads are annoying. And that's because, too often, people see the same ad over and over again in the same program, on the same channel, and across multiple platforms.

Now, what P&G is doing is trying to constructively disrupt the industry by reinventing brand-building from what is currently wasteful mass marketing to mass reach with one-to-one precision. We want to do that to drive out waste and we want to improve, most importantly, the consumer experience.

But it's quite a challenge, given how the ad industry operates. Television media does have some advantages. I agree with everything everybody says. Content quality is known and controlled. So advertisers can be sure that the brands — that our ads show up on high-quality programs.

TV media buying follows common measurement standards such as ratings and cost per thousand metrics or CPMs, as you know. And there's really no better way to reach large mass audiences at once, especially with major events like the Super Bowl that could reach up to 100 million highly engaged viewers.

However, although TV ratings and viewership continue to decline, pricing continues to rise year after year. I always thought that was a real mystery. Why does that happen? You look at how the bulk of TV media is bought, and it's kind of understandable.

There's a time-honored ritual called the upfronts, which is happening this week, where media providers present to buyers. They showcase the programming for the new season. They talk about the inventory available and they provide what their offers are. And the name of this ritual belies the intent, which is to sell as much media inventory as possible upfront.

Once it's committed, it's difficult for buyers to course correct. With the upfront commitment, we have limited flexibility to make changes. Media is largely locked in for as much as a year and for at least the next two quarters. And although there are opportunities to give back extra inventory bought as an option, it's not really much of an option because the only choice you really have is to return it without a penalty.

Available ad inventory and pricing is determined by the media providers and adjusted for actual viewership based on data from household panels after the fact. So there's little flexibility to make choices or changes along the way in real time like there is in other areas.

And media agencies largely conduct negotiations on behalf of marketers, bringing a lot of spending together from multiple companies so they can achieve economies of scale. This service then comes with a fee, and the media agency often receives rebates from media providers, sometimes disclosed, sometimes not, which raises the ultimate price to consumers and to marketers.

Now, this timeworn TV media buying system continues to favor providers in our view, with too many middlemen in between. And what it results in is too many ads that are placed on the same program to fulfill inventory commitments. And that annoys consumers.

Digital media seemed like a welcomed respite from the TV problems, with the promise of unlimited inventory, data for precision placement, options for supply and demand competition and creativity beyond the constraints of a thirty-second ad.

But there's been a dark side, most notably lack of transparency, which is leading to substantial waste, outright fraud through lots, and issues of brand safety. In 2017, P&G called for the industry to clean up and we insisted on one viewability measurement so we could know when we're reaching an audience and they're actually seeing the ad.

We asked for transparency — transparent agency contracts, so we knew how agencies were using our money. We wanted to know. We wanted third party, MRC, which is the Media Ratings Council, verified audience measurement, so we know we were getting the ads that we paid for. And we wanted to have certified fraud prevention, so we know that humans are seeing our ads, not robots.

And finally, brand safety so that we know our ads show up in the right place, not in objectionable content like ISIS terrorist training videos, which there were some.

Progress has been made. But problems persist. Ads are still found on unacceptable, graphic, and horrible content. We're still wasting money and annoying consumers with too many ads because marketers are flying with little visibility and have really very little idea of whether our ads are reaching the same person over and over again across platforms.

And pricing is largely determined now by algorithmic auctions, with no visibility on how the algorithm works and little room for negotiation, if any.

Advertising is essential to the success of P&G brands. So we're taking action to lead constructive disruption of the industry. In addition to calls of full measurement transparency within providers, we're now calling for common measurement standards across all media platforms to eliminate, if nothing else, excess ads.

We're calling for controls over content quality, so our brands show up in the right places. We're calling for common national privacy data collection standards so we have one way in which we measure data, not the twenty-seven different laws that exist today from a privacy standpoint.

We're actually moving to more programmatic solutions and to more performance media and marketing solutions and bringing more media planning in-house and buying in-house to get direct access to providers and to make more informed choices to drive out waste and, most important, not just eliminate waste, but make the ad experience better for the consumers we serve. Thank you.

Discussion/Question-and-Answer

MR. WILLNER: Thank you, Marc, for that very thoughtful perspective from a very major and committed advertising consumer.

And now, I'm going to turn to questions to the panelists. I think we may have a little less time for questions that I originally envisioned. But I will try to cover a number of important topics and also still leave a little time for audience questions at the end before we move to the next panel.

So my first question, and I'd like to really throw this one open to the entire panel because several of you have touched on this, is can you directly compare prices of digital and online advertising with broadcast TV or cable? How are each of these normally measured? And if you can't compare them now, what is it going to take to get to a unified metric, taking into account price and effectiveness? And I'm happy to let anyone volunteer to be the first respondent to that.

MR. LAPLATNEY: So we would love to see that, speaking for Gray and I think for the local television industry. I know that both Comscore and Nielsen have said they're moving in that direction. But frequently they're moving in that direction for long periods of time before that actually occurs.

So, over time, I think the best outcome for our industry is to have basically a single pool of inventory across all of our platforms that we sell and we have a reasonable amount of data associated with that. And ultimately I think that's best for the advertising community and for local TV.

MR. LIEBERMAN: I'll just jump in to say I think that it's going to be a long time before it happens, to have a really unified cross-media measurement platform.

Having said that, one of the things that we've done, and the biggest challenge that I've found, is not necessarily technology. There are challenges there. It's not necessarily business models. There are challenges there. It's training. We have a couple hundred sellers in the local markets that have been selling television for twenty, thirty years.

So how do you retrain them on how to sell other forms of media? and how do you retrain the local agencies and the local advertisers on how to buy different forms of media?

So we've actually launched what we call a cross-metrics dashboard in which the advertiser or the agency or our account executives can log in and see the different forms of media tied to whatever the KPIs are. But it's still silos. It's three or four or five different silos — social, email, display, OTT, cable TV. But at least the advertiser can kind of start to see how each one of them is performing, not as to the other, but how they're performing in a silo.

MR. DUCEY: Part of it is specifying the goal. From a video perspective, what is the audience experience? What's the consumer experience?

So is it the full-screen commercial experience like you would expect on linear TV, like broadcast or cable, or a full episode player on Hulu or some OTT platform? So if it's a full-screen, so the viewability is not a question. It's there. And it's some duration. It's thirty seconds. It's six seconds. It's seven seconds.

So there the ad unit is full-screen of some duration, and then it gets to all the challenges of the technology, of measuring and reporting that.

But at least when we're talking about the video ad unit, there are a lot of different kinds of video ad units, out-stream, in-stream, pre-roll, mid-roll, can standardize in some of that part of the inventory so that from a media perspective, they know what they're selling, and then, from a buyer perspective, there are some consistency and some expectation that, okay, this is what we're going to get when we buy.

DR. WILBUR: I think it's a great question. The advertising industry has tried on multiple occasions through some of its collective research bodies to define terms like engagement and has largely failed to do so.

I think it's sort of like asking to compare the price of a general contractor versus a carpenter or versus a plumber, the latter two of which might be hired by a general contractor. Everyone has a different home. Everyone's home has different needs, and everyone demands different services for different reasons.

And so, I am not optimistic that we will find widely applicable and widely useful common metrics due to the heterogeneity in advertiser needs and the way that they use these various advertising formats.

MR. PRITCHARD: Yeah, Carl. We can compare prices. But what we need to compare is price per some other unit, such as how many people are we reaching. And what we really are trying to get is how many unique people are we reaching.

The biggest problem in advertising today across every platform is the fact that there's too much waste because there's too much frequency and why it's a problem is not just for the businesses, but for the consumers more than anything else.

So we just want to know. We've asked many of our providers to just solve the problem of excess ad frequency. Just solve it. That's all we want, okay? Just give us a signal that says if we reach Susan, we don't reach her again and again and again on multiple platforms.

I think we're closer than we've ever been because I think that now some of the digital providers are coming together and recognizing that. And if we could just solve that problem, then we'll start worrying about some of the other problems later.

MR. WILLNER: I think my next question is primarily for Pat, though I will ask the other panelists also to react to it as well if they — as I've been listening to everyone speaking today, I've been puzzling about how is it that at the same time we hear that broadcast TV is facing a lot of these new challenges from growing media, digital and other competitive challenges, and yet at the same time we've heard from Rick, and I think this was also in Susan's initial presentation, that broadcast revenues are staying relatively stable.

And we've even heard from Marc Pritchard that prices were going up in TV. And so, when I looked at Gray's press release announcing its results for the first three months of 2019 and the year of 2018, I saw that they referred to record results of operations, including strong net income and record revenue in broadcast cash flow.

And the annual report indicated that overall revenues had risen steadily overall for the past three years, while even the broadcast advertising revenues appeared to have been fairly stable, apart from the cyclical political advertising fluctuations.

So I wanted to ask just Pat: is that a fair description of what's happened with Gray and is it reflective of the broadcast industry overall? And what accounts for this phenomenon of greater competitive challenges that you describe, while at the same time we're dealing with stable revenues and even, as Marc referred to, some price increases as well?

What is going on? What accounts for all of these things happening at the same time? Are the CPMs, the cost per thousand, going up for broadcast TV? And why do you have these different phenomena operating?

MR. LAPLATNEY: So I guess I don't know if I can make my answer as long as your question.

(Laughter.)

MR. WILLNER: I'll grant that.

MR. LAPLATNEY: There was a bit there. I guess, so I would — I think, and I don't want to speak for Marc, but I think Marc was referencing the national advertising market when he was talking about the upfronts.

We deal locally. So those are really two different markets. I think that's the first point. As it relates to Gray and our revenues, on the advertising sales side of our business, over the last few years, our core local is essentially flat during odd years and down a few points during even years, and that's due to political.

National business has been down every year for the last few years. So it's not — it's down single digits. But it is down. Now again, if you want to talk about Gray's topline revenue, our revenue is also impacted by retransmission revenues. And so, that has an impact on topline. And that offsets some of the decrease in advertising revenue.

And then, again, speaking strictly for Gray, we have cut costs aggressively over the last few years. We've very publicly announced we dropped a rep firm. We no longer work with Nielsen in diary markets.

So we've aggressively cut costs. I think that accounts for the numbers that you're seeing. But the reality is our core business is declining, unlike network television. Now, I can't speak for the entire industry. But that's our experience.

MR. WILLNER: Reactions from others on the panel?

MR. PRITCHARD: I will say that, according to Media Dynamics, TV media for the '18-'19 season went up 5.2%, 10% increase in CPMs and with an 8% to 9% viewership decline. And I think that is because for the networks, the national networks, 75% of the media is bought upfront.

Now, I believe that's a factor. I also think there's a factor in quality as well. I think people are willing to pay a little bit more because of the quality that comes from TV. And I think that's one of the advantages of TV.

But I think that still, the upfront buying approach is one that is a timeworn one that facilitates the ability to continue to have ratings declines and continue to have prices go up. It's kind of what we call in the advertising world the FOMO effect – Fear of Missing Out. I'd better get my money in now or I won't be able to get a decent price or I'll be subject to the scatter market, which, in my experience, is always higher. That seems odd, but it always is the case.

And I think that's just an effect that needs to change. I'm looking forward to the future of programmatic. And frankly, I wish we could spend more in local. I wish that we had an ability. But local is so fragmented to us right now; it's just very difficult to be able to make a good buy. The data is not there. The measurement systems aren't there. And the visibility for at least marketers like us isn't there.

If we got that, I think that would create some competition with the national players, and that would be quite welcomed.

MR. LAPLATNEY: We're working on it.

MR. PRITCHARD: We can talk after.

(Laughter.)

DR. WILBUR: And I think one factor you can't ignore is the macro trends. So advertising spend in the aggregate tends to be strongly pro-cyclical. And we've had a very sustained economic expansion. So that's a partial answer to your question as well.

MR. DUCEY: To comment on what Pat was saying about the core revenue or the broadcast revenue local, we're calling that relatively flat, a little bit of even year/odd year bounce.

But I mean flat is — we're doing nominal. That's not adjusted. So it's actually declined for one thing. The other thing, we call it foundational because it's a part of a lot of campaigns.

We do surveys of advertisers, and advertisers that are on cable and/or TV use an average of thirteen media platforms in their media mix. And they can reallocate that spend across those different platforms, unless there's a competitive response from other elements of that media mix, that pie split, the share of the wallet I was talking about.

So I think Pat was saying that one response is we're going to have to drop rates to keep a piece of that buy that we want to get from that Kia dealer or whatever the advertiser is, so to kind of protect nominally flat, but in real terms a declining share of the ad spend market. There are a couple of different responses that media companies have available for them to pursue.

MR. WILLNER: I noticed that on one of the Viamedia slides, there was a presentation about the CPMs, the cost per thousand, for regional and local and national cable. And the national was showing as lower.

And I understand from Mark that was not just for Viamedia, but for the industry as a whole, that national is around $15 to $25 whereas the CPMs for the regional and local cable were on the order of $20 to $30 each.

Could you address, Mark, what explains that and why are the regional and local higher than the national? And also, the CPMs for cable, how do they compare to the CPMs for broadcast?

And I'd be happy to hear Pat address the question of the comparability of the CPMs for the two industries as well.

MR. LIEBERMAN: Well, a couple of things. At the local cable level, we typically don't sell on a CPM basis to start. That's how we back into, because your question was in preparation, what are our relative CPMs.

But as I said in the presentation, is that the more targeting — principle of advertising, whether geo-targeting, psychographic targeting, demographic targeting, more targeting you can have. If I can reach that one right person, I'm willing to pay a lot of money for that right one person, that swing voter, the mythical swing voter.

So it just goes to say that if you're a national advertiser, because there's going to be inherent waste when you're a national advertiser, even though you're going to be able to do geo-targeting, because you might buy a whole DMA, but you're really just interested in certain pockets, number one. So that's why actual CPMs are going to be lower.

Local and regional, even though it said on the slide that they were equivalent, tend to skew. Logic would dictate that the regional advertiser is going to be willing to pay a higher CPM than national. But local is going to pay a higher. So even though they were both $20 to $30 CPMs, local ends up skewing higher than regional in terms of CPMs.

As to how it compares to broadcast, it really depends. I think that Pat's example, which was a great one, of college football, tends to be in much smaller markets where there may not even really be an interconnect.

It may be that an advertiser, an auto dealer, wants to reach everybody in a DMA. And so, you're not really an ad zone advertiser there. So the ad zone advertiser might be equivalent to the regional advertiser because the market is that small.

However, in bigger markets, where there is an interconnect — and interconnects were designed in effect to compete against broadcasters by putting all the different cable companies or MVPDs together — in those markets you're selling at the zone level because you really want to advertise only where the trading area is for that particular merchant.

And there again, you're willing to pay a higher CPM because you're just advertising in that particular zone — smaller campaign size, but higher CPM.

MR. DUCEY: Just a clarification. Higher CPM, and we're talking about waste and targeting, but if you look at the effective CPM for who you're actually delivering, the national CPM may look lower.

But if you look at the actual target audience that gets delivered, that CPM may well be more expensive than what the CPM —

MR. LIEBERMAN: Yeah. In fact, there's sometimes a fake KPI called eCPM —

MR. DUCEY: Right.

MR. LIEBERMAN: — which is the effective CM —

MR. DUCEY: Right.

MR. LIEBERMAN: — which is a win-win on both sides. You're willing to pay a higher CPM, but for less viewers because it's more effective and you're able to reach the right audience.

MR. DUCEY: Yeah.

MR. WILLNER: Pat, do you want to address the CPM issue too?

MR. LAPLATNEY: In general, I agree with Mark. I mean, where they can zone, the CPMs are going to be higher because you can target better. It's the same thing in digital. If you've got a tighter target you can hit, the CPMs are going to go up.

MR. WILLNER: And how do the broadcast CPMs compare to what you're seeing in cable?

MR. LAPLATNEY: So again, I think it varies. I think you have to look at different day parts, sports versus sports. Probably pretty similar.

News, I would guess, and I can't say for certain, but if it's the highest rated station in the market, probably a little higher than cable. If it's a lower rated station, it's probably similar.

I think overall though the primary difference is that cable has the targeting capabilities that broadcast doesn't. So that generally pushes the CPMs up a little.

MR. WILLNER: And that's I think a great segue into my next question which is also initially for you, Pat, but also I think it definitely impacts Mark. And I'll be happy to hear from others on it as well.

A large part of the Viamedia business related to what Mark had referred to as the local-local business, this local zone business which is sub-DMA, the ads that don't reach the whole DMA but are only targeted to geographic portions of the DMA.

Does Gray TV have any plans at some point to sell advertising at levels below the whole DMA throughout its markets, going down to these kind of local zone levels or something else below the DMA level? How far is that away in terms of technology? What needs to be done to get there and what are the obstacles?

And is this something — I know this is a long question too — have you tried to do this — have you tried to get into this area before and run into obstacles in doing that?

MR. LAPLATNEY: Yeah. So we actually do sell some sub-DMAs. We probably take some sub-DMA approaches. It's generally markets where we have multiple stations or multiple transmitters where we can feed a different ad in.

So, for instance, in Waco, Texas, we have one in Waco and one out of Bryan, a college station. So we can do two different ad feeds there. And we can compete better with cable in those instances.

But it's only — I think it's Albany, Georgia, Waco, maybe Bismarck, North Dakota and one other. As to the question — by the way, we'd love to do it — we'd love to be able to sell zoned advertising. We'd love to sell better targeted advertising any way we can.

Have we tried to do it before? We've not tried to — well, is that a question about have we approached cable operators about it? Because I think that's a legitimate question.

And if there was a way to put broadcast audience, combine that with cable's data, I think that's a really interesting combination. We haven't had any really serious conversation around that. But I think at some point, maybe that conversation could be had.

MR. LIEBERMAN: I would just say, and you can comment, Pat, but there are two big initiatives or two initiatives, if you will, that would allow the broadcast industry to start to more narrowcast and one is ATSC 3.0 —

MR. LAPLATNEY: Right.

MR. LIEBERMAN: — where you can start to do more addressable advertising, and addressable advertising is the ultimate local, which is to be able to do it at the household level, target the household level. And then, there was a recent announcement of, I believe, a consortium called OAR —

MR. LAPLATNEY: Yeah.

MR. LIEBERMAN: — which is open, addressable, whatever the R stands for. And there, they're using VIZIO-connected television, same way ATSC 3.0 works, with being able to actually send an ad to an individual television. It sounds like there was a project a few years ago called Project Canoe. It sounds like Canoe 2.0.

MR. LAPLATNEY: Yes. Yeah. Yeah.

MR. LIEBERMAN: And so, it's great that the industry is trying to do this. One of the advantages, of course, is that cable is there today.

MR. DUCEY: The connected TV, there are some broadcasters doing targeting with that, connected TV data like Mark is saying. So that's not native only to the broadcast platform. But they are doing some targeting there.

And then, the ATSC 3.0 is the new platform that's kind of Internet-friendly for broadcasting that's starting to be deployed at scale over the next year or two.

MR. LAPLATNEY: Yeah. That got lost in the long question. My bad. So ATSC 3.0 does have tons of promise for the broadcast industry. But the reality is it's a few years off. And it's a pretty significant investment as well.

MR. PRITCHARD: If the local broadcasters can do what you're describing, it would be quite welcome. We have data now from retailers at the neighborhood level. And if we could synchronize activities that we have going on with retailers at the neighborhood level, combined with media, that's where we can buy not just based on price.

It's effectiveness, and that's what's most important because that is what we want to ensure — we're willing to pay a higher CPM if the effectiveness is better and if we haven't wasted a bunch of money at the same time.

So the reason why I think sometimes CPMs are low is because it's an attempt to be able to get the price low enough to be able to deal with the waste that you have. So greater precision with technology will I think really make the local industry very competitive.

DR. WILBUR: I think that's a great point, and it's a broader trend where many advertising organizations now have customer-level data that allow them to estimate advertising returns on a lifetime value basis. So they have more clarity on what the value to them could be if they're able to measure what the effect of the ads are.

MR. PRITCHARD: Yeah. A lot of our digital is shifting to that as well. It's performance-based. It's not just the ads.

I mean, an ad on a social media — the average view time for a social media ad is 1.7 seconds. It's kind of hard to get a message across in 1.7 seconds.

So what we do is target people in a way to try to get performance coming from the message we send. If we do the same thing with TV, it will be far more lucrative.

MR. WILLNER: Marc, you had alluded before to some of the experiences you had with the efficacy of digital advertising against TV.

And, looking back at some of the things you've said before, I came across some interesting quotes. You had been quoted as saying, "We moved $100 million out of digital and sales went up two percent."

I also came across another quote. You had observed at one point, "We are returning to traditional television for the bulk of our spending. Television has a unique relationship with its viewers, providing engagement and trust between the viewer and the brand."

I'd like to just ask you if you could add some context to those remarks, tell us about what happened that led to those experiences.

MR. PRITCHARD: Yeah. About ten years ago, when the digital advertising industry was really starting to get going, we helped fuel that. We helped monetize many of these platforms through digital advertising media. We spent, maybe five percent or six percent in digital advertising media and then ramped up to well over more than a third.

And as we started looking at the amount of spending in digital media, we were starting to wonder why we weren't getting effectiveness.

So we went to the different platforms and said we'd like some more data to help us figure out what's going on. Are people viewing these ads? How many people are we reaching? Are we reaching the right people, not bots? And they didn't have the data.

And so, we pretty much put a demand out for it. And it took nine or ten months to make little progress. So then, that's when we went public and asked for the different standards that we called for, which is the one viewability standard, the third party audience verification, anti-fraud, and brand safety.

Then when we got the data, we realized digital media wasn't really all that it was cracked up to be. That's when we realized that the average view time was 1.7 seconds. Then when we realized that we were reaching people over and over again — when we started getting into the verified audience data, that we had a high degree of bots that were seeing our ads, not people.

And then, we recognized that some of our ads were showing up really in very bad content because it was across the entire video platform.

So we actually moved off of YouTube for a full year because we couldn't feel — we didn't feel that the advertising — or our brands were safe. They changed. I give them a lot of credit. They changed. They reduced the number of channels that they monetized on.

So we think it's a lot better now. Now we actually have what we call safe lists, only advertise on those channels that are absolutely safe, similar to what we have on TV. And then we're pivoting to performance marketing on other platforms.

But the bottom line is that we just found once we got transparency, it helped us make better decisions. And then, we fell back in love with TV, started looking at the TV opportunities and started finding different ways to be able to assess the degree to which people are engaged.

And we're measuring engagement and measuring sales lift. One of the things you guys might want to understand is we test DMA to DMA many times. We're doing A/B testing all the time to figure out what the benefit is of different mixes. And what that provides us is more confidence that we can invest.

MR. WILLNER: Any reaction to that from the rest of the panel? In particular, I know Pat and Mark Lieberman, your companies have both gone to some extent into the digital businesses or OTT or other activities as well.

You haven't limited yourselves to linear TV. And so, I wanted to ask you how you see those two businesses as fitting together for your companies, the traditional linear business and whatever you're doing in the digital areas and how you've dealt with the kind of problems that Marc Pritchard was talking about.

MR. LIEBERMAN: Yeah, and our philosophy in going after digital is — Rick showed the growth on digital — is the Willy Loman line, "Go where the money is."

And so, we, as I said, trained our sales force on how to sell other media types, display, OTT, pre-roll video, mid-roll video, social, email, et cetera. And so, we really see that as reach extension. And so, on the TV side — and our TV has been flat to slightly up.

But digital is growing rapidly — when we advertise on television, we can only advertise in those households where our MVPDs have subscribers. On digital, we're not so limited. So we can extend the reach to a whole DMA, to a whole state, to other markets.

We can do the same thing demographically, where we can use digital as reach extension. So we really see it as a complement, not a substitute. And the same thing with OTT. OTT was a shiny object certainly during March Madness where it was huge, and the CPMs were out of control. They were $50 to $200 CPMs. And so, we really see it as a complement with TV as the anchor and foundation.

MR. LAPLATNEY: So growth in digital advertising and advertising revenues is critical to our company. We — like Mark's company — set up a training center in Charlotte, North Carolina and trained people on selling digital. So we take it quite seriously.

We have created different approaches for different categories. So we have a digital approach for the health category, a digital approach for the auto category. And essentially, I mean, the Willy Loman thing, that's where the growth in audience and that's where the growth in revenue are going to come from going forward.

MR. DUCEY: Just to put a number on that, in the research we're doing with local stations as an example, they sell linear TV like Pat was showing in his example.

But they sell dozens and dozens of other products. That could be print. It could be digital. It could be experiential-based, like events. So there's a lot that goes into that mix from local cable operators and local stations.

MR. LIEBERMAN: Yeah. I wanted to add one other thing to Pat's point as well, which is that with our 200 sellers in the field and the 6,000 advertisers, that's a personal relationship. So it may not necessarily be high touch, but it's touch. It's touch.

And so, for ten, twenty years, that account executive has a relationship, a trusted relationship with that advertiser. So when that advertiser says how can I re-extend the reach here, what should I do, what are some of the other tactics, they're going to go to that trusted account executive.

And the bigger players, the Facebooks and the Googles of the world, when they're going after local, they're doing it on an automated basis. So there's no trusted relationship there. Great platforms, but there's not a trusted relationship, which is always going to be important.

It's going to be that people, process, and technology. You're not going to get rid of the people side at the local level.

MR. PRITCHARD: We found some interesting things about digital — that it has completely changed how we advertise.

But what's interesting is we find it's most effective to create content that goes on digital that is sometimes long-form content, like four-and-a-half, five minutes or two to three minutes that then people see and then they go search for our brands.

"Always #LikeAGirl" is a classic example of a three-and-a-half minute video, "Always #LikeAGirl," went on the Internet, ended up getting 100 million views.

Then we put it on the Super Bowl and then it added even more to that business and then continued to get more and more viral. So that's what's been good about the digital world.

What's been bad about the digital world is some of the content quality issues, some of the editorial comments, and the lack of transparency. So once again, we're looking for that transparency with every provider.

MR. WILLNER: Well Ken, I wanted to address the next question to you since it's really coming from an academic perspective.

I wanted to know if you could address what type of academic or scholarly research has been done on this question of substitutability of various forms of media advertising between broadcast

TV, cable, and digital online.

And what studies are considered to be the most robust? And to the extent that there aren't many reliable studies, why is that?

DR. WILBUR: So, when you think about the introduction of digital advertising media, sometimes people think Google created the search engine marketing platform from nothing.

Actually, in the '90s, Yellow Pages executives used to compare the profitability of their industry to narco-trafficking, saying it was number two in the world. They don't make those claims anymore.

(Laughter.)

That is, we're doing much more with our search engines than we ever did with our phone directories.

But I think it's important to recognize that people have always used different media for different purposes. And there are many markets where finding information on demand is the determinative factor of who someone goes to for their business.

There was one study published comparing television advertising effectiveness to YouTube video advertising effectiveness. And what they found was that the populations of viewers reached by each of those two media were different in some important ways. However, once you adjusted for those differences, they no longer found variation in how effective the two advertising media were.

As to why there is not more academic research on this topic, I don't know that anyone has frequently expressed that interest. But if it seems like it would be useful, I would encourage you to tell that to academics and maybe even, if you really want them to do it, put just a little bit of money behind it and you'll probably get those questions answered in more detail than you would probably like.

MR. WILLNER: Who would guess? Also Ken, I think in your 2008 article on a two-sided empirical model of television advertising and viewing markets, you had referred to television as the single most important advertising medium.

Does that remain true today? We've heard from a number of the other panelists about TV continuing to be foundational.

I'd like to ask you to address your reactions to what's changed over the past ten years. And is it still the king today? And what does the concept of foundational mean, as the various panelists have addressed it?

MR. LIEBERMAN: Before you answer the question, do you want me to offer to hire you and then you can try to answer it?

DR. WILBUR: Yes. Quo pro quid. So I think it's much less clear what is the single most important medium these days. I think more and more people are consuming multiple media simultaneously. And it always depended on the nature of the business and the nature of consumer demand.

I think in many markets, search is the bottleneck. And if you are not at the top of the search results, especially in the top two or three, you just won't be considered. But for building brands, I think it's hard to substitute at least for video advertising.

I may be in the least good position to speculate on this on the table. So I'd rather hear others.

MR. PRITCHARD: Well, I would say that TV is still critical. It is foundational. I think your point about video is absolutely correct. I think that more and more now, what we're seeing is that people, consumers, are willing to and want to engage in really high-quality video content from a brand.

We've got a brand called SK2, which is a premium skincare brand right now, that has put out four-and-a-half-minute epic stories that people watch and then go to search for the brand. Right now, they have a two-minute video series called "Bare Skin Chat" with James Corden and Chloe Grace Moretz, which is just — it's hilarious. And it's all video. It's all online.

The brand had an eighty-six percent increase in search. And that's their model — to be able to get people engaged, get people to search and then kind of move down the funnel towards purchase.

And I think your point is right. I don't think it's any one medium that is going to be the king or the queen. And it really depends by brand and it depends by country.

We spend a third of our media spending in digital right now and 60% in TV in the United States. We spend 80% of our media in digital in China.

We spend more like 80% of our ads on TV on Tide and we spend more like 80% of our spending on Olay in digital. So it just depends. And it depends on reach, effectiveness, and efficiency.

MR. LIEBERMAN: Carl, I did have one point, I wanted to mention when I joined as CEO of the company, I did a ride-along with my account executives in different markets. And what's really refreshing about these local merchants is they kind of know what the ROI is. Ad runs, more people come into their auto dealership.

And as the industry moves to more data-driven and programmatic, as an example, television, the reality is that local merchant still wants to do what's called fixed position.

I want to be on Monday night football because what I'm going to do is I'm going to bring my family and friends over to see my ad on the big screen with me with the balloons and so on. I'm talking about an auto dealer ad.

That's not going to go away. And that's really important. And they're not going to gather around a computer to see the video ad that's on a computer. They're always going to gather around the television. And that's just the way local works. And that's those 120,000 local merchants.

MR. WILLNER: I think, Mark, in your presentation, you had also made the point that digital is not cannibalizing TV ad dollars.

And I think your source for that, you referred to a MoffettNathanson report. It's the April 5, 2019 report on "U.S. Advertising: A False Dichotomy?" Could you explain why that was the case, why that cannibalizing was not taking place? And then, I'll invite others to react.

MR. LIEBERMAN: Well, I think in their report, they talked about it as showing macroeconomic trends on television and the trends on digital. And I've forgotten who it was. It may have been Susan or Ken who showed the reduction in direct mail, as Rick mentioned before, the reduction in newspaper and print.

So as a macroeconomic trend, I think that was the basis for their thesis. But we're also seeing that. We monitor account level spend by actual advertiser, and our KPIs are always to try and maintain television, but upsell them digital.

And I'll give you a great example. In the auto dealer category, it might be $100,000 ad campaign, and we might be ten percent, twenty percent of the market. We want to be able to maintain that.

And in the past, our account executives would see digital as just an add-on, let's say an extra ten percent. But if they're spending half their spend now on digital, what we'll do is we'll say we have a much bigger total addressable market.

So let's keep television flat. But let's go after their entire digital budget in competition with others in the local markets. And so, anecdotally, some of it may cannibalize. But as a whole, I don't think it's cannibalizing yet at least.

MR. WILLNER: Reactions from others?

MR. LAPLATNEY: Yeah, I would just maybe — so I would essentially agree with what you said. I think there could be modest cannibalization. But I don't think it's material at this point.

MR. WILLNER: Yes. I think you were signaling me, Erica, and I was keeping my mind on it also, that we did promise a few moments for audience questions. And so, though there are many more things I could ask all of these distinguished gentlemen, I mean, there's a vast amount of knowledge they have to share, let me give all of you a chance to — if there are questions from the audience for this panel.

If there is anyone, just please stand up. Ask your question, and I'll try to repeat it so that the — everyone can get that. Is there any question from the audience?

MR. LIEBERMAN: Well, you can fill in the blanks with one of your other questions.

MR. WILLNER: Well, I'm not seeing any. And I realize —

MR. LAPLATNEY: Oh, there's one.

MR. WILLNER: Oh, I do see one in the back. There we are. Please step forward. Yes?

AUDIENCE MEMBER: Sure. For digital advertising, are platforms like Google and Facebook dominant in the market or do you see them as being on a more competitive playing field?

MR. WILLNER: Did everyone hear that? So for digital advertising, are platforms like Google and Amazon dominant in the market or is it more of a level playing field?

MR. DUCEY: So actually, I shared some data on that for Washington. Oh, sorry. Go ahead, Pat.

MR. LAPLATNEY: No. I was going to say, Rick, over to you.

MR. DUCEY: Okay.

MR. LAPLATNEY: Yeah. You've got the data. Yeah.

MR. DUCEY: Okay. Well yeah, in Washington, D.C., one of the data points that I showed was that in fact Google is one brand I called out.

They make more in advertising revenue in this market and typically in most markets than all of the local TV stations combined. So they're clearly a dominant ad brand throughout all markets.

DR. WILBUR: I've seen some estimates that in recent years they have captured more than 100% of the total growth in digital advertising expenditure. And if that sound impossible, the way to understand it is that they are not only grabbing all of the new dollars, but they are taking a substantial amount of business from other digital platforms such as Yahoo, which are on a substantial declining path.

MR. WILLNER: Thank you. Are there any other audience questions for the panel? One in the back?

AUDIENCE MEMBER: So I come from a digital advertising market, and I'm just curious, since we're in the DOJ Antitrust Division, are there any thoughts of taking the findings of today and the competition you guys have been talking about, which is actually, as discussed, a very small part of the market and looking at Google and Facebook and considering how that dominance is affecting the rest of the industry.

MR. WILLNER: Well, I think the broader questions for what DOJ will do, I will have to defer to the Assistant Attorney General and others who will make those decisions rather than me. But I think —

AUDIENCE MEMBER: Well, but they're here listening.

MR. WILLNER: Yes, but I — but we are — we are certainly listening. And that's of course part of the purpose of what we're doing here is to gather this information and to be in a position to address these issues going forward as they come up. If there are no other questions for the panel, I will ask you to join me all in thanking these panelists.

(Applause.)

Panel 2: Online Advertising - the Nuts and Bolts of Digital, Mobile and OTT

Participants

- Kevin Arrix, Senior Vice President, DISH Media
- Joshua Lowcock, Chief Digital & Brand Safety Officer, UM
- Preston McAfee, Economist, Charles River Associates Academic Affiliate
- Wendy Moe, Associate Dean of Master's Programs and Dean's Professor of Marketing, Robert H. Smith School of Business, University of Maryland
- Larry Solov, CEO, Breitbart News Network
- Greg Stuart, CEO, Mobile Marketing Association
- Moderator: Karina Lubell, Antitrust Division

Professor McAfee's remarks were accompanied by a slide presentation that is available on the event website.

MS. LUBELL: All right. If people could get seated, I think we're going to get started. Welcome to the second panel of the afternoon: "Online Advertising - The Nuts and Bolts of Digital, Mobile and Online Television." We have a lot to cover during this panel. And so, we're going to try to end probably shortly after 5:00.

So I'm going to only briefly introduce the panelists. You should all have their full bios printed with the agenda. So I'll go through alphabetically, starting to my far right.

Kevin Arrix is senior vice president of DISH Media sales, where he's responsible for DISH TV's and Sling TV's advertising sales, analytics and operations.

He leads the team in charge of the company's advanced advertising initiatives, which includes cross-platform addressable, programmatic sales, and dynamic ad insertion. And hopefully he'll tell us a little bit more about the meaning of those terms.

Next to him, we have Joshua Lowcock, who is the executive vice president and chief digital and brand safety officer at UM, where he leads digital strategy and innovation across all U.S. accounts, including Coca-Cola, BMW, CVS Health, Sony and USPS. He's also the architect of the 4As Advertiser Protection Bureau.

Immediately to my right is Preston McAfee, who is an economist who's worked extensively in pricing, auctions, antitrust, business strategy, market design, computational advertising, and machine learning applied to exchanges.

After twenty-eight years as a university professor, Preston joined Yahoo in 2007 as chief economist, moved to Google in 2012, and joined Microsoft as chief economist in 2014, from which he retired last year.

Then to my left, Wendy Moe is the associate dean of master's programs, dean's professor of marketing and co-director of the Smith Analytics Consortium at the University of Maryland's Robert H. Smith School of Business.

She's an expert in online and social media marketing, with a focus on analytics and has consulted on these topics for Fortune 500 corporations and government agencies.

Next to Wendy is Larry Solov, who is president, CEO and general counsel of Breitbart News Network, a news media company he cofounded with the late Andrew Breitbart in 2007. The company has offices in Los Angeles and London and bureaus in Washington, Jerusalem, and Rome.

And finally, at my far left is Greg Stuart, who is the CEO of the Mobile Marketing Association, a global media trade group focused on mobile marketing.

MMA has more than 800 member companies globally and employees in fifteen countries. And the board includes chief marketing officers from Marriott, Uber, Walmart, and Samsung, among others, plus senior executives from Facebook, Google, Twitter and Snap.

So now, I'm going to give each of the panelists an opportunity to tell us a little bit more about their views, their work, and the roles of their organizations in digital advertising. So let's go down the table, and we'll start with you, Kevin.

MR. ARRIX: Thank you. So DISH Media, I think the important things are that the assets that we have, which is DISH satellite television and Sling TV.

When you look at the topic of digital, Sling TV is right there. It is live television served over the top. And it is digital because it is IP-delivered and it gives you all the functionality that you get from digital advertising and digital media.

MR. LOWCOCK: So I'm from Universal McCann. We're a media agency. What that means is we plan, strategize, and define where media's going to be bought on behalf of our clients.

The key point there is we're an agent for our clients. So we influence decisions. Our clients make the ultimate decision [about] where advertising is going to be placed. I also have the role of brand safety.

So I'm responsible for ensuring our clients' ads run in brand-safe environments, but also helping keep the industry accountable and keeping the platforms accountable for getting rid of inappropriate content that's online.

MS. LUBELL: We should have some slides available for Preston.

DR. MCAFEE: So I was responsible — involved in digital advertising at Yahoo and Google, also at Microsoft. And I wanted to start out by saying why judging advertising effectiveness is hard. You heard in the previous panel that it's hard. You didn't hear very much about why.

One thing that's hard to do with advertising is the counterfactual. So that is to say when — actually, let me just give an example that was in the Harvard Business Review. People who saw brokerage ads were 1,600% more likely to open a brokerage account than people who didn't see brokerage ads.

And the article didn't notice that, huh, people who saw brokerage ads searched for the word brokerage. They are different people than the people who didn't see the brokerage ads, a different kind of people.

Let me give an example of that. Can we go to the next slide, please? So this is real data from a company — a Fortune 500 company tells me we've measured our advertising effectiveness, On the horizontal axis is our ad spend. On the vertical axis is our revenue, our in-store, same-store revenue. And the line through them tells us the effectiveness of our ad spend.

And then, when asked why they sometimes spend more than others, oh, we spend more at

Christmas. So the theory under which that line measures the effectiveness of ads is the theory which is if you don't advertise, Christmas doesn't happen, right? That's the theory.

Okay, and so besides the counterfactuals, there's been a history of poor measurement. You hear a lot about TV. But what you don't hear is has anyone ever measured the effectiveness of TV. And the answer to that is, approximately speaking, no. And so, it's just been believed.

Why? Because our grandfathers believed it, not because it's been effectively measured. And then, the final thing I'll say is that people who sell ads are marketing professionals. They are the best in the world at convincing people to buy stuff. So it's not surprising that they convince people to buy advertising. And with that, I'll turn it over.

DR. MOE: Thank you. That sets me up very well for the marketer's perspective. So I am a professor of marketing. And the best way to give you a sense as to what my perspectives are is to introduce my history.

So I started in the field about twenty years ago in terms of research. And at that point, the Internet was just getting started. And prior to that, I had worked at AC Nielsen, basically measuring advertising effectiveness on sales.

And over my career, as the data changed, my research focus changed, moving from understanding online consumer behavior to measuring the effectiveness of online advertising in terms of last-click and attribution models and then moving on more recently to social media analytics and how that can help measure brand.

One of the things that I loved hearing about in the earlier talk was the issue of the marketing or purchasing funnel. And the way I think about it is in each stage of my career, I've focused on a different channel of advertising.

And when the Internet first started, advertising on the Internet was just like any other form of advertising, just in a different channel. It was just like TV broadcast. It was just banner ads on websites.

Over time, as the data caught up and the tracking caught up and the analytics caught up with the ability to individually track, monitor and measure, the Internet became this different vehicle and we started looking at how do we reach — how do we measure individuals, how do we predict individuals, how do we figure out who their friends are so that we can reach their friends, et cetera.

And so, over time, the landscape has evolved. And from my perspective now, we still have these different channels and different types of ads hitting different parts of the marketing funnel.

So you have some of the larger banner ads and the direct ads and the television ads going after top of the funnel consumers and the targeted Internet direct ads — the targeted ads on Facebook, throughout the Internet capture behavior at the bottom of the funnel. And so, there is an argument to be made that the two are complementary in some way.

MS. LUBELL: Thank you. Larry?

MR. SOLOV: So I'm Larry Solov. Again, I run Breitbart News. Andrew Breitbart and I were best friends and next-door neighbors growing up. And since 2012, when Andrew unfortunately passed too early, I have dedicated my life to promoting his mission and legacy, which is among other things, to democratize the news coverage and to allow more voices, not fewer at the table.

It is only by the free flow of information and ideas and a robust discussion and iteration on those ideas that our democracy is preserved and in fact grows and thrives. So as a publisher with that point of view, please understand that that's my approach to these issues when I speak about them.

MS. LUBELL: Okay, and Greg?

MR. STUART: Hi. My name is Greg Stuart. I'm the global CEO of the Mobile Marketing Association. We are a nonprofit trade association.

Unlike the previous panel, I'm not here with any agenda. I asked my attorneys, if DOJ calls, do I go down? They said, yes, you should go there. So that's the only reason I'm here, because they advised it.

Listen, fundamentally you can understand a trade group by who its board is. And as mentioned earlier, my board is controlled and run, the majority, by CMOs, major CMOs of large corporations.

So that's where we sort of fixate. Whatever we can do to help them architect the future of marketing. That's fundamentally what the group does. And we do that in initiatives in measurement, organizational design, brand safety, mobile fraud, all the issues that sort of can either support or plague an industry, we try to address collectively.

I also do have Google, Facebook, Snap, and a number of the other digital media companies. So we're a holistic group trying to solve these problems collectively is really what we're about as a group.

Discussion/Question-and-Answer

MS. LUBELL: Thank you, Greg. So before we get into some of the complexities of digital advertising, I just want us to start with the basics.

And Wendy, you touched on this in some of your opening remarks. But I was hoping you could elaborate. What are the different forms of digital advertising, and what can you tell us about their respective purposes?

DR. MOE: So the way I think about it is we have the more traditional banner ads that have been around for a very long time who have — which probably mirrors the offline advertising on TV and print media most similarly.

And those are targeted in much the same way that print advertising, magazine ads and TV ads are targeted, in that you look for the venue with the audience that most matches the audience you're trying to reach. And so, it's a much broader audience.

Earlier, one of the panelists referred to it as waste. I tend to refer to it as opportunities. And I'll elaborate more on that as I start going — after I go through the other types of ads, the way I see them.

The other type are the more targeted, whether it's search, through an ad network or through your social media feed. Those targeted ads basically are micro level. They're looking at individuals, tracing their behavior across various parts of the Internet to try and assess what it is that those individuals are most likely to buy.

And that relates to what Preston just commented on — that those targeting algorithms aren't necessarily looking for opportunities or new customer opportunities. But they're looking to predict who's likely going to buy.

So personally I think that's where the waste is, that you're offering ads and charging brands for ads to reach customers who had a high probability of buying your product anyway without the ad, versus if you were to go to purchase a banner ad or a television ad.

You reach people who maybe you wouldn't have considered before, but may still be interested in your product because they're similar in some way to other people who are interested. And so, from that perspective, individual brands, by over-targeting, are missing opportunities to reach new customer groups.

And from a consumer's perspective, when there's too much heavy targeting, they don't get to see the other options out there that may be a good fit for their own tastes and preferences. They don't see new ideas.

MS. LUBELL: Thank you. That's really helpful. So as you all know, one of the core questions that we hope to answer, or at least ask, during this workshop is the extent to which different advertising markets are substitutable.

So now that Wendy has told us a little bit about some of the different forms of digital advertising and their purposes, Preston, I was hoping that maybe you could talk a little bit about substitutability.

DR. MCAFEE: Sure. Let me follow up on what Wendy said as a preface to answering that, which is that historically there was this quite sharp division between search and display, where search ads were text ads.

They were targeted almost primarily on keywords, whereas display ads would be richer media, graphic ads, or even video and would be on webpages other than search pages. And that's been blurred a lot.

Shopping ads have blurred the distinction on search ads because now, on search pages, you see graphic ads that are known as shopping ads. They also do a fair bit of targeting. Besides geo, you can target personal characteristics on search pages, time of day as well as customer age, and so on.

And I actually like to describe advertisers on a continuum. And I'm fortunate from the previous panel because on one end of the continuum is Procter & Gamble. And they are almost entirely about the brand; that is, very few of us click on an ad and buy shampoo. A rare event.

That's not their market. Their market is putting it in my head that, when I'm in the store, I should buy their shampoo and not some other shampoo; that is, at a subsequent time. So they're all about the brand and not about the click.

And then meanwhile, you have on the other end of the spectrum, malware distributors. Malware distributors get nothing unless you click on their ad, in which case they install a rootkit in your computer. And so, and in between, you have performance ads and other kinds of ads where they value a click, but they also value their brand and they're trying to do a different message.

So when you think about substitutability, you really want to cross that with what kind of advertiser are we talking about. And things like brand safety matter tremendously at the P&G side, not so much if you're a Russian troll.

And so I don't tend to think of there being an answer that these two markets are substitutable. It's rather that these markets are substitutable for this kind of company. Let me add one more thing and then I'll try to actually stop.

The other thing that's worth knowing is there's been this question about who is it that watches five hours of TV. Is there anybody in the room that watches five hours of TV every day? This is like the national median, right? That's declined somewhat.

MR. ARRIX: They don't want to raise their hands.

DR. MCAFEE: Yeah. So who is it that didn't adopt computers? About a third of America never adopted broadband. Who are those people? The answer is the desktop computer world is very unfriendly if you're not a good speller. It just is.

So there's a sociologist who said you can count most of the people who didn't adopt broadband as the same people who didn't read a novel in the last twelve months. This is — the desktop world was unfriendly to people who are marginal spellers. Let me put it that way.

And the thing that's really interesting is that the mobile world is not. The mobile world is friendly to all of us. And as a consequence, it's got one of the highest adoption rates of any device in America or any product in America.

And so, when I think about digital, I actually split the mobile world, which is a really good world except for the 1.7-second attention span. It's a really good world for reach — better than TV —but not so good at depth. And so, that's really the thrust of my answer, which is they're substitutes, but they're not perfect substitutes.

MS. LUBELL: Thank you. That's helpful. And I think we're going to go back to mobile. We'll talk to Greg about that. But first maybe, Joshua, it'd be helpful to hear about some of these issues from an ad agency perspective.

How do you advise advertisers to allocate ad spend across first digital and non-digital media? And then what about within digital?

For example, how do you decide whether to allocate ad dollars to search versus display versus video advertising? And then also if you could just talk to us about who makes the decisions where to advertise. Is it the advertisers, the ad agency, some other intermediary?

MR. LOWCOCK: So, it's a lot of things there to unbundle. I'll start by saying we make recommendations on how to allocate independent of the channel. It all starts with the campaign objective. So we service our clients. Our clients give us a brief. That brief has objectives for a campaign. And that could be a brand-building campaign or a short-term performance campaign.

I think one of the things that hasn't come up today, which is important to factor in, is time and the length of time that we have to operate that campaign in.

And to Preston's slide about Christmas, if it's holiday or Black Friday, there's a lot more pressure on shifting spend to traditional media because you need to hit that reach of an audience quickly, whereas if it's outside of those campaign constraints, you've got more independence. We plan media against data.

So where it all starts is with a customer—the customer the client's trying to reach. That customer at the end is going to be a consumer. So we want to measure effectiveness against that. And then, we want to be able to find them and identify them on channels. We don't plan television, radio, print, out-of-home in siloes. We plan them holistically.

So there's not a TV planner. There's an integrated video planner. There's not a radio planner. There's an integrated audio planner. From the sell side, it might seem independent of that because if you're a seller of media, you might actually only negotiate with one person.

But from an agency strategy and planning perspective and from the data we use, we look at consumers holistically because consumers are complex animals. If I asked anyone to raise their hand, nobody would raise their hand and go, I only watch TV, I only watch radio, I only look at out-of-home. You can use multiple channels.

So what we look at is the consumer behavior across multiple channels. You heard earlier from Susan and others about multi-touch attribution. So we're identifying the audience, the consumer. We're enriching as much data as we can all the way down that path. And then we're looking at the impact and constraints of media across all of those channels.

So TV drives search. Search can drive TV behavior. It can drive consumption of content. Everything interrelates. It's not straightforward.

On the search side, it gets increasingly more complex because search can serve multiple purposes. (And I used to work on the P&G business in China of all places.) People can search for individual products. So they can search for Tide. So you might buy the keyword on Tide. Or they might search for something like stain removal.

So then you look back at campaign objectives. Is it higher funnel? Like I'm trying to understand how to remove stains. I'm trying to get my brand out there, so using search for branding. Or it can be very product purchase focused, trying to get people to your individual site.

Where search gets really interesting today is it's very easy from a market definition perspective to talk about Google and Bing as search engines. But Amazon is increasingly considered a search destination. Pinterest is increasingly considered a search destination. Facebook is a search destination. And all of those environments are where you're buying search keywords.

So, to sort of challenge Preston's point of view that no one clicks on shampoo and clicks on an ad and then buys shampoo, I am buying search ads on YouTube that might result in people then going to Walmart and then buying a product or I'm buying search ads on Walmart or Amazon that result in people buying a product.

And I'll have brand advertising associated with that. So you will buy — and I know I'm not making it easy. But in the complexity of definition of a market, like I will buy brand advertising on Amazon because if people search for shampoo, I might want to push Head & Shoulders for P&G.

I might also want to buy the keyword that gets people to buy a particular product. I might push a brand messaging to show the benefits and efficacy of the product or I might just get people to add it to their cart. It's very complex. And I get back to that it all depends on what the client briefs us on as the campaign objective.

And then, we make recommendations based on what we think is the best fit for finding that audience to deliver against the campaign objective. We make recommendations to our client. The client ultimately signs off on that, except when we get to programmatic. But that's like another fifteen-minute speech.

MS. LUBELL: Thank you.

MR. STUART: If I could comment a little bit —

MS. LUBELL: Yeah.

MR. STUART: — because I've probably done — have personally done more cross-media research than probably most people, upwards of now three dozen studies publicly, both when I ran the IAB when we were trying to develop Internet advertising as a business and now for mobile.

And I'll tell you what's interesting about the whole cross-media thing is that if you do measure media and you look to see what's really going on there — you're trying to understand a number of different factors. Reach, as was mentioned earlier. Cost certainly factors in. Messaging is a component of that.

There are so many things that come into it. And it varies dramatically by campaign objective, by category, by audiences going after because fundamentally what you're trying to do is match your brand's marketing efforts and media allocations to the consumer behavior patterns and then influence by individual creative messages.

So I've seen campaigns, even of late, in the last five years, where print was the number one performing channel. Now, I'm the head of the MMA. So I typically wouldn't say something like that, right? It wouldn't be sort of the role of the organization. But that's fine. We're all about helping marketers do it more effectively.

So you look at a pure sort of return on investment of media and you can measure — well, I do think you can do that with, as mentioned, multi-touch attribution. It's all over. TV still would be anywhere between — well, we've seen the studies in the last five years — 38% to upwards of probably 65% of the total mix. TV still has that kind of relevance. Untargeted, linear, dare I say boring old TV in some regards still really works.

So it's just — it is a very complicated question. And I believe that there is a lot of movement between those channels. Where it's gotten extra hard, and Joshua and his company would certainly enforce — there are so many options today. There are so many choices that it's almost incomprehensively overwhelming.

We did a little thing for another project the other day. We've heard that just within video and audio, that there were probably 1,055 combinations that you could pull together of different formats, targeting capabilities, sound-on, sound-off.

I mean, it's just — it's infinite now and that's part of what's made this world so complicated, at least from marketers and the role that they're trying to do on behalf of their — you know, ultimately their shareholders.

MS. LUBELL: And now actually if you can tell us a little bit about mobile specifically? I think Preston mentioned —

MR. STUART: Mobile rocks.

MS. LUBELL: Preston mentioned that digital really took off with mobile. I think I'd read that more than half of marketers' digital ad spend last year was on mobile. So how do advertisers approach mobile? Is it independent from the rest of digital?

Do they think about different forms of mobile differently for say video, in-app, display? Can you tell us a little about that?

MR. STUART: Yeah. So I think I'll sort of carry on one step to what I was saying. So I think what's happening in mobile — I had a friend of mine, a guy who was at Colgate. And he said — he used to talk about you Internet guys. That's how he would talk to me.

He said, you Internet guys, he goes, you came along. You did Internet video and Internet search and you did Internet display, and there were a couple of choices.

Then he said, now, you mobile guys, he says, you've given me so many options. Like it's almost overwhelming the choices that I have, that I can go in and try to figure out.

And so, I think that, again, we're really struggling with not having the best of — I think measurement does exist. I disagree with some of what's been said earlier. I have measured media. It is very possible to measure media. I have high confidence in using experimental design to do that.

So I don't know if there are smarter researchers here that take that to task. So be it. I think you can. And I think marketers have an obligation to figure that out. I don't buy this, like, you know, you can't do it. So, so that's part of the challenge.

But I think the issue— I think that what's happening, to kind of get back to your question, is there's just so much experimentation as we try to slot these things in, to try to bring comprehension to an incredibly complicated space.

And that's what's making it I think so hard for marketers. It was just a simpler world before where you could slot stuff in and you knew what its purpose was and you could fool yourself to think that that was all there was.

I'm not sure that was really the case at the time. But now, it's just — I just don't think that they know. And by the way, in my previous studies, I mean, we've seen mobile — I don't think mobile is fifty percent of total spend. I don't think it's anywhere near that today for most marketers. And I wouldn't advocate that.

Our research would suggest that mobile — generally we've seen 15% to 20% of a total, the full stack, TV, everything, outdoor, print, anything else that's in the mix, digital, desktop. But we have seen studies that say it could be as high as 35% on an optimized basis. And so, I don't know. So it gets to the core of yours, but yeah.

MS. LUBELL: Okay.

MR. ARRIX: I think what contributes to that though is when you look at Facebook and Google's spend, which is high and the majority of the consumption for Facebook and Google is done on a mobile device, I think that sort of checks the box for mobile.

MR. STUART: Yeah.

MR. ARRIX: So I think you have to take that into consideration when those stats are that high.

MS. LUBELL: Makes sense. So Kevin, I want to get back to you and talk a little bit about online TV.

But first, just because we've been hearing about the marketers' perspective on things, Larry, it'd be great to hear how publishers are thinking about digital advertising. For example, what's the most important factor when publishers are looking to move inventory?

MR. SOLOV: So there's a lot to unpack here and there's no way to completely get into all of it in the amount of time that we have. So I'm going to paint with some broad brush and I hope you guys will all understand that. Plus, I never get you all together in one place. So I want to take advantage of it.

Digital online advertising is not sold like television or print advertising. Instead it is sold almost entirely on a programmatic basis. And what that means is it's sold on an auction with real-time bidding.

And there are a lot of implications of the switch to programmatic that has happened over the last several years, one of which is that when I started, an advertiser would say, I look at your demographics on your site, and you've got twenty million unique visitors a month. And I want to hit them generally. So I'm going to do a $150,000 ad buy at a certain CPM on your website. Great.

Because of programmatic advertising, direct advertising has — display advertising online has almost disappeared, for all intents and purposes. And advertisers do not buy websites and they do not buy publishers. They buy people. You guys all know this, right?

Last week, you thought, hey, I've got a vacation later this year. I want to go take the family to Hawaii. Maybe do a Google search for, you know, cheapest hotels in Hawaii or you're a baller and you just look for like most expensive hotels in Hawaii or something. And maybe you look at airfare.

And then, for the next three weeks, wherever you go, you get ads from American Airlines, from the Outrigger Hotel, from maybe a hotel in the Caribbean that thinks, on, this person lives in D.C.

Hawaii's pretty far away. If I serve them an ad, maybe they'll think I'll go somewhere shorter. You get the picture. And we see that all the time. And it's very much connected very often to what you have searched or what other websites you've gone to.

So that's how things are done now. So the second key point is that digital online programmatic buying is bought and sold on an exchange, just like commodities and just like equities. But there is a big, big difference. This exchange is completely and totally unregulated. And practically everything that the SEC would not allow you to do on a commodities or equities exchange happens every day, all the time in this space.

Also unlike a commodities or equity exchange, very often there's one company — happens to be Google — that for all intents and purposes controls everything. Google controls the entire pipeline, okay? So they control — and they have multiple products. They do it through multiple means.

They control the demand side, the sell side. They control the exchange. They control DFP, the platform. I don't know a single publisher that does not use the DFP platform. Like I can't think of one.

And the reason is it'd be so cost-ineffective and inconvenient to get off it. And they've baked anticompetitive actions into DFP to discourage you from going anywhere else. Again, I'm giving you a lot. It can be unpacked, you know, over time.

On top of that, Google actually owns many of the ad networks that are buying. Google actually buys off of this exchange and in this system that it controls. And historically that auction has taken place as a two-tier or two-stage auction with a first price and a second price.

Historically Google has reserved the last look in that process, which one could argue pretty convincingly is a competitive advantage. They also have information that the buyers and sellers don't have.

Someone that wants to buy ads has to put in a bid estimating what they think other people are going to buy at. Google puts in a bid. They know what everyone's already bid. So again, a lot. The bottom line is the system is rigged and rife with conflicts of interest.

Google is trying to get ahead of this. They've just announced that they're switching to a single stage auction process. I would submit that that will not solve the problem. They will still be in a position to control who wins, where the advertising goes, how much and which publishers get paid and frankly they'll still carve out a margin by the use of algorithms and other things.

So why should you care? Well, if you're an advertiser, you should care because you're probably paying more for ads than you should online. And if you're a publisher, you should care because you are probably getting less money for your ad inventory than you should. It's a pretty opaque process.

And I would submit — I will give you my personal opinion — everyone should care because no one tech and advertising company, especially one with a proven viewpoint bias, should have control over picking and choosing winners in publishing.

My takeaways would be if you don't want heavy regulation, the only way to avoid it will be for the DOJ to start looking into antitrust action. Otherwise you're going to have to regulate.

And the other thing I would submit to you is if you fix the problem today, Google is now so dominant in the space that any fix that is not remedial will not make a difference. Subject one. Do I have time for one more or do you want to —

MS. LUBELL: Well, I think you've given us a lot to unpack in that. And I want to get to subject two as well. But I also know, Wendy, that ad networks and ad tech in general are something that you have also studied.

And so, I just wanted to give you an opportunity to talk about that as well: the roles of the different ad tech companies in facilitating these transactions.

DR. MOE: So this is a tough spot for me to follow. So I think, I'll probably leave the details of how the bidding and all work to some of the gentlemen to my right who have more direct experience with it.

From my perspective, I look at it more theoretically from the position of the role of targeted versus untargeted advertising and how broad-based is that targeting.

My sense, and again, I'm sure people on this panel will feel free to correct me if they disagree, is that the various ad outlets have allowed for various degrees of targeting. My sense is that — so Larry focused on Google — I would actually throw in Google, Facebook and Amazon into this targeting discussion in that brands can work with Google and Facebook for varying degrees of targeting.

So if a brand wants to target top of the funnel and not go microtarget, that is a possibility. And the issue is are there outlets, are there appropriate pages, are there content providers that provide the set of audience members that the brand is looking to target.

I vaguely remember — I'm hesitant to say this just because I can't specifically remember the source. But I remember yesterday there was a news article that revealed that Amazon for the first time has surpassed Google in the number of product searches.

And so, from that perspective, if we're thinking about the power of Google to direct product searches and consumers to appropriate products, that is weakening and yielding to Amazon.

MS. LUBELL: Thank you, and I don't want to completely shift gears. But I think that it's important to understand all of the different facets of digital advertising.

And one important piece that we haven't spoken about yet is video advertising in particular and how that exists obviously across a number of different media, including online television.

And so, Kevin, I'd love to hear from you about how online TV providers are thinking about digital advertising: Is it more similar to other forms that the panelists have been describing or is it more like ads on traditional TV? So maybe you could tell us a little bit about that.

MR. ARRIX: Yeah. I'll say that I think everyone's getting a lot of digital loaded on them in a short period of time. We went from defining digital and what it means to a quick crash course in programmatic, which has taken some a decade to figure out.

Just going back, I'd be remiss not to say that I think digital all started with Internet and it started with consumer optionality. Consumers had the chance to get content on a computer. And while desktop is not as prevalent as mobile today, I think everything about advertising is where the consumer is spending time.

I work at DISH now. I've spent the last twenty years in digital. And we used to talk about how much time consumers spent online and where the ad dollars were. And ad dollars were still with traditional television and traditional media. So that's caught up, and there've been a handful of drivers to that.

But I think you have to look at digital as IP-delivered. The ad executions on digital are display, video, and search. And that's simplifying it. And then, you have sort of walled garden platforms like a Facebook or Instagram or Snap that are all digital. But they're coming from a slightly different angle.

Sling basically was born four or five years ago from the need of consumers wanting another option than the sort of standard cable or satellite television where they have hundreds of channels and they're like, well, I watch twenty channels and I want (what is commonly referred to today as) a skinny bundle.

And so, it really — it came from consumers. I mean, consumers demanded that. And Sling or DISH made an acquisition of a company called Move Networks, and that's the foundation of Sling today. And our stats on Sling are public in terms of how many subscribers we have.

But in a nutshell, Sling is live television delivered OTT. And OTT again, just to sort of level set — part of what we do every day is make sure that we educate and define OTT. It is over-the-top.

So it is content that is delivered through someone's device. For us, ninety-plus percent of our consumption comes from the big screen in the home. And that is delivered via an IP signal and it is not going through the traditional cable or satellite subscription.

So Sling, to any consumer that has it, looks and feels to the consumer like live television because it is live television. It is the live television feed that you would find when you watch TBS or TNT or NBC or whatever station you're tuning into on Sling. But it acts and it delivers like digital because it all comes through IP.

So we're at a really interesting section. I know in the earlier panel they talked about TV is not digital. And we actually are right in the middle of the interaction of television and digital. And I believe that that intersection is all sort of tied to addressable advertising and is tied to live television delivered over the top.

This isn't all about Sling. I mean, DIRECTV now, YouTube TV, Hulu Live are the four main companies that are in the live TV OTT space. And so, for digital, you know, we actually view it as however our customer wants to buy.

If someone wants to buy via IO, that's great. If someone wants to buy programmatic, we are fully connected into all the technology that enables someone for the first time to buy live television in a nanosecond.

And so, for us, digital advertising gives us the flexibility to leverage either existing third-party data or brand first party data along with our subscriber data to deliver targeted advertising, to deliver addressable advertising. But in the end, it is all digital delivered, data-driven video that we provide.

MS. LUBELL: Thank you. I want to go back to where the discussion took us to some of these intermediaries that play a role, particularly in programmatic transactions.

And so, Preston, I was hoping if you could talk to us a little bit more about the role of programmatic and the ad networks.

DR. MCAFEE: Absolutely. So I want you to start by thinking about if you want to buy let's say a collectible Pez dispenser, and those things exist, on eBay. You go. There's a seller on eBay. eBay is a platform. You connect to that seller. You put in a bid. If you win the auction, you're done. You give them money, and they give you a Pez dispenser.

This is not at all how advertising works, not at all. So first, there are at least five ad networks — AdX, Amazon, AppNexus, OpenX, and Facebook Exchange all play the role of eBay. That is to say, in principle, an advertiser could be connected to one of those. Say I would like to advertise. Publishers say here's an opportunity.

An opportunity is something like you go to Breitbart. They then tell the advertising exchange here's who's on my site. Here's what they're looking at. Here's what I know about them. What they know about them — what they know about you could be a lot because maybe they have access to data from Experian that tells them what your IP address, what your household income is and so on.

So, and that could go through any of those five exchanges. And that's how it worked circa 2012. Starting shortly after 2012, we see the rise of what's called the demand-side platform. A demand-side platform aggregates advertisers into larger groups.

If I want to make an auction not work very well, have monopoly power, right? And what demand-side platforms were all about is if I get all the advertisers together, rather than submit the highest bid, the second highest bid, the third highest bid and so on, I just submit one bid.

So it was a beautiful vision, the demand-side platform. We're going to aggregate all the advertisers and we're in the process — in a way, we're going to help them also do their job. But then what happens is there are multiple demand-side platforms that compete against each other. There are at least five of those.

So that is to say the advertiser puts their ad into a demand-side platform. The demand-side platform sticks it into not one, but all five of the exchanges, hoping to get a publisher.

Meanwhile, the publishers. So what this process did to the publishers is cause them to lose money, right? They're not making as much money because now there's power on the advertisers' side. How did the publishers respond? They did the same thing. Those are called containers. A container is a group of publishers who run their own auction.

So now what we have is a sequence of auctions being run by the different players in the marketplace with different levels of data and so on. It has made it somewhat symmetric. But then the thing that you need to understand about advertising is that everybody thinks they deserve half.

So each of these parties —that is, there's a publisher who's supposed to get the money in the end. But meanwhile, they run their ads through a container, which is just basically collecting the publishing opportunities and running its own auction. It's getting bids from exchanges, each of which are taking a cut, generally substantially less than half.

Those then are getting bids from demand-side platforms, each of which is taking roughly half. And then finally, there are actually advertising agencies because there are very few advertisers who actually ever participate in these markets. That is to say, they're represented by someone who also has creatives and all that.

And so, in this process, what we now have is basically three sets of auctions when one would have sufficed and been more efficient.

MR. ARRIX: I would jump in and say that that does not describe the programmatic world that we live in at all. And I think it's important for the audience to understand that there are different flavors.

I think what Larry and what you guys are describing is open auction. And open auction is like everyone is putting in and it's display. Like there is so much display ad inventory, it's insane. You know, when you go to a webpage, do you see one ad? No, you see five, right?

And so, it's so commoditized. So I think what you're describing is open auction. And it's messy. There are middle players. But in our world for video, it is very clean and it is very effective. And I'm not an advocate for programmatic. I'm an advocate for whatever solution my client wants.

And we have one partner that we run that use their pipes to connect to the demand side. And that partner gets paid a fee by us which is, you know, about to become transparent, you know, because the industry is asking for it. And then, also gets paid by the demand side.

And it eliminates the middle person. It eliminates all those, you know, four or five middle players. It's very effective. It's very clean. And I think programmatic is very hard to understand. I mean, it's complicated. But it has evolved.

It started out as open exchanges — very messy. But there are other flavors. There are personal auctions. There's programmatic guaranteed. You can control however you want your inventory to exist. But I do think that the deck is stacked not in the favor of the display publisher in programmatic open exchange.

MR. LOWCOCK: I think there are a couple of things — and Kevin's spot on. There's a couple of things that need to be clarified, which is content and environment still matter. So while we're chasing audience, quality environments matter. Reach still matters, and effective reach still matters.

So there are PMPs — private marketplaces, which drive a lot of programmatic and while the media landscape is fragmented and consumers are going everywhere, you categorically know that for any brand or advertiser, there might be ten to fifteen sites where you can reach eighty percent of the audience quite effectively in one go. And again, that's why you have to factor time into all of these decisions.

The other thing that needs to be factored in is on the transparency side. There's a lot of work being done on supply path optimization. So you'll hear the term SPO bandied around in the industry. And that's about eliminating all those middlemen that are like clipping the ticket all the way through.

And it's come from this perverse belief by, I'll say, the publisher side of the industry, which is every eyeball deserves to be monetized, and that's not true. The end result should be not every eyeball deserves to be monetized. Not every page deserves to carry an ad.

It should be an ad should only be served if it's highly relevant and needs to be there for the consumer. Otherwise, the publisher needs to make a decision not to carry an ad. And the reason why the industry has moved in the way that ads tend to be everywhere is so little of the traffic is actually direct.

So once upon a time, in a magazine, you turned the page, turned the page and you'd sell twenty pages in a sixty-page magazine. What happens now is publishers get traffic from search.

So then they're desperately trying to monetize when someone comes in, reads an article, disappears, and none ever see them again. So these are sort of the dynamics that are going on.

MS. LUBELL: Before I switch gears and ask you all about data, I just wanted to give everybody at this side of the table an opportunity, if they had anything to add to that. No? Okay.

I want to go back to something that you had started to touch on, Preston, when you were talking about all of the things that they know about you, these various intermediaries. It sounds like ad networks are responsible for collecting a lot of data.

So perhaps you could describe some of the data that are being gathered and maybe even if you could tell us a little bit about what is shared with advertisers or publishers and how the data is used generally.

DR. MCAFEE: So, sure. The first thing is there's almost nothing about you that can't be known. From your IP address, both Acxiom and Experian make money on selling data.

So if you want your financial wherewithal, have you bought a car in the last year, things like that, the stuff that would be in your credit report, that data's available. The data, actually from an academic researcher perspective, is really a delight because you've seen your own credit report. It's very extensive about the big things. It's also quite expensive. So there are many advertisers that don't use it.

Second, it's pretty easy for an advertiser to track what you do on their site — or excuse me, a publisher to track what you do on their site, what pages you visit, how much time you spend.

By the way, there's academic research that was published by people who were at Yahoo and then later at Google that says we have a pretty good sense of what you're looking at on a page. Like you probably think, well, it's the whole page. How could you know what I'm looking at? But it turns out people move their mouse.

At least on a desktop, they move their mouse where they're looking, or at least enough of them that we get a pretty good sense from the page what you're looking at.

With mobile, we actually even have a better sense because you probably don't know this, but people only use — eighty-five percent of their eye gaze goes to the top half of their screen. That is, you don't read the bottom half of your screen. You scroll or read the top half.

So we have a pretty good sense of what you're looking at, what pages you've visited. And then let me tell you about cookie sharing. And cookie sharing is — and I think Larry mentioned this —they write into a cookie what you do on a site.

So it tracks in your browser. That is, it's on your computer, not stored necessarily off your computer, what you're doing on that site. And then, cookie sharing means if I searched for United Airlines and then I go to some other site, that other site can access the cookie that United left on my computer and say, oh, he looked at this flight. Let me offer him another flight, a competing flight or a similar flight or maybe even exactly the same flight.

That's what you get with Amazon, right? They just show you the same product, sometimes embarrassingly. That's not actually quite as bad as it sounds in the sense that it's not necessarily the advertiser seeing that.

And then, let me finish with just Facebook and Google. Facebook and Google basically don't let data off their own sites. If you want to access Google data, you have to advertise on Google, not outside of Google. And that actually protects the consumer.

And the same is true with Facebook. That is, the Facebook data — and I'm not on Facebook, and yet Facebook still has extensive data about me, and that's because of the Like button, right? So the Like button means that when I go to a site that has the Facebook Like button, Facebook — this is called pixeling, by the way. If a company controls one pixel on the page, they get to see everything that the browser supplies, including your IP address and so on. So that allows them to track your behavior and some pages have as many as 2,000 people tracking you.

One thing that's true: Facebook and Google require you to use the data on their site. They don't let the data out and that is consumer-friendly. But it also is sort of monopolization-friendly because they have such extensive data.

Let me finish with there are really very simple things for consumers to do to limit all this and almost nobody does. So that is to say the cost to a consumer of having cookies not be written — like you can use the Brave browser, B-R-A-V-E. That's the name of a competing browser. It just prevents all those cookies from writing.

So consumers have a really low-cost remedy that they don't take. And so, that's on the other side of all this, like they can see all this. They have tons of data. But we don't do the first thing mostly as a society to protect ourselves.

MS. LUBELL: Thank you, and because you brought it up, unless Wendy —

DR. MOE: Yeah. I'd love to just add to that a little bit.

MS. LUBELL: Please.

DR. MOE: So, I mean, Preston describes a process of collecting what pages you're looking at, what you're searching for, et cetera. But I think from a marketer's perspective, the value in that data is what you can infer about the person in terms of their preferences, their lifestyles, et cetera.

And so, the idea is that if you can observe someone behaving across the Internet, you can infer this person's preferences for type of car, preferences for type of computer, political leanings, sports preferences, and interests. And so, that is all extractable.

However, there are still accuracy issues with that. When I teach this to my students, I always use myself and my son as an example.

So for myself, I read a lot of technology. I read a lot of business and finance. So all of my devices and all of my machines think I'm a man. We won't get into what my son — that's not necessary to share. But the point is there are definitely accuracy issues.

And the larger the ad networks, the more accurate — the more visibility they have into your behaviors. And the more visibility they have into your behaviors, the more accurate they become. And that's where we start seeing — I've thought a lot about — Facebook versus Google and the size of their footprint across the Internet.

So Google has a large footprint across all of their sites, as well as other content sites and anything that carries an ad. Facebook has actually an even bigger footprint in terms of their ability to observe your behavior within their platform, anything that carries that Facebook Like, any page that caries that Facebook Like is visibility for them into your behavior.

And on top of that, they have the social network, the behavior of the friends on your social network, et cetera.

And so, I don't know what the solution is in terms of privacy and tracking. But it's just an interesting thought process that I always take my students through in terms of Google being the poster child for tracking. But if you think about what all of these firms have insights into, it's not clear that they have the biggest footprint on your behavior.

MS. LUBELL: Thank you. Yeah. I wanted to continue that conversation. You both obviously brought up Google and Facebook, and people have talked increasingly about Amazon as accounting for the majority of digital ad spend. And, some people argue that they've been able to maintain their dominance through this walled garden approach.

So, I would love to hear how people think about the role of data and what actually that walled garden approach means. And I think, Greg, you mentioned that you had some thoughts on this as well.

MR. STUART: Okay.

DR. MCAFEE: You do now.

MR. STUART: So yeah, I mean, listen, I'll just stake a position, and maybe other people can sort of disagree with. So at the end of the day, I represent the marketers. So I sit with the marketers on it a little bit.

And the thing that's caught me as interesting about the walled gardens, I mean, in some regards, Google and Facebook have built very strong advertising businesses that really work for advertisers. They wouldn't use them if they didn't. And they have decided, for whatever business reasons, that they don't want to share everything out beyond that.

And it seems to me that eventually the economic marketplace may decide that they can continue to do that or not. I don't know what's going to happen. I do know that there are a lot of companies, publishers, not that far below in size, not in the kind of sort of usage that we see.

But if you look at companies like CBSi, who has extensive Internet properties and mobile properties, or Meredith, there are a number of other sorts of companies out there.

If Google and Facebook sit at around 210 million unique, according to what comScore says on a monthly basis, they sit in the 180, 190 million range. They're also equal size. And they will share the information. So there are options out there.

And so, I don't know. I guess in some regards I get the hysteria that might exist because somebody's not sharing something back with me. But for the moment, it seems like a business decision that they’ve made that for whatever reasons they’ve decided to do that.

And so, I’m sure that’s going to be contradictory to a lot of other people. But I’m surprised that marketers don’t find other options. If they really wanted that, then go develop the other options.

MR. LOWCOCK: I’d like to weigh in there because there are two parts of the conversation really, which is there’s the supply of inventory and there’s the supply of data.

And media and media buying and planning is really the convergence of both of those things these days. And there are companies like Amazon, Google, Facebook, they need to be named. They have a concentration of power on both sides, and that is advantageous for them in the entire ecosystem. And I don’t want to paint them as monopolies. That’s up for the DOJ to decide.

The real question that needs to be sorted out is it’s the consumer behavior that concentrates and the buying decisions that flow from that.

So even if they were independent companies or the fragmentation in the marketplace, because consumers spend so much time on YouTube, on an Android device, on Google search, that’s where the power comes from, and that’s where they get a disproportionate share of the spend.

And that’s the same for the Facebook ecosystem and, quite frankly, that’s the truth for the Amazon ecosystem as well. If you unstitch all that and say, well, they need to share the data outside of their walled gardens, that’s interesting and a powerful argument.

The flipside challenge to that is it doesn’t change the consumer behavior, which is consumer behavior is concentrated on a handful of platforms anyways. So even if I can pick up Facebook’s data or Amazon’s data — and Preston mentioned Facebook Exchange and Amazon sells media elsewhere and Google sells media elsewhere. It doesn’t change the fact that consumer behavior is dominated and consumer interest is dominated on a few core environments. And then, everything else is sort of the mid- to long-tail.

MS. LUBELL: Thank you.

DR. MOE: And I think that’s the traditional argument for targeting. And so, there are larger discussions about food deserts, right? So you have valuable consumers in high-income neighborhoods who everyone wants to try and reach.

Because everyone’s targeting those high-value consumers, there’s price competition. There’s a lot of competition. They get good offers. They get good prices.

Alternatively, when you look at some of the less served neighborhoods, you see they’re not as valuable as consumers. They don’t have a lot of buying power. And so, there’s not a lot of competition in those spaces. And then, as a result, prices are higher. Not a lot of competitors and retail go into those locations. And as a result, you have these food deserts where there are no fresh groceries for those communities.

And you can see there’s a parallel, right? So it’s the outcome of extreme targeting. If you start targeting more and more, there’s a gravitation toward the valuable consumers, however you want to define the valuable consumers.

And so, that goes back to my earlier discussion of broadening some of your targeting efforts to try and reach serendipitous consumers who don’t fit the profile.

MR. LOWCOCK: I want to take that because there’s something that Mark touched on earlier, which is there's a separate conversation which is advertising provides an important social function of making content available to people for free and funding important public services and public goods.

I guess, the next challenge for advertisers is that not everything is programmatic. Programmatic is a buying method. It's not a way we think about buying things. And we do do brand advertising in digital. It's not all over-targeted and driven that way.

But there's a bigger question which is where does the bulk of advertising money get weighted and spent and where do other organizations like news organizations miss out because money is just shifted away from them.

And how do you ensure that advertising funds everything? Because as much as I'd love infinite advertising budgets, I don't. I have finite advertising budgets. Audiences are finite as well. And campaign cycles are finite.

What I am increasingly aware of is how do we ensure that we fund appropriate content and serve the communities which buy our products, as well as ensure that we don't drive dominance of opinion or views into certain pockets of the advertising industry?

MS. LUBELL: Preston?

DR. MCAFEE: So I want to agree with Joshua about one thing, which is advertisers do have alternatives, especially about data.

But from an antitrust perspective, if Google winds up being a necessary part of a buy and Facebook winds up being a necessary part of a buy, that is to say, there are customers that you just can't reach without using that particular platform, that gives them dominance in a market.

And then, that says there are lots of things they can't do to extend that dominance. One of those things might be buying other companies that would actually give them even more power, things like that.

So even if advertisers actually do have a fair amount of alternatives and both Google and Facebook achieve their market power through legitimate means — that is, not through something illegal — nonetheless, there may be implications from the necessity that advertisers face in using those platforms.

MS. LUBELL: Larry?

MR. SOLOV: Again, coming back to programmatic and ad networks and maybe talking a little bit about what Josh was raising and Kevin too, the bottom line is display advertising online has been completely commoditized. It's practically dead, okay?

And the reason you're reading about BuzzFeed laying off 200 people, even though they were the darling of the advertising world, is I am sure in no small part because of things like that. Programmatic has allowed a concentration of power in the hands of a handful of ad networks, which in and of itself might not be bad.

But let me give you a Breitbart-specific example. But please understand this example is not limited to Breitbart. After President Trump was elected — this may come as a complete shock to people in this room — a lot of people were very, very, very — and, I mean, very upset. So maybe you know some of them. Some of those people run and control ad networks.

In November of '16, there was a customer that did almost ten million impressions on

Breitbart. To be clear, they did not place direct buys on Breitbart. These were programmatic buys. But the customers they wanted to reach were on Breitbart. Their advertising on Breitbart was successful and it had been for years because these were longtime advertisers.

So clearly that's where the ad networks representing the advertiser was bidding to reach those customers. I looked at that same advertiser in November of 2017. That advertiser did only 6,000 impressions on Breitbart.

It took me a long time. But I got to people who could answer the question for me at this advertiser. And here's the bottom line. This advertiser never boycotted Breitbart and never complained that its ads were on Breitbart. They had no idea that their advertising was being blocked from Breitbart and not reaching their customers on Breitbart's website.

So what happened? After 2016, a bunch of ad networks got together and for openly and admitted political reasons blocked programmatic buying on Breitbart. And they did so without telling at least some of their advertisers, who had never complained. And they did it despite the fact that advertising on Breitbart had been successful for years. And it was for purely political reasons.

Breitbart is a news site. Their editorial position is openly conservative. And people were pissed Trump won. And frankly, they wanted to take it out on somebody.

So stop and think and take Breitbart out of that and give it to your favorite news site or your favorite opinion site, right? I think that should bother everybody. That was maybe an unintended consequence of programmatic. But that should bother anybody.

I told you in the beginning I approach this from a very simple standpoint. I like the free flow of information and ideas. Ideas should be iterated upon, discussed. And that makes a better democracy.

And I think Joshua was referring to — and I could be wrong, so jump in — the fact that a lot of news companies are not able to sustain investigative journalism on digital dollars, digital advertising dollars. But I would strongly suggest that if solutions are looked into that, those solutions not be Facebook and Google or anyone else saying, well, we'll fund the investigative journalism. Now we understand. Because those are all companies with strong viewpoints.

And I believe that would result in a terrible result. A free media that is self-reliant and can fund itself through advertising is a safeguard. We should cherish it.

We don't want big companies coming in and solving the problem that they've helped create by saying, well, we'll give these people money because we like their journalism. We won't give people money because we don't like their journalism.

MS. LUBELL: Thank you. There are two other topics I want to make sure that we cover before we wrap up in the next ten minutes or so. But before I do that, does anybody have any responses on the power of the ad networks or anything like that?

MR. SOLOV: One thing I would point out. It has happened recently that major companies have bought ad networks, major content companies. I'm referring specifically to the Time Warner merger. A lot of you might know a company, AppNexus. It was bought by the company. And so, I think I'd just put a placeholder in it. I think that raises a number of questions as ad networks begin to get bought and folded into larger companies that are also content providers —

MS. LUBELL: Thank you.

MR. SOLOV: — for another day.

MR. ARRIX: I'll just add onto that. Again, in the spirit of clarification, I'm not going to comment on the backlisting. I'll stay clear from that.

But in terms of ad networks, so a company like AppNexus and The Trade Desk, it's important to understand sort of my definition of an ad network is a company that is aggregating supply and arbitraging.

And they're sort of identifying a gap in the marketplace and they're saying, okay, I'm going to cobble together a network and I'm going to sell it to the demand side. And I'm going to take a piece of what I bring back to the publisher. And I think AppNexus and others that are in the programmatic space are not only —they aggregate supply, but they are the technology pipes that lead to the demand side.

So it's really important to differentiate between is it demand side, is it supply side. And the programmatic space used to be three pieces. It used to be demand side, exchange, and supply. And supply and exchange have consolidated in the last few years.

And so, I think it's important to note that. I also think just objectively — and again, DISH doesn't have a horse in this race in terms of like display-based websites.

But having worked on that side of the business, display digital advertising is really challenging for publishers that are sub whatever million. It's really hard.

I mean, that market is dominated by players that have scaled audiences, that have ease of solutions in terms of buying. And it's tough. It's very difficult. And that has driven, in my point of view, sort of what's been happening to BuzzFeed and Vice and folks like that.

MS. LUBELL: Thanks, Kevin. So I want to ask you all about something that came up several times during the earlier panel.

And maybe we'll start with you, Joshua. Numerous observers have raised concerns about digital advertising. And during the previous panel, we heard from Marc Pritchard about P&G's concerns about ad fraud and brand safety.

How do those problems play into your decision on which channel to use, digital versus traditional media? And do you have a sense of what the industry is doing to address those problems?

MR. LOWCOCK: Okay. So they're two separate issues. So on the ad fraud, I'm going to encompass in that also things like quality, such as viewability and ensuring [that] even if your ad is seen by a human, is it actually being seen in a way that has an impact. It's not the 0.7 of a second.

So the industry uses third-party verification companies for that that are accredited by the Media Ratings Council (MRC) or others around the world. We negotiate, as much as possible, the contracts with media partners so that neither our clients nor we are on the hook for ads that are delivered to non-humans.

So we call it invalid traffic, IVT or SIVT, sophisticated invalid traffic. And what happens is if the third-party verifications detect fraud, that comes out in the report in a buy. We say we're not paying for those fraudulent impressions.

And then, I get back to that time constraint. We either have to get those impressions credited back to make good for the advertiser, or the bill gets reduced so that we don't pay for it. And that covers quality as well.

So we might buy against viewability metrics. And we say that the ad has to not only be seen by a human, but we want the ad seen for a certain amount of time. There are all sorts of third-party tools that account for that, and we might pay a premium to ensure that's delivered.

On the brand safety side of things, that's a lot more complicated because, again, we use third-party tools to manage for brand safety. One of the things I developed in the industry is the Advertiser Protection Bureau, the APB.

And that's a consortium of all the agency holding groups through the four As. We actually share information about brand safety incidents. So if an ad appears in front of an ISIS video, it's not just the advertiser that gets exposed that has to worry about it. All the agencies get alerted.

And that way, we can hold a publisher accountable and get that video taken down. Safety covers though a myriad of sins because you have the ISIS video which no one wants to be against.

And then, you might have — the oft-used example is the airplane crash that airlines don't want to be against. And both are brand safety concerns for various advertisers. That becomes much more complex and difficult to manage.

And when you get to user-generated content on YouTube or Instagram or Snapchat, it becomes another problem. And so, one of the big conversations that we have at the moment with the industry is advertising is a privilege, not a right. I don't have infinite budgets. You need to have safe and quality environments.

And a lot of the pressure needs to be taken off not only just the agency and the advertiser because we're trying to police for all of that. A lot of the pressure has to also go back to the publisher and the advertising environment because, when I grew up in traditional media in TV and print, when we had a breaking news event, we would go dark in advertising because we knew it wasn't a safe environment.

We need much more responsibility taken on the digital side for that. But I also would say you need a lot more responsibility taken on the regulatory front side of things because — and I'll point to the Christchurch example, which was a terrible tragedy. There were no ads running in front of that content. From an advertiser perspective, that seems great, but it's unacceptable that content is ever live streamed or online.

The platforms were slow at taking that content down, which is terrible. But then you've got bad actors that continue to publish that content. You need a lot more regulatory action being taken against individuals that publish bad content online because bad actors will always be incentivized to break rules.

And unless you take those bad actors and punish them for their bad behavior — I'm constantly playing whack-a-mole. And the platforms will be constantly held accountable for people that have got bad behavior, that will not care that the platforms are being held accountable. You need to get the bad actors penalized as well.

MS. LUBELL: And, Greg, are mobile marketers thinking about these issues the same way?

MR. STUART: Yeah. Listen, you know, it's funny. I've been doing digital now for over twenty years. And it's a wild and wooly place.

There's no question that there's a little bit of an Old West mentality there that complicates marketers as we figure out new things. And as I think Joshua makes a good point: bad actors, for whatever reason, have now been given access to all sorts of things that they never would have access before Internet.

We actually have launched both brand safety for CMOs to really help them figure out how they manage that significantly better. I'll be honest with you. I'm a little surprised the number of CMOs who did not have a brand safety.

I mean, to the best of my knowledge, there is only one brand safety officer at a major corporation who has that actual specific title. Joshua, maybe you know a couple more. But it's limited in a way that I'm surprised at.

The other thing around fraud, which has really been a desktop issue and it is a very serious one that needs to be addressed — the data suggests that it will probably come mobile's way as mobile has now become much more dominant. And we're still trying to figure out sort of — there's just a lot of creative people who want to do bad stuff. And so, I think there just needs to be an increasing concerted effort — I'll call out P&G and others advertisers (Unilever is my chairman) – the work that they do to try to aggressively work against that.

It's hard to keep up with, admittedly. But I think that there's been some progress. It's funny. These verification companies didn't exist five years ago. And now — there are three of them that are probably 600, 700 employees. So they've come a long ways and are getting better — too slow, but getting better.

MS. LUBELL: Thank you. So we are nearly out of time. But there is just one last topic I wanted to make sure that we get to. And that's convergence.

Kevin, I'm going to go back to you on this because companies like DISH are in an interesting position since, as you said, they really are at the crossroads of traditional TV and digital TV.

And so, I'd be curious to hear what kind of convergence you're seeing between online and offline TV advertising.

MR. ARRIX: Well, we're seeing a lot. I mean, I think it ties predominantly to, you know, another topic that we're covering, which is data. And, you know, there's obviously an issue around data leakage.

But there is a big opportunity I think for organizations that do have compelling first-party data to partner together or to properly mine that and leverage it with their advertising partners and agency partners. And that is kind of the critical piece to all things advanced television advertising-related.

As it speaks to DISH, we were first to the market in terms of selling cross-platform addressable. So what does that mean? That means that we work with any given marketer or agency and we put together the DISH footprint and we put together the Sling footprint.

And if someone is looking for an in-market truck buyer, you know, we cobble it together. We don't differentiate between, oh, this is sort of linear television and satellite-based, and this is OTT. We just look at it as we have very, very little duplication. But we have a subscriber footprint that we put together that we bring to the market as one.

So I think that's one version of convergence. I know measurement was mentioned in the earlier panel. We have been working with comScore on a cross-platform addressable measurement, which is great.

So there are things that are coming that allow the demand side and marketers to view something sort of holistically. I think that's really, really important. But we see convergence as something that is happening and something that will continue to happen.

And actually another level of convergence I think is when you look at the power of Facebook and Google and Amazon, again, it's one platform that has massive scale. That's why we need to start getting our measurement and definitions all sorted because there needs to be a consortium —continued sort of consortium effort around television and OTT to bring it together because television is still super effective.

And if you can make it easier for the market to buy, whether it's local, regional or national. I look at it as convergence of linear and digital, but also convergence of — and I think technology will be the key catalyst for that — convergence of what have been competitors to sort of consortium collaborators.

MS. LUBELL: Thank you. And any final thoughts on convergence?

MR. LOWCOCK: I just want to — I just want to add that I guess the last pillar of that convergence is the convergence of commerce because we're seeing the integration of like data, media and then connecting it to the commerce side of things. And that's going to be the next big battleground.

MR. ARRIX: Yeah.

DR. MOE: And I think this goes back to this idea of how much visibility you have on the consumer, right? So the key really is the data.

So we've been talking about Internet, occasionally about mobile. And that data is starting to come together. And you can get a cross-platform or cross-device profile of a consumer.

Once we start bringing in TV, you have a smart TV, and Google is on that. All the TV viewership behavior starts coming in as well and that adds to the accuracy of their profile for the consumer.

One thing that we haven't talked about as much are the broadband providers. Someone mentioned Time Warner. They also have access to the data. But they haven't been playing the same Internet game along with Google and Facebook up until now.

DR. MCAFEE: Well, they do sell the data. So others are buying the data— even like magazines and so on.

DR. MOE: Well, that's a whole different issue.

DR. MCAFEE: Yeah.

MR. STUART: In some regards, this is kind of I think — if I maybe even summarize a little bit, I think the challenge that we're having is that a business that's deep in innovation and change is more dynamic.

I've been doing this a lot of years. And I've been in the heart of it. And I am shocked at how much it changes and how quickly. And so, we do need to find some balance in that sort of innovation development for the greater good, the things that were talked about on the previous panel, versus I think, as Larry was trying to point out and others. There are unintended consequences to some of that.

And so, the degree to which we sort of manage against those — I don't even profess to have those answers. But it's definitely a very interesting business right now. There's no question about that.

MS. LUBELL: Sure.

DR. MCAFEE: Well, smartphones were adopted really fast.

MR. STUART: Amazing.

DR. MCAFEE: But smart TVs are going really slowly.

MR. STUART: Yeah. Yeah, right. Yeah.

MS. LUBELL: But I think part of the — obviously the dynamism of this industry is one of the reasons we wanted to make sure to hold this workshop. Given the hour, I think we will forego audience questions.

I apologize for that, but hope you will all come back tomorrow for the second portion of our competition in television and digital advertising workshop. Before you go though, I just would like to thank all of our panelists for their presentations.

(Applause.)

Opening Remarks

MR. HAAR: We're about to get started, everyone. Thank you very much for coming today. Welcome, everyone to day two of the Antitrust Division's workshop on competition in television and in online advertising.

Yesterday we heard opening remarks from the Antitrust Division's Assistant Attorney General, Makan Delrahim, who spoke about the Division's longstanding interest in protecting competition in advertising markets.

We also heard an insightful lecture from Professor Susan Athey, who taught us about the economics of advertising in all its forms. And we heard two lively and informative panels that led us through the nuts and bolts of advertising in television and in the digital space.

We're about to hear two more panels, one on competitive dynamics and another on future trends in advertising. Thank you very much, everyone, for coming today. I expect it will be just as interesting and lively. And without further ado, I'll turn it over to the Division's Lee Berger, from our Media, Entertainment, and Professional Services Section, who will lead panel three on competitive dynamics. Thank you, Lee.

Panel 3: Executive Suite: Competitive Dynamics in Advertising Does Local Broadcast Compete with Cable Spot and Online Advertising?

Participants

- Ty Ahmad-Taylor, Vice President, Business Product Marketing, Facebook, Inc.
- Marcien Jenckes, President, Advertising, Comcast Cable
- Rick Kaplan, General Counsel, National Association of Broadcasters (NAB)
- Dave Lougee, President and CEO, TEGNA, Inc.
- Moderator: Lee Berger, Antitrust Division

MR. BERGER: Thank you. Good morning, everyone. I'm Lee Berger. I'm a trial attorney from the Media, Entertainment, and Professional Services Section.

I've been involved in a lot of the recent television broadcast merger cases that we've had, as well as our conduct investigations in the television broadcast space. I'm also chair of the California Lawyers Association antitrust, UCL, and privacy section.

I thank our panelists for coming today, as we focus on a very important question about competition between television broadcasters, cable providers, and digital ad providers.

A key question when the Division analyzes a merger is the extent to which customers view products of the merging parties as substitutes for one another relative to other products that they might buy.

When a merger would result in parties selling a set of products that customers would consider to be close substitutes, the merger could give the parties the incentive and the ability to raise prices. In those cases, the Division may seek divestitures or block a merger to preserve competition and to maintain lower prices.

In this panel, we're going to talk about the extent to which advertisers consider broadcast spot advertising, MVPD spot advertising, and digital advertising as substitutes for one another in local advertising markets.

Advertisers can and do choose to buy all three types of advertising, not to mention a whole host of other advertising services. But our inquiry into the merger does not stop there because we need to know whether the different types of advertising that are used are substitutable or complementary in purpose.

Today we'll address some of those questions that are needed to complete our analysis. I'd like to emphasize that we'll be talking on the panel today about local advertising, not national advertising, which is the potential market that we've been asked to look into when we're looking at television broadcaster mergers.

So, for example, when we discuss broadcast spot advertising, we'll be concentrating on spots sold by local stations within a DMA, not national advertising sold by networks, which are broadcast nationwide.

So I'd like to start by introducing our panel. All the way to my left is Dave Lougee.

He's the president and CEO of TEGNA, the largest independent station group of major network affiliates in the top twenty-five markets, reaching approximately one-third of all television households nationwide.

Under Mr. Lougee's leadership, TEGNA has been honored in recent years for its commitment to local investigative journalism and content innovation, with many national honors, including numerous Edward R. Murrow, Alfred I. du Pont, and George Foster Peabody awards.

Mr. Lougee is the immediate past joint board chairman of the National Association of Broadcasters. In 2015, he was inducted into the Broadcasters and Cable Hall of Fame and, in 2014, he was awarded the First Amendment Leadership Award by the Radio and Television Digital News Foundation.

Next, to my left, is Rick Kaplan. Rick is general counsel and executive vice president, legal and regulatory affairs at the National Association of Broadcasters. Mr. Kaplan is responsible for directing NAB's advocacy at the Federal Communication Commission and other federal agencies.

Before joining NAB, Mr. Kaplan held multiple leadership positions at the FCC, including chief of the wireless telecommunications bureau, chief counsel to Chairman Julius Genachowski and chief of staff and media advisor to Commissioner Mignon Clyburn.

Mr. Kaplan also plays a significant role in the FCC's review of major transactions brought before the agency during Chairman Genachowski's tenure, including Comcast/NBCU, AT&T/T-Mobile, AT&T/Qualcomm, DISH/DBSD, and TerreStar and Verizon Wireless/Spectrum Cohen Cox.

To my right is Marcien Jenckes. Marcien serves as president, advertising for Comcast Cable. In this role, he is responsible for Comcast's portfolio of advertising assets.

Previously, Mr. Jenckes oversaw Comcast Cable's residential lines of business, which include Xfinity Video, Xfinity Internet, Xfinity Home and Xfinity Voice, including strategy and development.

Before joining Comcast, Mr. Jenckes was an entrepreneur, involved with a host of digital advertising and media syndication startups, including Grab Networks and Voxant. He also held a variety of leadership roles at AOL, Inc., where he launched AOL's free web services, including the free AOL.com portal.

Before AOL, Mr. Jenckes worked as a consultant for McKinsey & Company in their media and telecom practice. Mr. Jenckes holds an MBA from the Darden School at the University of Virginia and a BA in economics and political science from New York University.

And finally, all the way to my right is Ty Ahmad-Taylor. He's vice president of business product marketing at Facebook. Mr. Ahmad-Taylor leads Facebook's monetization strategy and global go-to-market efforts for products that connect people and businesses on the platform.

Before Facebook, Mr. Ahmad-Taylor served as CEO of THX Ltd., a global media and entertainment company. Mr. Ahmad-Taylor brings to Facebook more than twenty-five years of information design, more than twenty years of consumer-facing software and product development leadership, along with interactive television services leadership.

He has a diverse portfolio of technology and hardware patents, and has held roles at several startups and large media companies, including Viacom, Comcast, *The New York Times* and Samsung.

I want to thank our panelists for coming today.

So I'm going to start by asking an opening question. Are cable spot advertising and digital advertising good substitutes for the advertising that advertisers buy on broadcast television?

In answering this question, I'd ask each panelist to describe the products that they sell, what advertisers value most about the products that they sell and what advertisers are hoping to achieve by buying their products and how the companies help meet those customers' goals.

After we hear from each panelist, I'm going to ask the panelists a series of questions. And then, we'll have time for the audience to ask our panelists questions as well. So Ty, would you like to start?

MR. AHMAD-TAYLOR: Sure. Good morning, and thank you for having me. I'm super excited to be here, and got into town yesterday and am looking forward to being able to take part in the panel.

We touched a little bit upon my background. And so, I think it sort of makes me uniquely situated to speak on the panel. I've been a journalist working at *The New York Times*, which was a media distribution company. I've also worked at Comcast, which is a global cable operator, MSO, as we know,

I've worked at Viacom, which was a broadcaster, Samsung, which is delivering television — entertainment into your home over television sets. And now at Facebook, I'm interested in connecting businesses to the people that matter most to them.

Across all of that and all of the work that I've done, one of the things that's really stood out is the notion of getting return on ad spend. So as you came here today, whether you drove or caught the Metro or caught the bus, you saw billboards, which is one way of marketers reaching you.

You also perhaps were listening to the radio. So you had radio ads, and that's another way for them to reach you. You may have been watching the NBA playoffs last night, and there were ads there. That's another way for marketers to reach you.

And you may have used one of the products in our portfolio, whether it's Facebook, Instagram or WhatsApp, and that's another way for marketers to get their reach to you.

All of that is really bound up in what we call, and what I think the other panelists might call it by a different name — but what we call the attention economy. And all of us here are part of the attention economy. You can pay attention to your children. You can pay attention to sports. You can pay attention to a newspaper or a magazine that you might read, if you still have physical newspapers and magazines that you read.

And all of those items are vying for your attention. And marketers and advertisers are also vying for your attention. And they're trying to find the touchpoints where they can get the greatest return on their spend to capture a portion of your attention.

And so, we have something internally called the KX funnel, and other marketers may just refer to it as the funnel. But basically any marketer is trying to grow their business and they do that by making you aware of the business, then making you consider that particular brand and then the bottom of the funnel is really what we call conversion, which is where you actually buy the service or product.

And so, to give you a practical example, if you are say, for example, the state tourism board for the State of South Carolina — and this is hypothetical; I don't know them personally — you might want to make people aware of the fact that there are plenty of things to do that are interesting in South Carolina, and that would be the awareness layer.

Then, if you're a particular airline that wants people to fly on your airline to South Carolina, you might say, hey, we're actually offering deals on trips to South Carolina, and that would be the consideration layer.

Then the actual purchase of the ticket itself is conversion. And that can happen whether it's a half-hour infomercial that you see late at night. It can happen if it's a newspaper ad that has a 1-800 number. It can happen if it's a digital property that then allows you to buy the ticket directly on the website or app that you're using.

But all of these are competing with your attention through the funnel. And we, and all of my distinguished colleagues on the panel, are competing for your attention across these points in the funnel on an equal basis. Some formats work better. Like television is really quite good for top of the funnel and for consideration. And some of them are really good for the conversion component. But we're competing equally across all of the formats that we've discussed.

And so we compete — in the competition for advertising dollars at each stage of the funnel, we view that we are a likely substitute or a swap for both television, for print, for cable advertising and for other types of media or billboards even that might compete for your attention.

And brands can figure out if they're actually converting by looking at their efficacy across these different channels. And different channels, as I said, do different things.

In the local Chicago market, for example, as I understand it, if a fast food restaurant does not advertise on an ongoing basis in the local Chicago market, they will see sales dip by twenty percent. And the reason that they're advertising on local television is because of awareness. Like, oh, I'm hungry. I should go eat at that fast food restaurant.

And again, that's a type of brand or consideration and awareness advertising that takes place there. We may not be the best vehicle for that. But we're trying to compete to get those dollars as well.

And so, advertisers on the whole, when they're thinking about attention and the return on ad spend, they track their conversion, and they track the attention. They track the benefits and uptick in sales that they receive across each one of those channels.

In the case with Facebook and with Instagram and with WhatsApp, you can shut off your advertising with us at any moment. Nobody's beholden to a long-term contract to spend money with us.

So as a result, because of the immediate shutoff, again, we're fiercely competing across all of these channels through the vertical every single day to make sure that we're delivering value. And again, we hold our competitors in high esteem. But it is across each one of the channels that I mentioned. Thank you.

MR. BERGER: Thank you, Ty. Marcien?

MR. JENCKES: Thank you for having me, and thanks to the Antitrust Division and the Department of Justice for allowing me to be on this panel. And thanks, Ty, for your comments as well.

I'm going to do something similar. I'll talk a little bit about just what we do. So I represent a group called Comcast Spotlight. Comcast Spotlight sells media at the local, regional and national level for Comcast. We're also a rep firm. So we sell media for other people at the local, regional, and national level. And we sell a lot of digital.

I think one of the things for everybody to understand is that there isn't such a thing called television over here and such another thing called digital over here. But rather we sell them both to a great degree both as substitutes for each other and as complements for each other.

With that kind of as a little bit of background, there's obviously a lot of change in the marketplace. And we see it as highly competitive, with broadcast cable, digital and other media competing for a finite set of advertising dollars. And this is something else that I'll kind of point out.

Total advertising spend in the marketplace has over the course of the last fifty years grown at GDP. And so, to the degree that somebody takes advertising dollars out of the marketplace, they're taking them from somebody else. That kind of feeds this competitive dynamic. We feel that competitive pressure every day.

There are three trends I want to hit on that I think will be relevant to the rest of the panel. The first, and I'm sorry, Lee, I think it's a mistake to view the so-called national advertising as somehow fundamentally different from regional and local advertising.

In my view, it's inaccurate in today's marketplace to draw hard and fast lines with these sorts of category definitions. The situation is much more fluid. On the supply side, from an inventory perspective, it's the same inventory that sometimes we will sell in a national way; sometimes we'll sell it in a regional way; sometimes we'll sell it in a local way.

But on the demand side too, advertisers weigh tradeoffs in deciding which type of advertising they buy. They typically face one particular tradeoff between effectiveness and cost. And by effectiveness, I mean how good is a particular media at reaching specifically the homes that you're trying to reach.

And so, there's a dynamic where everything else is equal, more targeted ads tend to be more expensive on a per household or per impression basis while less targeted ads tend to be less expensive.

But two advertisers seeking to reach the same target audience may reach different judgments about how to balance a tradeoff between price and waste. And so, just to make it real for everybody, as an example, an owner of several franchises can choose to buy media regionally in order to support those franchises. They might pay more on a per impression basis, but there's a lot less waste. Or they might choose to buy media nationally, where, relatively speaking, they pay less for an impression. But there's more waste.

In our case, we see it all the time where advertisers switch between local, regional, and national advertising or to digital outlets, showing their substitutability.

The second trend I wanted to talk about is how the advertising market has really changed, and we see it every day, from content-based selling — so this is where people would sell a particular show or a network — to audience-based selling, where people are trying to reach a particular audience that's important to them to drive their business.

This also has blurred the line between different types of media. Any platform that can be used to reach a particular audience is potentially a substitute for another platform, as Ty was saying, that reaches the same audiences.

Any consumer that an advertiser might be trying to reach can be reached through a variety of different outlets — broadcast, cable, websites, apps, digital video platforms, and all sorts of other kind of digital video or non-video services.

There's a really high overlap between all of these media types. Only fourteen percent of TV households are broadcast-only. And the substantial majority of those households are internet-capable since ninety-five percent of all U.S. residents live in a household with Internet access. And so, the ability to reach these audiences between different media types is quite high.

Finally, advertisers — and this is something that Ty hit on, they've shifted focus away from I'm going to buy this type of media or this type of media. And they instead think about the return on their overall media spend and how spending on different types of media as it relates to delivering the results that they're trying to achieve.

Remember again, they have a fixed budget, right? So their budget doesn't expand whenever they want to try something new. And within that budget, they're trying to optimize against the various options that they have — billboards, radio, digital, TV in its various different forms — in order to try to achieve their objective. And for any particular advertiser or any particular campaign, that mix can change.

For all of these reasons, I see advertising as a very broad and dynamic marketplace where broadcast cable, digital, and other media all play a role and all compete with and place constraints upon one another.

As a businessperson in this environment, I think it's essential to take a holistic perspective on the advertising ecosystem and not view different media within silos. I encourage the Antitrust Division to consider seriously this more realistic view of the marketplace.

MR. BERGER: Thank you, Marcien. Rick?

MR. KAPLAN: Thank you, Lee. Good morning, everyone. And on behalf of the National Association of Broadcasters, I'd like to thank Assistant Attorney General Makan Delrahim, Lee, and the whole Antitrust Division for putting on this very important event.

I thought the role I could fill on this panel here today is we have these experts who could talk about the good points made already, and I'm sure Mr. Lougee will make some more.

Lining it up for the conversation broadcasters' view of the marketplace versus how DOJ sees the marketplace — that might help frame some of the discussion and where some of the disconnect is from our view. Because few issues, for us, are more vexing than how narrowly the Department of Justice defines the video advertising marketplace.

From our perspective, DOJ has the same view of the broadcast TV marketplace today as it did in the '70s, '80s, '90s. Never mind that cable and satellite providers now offer hundreds of channels of high-quality content and never mind that the Internet has thoroughly upended the way its consumers access and engage with video offerings.

And finally, never mind if we polled the first 100 people walking outside this building on the street to ask them whether or not they could distinguish between broadcast TV, cable, satellite, OTT video, we'd be lucky to probably find even just one.

So where's the disconnect? I thought today I'd look at a little bit of DOJ's view, how DOJ outlines in its complaints the things when mergers come before it and compare it to where we are.

DOJ typically begins a number of its complaints in this area by noting that broadcast TV is unique because spot advertising combines sight, sound, and motion in a way that makes television advertisements particularly memorable and impactful.

Of course this premise, while certainly flattering, would be difficult for DOJ to prove in court. But even if it could, one would think that the same rationale would apply more broadly, as you heard earlier, to cable, telco and DBS advertisements.

But DOJ to date has said no. While those are technically TV also, those alleged competitors don't count because TV stations have a greater reach than other platforms. But it's a little confusing because the term reach in this context is tricky. DOJ is not saying that the entire market watches broadcast TV; rather, reach describes how many people can theoretically watch broadcast TV.

And the relevance therefore of this metric somewhat escapes me because theoretical viewers don't sell spots or earn ad revenues. I'm sure Joe Di Scipio sitting back there would love to do that. But only actual viewers sell those spots.

In fact, MVPDs, like Comcast, also reach nearly 100% of homes in most DMAs using that same definition. You can subscribe anywhere you like, just like you can purchase an antenna in most areas of the country and receive broadcast TV. So reach isn't really the issue.

But DOJ uses this notion of purported reach to argue that broadcast TV advertisements more effectively introduce and establish the image of a product. I think it's what Ty was alluding to before.

This is DOJ's way of suggesting that broadcast advertisements serve a different function than say maybe cable ads. If everyone in a DMA can see an ad, perhaps that's a good way to generate brand awareness. But again, DOJ conflates reach with viewers. DOJ never addresses the fact that only a very small percentage of even those highly watched broadcast TV programs reach viewers in the first instance.

And beyond this incongruity, DOJ's view is also noticeably lacking in support. On what does it base this social scientific claim? And also, why ignore other forms of advertising?

I think Ty mentioned the attention economy. So wouldn't a guerilla street marketing campaign do the same thing? How about a widespread local media buy on Google? Or what about naming rights to a local high school football stadium? Those all build brand awareness. And DOJ to date has ignored those options that undoubtedly broaden the relevant marketplace.

DOJ does get around to talking about actual viewership and claims that broadcast TV has superior ratings points. This statement however tells us nothing about who participates in the relevant product market, from our standpoint.

For advertisers, the bottom line is getting quality impressions at the best price. A highly rated TV program may be more expensive — think about the Super Bowl.

However, since there's fierce competition in the marketplace, if that program is too expensive, advertisers can, would and do reach the same number, if not more people with a plethora of less expensive options. MVPDs and digital advertising alone offer seemingly endless cost-effective opportunities for advertisers.

Speaking of digital, digital advertising on its own has completely changed the game. I think we've already heard some of the ways that that's happened. Digital takes things to a whole new level. It's ubiquitous, targeted, has very low barriers to entry and it runs the same advertisements that broadcasters do.

Unfortunately, to date, DOJ has refused to budge even in the face of this digital revolution. Without missing a beat, DOJ has already repeated rejected requests to include digital in the broadcast TV marketplace, explaining that online ads can be skipped, minimized or blocked.

But I'm going to let everyone in on a little secret. Mr. Lougee may be upset with me about this. But with broadcast TV, our version of skipping, minimizing, or blocking is grabbing a snack from the fridge, disappearing to the bathroom during a commercial break or even just hitting fast-forward on your DVR.

In fact, in most cases, it's harder to do an end-run around a digital ad because often you can't even get to the highly desired content without first playing one or more advertisements.

And so far, DOJ has failed to recognize what droves of advertisers have. Digital advertising can provide quality impressions less expensively because the targeting and tracking capabilities of digital ads make them more cost-effective.

After all, advertisers have limited and finite budgets and today can spend them on digital platforms targeting consumers that they really want to reach.

Hopefully though, DOJ's decision to hold today's workshop suggests that it's finally poised to evolve from this somewhat antiquated view. We now live in a digital world, and broadcasters are certainly no exception.

There is a very high cost to the American public if DOJ fails to update its broadcast TV market analysis, which is why this is so important. We can no longer operate in a bubble. With the dramatic decline of newspapers, broadcasters are one of the primary investors in local communities.

Broadcasters take their public interest responsibility seriously. But local stations must compete successfully for ad revenue to meet their obligations and commitments to cities and towns across the nation. Thank you.

MR. BERGER: Thanks, Rick. Dave?

MR. LOUGEE: Thank you, Lee. I want to thank you and Assistant Attorney General Delrahim for holding this panel on this important topic and inviting me to participate.

Our company owns or operates forty-nine broadcast TV stations across the U.S., as well as a number of digital platforms. And as you stated in the intro, I recently served as a joint board chair of the National Association of Broadcasters. I've seen tremendous changes during my thirty-plus years in the industry, and I'm pleased to be here to talk about some of them.

We are talking about a very important topic at a very important time for the reason that Rick just mentioned in his conclusion. As the broadcast and other communications industries experience unprecedented rapid change, a proper understanding of the market dynamics in spot advertising is essential.

An overly restrictive antitrust view continues to impede broadcast transactions, even as broadcasters' competitors for viewers and advertisers are rapidly increasing their already massive scale, unimpeded by regulation.

This administration has taken aim at overregulation. In the antitrust context, the

Assistant Attorney General has explained that the Division, under his leadership, will avoid substituting central decision-making for the preferred free market while ensuring that transactions don't harm competition.

A critical tool for doing so is an accurate, updated, and forward-looking understanding of the actual marketplace; in this case, the marketplace for local video advertising, as Lee wants to define it.

We are not here, at least I'm not here, to re-litigate the past. As you know, many of my colleagues and I in the industry have believed for some time, and for the reasons that Marcien just went through in detail, that a modern market definition of spot advertising is broader than just over-the-air stations and for a long time should have included large and sophisticated cable interconnects that provide local advertisers broad reach and inventory on nearly a hundred channels in a local market.

But, with the explosive growth of digital media, the local video advertising landscape has changed so fundamentally that those old debates are now largely beside the point.

Simply put, high-speed broadband to the home and high-speed broadband to the phone has changed everything in the marketplace. With the rise of 4G and unlimited data plans, every screen is a TV. To my nineteen-year-old son, a mobile phone like this is his TV. His viewing of over-the-air television stations in the past year can be counted in minutes, not hours. But like much of his generation, his viewing of long- and short-form video programming on his mobile device can be counted in weeks. True.

And for some time now, those video consumption patterns no longer are restricted to younger consumers. Today mobile broadband covers 99% of the U.S., and approximately 87% of Americans own devices that can access mobile broadband. And of course, that number is growing by the day.

And fixed, wired broadband to the home is now estimated at 82% and also growing. So, think about it. You have a household with four people in the household. There is a broadband pipe that's wired, and there are four more broadband pipes with each of your mobile devices.

With the onset of ubiquitous high-speed Internet service, there's been an explosion of platforms and applications with video advertising capabilities that consumers and advertisers have flocked to, whether they're massive players like YouTube or Ty's company, Facebook, or a long tail of mobile applications and services that consumers value, with more being added every week.

To the point of this hearing, I recognize none of that would matter to the guardrails of this hearing if all this valuable video content was not available to the local advertiser to reach their target customers with the same exact ads. But that's the critical change I want to emphasize today to the Department.

In just the last few years, this has been the most dramatic change. Today they are available. And local advertisers are buying them en masse. As a result, there's no longer a question that these digital options aren't just complements, but substitutes for local advertisers.

Let's look at it through the lens of a local advertiser and how he or she views their advertising options. As Marcien said, they have a fixed advertising budget. Their goal of that budget is to maximize the return on their advertising investment.

It's worth noting that they have an enormous amount of effective options, more than ever, to reach their target customers beyond video ads, including direct mail, paid Google search, radio, et cetera, and they use those options, more than they've ever had before.

But with respect to their video advertising, they are targeting customers and audiences, as Marcien said, not programs. They're after their target customers and their audiences. They can buy from a local broadcaster. They can buy from the cable interconnect. And now, a plethora of targeted digital options. For instance, they can go onto Facebook, Ty's company, and through self-service, place that same video ad against a very broad menu of targeted audiences of every generation and geography and factors that they want to meet.

The same identical dynamic holds true with YouTube. And based on Facebook and YouTube's annual video advertising revenue numbers and growth, it's undeniable how local ad dollars are flowing to those platforms out of fixed advertising budgets.

But it goes far beyond Facebook and YouTube. At our own company, we've created a company called Premion that provides local advertisers the ability to place that same video ad inside high quality, long-form video programming like Discovery programs and A&E on their own digital platforms, as well as their distribution on a number of popular OTT services such as Sling or the Sony PlayStation.

Through Premion, we reach consumers on their smartphones, their PCs, and their connected TVs. It's our fastest growing business for a reason — because that's where consumers are going and the local ad dollars are following.

Many of our competitors are now offering similar services, and there are numerous digital ad exchanges and demand-side platforms that are available to any local advertiser to reach their customers with highly sophisticated targeting with, again, the same video ad.

The advertiser will assess the relative price offered for their video ad from each of broadcast, cable and digital and, as Marcien said, the tradeoffs involved relative to price and targeting. And buy any combination of all three, two, or one. It is one highly interchangeable video market now.

So, in other words, if broadcasters raised their prices, advertisers can, will, and do take their dollars elsewhere. Their customers are on all three of these platforms and can be reached on each. But they're now all reachable on digital, with the small exception of a small percentage of Americans over the age of fifty-five, like myself, who, sadly, advertisers don't covet.

(Laughter.)

MR. LOUGEE: In summary, advertisers over digital platforms now show ads that look exactly like traditional TV ads, over platforms that are growing viewership rapidly and enjoy extremely broad reach, along with the ability to focus on particular locations or other characteristics.

These ads are powerfully competitive with over-the-air broadcast ads in the local ad market and, as competition only grows, it's about supply and demand. Supply is being added every day by these digital platforms.

I hope you find this perspective useful and I hope the Division will consider these factors in analyses of future proposed transactions. I look forward to answering your questions and participating in today's discussion.

Discussion/Question-and-Answer

MR. BERGER: Thank you, Dave. So I want to start by trying to zero in on what type of digital advertising we're talking about. This question's going to be for Ty and for Dave.

The question of market definition is not just about whether different platforms compete in a general sense, but instead whether different platforms are close substitutes, close enough to prevent a price increase that would arise from a merger.

Now, when we're talking about broadcast and cable spot advertisements, we talk about, as Rick was referencing, a common format. They're short videos, typically fifteen or thirty seconds. They combine sight, sound, and motion and are generally seen as ideal for brand-building; that is, the top of the funnel that Ty was referencing, rather than conversion, which is the bottom of the funnel.

Digital advertising can come in various types of video. But it also can be display ads that have some or no motion or no sound or search term promotion or other forms.

When we are considering the question of whether digital advertising provides a good substitute for broadcast spot advertising, should we consider all digital advertising or just certain types of digital advertising?

What types of digital advertising can provide the same functionality as broadcast spot ads? Do either of you believe that online digital advertising of all sorts, even advertising that's not tied to video content, competes in the same market with local broadcast spot advertising? Ty, do you want to go first?

MR. AHMAD-TAYLOR: Sure. So what you're talking about is the format or the container and whether that dictates how the advertising is received and the value that it brings to bear. For those of you who are familiar with digital marketplaces, there are a bunch of brands that have sort of grown up in the digital space that do no advertising whatsoever in traditional television advertising.

So, for example, there's a men's pants company that sells exclusively — and I'm not supposed to name anybody — there's a men's pants company that sells exclusively online. There's a way to get men's shavers that was recently bought by Procter & Gamble that sells exclusively online. And then, there's an eyeglass manufacturer that also sells exclusively online.

Those brands have never engaged in the video space, or traditional video space, to drive their brand. They've built their brand through other channels. And that's available to any advertiser, large or small. And so, what we've found is that the advertising experience has to match the user experience.

And so, by definition, if you're watching linear video that's not subscription-based, or even if it is subscription-based, the best ad format that's going to fit into that is more video. You're not going to put a static ad in the middle of a TV show or a commercial.

That having been said, whether it's a thirty-second spot or a fifteen-second spot, that same spot can run on our platforms or on Google's platforms as well, whether it's YouTube, and other platforms of that sort, without being repurposed.

What we found is that best practices dictate that you modify it slightly to fit the medium in which you're displaying it. But we take thirty-second ads and fifteen-second ads and show those, to use the exact precise term, until the cows come home. Like we're happy to do that.

And so, you can use different ad formats, whether it's video or text or images or slightly animated images to achieve the same objectives, whether it's the top of the funnel, which again is awareness, consideration in the middle of the funnel or to actual conversion.

And you see that again with the late night spots that I mentioned before, which are what we call in the industry infomercials. You may know them as infomercials as well. Those are actually just driving you directly to conversion because at the end they constantly broadcast a phone number or a website that you can go to where you actually convert.

And so, I think that they're both substitutes because you have to think about the scale that they offer. Dave mentioned sort of the scale and scope that's offered through broadcast television. And you see that same scale and scope offered in the digital realm.

And so, for advertisers who are considering the top of the funnel, which is what we traditionally would call brand-building, they're just looking to capture people's attention in a way that is effective. And they can do that across multiple media using different formats that are germane to the media.

But I would not conflate the media itself or the medium with the advertising effectiveness. They're independent. And you have to sort of spend time where people spend time, in the way and format that they're used to, in that format. And so, the equivalence in format is not the same as the effectiveness of the desired outcome. And that's what I'd leave you with.

MR. BERGER: Thanks. Dave?

MR. LOUGEE: Yeah. So I would agree with a lot of what Ty said. He said it better than I could relative to let's say non-traditional video ads. So I'll confine the answer to — I mean, I actually don't accept the premise that it's just a video advertising definition. But for the purposes of this panel, I will.

But absolutely television video advertising is not just about brand and awareness. Obviously, it does work well for brand and awareness. But it's conversion too. If an auto dealer is trying to move cars at the end of the month, they'll have ads on Thursday and Friday that are conversion ads and they will choose the medium that is perhaps the most successful.

And I understand back [in] the early days of broadcasting when there were only four pipes or channels coming into the house, that the only way to reach those eyeballs were those big four TV programs. But that has obviously changed dramatically with cable.

And now, let's just take — and I know this is a layered question, Lee — but just about the form of the programming. Long-form doesn't necessarily mean higher quality to the advertiser.

Quality impressions are quality impressions. Let me give you an example. Last week, if you're a basketball fan in Portland, Oregon, their star guard made a thirty-seven-foot shot to win the seventh game of their seven-game finals.

That was the thirty-second highlight on the ESPN app that night. They might have been the most invaluable engagement impressions available to an advertiser. So having a local pre-roll on that ad, which local advertisers can on the ESPN app, is incredibly valuable content and impressions. So it just speaks to why the video ad marketplace is becoming entirely a substitute now.

MR. BERGER: Great. Thanks, Dave. So, the next question is for Marcien and Rick. When thinking about cable spot advertising, we generally think about it in two flavors.

We think about DMA-wide spots and we think about local zone spots. DMA-wide spots reaching every cable customer or MVPD customer in a DMA, while a local zone being more geographically targeted. If an advertiser seeks to reach the entire DMA, can a local zone cable spot be a good substitute for DMA-wide advertising?

Are there digital products that can be targeted individually to a DMA? And if so, can those products be used to reach all households in a DMA, like a broadcast television spot can? Or to target subsets of a DMA, similar to a cable local zone ad? Marcien, do you want to start?

MR. JENCKES: Sure. Of course they're substitutes for each other. So, I covered this earlier. From our perspective, it's the same inventory that we sell at the DMA level or at the local level. So that I think by definition makes it a substitute. But then there's also the example I gave earlier about the tradeoff between cost and efficiency, right?

So if you are a local advertiser in a particular DMA, you can target ads closer to where your stores are and pay more for those ads and get a little bit less waste or can target across an entire DMA and take the other side of that tradeoff. And this happens literally every day.

I'm going to give you kind of a very real example. So we work with an auto advertiser who had a single location in a DMA and did a lot of zone advertising around that location. They then added a second location, different part of the city.

And so, their natural initial reaction was let me go and advertise at the DMA level. Well, what they realized is that most of their customers were coming from particular ZIP Codes within that DMA. And so, then they made the tradeoff to go back to a multiple zone advertising in order to attract, in the most efficient way for them, the audience that they were trying to reach.

It's literally the same thing, just configured in slightly different ways and making different tradeoffs, all trying to optimize against ROI. And the two are very much interchangeable in the advertiser's eyes and that we see that every day.

So then let me hit on the second thing, which is can you target a digital ad at the DMA or sub-DMA level. And the answer is of course you can which is again why that is a total substitute to the same products that we have in the marketplace today. And we do that ourselves.

Similar to TEGNA, we have products in the marketplace that are entirely digital, which sometimes our customers will buy as a substitute to traditional television and sometimes are bought as a complement to get incremental reach on a particular other buy that they've done.

The ability to reach these audiences across all of these different kinds of cuts of the media is very fungible. And we see them travel back and forth between them all the time.

MR. BERGER: Rick?

MR. KAPLAN: Well, I agree completely. I mean, that's how advertising works. And I think this gets back to my opening statement, which is this illusory concept of reach. It doesn't matter who if the broadcasters have a big stick in a market and they've sent a signal out.

But what Marcien's talking about is folks are looking for, and advertisers are looking for who are they actually going to reach. Who's watching? Where are they watching? What are they interested in? So the notion that you could blast out a signal far and wide doesn't actually do anything on its own. And this is why they're substitutes.

So as Marcien said, cable is obviously ahead of broadcast in that it's able to kind of switch between these two. Broadcast is actually working to catch up, if anything — so in fact not the market leader here. In fact, looking to try to duplicate that because cable in this case is able to target or do DMA-wide if they want.

So if they want this broad reach, to try and throw it out there, see who gets it, that's one thing. But that's not really where advertisers are going. We've heard that I think from more than one panelist to this point. They're looking for more data. What can we learn?

And that's actually where the digital question, Lee, that you asked comes in and that's where Ty's company — they're able to learn a lot more, a lot more quickly about the folks that advertisers are trying to reach, their future customers, and put those ads, those video ads that Dave talked about right next to the thing that you happened to be looking at that day. That might be relevant to you and the ad could be targeted to that.

So that's what people are looking at, not this generalized notion of reach that you can theoretically get to a number of people. But [what] they're looking at, what they demand of Dave's company and all of my member companies, is what are you delivering.

What's that return on investment that Marcien mentioned? And that's why they are going to look for, if you can't deliver it at the end of the day, if the TV spot can't, then they're going to go over to the cable interconnect or they're going to go over to Facebook.

MR. BERGER: And Rick, just to follow up on that, so when the salespeople at the broadcaster companies are selling their product, they're telling the advertisers that I have a rating, which is based on the reach of my product and the number of people that are then calculated to have then seen it based on the reach of the station. So isn't that the product that's being sold by the broadcasters? Or Dave, do you want to take a —

MR. LOUGEE: Why don't I take this one? Every platform is going to try to sell the merits of its platform. I'm sure Marcien's salespeople are saying every day how much more targeting they have and, frankly, how much more reach they have.

So what your records may show about what salespeople are trying to sell about their particular enterprise, they're salespeople, okay? I know your next question is on reach, which gets back to Rick's point. It's a very different story.

MR. KAPLAN: Yes, so, I agree with Dave that, yes, you just described what a salesperson tries to do — make the best case for what they're trying to sell. But the reality of what they know is they're going to say, hey, this is the ratings. This is the cost based on those ratings.

But the reality is they know that if they drive that cost up too high, there's plenty of other places for the advertiser to go. So the formula is correct. So now we've moved from reach to ratings, which is what I would call actual reach, which you're correct in pointing out.

But again, that doesn't speak to whether it's a substitute or not because, at the end of the day, if that's not appropriately priced and it's too expensive, then they're just going to go down the street to the competitors.

MR. JENCKES: All of these involve tradeoffs, as we talked about before —

MR. KAPLAN: Right.

MR. JENCKES: — between the value that you deliver and the costs that are around it, and they are all substitutes for each other.

MR. BERGER: Well, so let's talk about the question of reach within a market. And this is a question for — let's start with Dave and Marcien. So if an advertiser wants to reach an entire DMA, the broadcaster spot can generally reach all households in an entire DMA.

But an MVPD's reach within a DMA varies, in virtually all cases having fewer households that the MVPD touches than the broadcaster. Even when they're operating through an interconnect and they, through the interconnect, bring together a number of

MVPDs, they still don't have the total reach of a broadcast station within a particular DMA.

So how does the difference in reach of broadcasters and cable advertisers affect how advertisers view them as substitutes? Can cable spots provide advertiser customers with comparable products as broadcast spots, given that difference in reach? And as cord-cutting and cord-shaving increase and cable programming penetration within a DMA decreases, does that render cable spot advertising less competitive than broadcast spot advertising? Dave, do you want to start on this one?

MR. LOUGEE: Yeah, sure. I'll start. I think I want to go back to Rick's point. I think there's a very misused word, the use of the word reach.

MR. KAPLAN: Yeah.

MR. LOUGEE: There's a theoretical point that a household could turn on our channel. Okay, just like Marcien's system goes by every house that they could theoretically sign up. But just because my channel reaches a household doesn't mean it ever watches it, okay?

And in fact, to deal with just cable before we talk about digital, some of these interconnects — I think in our market they average around 74%. I think, Marcien, with your cable plus here in the D.C. market — tell me if I'm wrong — you promote you reach 92% of the market, right?

MR. JENCKES: That's right.

MR. LOUGEE: None of our stations come close to ever having ninety-two percent reach. And when you look at it on a ratings basis, which is the way to look at it, right — so Marcien's running spots on the hour on ninety-plus channels.

The aggregate rating points, and hence the people reached, right, and added to Nielsen's definition of reach, all the broadcasters in the market, in these major markets don't reach more consumers than his systems do.

Okay. So yes, our salespeople do go sell reach. But the more progressive companies now, we're selling a lot more than that. We're trying to move the customers' eyeballs and we don't go in just with selling our television station. We're selling these digital products, our own, and reach extensions and the like.

And I think you're asking in the question, too, about how can cable sort of replace that reach with an interconnect. So, the answer is yes. Ad exchanges can reach — with IP addresses — everybody. So to Marcien and Ty's earlier points, the advertiser doesn't want to reach the whole DMA, Lee. They want to reach the people they want to reach, right?

And so, they may put more value if let's say they're a tier two auto association. They might put more value on targeting 30,000 people who are clearly auto intenders than 80,000 people that's just a broad shotgun.

MR. JENCKES: I mean, I agree. Maybe what I can do here is just let me provide an example. So you're right. A single cable system may sound like it's disadvantaged from a reach perspective.

But as you have said, we do the interconnects, and that gets us closer. But then, just to say something on actual viewership, 70% of actual viewership for somebody that has access to both cable networks and broadcast, happens on cable networks.

By comparison, 25% happens on broadcast. And what we do is we aggregate audiences across all the 60-plus or 100-plus networks that we insert in. So if a relative rating is smaller, it doesn't matter because you can stitch up ads that exist across all different types of cable audiences to reach the folks that you're trying to reach.

So here's the example. An advertiser comes to us and says I can go to the CBS local broadcaster and reach — I'm going to go to actual numbers — so 208,008 people that I'm targeting, right? So it's not even just any people. It's the folks that I'm trying to go out and reach.

And I can go to the ABC affiliate and I can reach 218,474 people. I can put that advertiser across twenty cable networks and allow them to reach 237,031 people. And we do this every day. And the same applies not just within kind of the television environment, but also in the digital environment.

You can go out and even if you don't manufacture it yourself, you can go out and buy ad avails in the open market to piece together an audience of this size in any given DMA. That's just the way it works.

MR. BERGER: Thank you. So the next question is for Rick and for Ty. I want to talk about the actual quantity of ad-supported cable and digital video that's available.

I want you to assume for the purpose of this question that advertisers consider DMA-wide cable spots and DMA-wide digital advertising that's attached to high-quality, long-form video to be good substitutes for broadcast spots.

Some data analyses have suggested that about 80% of video viewing is through traditional TV, broadcast and MVPD, either live or time-shifted, leaving about 20% for TV-connected devices, smartphones, PCs, and tablets.

A lot of that 20% is accounted for by Netflix and Amazon Prime, which don't have advertising. Much of what's left consists of short-form YouTube videos, which does not have the same appeal for advertisers as long-form products on television.

How much high-quality digital advertising inventory is actually available as compared to broadcast and cable advertising? and is most of that inventory fragmented across sellers, making it hard to execute a buy with broad reach in a particular DMA?

Is there sufficient inventory of additional DMA-wide cable spot advertising or DMA-wide high-quality, long-form digital advertising to provide a realistic alternative to the needs of more than a small number of advertisers who are currently purchasing broadcast spots?

And then, also for Ty, Facebook has recently introduced Showcase, its new premium video ad program. How will products like Showcase affect the current lack of digital advertising inventory attached to high-quality, long-form video? Ty, do you want to start?

MR. AHMAD-TAYLOR: Sure. I unfortunately have to go back and re-invoke the notion of an attention economy, which is essentially that the choices that advertisers make are not binary with regards to whether I'm going to do digital video or whether I do broadcast video or cable video.

They're more influenced by their ability to achieve their objectives across the funnel, whether it's awareness, consideration, or conversation. And that's irrespective of the format that delivers those results. And what we've found, and I'm sure Marcien would say the same, is that the most sophisticated advertisers are moving to actually measuring outcomes.

Did the person buy my product or service? And that's a trend that we're going to see accelerate over time. And that's on the advertising side of the industry.

On the media side of the industry, none of these things are binary. While some things may not be perfect substitutes, what you find is that people never flock individually to a single art form.

So historically, when radio existed and TV was coming on the scene, people were like, oh, that's going to destroy radio. And I think that we all still listen to a lot of radio.

And then, when satellite radio came about, that was also a threat to traditional radio and it turns out that both are still flourishing. And with radio and with television and with billboards and with the digital advertising market, all of these media exist overall.

And I now have the great opportunity to invoke Maslow's hierarchy of needs. But from a consumer perspective, what they're really interested in is can I be entertained.

And so, entertainment can come across multiple forms and multiple touchpoints. Marketers are leveraging the consumer desire to be entertained to get their marketing message across. And that's again irrespective of medium and more closely tied to the objective that takes place.

And so, one of the things that advertisers are looking for as they look at understanding the reach that they have across formats is a product that Nielsen has, which is total audience rating points, which includes not just broadcast and not just cable, but also the digital marketplace as a single ratings system to understand things that occur on our platforms, on Google's platforms, digital ad services, on broadcast platforms and on cable platforms so they understand the efficacy of their total spend.

And that number is a super important number because it does show you the total reach and how you're reaching folks. But more importantly, it suggests that people are being entertained across all of them because there's an equivalent number that we can use to assess all of those platforms through a single lens. I think that's value to know and to understand.

With regards to Showcase, for companies that are growing in their sophistication with regards to their ad techniques, they still need an onramp, if you will, or a gateway product to be fully immersed in digital ad-buying techniques.

So Showcase mimics the buying process that many advertisers and marketers use with traditional cable and broadcast television and then drops it into a digital realm using some of our long-form videos so that they buy it in the same way that they would buy traditional television or cable television.

And so it's creating a more facile interface for traditional marketers to be able to buy our products. And we view that as a gateway product to getting them to more fully consider outcomes, which is what the entire industry is trying to do.

MR. BERGER: Thanks.

MR. KAPLAN: Yeah. Just picking up on that last point, your question about the fragmented nature potentially of the digital realm, and I think Marcien talked about this. People figure it out.

So Facebook is saying it's in their interest, right, to make it as easy as possible. So yes, if I tried to figure it out on my own, but that's not the way it works, right? So if you go to the cable interconnect, they'll piece together what you're looking for, for you to have that reach.

Same thing with Facebook. They're developing products to — when you go and you want to advertise, okay, this is how you reach these people. These are the outcomes that you're looking for, and we'll find it.

So the fragmentation does not impact the advertiser. It's just a problem to solve for, in this case, Facebook or for the cable interconnect. And they do it because it's in their interest. And that's why you can go and figure out. And frankly, it's really telling, a lot of this conversation, especially when we talk about the digital side, but even the very mature industry on the cable side, the amount of targeting that goes on.

And so, in fact it sort of flips the DMA reach concept on its head because where the ball is moving and where the dollars are moving is all to how much you can target, where you can go.

And those are things, again, if you look at the actions of broadcasters, we're trying to catch up there. That's where we're trying to go because that's where these folks are able to deliver this value. And the fragmented nature is not a limiting factor on them.

MR. BERGER: Thanks, Rick. All right. Next question is for Dave and Marcien. A key factor that advertisers think about when choosing platforms on which to advertise is the number of viewers of the programs to which the advertising is attached.

In television, this is often measured by ratings. Broadcast television typically has most of the highest rated programming shown on television — major sporting events, local news, and primetime television. These higher ratings are so substantial that in the evaluation of station combinations, the FCC differentiates between two four stations and lesser stations, having a top-four rule which usually applies to affiliates of Big Four networks — ABC, CBS, NBC, and Fox.

On the other hand, some cable networks occasionally show highly rated shows — *Walking Dead* on AMC, certain sporting events on ESPN or regional sports networks and other examples.

These highly rated shows often make up a small percentage of the overall programming on those cable networks and usually are only included in one or two of the top 100 programs shown on television.

Looking at the ratings broken down by demographics, broadcast television tends to have more highly rated programs across a broad demographic reach, while cable programs and digital content tend to have smaller audiences and appeal to narrower demographics.

How do the ratings of broadcast television and cable television programs affect advertisers' willingness to substitute a cable spot for a broadcast spot? For example, is a broadcast spot with a 5 rating better than twenty cable spots with a 0.2 rating because of duplication and excess frequency?

Is there any Internet programming that features digital ads that obtain audiences that are comparable in reach to broadcast programming? And how does audience size of digital ads affect advertisers' willingness to substitute digital ads for broadcast spots? Dave, do you want to start?

MR. LOUGEE: Yeah. Lee, I really appreciate the question because I actually think the premise of the question is the falsehood under which the current regime — under which the current DOJ rules are being based.

As I said earlier and Marcien said, advertisers are buying audiences. And it's true on a national level. In fact, the broadcast industry puts it out, when you talk about the highest rated programs. That's not actually always true on the local level.

I can guarantee you last week that our ill-fated game seven of the Caps was one of the highest rated programs in the marketplace, right? And in fact, other than the NFL, almost all highly rated local sports is only available on cable. So there's just that premise that doesn't hold true.

But more importantly, to the point, it's no longer about buying programs. It's about aggregating audiences in environments and impressions. So when you talk — my highest rated station — I won't name the market — will walk into an advertiser and have that conversation around reach.

That salesperson does not have the reach that Marcien's salesperson has in the same market because when they walk in, they are, as he said, selling eighty-five, ninety-five cable channels that are not like a different universe of people. They're all the same type of demographics that the advertiser is trying to reach.

But they're able to target that across multiple channels and aggregate those rating points, which are impressions.

So I do appreciate the question because, once upon a time, in the early days when there were just four broadcast networks, you bought programs. But quite some time ago, the advertisers moved away from that and now they're buying impressions. And so, the answer is it has just fundamentally changed.

MR. JENCKES: I mean, look, I can go through my example again. But it's the same example. So I'll spare everybody. Remember 70% of the viewership happens within cable networks compared to 25% across broadcast.

That's fairly consistent. There was something in the question about the cable reach is somehow not unduplicated. That's not the way we look at it. We know who looks at what and we can deliver to an audience unduplicated reach across multiple networks.

You might not find this person on this network, but you might find them over there. When you aggregate it together, you can deliver the higher numbers.

So let me actually focus on the second part of the question, which is the digital aspect of it. There was some element that you said, Lee, around does a single digital ad — can it have the same reach as a television ad.

A single digital ad is a single impression. Television ads historically have been buckets of impressions. And so, it's comparing apples and oranges to some degree. Can somebody who has a single digital ad add to it another 250,000 single individual ads and capture as big of an audience?

Of course they can, and that's the way that it works. That's why you can reach broad audiences across a digital format. It happens every day, on multiple platforms — by the way, including ours and including Dave's.

So then there's another kind of interesting intricacy that's come up a couple of times about increasingly television can also target. And so, there is a growing capability not just to target television by zone, but target it in other ways that break up this kind of ubiquitous bucket of impressions that a television spot delivers into individual impressions, and that is happening too.

And that's significant because historically — Ty has said a number of times — you look at the funnel. Everybody competes at every part of the funnel. Maybe different methods lend themselves better to one type of the funnel than the other.

And it is true that historically, or I would say in the past, television might have lent itself better to the top of funnel because it was harder to break up the impressions.

The reality is that today — and even with things like the QVC or the programs that are selling you stuff late at night with the 800-number, the challenge with them was always that they were broad reach, not targeted.

We now have the ability to target. And so, this idea of you buy a bunch of impressions in a bucket, or you buy an individual impression, has totally broken down because you can buy that individual impression a whole bunch of different times so that they look like the bucket. And you can also now buy the bucket, split up in different ways so that it looks like the individual impressions. So the distinction doesn't make any sense.

MR. BERGER: All right. Let's talk about content. And Ty and Rick, this is a question for you. Digital, cable, and broadcast each have some unique types of content that the counterpart on the other platforms do not have.

For example, broadcast television has local news. Digital platforms have social media sites in which users interact directly with their friends and often advertisers. Cable networks offer specialized programming that may appeal to narrow demographics with loyal followers.

Indeed, the salespersons from all three platforms often tout the superiority and uniqueness of their content when pitching their advertising products. How does the uniqueness of some of this content affect advertisers' willingness to substitute between the different platforms? And Rick, why don't we start with you?

MR. KAPLAN: Sure. Well, I think, again, as a lot of this conversation has centered around, Dave has mentioned this before, the conversation today is different than it would have been fifteen or twenty years ago or maybe even ten years ago because the silos that you refer to about unique content have broken down themselves.

And you can take all the different categories you mentioned, whether it's news — a substantial percentage of people get their local news now online. That competes with broadcasters. And there's nothing about broadcast local news that makes it their own domain that no one else can compete with.

Broadcasters see that as a public service. They invest heavily in it because they think that's their way they can connect to their community. But all along the way, especially with digital, and we have some on cable too, there are lots of opportunities for local news.

And Pew has put out a number of numbers that talk about the rise in local news on different digital platforms. Sports, Dave talked about sports. Whereas one time you'd flip on one of the four networks and you'd get all of the sports you wanted, now that the competition for sports is so fierce, no one corners the market.

You can even look at the NCAA finals for basketball. It's gone back and forth between cable and broadcast. So now —there's no more cornering the market in anything.

MR. JENCKES: And almost all local sports are on cable.

MR. KAPLAN: Right, and most local — that's a terrific point. And entertainment is maybe even the best example of all because you look at — and again, this is a new development. So DOJ couldn't have accounted for this in the past, but certainly can now — Netflix and Amazon producing their own content that's highly valuable and highly watched that competes directly.

And, in fact, for broadcasters, one of the challenges that we have is, for our FCC friends in the room, we have rules that don't allow us to show most of the shows that win all the awards when you go to the Emmys because of the decency obligations we have. But Marcien's — Marcien's very indecent.

(Laughter.)

MR. JENCKES: Wait a second.

MR. KAPLAN: I'm not going to talk about Facebook. Yeah. So these things are — again, these are older notions that perhaps made sense in the past.

But there's no way when you look at the jumble and the way these things are interchangeable — and it makes sense because these platforms and Marcien's guys are trying to compete in these areas and have done really well at producing the things that maybe at one time broadcasters had an advantage of, but certainly today — and that's why my first example, if we went outside and asked people is this a broadcast station or not, what are you watching it on, they'll have no idea because those barriers have all been broken down.

MR. BERGER: Ty?

MR. AHMAD-TAYLOR: I'd say the same thing, that the format doesn't dictate the objective and the two are highly separated. And so, if a company believes that it does better by advertising on rom-coms, there's like — I don't think that any company thinks that way.

I think the inverse is true, which is that there's no company that doesn't advertise broadly across all of the channels and silos that we're talking about to reach customers in different ways, to achieve different objectives.

But there's no — I don't think there's a predisposition because of the type of interactions that occur outside of advertising to view or to favor one or the other. It's really what is the objective and how effective is my turn on ad spend is the primary lens.

MR. JENCKES: Just to interject for a second, I know yesterday part of the conversation was around quality and does quality make a difference. Is it kind of disqualifying or another?

My perspective even on quality is that it's part of this cost-effectiveness tradeoff. If you can do something where you're maybe taking more brand risk, but it costs you half as much, maybe you're willing to do that, or some advertiser is and another one isn't. These things are all very interrelated.

MR. BERGER: Great. I want to ask a question to Dave and to Rick about Miller Kaplan.

Broadcast stations regularly take part in a data survey from Miller Kaplan in which Miller Kaplan gathers each station's spot advertising sales revenue in a DMA for the past quarter and then aggregates the data and reports on the state of the market to the broadcasters.

Miller Kaplan's reports even show that the total spot advertising revenue for the broadcast station makes up 100% of the market.

Cable spot advertising revenue and digital advertising revenue are not collected or reported in those reports. The broadcast stations rely on Miller Kaplan reports in budgeting, in price-setting, evaluating performance, among other things.

What kinds of quarterly data do your companies collect about the advertising sales from the other two platforms and how do you use it? If broadcast spot advertising, cable spot advertising, and digital advertising are all in the same market, why don't all three platforms participate in the same kind of data gathering and aggregation analysis that Miller Kaplan offers?

If cable spot advertising and digital spot advertising are in the same market as broadcast advertising, how is the Miller Kaplan analysis, which presents only a part of the competitive landscape, useful to broadcast stations and why do they rely on it?

MR. LOUGEE: The answer is it's not very useful. It's a legacy habit of the past that broadcasters always pull that data together. And for all the reasons we talk about today, it's pretty much not that meaningful. And it's not useful at all for pricing, for reasons I can go into if you would like.

But you're right. We would love to have Marcien's data. But typically the interconnects have not wanted to participate. And God knows, I don't know how, for the reasons we talked about today, anybody would ever get a hold of the digital data right now. But we would love to have that information.

But you're absolutely right, because we're going after a much larger addressable market. But it's the only legacy audit that's in place and it does have unintended consequences because it can have broadcast salespeople and general managers sort of focused on the wrong things.

But it's still used as a guide — okay. Here's what the broadcast market's doing — trying to budget for this station going forward. But it absolutely would be far better for us to have all the data from the other platforms. It's just not available. And we do --

MR. KAPLAN: Yeah.

MR. LOUGEE: And to your question, Lee, I mean, there are different digital — you know, Comscore and other things out there. But there's no real quality service that we can rely on, and same is true with Marcien's business.

MR. KAPLAN: Yeah, and to me, that's the bottom line is that broadcasters work with what they have. At the end of the day, Miller Kaplan, I'm sure, would love to get the data from digital and cable. And in some markets, some very small percentage of the markets, they do. But typically they don't.

And broadcasters are looking for some ways — some as a vestige, but some way to evaluate to performance, some way to look at something. In the absence of data, there's no way to get that. It's voluntary. So broadcasters participate voluntarily, and it would go the same for digital and cable.

So, I know that the Division has used that as an ah-hah moment. Oh, broadcasters only compete with broadcasters. Your own documents say those very things.

It would be a bad consequence in some ways if then broadcasters say, okay, well I'm not even going to do that now because it's going to be used against me, which I don't think is the right outcome and certainly not what the Division is looking for because broadcasters are just, again, using what's available.

And there are a number of different services — Nielsen, Media Monitors, SNL Kagan, BIA — a lot of those are probably estimates again too which you can make of it what you want.

MR. LOUGEE: Yeah.

MR. KAPLAN: And Dave could talk about how useful that is.

MR. LOUGEE: Lee, I'll give you I think something that's an exact analogy, right? So our broadcast network partners — a couple of them are here in the room today —when we go to their meetings with them, they are laser-focused on how they're doing against the other broadcast networks, right?

We're up a tenth of a point in the mornings over the other guy. And they are — you could — so the Division could, same theory of the case, take that data and say, oh, they're only competing against themselves. You think they want the Netflix data? Right? I mean, I don't mean it facetiously.

The point is Netflix — now they're a massive competitor and they would certainly want that data. But since all they have is what the other broadcast guys are doing, then they end up focusing on what they know.

MR. JENCKES: If this is helpful, just to illustrate, we look at the Miller Kaplan data because we compete with you, and it's useful for us to see it. And I'd love to see Ty's data too, if only he would make it available to me too.

(Laughter.)

MR. BERGER: Well, so Marcien, if that data would be useful to an interconnect in the same way that the broadcasters see it as useful, why don't the interconnects participate?

MR. JENCKES: Well, don't get me wrong. I don't like sharing my data with other people. I like seeing other people's data, which helps me compete better against them.

MR. KAPLAN: Wait, but Lee is trying to bring us together. He's trying to —

MR. JENCKES: Just to be super clear about it, it's not totally clear to me why the broadcasters all pile their data into a pile where we can all look at it. I'm glad that they do.

(Laughter.)

MR. JENCKES: And I wish other people did too. But I see no reason to disclose any more than I do today.

MR. LOUGEE: Actually, that habit may be dying a death today.

(Laughter.)

MR. BERGER: All right. One more question before we get to the audience questions here. And Dave, this is for you. You know, we often look at what's known as the hypothetical monopolist test.

The question essentially for the hypothetical monopolist test goes like this. If in a particular DMA there were a single seller of all broadcast television spot ads, would that seller be able to profitability increase price for some of its spots by five percent beyond where the prices are today?

Similarly, if there were a single seller of all digital ads that could sell — could that seller increase price by five percent beyond what prices are today? And in each case, what would prevent a single seller from raising those prices by five percent? Where would the advertiser substitute to to avoid that unprofitable increase in price?

MR. LOUGEE: Well, I don't like hypotheticals, Lee, and I'm not going to speak to a hypothetical for the digital side of the business.

But just simply put, I'm confident, for the reasons we've discussed today, that broadcast stations would not have the power to raise prices on spots, even under that hypothetical, because of all of the fierce competition from digital advertising we discussed today. So the simple answer is no.

MR. BERGER: Okay. That didn't take as much time as I thought. Anyone else want to comment on that?

MR. AHMAD-TAYLOR: Just very briefly.

MR. BERGER: Sure.

MR. AHMAD-TAYLOR: Most digital ad auctions are based upon the perception or the actual auction mechanics that you pay one penny more than your next closest competitor is bidding. So we don't have actually the opportunity to raise rates by five percent unilaterally. It's an auction dynamic that's determined by efficiencies of the market.

And so, our goal is basically efficiency on the return on ad spend and making sure that we're a viable platform. And I think ultimately all of the platforms that are here are looking to do the same thing.

MR. LOUGEE: Yeah. The thing that our advertisers, just to go back to real life examples, ask us for the most is data so that they can calculate the return on their media spend.

MR. AHMAD-TAYLOR: Yeah.

MR. LOUGEE: If anybody that we've talked about significantly raises the cost of their media, their return by definition goes down. And that's going to make them less competitive relative to their other choices.

Literally that's the biggest focus that, any advertiser will tell you in the marketplace right now, they're trying to achieve. Get an ROI on their media spend.

MR. BERGER: Great. Thank you. Okay. So if you have a question that you'd like to ask our panelists, just please raise your hand and we can take questions.

MR. AHMAD-TAYLOR: Should they go to a mic or should they just say it?

MR. BERGER: Stand up. I will repeat the question so that folks who are listening in the overflow room can hear it.

AUDIENCE MEMBER: Yeah. Monty Tayloe, *Comm Daily*. Mr. Berger, I was wondering did you know going in that everyone on this panel would agree with each other the entire time?

(Laughter.)

AUDIENCE MEMBER: I mean, did you pick this panel or who did pick this panel?

MR. BERGER: So the question was —

(Laughter.)

MR. BERGER: — who picked the panel and did we know that people would be coming from similar perspectives. I picked the panel. I had an inkling that people would be coming from the same perspective, yes.

We have dealt with all of these industries for a while. So we had an inkling that would happen, yes.

AUDIENCE MEMBER: Thank you.

MR. BERGER: Any other questions? Okay. Since we have just a few minutes left, I'm going to ask Ty one question. So, through Marcien's business, the cable companies expand their reach within a DMA by working together through an interconnect.

Is there any similar phenomenon like an interconnect in the online advertising space? or do you see one emerging, if not?

MR. AHMAD-TAYLOR: We have a product called Audience Network where we provide the opportunity, through our ads interface, to buy impressions, reach and conversion opportunities through third-party publishers who choose us as an advertising supply provider because we're giving them higher rates than what they're able to achieve on their own network.

And so, we have a distributed network that operates in — I wouldn't say exactly the same as an interconnect, but has much of the same benefits for both marketers and for advertisers.MR. JENCKES: By the way —

MR. AHMAD-TAYLOR: I'm sorry, marketers and distributors. Excuse me.

MR. JENCKES: Yeah. By the way, we do that too. We sell digital advertising. We aggregate digital advertising from lots of sources, not just ourselves, to create a broader reach for our customers.

So that same mechanism of trying to achieve the same value proportion in the market certainly exists because we do it every day.

MR. BERGER: Great. All right. Hearing no other questions, last chance. All right. Thank you to our panelists today. We really appreciate it, and thank you so much.

(Applause.)

Panel 4: The Future of Advertising: Trends/Predictions

Participants

- Christina Beaumier, Vice President Product, TV Platform, Xandr
- Catharine Hays, Co-founder, The Wharton Future of Advertising Program; Co-host, The CMO Spotlight Show, Wharton Business Radio
- David Morgan, CEO, Simulmedia, Inc.
- Chris Ripley, CEO, Sinclair Broadcast Group, Inc.
- Howard Shimmel, President, Janus Strategy and Insights, LLC
- Moderator: Erica Mintzer, Antitrust Division

Mr. Morgan and Mr. Ripley's remarks were accompanied by slide presentations that are available on the event website.

MS. MINTZER: Okay. Well, I want to thank everyone for coming to our final panel of the day and for attending our workshop. I'm Erica Mintzer. I am an attorney here at the Antitrust Division, and I'm going to briefly introduce our panelists today.

So our panels up to now have largely focused on the state of where things are. We had some nuts and bolts and we had this last very engaging panel on competition in some of the television and online space. And this panel is going to focus a little more on where things are headed and what our experts see as the future of advertising.

There are longer bios attached to the agenda in the handouts. So everybody can read those at your leisure. And I will just give a brief bio for each of our panelists.

To my right is Christina Beaumier, who is the vice president of product, TV platform at AT&T's advertising and analytics company Xandr, where she's responsible for the strategy and execution of digital and TV technology convergence. Christina holds an MBA from MIT's Sloan School of Management and a BA from American University.

And next to me is Catharine Hays, who co-founded and served as executive director of the Future of Advertising Program at the Wharton School. Here, she brought together an international network of executives, innovators, and academics focused on improving advertising and marketing for brands, people, and society.

She's the co-author of the book *Beyond Advertising: Creating Value through All Customer Touchpoints*. Over the past four years, Catharine has been hosting a number of chief marketing officers on the monthly CMO Spotlight Show on Wharton's SiriusXM Business Radio Channel.

To my left is Howard Shimmel, and Howard is the president of Janus Insights and Analysis, a new U.S.-based research consultancy. Prior to starting this company, Howard was the chief research officer at Turner, where he oversaw all multiscreen entertainment, news, children's and sports research.

While at Turner, he oversaw the launch of Turner Ad Labs, an initiative whose goal was to make recommendations about linear and digital video ad experience in light of the changing TV landscape. Howard's experience includes leadership roles at the Nielsen Company, America Online, and MTV Networks.

And to his left is Chris Ripley, who is the CEO, the president and chief executive officer of

Sinclair Broadcast Group, which is one of the largest television broadcasting companies. Chris has held this position since January of 2017 and, prior to that, he was the company's CFO.

Before Sinclair, Mr. Ripley was a managing director at UBS Investment Bank's global media group, where he managed, advised, and structured various financing and merger and acquisition transactions in the broadcast and entertainment sectors.

And at the end, to my left, is Dave Morgan. Dave is the CEO and founder of the television advertising company Simulmedia. Dave previously founded TACODA, an online advertising company. He also founded Real Media, one of the first ad-serving and online ad network companies and a predecessor to 24/7 Real Media, which was later sold to WPP.

I'm going to start by having each of the panelists give a brief introduction and make some points that they would like. And given that we just came off of a panel that was focusing on some of the competitive dynamics within television advertising, I thought we could start with Chris Ripley.

MR. RIPLEY: Thanks, Erica. You know, there really are few things more important to us as broadcasters than the Antitrust Division understanding the dynamics of our marketplace. And it's really important that the rules of the road be set up to foster innovation and competition. So I thank you for giving me this opportunity.

I brought a few slides here behind me that will take you through where the industry has been and where it's evolved from here. So I think what you've heard over the last couple of days undoubtedly is that the TV broadcast industry faces more challenges than ever.

We compete for content, audience, and advertising, and all three have steadily lost to cable. On this chart here, you can see that over the last four decades, broadcast TV has lost close to seventy-five percent of its audience to cable.

As a result, the TV audience has become highly fragmented. No single broadcast or cable channel has more than ten percent audience share, and this would be even further diminished if we added premium digital video services to the chart.

Over the last decade, over-the-top and digital video streaming services have emerged as a new competitor in the local video ad market.

Several of the well-known players like Netflix don't have ads. But many more have launched, such as Roku and Pluto, that do have ads and increasingly you're seeing local advertisers on those services.

So here you can see digital advertising is skyrocketing while broadcast TV advertising is stagnant. More specifically, within digital, digital video ads are the fastest growing segment, expected to double from 2016 to 2021, reaching over $22 billion, which is more than all the local ad revenues of the TV broadcast industry combined.

Now, I just want to make a special note. I thought the last panel did an excellent job of framing the discussion here. But some of the panels the day before I think conflated what digital is. And it's very important, I think, for people to realize that when five years ago, when people talked about digital, they were often talking about search and display.

And today, we're focused on digital video ads and them being a substitute for cable and broadcast ads. I think that's a very important distinction and a lot of the discussion yesterday conflated the word digital because it means different things to different people.

And this slide right here is very important because digital video ads are the fastest growing segment right now within digital and creating a lot of competition for our broadcast stations.

So despite ample competition, restrictive government regulations make broadcast station groups pygmies in a land of giants. As you can see on this page, we don't even show up. And without scale, we will not be able to innovate and bring new and relevant experiences to consumers.

So what are we doing to stay relevant? We're improving our broadcast news and entertainment programming. We're making it available on multiple platforms, like NewsON, which I'll speak about later.

ATSC 3.0 is rolling out. We're finalizing deployment plans to make 3.0 available in twenty to thirty markets by the end of the year. The industry has committed to forty markets. This will make us more competitive with cable and digital video marketplaces.

We're expanding into cable. We bought Tennis Channel. We're also expanding into regional sports networks. We'll be launching the Cubs next year, potentially some others which you may have heard some rumors about. We're expanding into digital.

Earlier this year, we launched a free, over-the-top, ad-supported video streaming service called STIRR, which includes a wide range of programming, including local news. And we're also using our local sales force to sell third-party OTT video streaming ads to our advertisers.

Specifically, this strategy, which was mentioned in the earlier panel by Dave Lougee is a similar one that we pursue. And, just as in Dave's company, it happens to be the fastest growing digital service in Sinclair's history.

So why is that? The reality is that it's easy for the sales force to sell the same ads from the same advertisers, but just putting them on a different platform. And to me, that example right there really underscores how fungible these markets have become. Thanks, Erica.

MS. MINTZER: Thank you very much, Chris. Now, if we could go to Christina?

MS. BEAUMIER: Sure. Thank you for having me here. It's actually nice to be back. Seventeen years ago, nearly to the day, I started my first job at the Department of Justice in the Office of Consumer Litigation as an honors paralegal, which is the beginning of an unconventional career that led me ultimately to advertising technology.

I made several career transitions, but over the last eight years have been keenly focused on video and television advertising and building technology platforms that help evolve the transformation of television that we're seeing.

So I'm from Xandr. Xandr is AT&T's advertising company, formerly called AT&T Advertising and Analytics. This is a new advertising company that's been given a mandate from our chairman and CEO, Randall Stephenson, and the board of AT&T to build a new and different kind of advertising company. And our purpose is to make advertising matter.

We have the resources and backing of AT&T to really reimagine the way that advertising is bought and sold and ultimately consumed by our customers.

And we do this by using AT&T's assets in content, in distribution, in data and technology that make it ultimately easier and more efficient for advertisers to reach their audiences at scale in premium content environments, while helping publishers, including AT&T's owned and operated properties, but also importantly third-party publishers, monetize their inventory.

We have incredible scale in our consumer touchpoints and we power more than 170 million unique direct-to-consumer relationships across our wireless, video, and broadband businesses. We are one of the largest pay TV and wireless providers in the country, with the largest national addressable TV footprint in live advertising.

We closed in August an acquisition of AppNexus, which was the largest independent advertising digital platform in the market. By bringing together these two companies over the last eight months, we've accelerated the launch of a technology platform that will serve as the foundation of a premium advertising marketplace.

Together, with our assets and, importantly, with our customers, we are making advertising more relevant and, importantly, more engaging and less disruptive to consumers. We're also building a next-generation advertising platform to improve the same power and precision of targeting and measurement in digital to television and premium video.

MS. MINTZER: Thank you very much. And now, sticking with television advertising, maybe we could go to Dave Morgan.

MR. MORGAN: Good morning. I want to thank the Department of Justice Antitrust Division for hosting this. I think it's a great time with so much happening in the industry and what we see ahead.

Simulmedia is a New York-based technology company about just over ten years old. And our focus is to bring a digital approach to TV, to linear TV, to sort of the old-fashioned TV. So I think it'll tie together a lot of some of the things you've heard from yesterday and today.

We use data and technology to try to bring more of the digital experience to TV advertising. We run two linear ad marketplaces — one Transparent TV for traditional brand advertisers, one D2Cx.com for the emerging direct brands. And the top ten-plus of the national TV companies in the United States work with us.

The first thing is because I'm a digital person, I started almost thirty years ago, I always usually have to talk about the fact that TV is not dead and it's not dying, and TV advertising is not dying. It's very robust.

One of the examples I like to use is Judge Judy. So today, I mean, I know you've got to DVR it if you don't get out of here fast enough. Judge Judy is going to be on in two thirty-minute segments. And she is going to accumulate more audience ad minutes, people watching video advertising in that one hour of those two together than about eighty-five percent of all of the videos on all of YouTube in all of America all day.

And she doesn't always win her time slot every day either. Sometimes Wheel of Fortune reruns or Jeopardy or something will beat it.

Now, Judge Judy does not make a — well, she personally makes a massive amount of money. But that show does not generate anything close to the monetization of YouTube because of the lack of a lot of digital capacity sort of down the funnel.

And the other things I think that are important — there'll be different statistics, but there are other reasons that we're going to see TV be around for a long time, which is exciting, because you have a significant amount of U.S. households that don't have fixed broadband and you have — Microsoft put out something recently. A fair amount of the broadband isn't even of that high quality yet for all of the streaming services. It doesn't mean that doesn't take away from the fact that two-thirds of America do have fixed broadband at home, and we also have mobile devices.

But at least I feel that from a digital person, for fifteen years, I went into TV ten years ago because I believe that TV will be around. It doesn't mean that all the TV companies will be able to be competitive because of some of the challenges.

And this slide really captures the biggest difference from an advertising standpoint between TV and digital in that — and you've heard the funnel used in probably every panel in one way or another. But where digital is able to stay in-state between an ad's presentation and an ultimate transaction and interactions in between and present reporting, some of it isn't accurate, but at least present reporting to show the path and the interactions all the way down the funnel is an enormous competitive advantage for digital.

And television, where its measurement has really been limited in a syndicated, widely available way at the very top, which is one of the reasons it's only really gotten consideration typically for a lot of the more reach and branding advertising, though any local merchant can tell what happens.

But this is the area that we've been working on fixing in Simulmedia, which is using data from how people actually view and buy to understand how TV is impacting sales and transactions and how it's working with different digital ads at the same time, maybe by those companies or others.

Now, one of the things you heard yesterday with Marc Pritchard, and you've heard a lot of talk about targeting. But the one thing I think everybody agrees on is that television advertising's biggest problem is waste. It is a great reaching medium.

But the efficiency of the TV systems as they exist today and some of the pricing models, planning models that in some cases exist from the 1980s, undervalue and under-yield both the inventory that's coming from TV and the consumer experience.

And so in the digital world I think a lot of people believe the future of advertising is going to be fewer, more relevant ads. But unfortunately, for most of the technology in classic TV, it's not there yet to do it. Things like ATSC 3.0 — how was that — are going to help.

But TV is not able to compete effectively in a lot of the different buckets. And so, what you see here is the amount of yield opportunity that's available in a lot of the different buckets as they have been historically looked at in TV by bringing more data and tech.

And basically it's not taking the pricing up. It's taking the waste away so that the effective price and the effective CPM is more consistent with what the advertiser expects.

This is an amalgamation of different projections of the future of premium video advertising. So a couple of things should be obvious from it, which is, one, the blue is national linear TV. The green is local linear TV. The red is — that will be more data-enhanced and data-targeted. The yellow is addressable. The orange, which has obviously grown really fast, is the premium, over-the-top, and digital video.

When you heard today about, like in the panel before particularly, but also yesterday, you know, there's no question that as more of the technology comes in, the money is going to be flowing up and down that group and being priced against each other in a lot of ways.

But I think it's going to mean for the TV companies to be able to make — and this is certainly where we've made our bets. It's how do you bring some of the technology to do that. And I think there are some challenges that certainly exist for the industry as I see it as a digital person that's working within it.

One, there's an extraordinary and relentless competition for viewers in advertising. And we work with the TV companies promoting the programming. And having now, obviously, a lot of this programming available subsidized for e-commerce delivery or with no ads is creating a lot of issues.

Two, and this is something that Marc Pritchard brought up yesterday that I think is critical, the global ad agencies that drive a lot of the national spend have tended to favor digital because of fee structure and comingled economics outside of the U.S.

And then finally, we are now starting to see the digital platforms taking, particularly in the high precision direct response space and also in the local space where the prices have been high. Thank you.

MS. MINTZER: Great. Thanks, Dave.

MR. RIPLEY: I'd just like to say one thing about Dave's presentation that I thought was just notable, that he was talking about TV. And I wouldn't want anyone to think that he was just talking about broadcast TV. When he says TV, he means broadcast and cable together.

MR. MORGAN: Yes. Oh yeah, absolutely. Yeah.

MR. RIPLEY: And you know, part of this panel is to determine whether these are in fact two of the same markets or are they separate markets. And the fact that he just says TV and doesn't — and takes it for granted that he's talking about broadcast and cable I think is a notable point to mention.

MS. MINTZER: Thank you. Now, if we could hear from Howard?

MR. SHIMMEL: Yeah. Good morning. I really appreciate the opportunity to be here and to participate on the panel. I want to use my remarks today to talk about the state of audience measurement in the United States and the challenges it addresses — it's facing as it addresses this digital, addressable TV, connected TV world. And I want to focus on two really important items.

The first is — and I've heard it from Mark yesterday, you heard it a little bit on the panel this morning — reach. Reach to an advertiser is air. Advertisers need the ability to accumulate large amounts of reach to have successful brands. So that's the first item.

The second is market transparency. The market is moving from a highly transparent, television marketplace, using the old definition, to a highly fragmented, walled garden marketplace of digital and addressable.

And I think research suppliers need to fill in some roles and missing data. You heard a little bit on the earlier panel when they talked about market transparency in terms of ad spend.

So I want to talk about those two things. The reality is we need a vibrant market research economy in the United States. If you think about the state of companies like Nielsen, Comscore, Simmons, and MRI, we don't have one today.

So let's start with a little quick historical journey. Fifteen years ago, before cable operators were harvesting their set-top box data and before smart TV manufacturers were harvesting ACR data — automatic content recognition, where they know what's hitting the TV class — we were totally dependent on Nielsen for audience data measuring TV.

The entire marketplace used Nielsen. It was a totally transparent market. We all knew each other's shares. We used Nielsen to develop rating guarantees for spots we're selling in the future.

We used CPMs to figure out how much then those spots cost. And then, after the spots aired, we used Nielsen to determine did the advertiser reach their guarantee or not.

It's important to think as we think about managing linear in a digital market that TV is a futures market, whereas, as Dave talked about, digital is much more real-time. And if you think about the futures, in the next couple of weeks, you're going to have advertisers going to the upfronts and they're going to be buying advertising through September 2020. They're going to be spending sixteen months ahead of that.

So fast-forward to the digital world. In a digital world, there was no need for a company like Nielsen because any digital company had an accurate census measure of the number of ads that they served for a given advertiser.

If you think about the role that a company like Comscore played, it was much more around media planning and an evaluation tool than it was a currency used to drive the marketplace. And this is a world that digital video lives in today.

Now, let's fast-forward to the world of addressable TV, connected TV, over-the-top. These businesses operate much more like a digital video business, whether it's Xandr or NCCU, the organization Marcien represents. They all have first-party data to drive ad execution and to drive measurement and they only rely on companies like Nielsen or Comscore for things like converting impressions served to age/sex demographics.

So the first research challenge I think we're facing is how do we integrate these two worlds. How do we integrate the world of linear TV, which is going to be around for a while — it's not going to go away — with the world of digital. We need to solve that today if we're going to enable advertisers to use video, regardless of the definition, to build reach.

The second issue we have is one of market transparency and insights. When I had my job at Turner as chief research officer, part of our job was to do an accurate job of counting the market. We needed to know what was going on with video consumption, regardless of who was providing that video, whether it was ad-supported, whether it was SVOD. And we needed to know exactly where — what device it was being consumed on.

With the advent of Netflix and their success in driving viewership, because Netflix realized they didn't need to play with Nielsen because they're not in the ad business, suddenly our ability to have insights into the market was dramatically limited. And arguably Netflix is probably the number-one-rated video source on the TV screen in America.

So, part of the research challenge is how do we enable programmers at local stations, at national networks to have good insights so that they can actually develop smart programming strategies, have successful programs with big ratings.

You know, one specific area where I think the lack of cross-platform measurement and an infrastructure that allows an agency to plan, execute, and measure cross-platform is this issue of advertiser reach. At the end of the day, an advertiser has a certain amount of budget to spend. They want to use all tools that they have at their disposal to drive lots of reach.

There was recently research presented by Les Binet of Adam & Eve, DDB Needham in England that showed that brand-building is achieved by optimizing reach against a broad advertiser target, that reach accounts for ninety-one percent of media effectiveness.

Advertisers used to rely on TV to get reach fast. It was easy. But as TV has fragmented and they know they need to use other alternatives like digital video and platforms like Xandr, the research world has not created an infrastructure that allows an advertiser to plan effectively. It's a big, big missing problem. Brand-building needs to be an important tool that advertisers are able to leverage through video.

The second area I want to talk about really quickly is this issue of market transparency. For all of its limitations, the linear TV market does have a fairly high degree of transparency. Separate from the spend discussion you heard earlier, we look at Nielsen data. We know our share of GRPs in a given content genre, given programming set, relative to our competitive networks.

In the digital world, we have no idea how well we're doing relative to specific content. And if you think about it too, the advertisers don't have the ability to know when they're going to a platform like Xandr or they're going to a platform like Facebook, exactly what their marketing spend might accomplish, whereas in TV, if I'm going to buy 300 GRPs, I'm going to get sixty reach and five frequency.

The transparency helps a $70 billion television market operate effectively. And I worry that, as the market moves to digital, addressable, connected TV, where is that market transparency that allows a market to operate effectively. It's one place also where I think research suppliers have not kept up with what the market needs.

The United States does not have a joint industry operating committee that operates media measurement, like some other foreign countries do. Now, I'm not suggesting necessarily that the U.S. needs a JIC. But we do need a better mechanism for ensuring that the developments of suppliers like Nielsen and Comscore meet exactly what the industry needs. Thanks. I look forward to the Q&A.

MS. MINTZER: Okay. Thank you very much, Howard. And now, Catharine can give us the broader advertising marketing perspective.

MS. HAYS: It will be broader. Let's pull out a little bit. So a little bit of background in terms of my frame of reference and the perspective that I bring here today.

I was at AT&T for sixteen years. So, in the private sector on the B2B side. But it was a telephone company back then — certainly more than that, a communications company. But it was much different then.

And then, in 2007, Professor Jerry Wind, who's a renowned marketing professor at the Wharton School, ran a research center called the SEI Center for Advanced Studies in Management. And the job that he had in running that center was to ensure that Wharton's management education was really reflective of the realities that were going on in the marketplace.

And so, in 2007, his board of advisors, who represents the private sector, as well as academics, said there's some crazy stuff going on in this advertising world. We should try to take a look at it. So that was really the brief that was given to us.

We put a global advisory board together, which grew to about ninety people. The first thing that we tried to do was to do kind of an olly olly oxen free of the research community to say, okay, what do we know now about what works in advertising and pulled together really sort of who's who from global academics as well as practitioners in the research community to try and really establish the highest bar of empirical generalizations, findings that held true across multiple studies, not just one.

We had a large conference at the Wharton School at the end of 2008. Published a *Journal of Advertising Research* special issue with those findings from Comscore and others, and then had a follow-up conference a couple of years later as things continued to evolve and published another special issue.

But when we stopped and took a look at that and said, what have we really learned here, what can be actually proven to work, we realized that that kind of research was very much looking in the rearview mirror. Yes, it was rigorous. Yes, it held true. But it was very minute and it really wasn't providing this vast array of advisors that from all different parts of the ecosystem, from media companies, academics, researchers, cultural anthropologists, really trying to get a very broad perspective on it.

And so, we took a different research approach which is based on idealized design. So rather than trying to predict the future, we said what's the best that the future could/should be if we imagine all of these changing pieces and put a stake in the ground. And secondly, what should we do now to get ready for that more desirable future?

And if you imagine it, if you start to do those things, you can actually co-create that better future. I can get into more of what some of the outcomes were. But one of the essential notions was that we are all in this ecosystem together. And if we take a very narrow lens, it can be an us versus them. And a lot of times, we talk about these as consumers.

But really we took a step back and said these are individuals. These are people with lives. And a lot of them are blocking and trying to get away from advertising as much as is possible. So what if we could create more of a win-win-win-win?

So, media companies are winning because they're gaining viewers and bodies and people who are wanting to be part of their properties. Agencies are winning because creative is becoming more creative and more desirable, as you were saying. And then, people are getting better because they don't hate advertising. Advertising is at the bottom and still remains there in terms of lack of trust.

So, and then finally, the outsized influence that advertising has on culture and society. We all know and we've all seen, especially in the last few years, just how important it is.

So this lens about what happens here and how the results of this happen, what the confluence and the composition of this ecosystem are, has really far-ranging implications.

Discussion/Question-and-Answer

MS. MINTZER: Great. Thank you very much. Before I get into some of the questions I had prepared, looking at the initial presentations did prompt a couple of questions, if I could just ask Dave and Chris.

Dave, I had a question on this — the bar graph that was showing — it looked like some decline in the linear advertising going into out-years and a pickup by some of the addressable categories and data-enhanced categories.

I'm just wondering, does the linear is that —current advertising moving into those other colored graphs or is that a reduction of ad load or —

MR. MORGAN: I think there are several factors that are coming together there.

One, you have reduction in viewership and reduction in ad exposure, both on the products that are being sold on the programming as they're shifting to non-ad-supported products or streaming products or products on the phone.

Two, we do expect a reduction in ad load as it becomes proactively managed by either networks or distributors because they're trying to sell, at the end of the day, fewer, higher value ads as they bring more data to it.

There will probably be rotation of new advertisers in. So, for example, we're starting to see some of the digital companies that Ty mentioned in the earlier panel starting to discover TV when they really want to scale their businesses.

We're also seeing category reductions. It tends to happen a lot around that, so areas like retail, for example, have been in a lot of sort of cyclical declines.

So, and then I think the other area where it's going to become more interesting and more fluid is outcome-based and performance advertising because that's the area that used to be the classified ads or the Yellow Pages or that became search and that's certainly where Facebook has been playing a lot.

TV had the direct response category, which was not very effectively managed. And so, we think that that category is going to change to a more managed type. And then, the performance is going to flow. There'll be some new money coming into TV. But it'll be definitely around more data-enhanced and addressable products.

MR. SHIMMEL: Yeah, just one other thing to add — and it's an important thing, based on Dave's last point — is if you think about an advertiser like Procter & Gamble, they spend much more money in trade promotion, coupons, in-store display, than they do in traditional advertising.

They do that because they know that if they run a coupon, they drive some topline sales at the end of the quarter if they're trying to make their quarterly targets.

With the capabilities that Dave described, one of the reasons that the overall spend is going to grow is that TV is going to be able to tap into some of those below-the-line marketing dollars that it's never been able to tap into before.

MS. MINTZER: Okay, great. And that was —

MR. RIPLEY: One other thing I just want to add to this chart is that —

MS. MINTZER: We'll go —

MR. MORGAN: The point I made before. Sorry, Erica.

MR. SHIMMEL: We like to talk.

MS. MINTZER: No, it's great.

MR. MORGAN: Linear — the chart has linear television, national and local. Linear television exists on broadcast. It exists on cable and it even exists in digital video services. And that's what you're seeing there.

You're seeing the mixes change to more targeted from just straight linear, untargeted. That's just a natural evolution of the marketplace because targeted is more efficient. And so, you're seeing dollars shift into targeted.

And digital is natively targetable, and linear is increasingly becoming more targetable. The interconnects can do targeted. When ATSC 3.0 rolls out for broadcast, we'll be able to do targeted. And it's certainly a disadvantage we have right now in the linear world. But we'll catch up from a technology perspective.

And also, I just want to make sure everyone understands that targeted does not mean that you can't do DMA-wide or broad. It just means that if you can do targeted, you can do broad. But if you can only do broad, you can't do targeted.

MS. MINTZER: Maybe that's something that Howard could address a little bit.

The distinctions — we hear programmatic. We hear addressable. We hear targeted. We hear audience-based. Maybe you can briefly let everybody — so everybody understands the differences and who they're hitting.

MR. SHIMMEL: Yeah, and maybe one way to think about it is obviously the linear TV world is one signal going out to many people, right? And, with that many people, even for something like Adult Swim, one of the Warner Media networks, you think that they're only teenagers and eighteen to twenty-four year-olds watching that. But the reality is there are some people my age watching Adult Swim. And in a linear world, you cannot avoid your ad going to someone my age.

In an audience-based buying world, it still is one too many. An advertiser is still buying one spot. But what you're doing is you're using data to inform the decision of that spot. Here's a spot. I think it's going to do a better job of reaching cereal buyers for Kellogg's than another program.

And then, addressable is purely one-to-one. Each of us would get a different ad if we went to the ESPN home screen today. Does that —

MS. MINTZER: Yeah. No, that — I think that's helpful. Thank you.

MR. MORGAN: I guess I think I'd add though one little piece which I think connects those. The way we look at it, when we're looking for a person, to us — we're synthesizing the data of actually viewing from the set-top boxes or screens.

And so, whether we're picking that person out of a local broadcast station, a local cable or a national, like those are all being looked — that's how the audience base is looking. So we heard before that's sort of the digital approach now to TV, which is cutting across every different form of distribution irrespective of distribution.

There are a lot of social engineering problems that have to be worked out and electrical engineering problems. But that's where it's going.

MS. MINTZER: That's great. And then, Chris, on your presentation, which was really interesting, I had a question on a slide showing the share of broadcast versus cable and then a couple other slides that showed the revenue changes. And it had broadcast and cable staying pretty flat.

So they don't seem to be losing revenue. And there are a couple of points. One, you'd think when TV first entered, also you'd see a steep curve, which isn't necessarily indicative that anything else is losing share. It's just that one is growing.

MR. RIPLEY: You mean when digital first entered?

MS. MINTZER: No, I meant when TV actually.

MR. RIPLEY: Oh, when TV.

MS. MINTZER: If we looked, we'd probably see a similar steep curve of TV growing. It comes in, in the 1950s, and people are gathering around their four channels. So I'm wondering what do we actually glean from the surge of the digital growth, one. And then, two, is there anything — when the revenue is staying flat, what is keeping the companies maintaining their revenues? Is it moving into these digital spaces or higher prices in revenue?

MR. RIPLEY: So I think what's important about that slide is not so much that the broadcast line is flat. It's that the overall market over the last five years has grown by twenty percent. And so, therefore, if you're flat, that means you've lost share. And in fact, on the local ad side, TV broadcast share has declined by about four percentage points due to that phenomenon.

So, and on a constant dollar basis, when you take into account inflation, we've actually shrunk. So it is impacting us in a quite significant way because our costs inflate, but our revenue does not grow. And that's just indicative of the fungibility of the marketplace and dollars moving to digital.

MS. MINTZER: Which leads me into, actually, the first question I had for you which is, in light of that, what is Sinclair doing to keep its business relevant.

MR. RIPLEY: Well look, we're definitely looking to expand into other platforms. And Sinclair has been fairly aggressive amongst the broadcasters moving into streaming. We operate NewsON, which has newscasts on demand and in pattern in ninety-plus percent of the DMAs. You can get that on Roku, on your mobile devices and watch your local news. It offers a full suite of ad pods there for national and local advertisers.

We also launched STIRR, which includes STIRR City, which is your local channel, plus I think we're up to about forty other national channels via streaming on Roku, Fire, Apple TV, et cetera.

And we also have websites, mobile apps and those all include video too. So we're trying to spread our content to as many platforms as possible so that we can actually compete for the advertising dollars on those other platforms.

MS. MINTZER: And I think it was Howard who mentioned ATSC, if you could just maybe briefly explain what that is and the importance of that.

MR. RIPLEY: Sure. ATSC 3.0, a bit of a mouthful, is the next-gen broadcast standard. It is rolling out starting this year. The industry has committed to rolling out forty markets starting this year. There are really five key benefits to ATSC 3.0.

Number one is it's a mobile-first standard. The second is that it's IP end-to-end. So it'll support a hybrid environment where you can bring high bandwidth content over the air and integrate it in with the public Internet content to a seamless user experience.

Number three is that it will allow for targeted advertising, which we've all talked about is something that traditional broadcast television is in need of if it's to compete in the digital landscape. And it will allow for subscription-based services to natively be on the platform. So, if you want to have a paywall, you wanted to have something that looks like a Netflix, you can do that over ATSC 3.0.

And last but not least, it will dramatically increase the capacity that we all have to send content to consumers. And so, that's going to create yet more choices for consumers for content consumption.

MS. MINTZER: So is that more in terms of, like, you see more networks?

MR. RIPLEY: More networks. Yeah, you've already seen —

MS. MINTZER: More data-intensive experiences?

MR. RIPLEY: Right. Over the air, over even the last five years, has already seen a significant uptick in the number of networks. We call them multicast networks that are available over the air.

3.0 will increase capacity by four to five times what we have today, and I expect a lot more networks to be added in that capacity. Plus, other data forms will move over to 3.0. Servicing connected cars is something that we think is a big opportunity for that spectrum.

MS. MINTZER: Well then I will put out a plea for someone to develop a really user-friendly TV guide.

MR. SHIMMEL: Can I add something to ATSC?

MS. MINTZER: Of course.

MR. SHIMMEL: So, two other things that are important about ATSC 3.0. One is when you think about the digital world, remember that Facebook has over a million U.S. advertisers. Right?

Facebook has been able to build in advertising that could be highly, highly localized just based on self-serve platform, being able to — the local dry cleaner can buy Facebook. And television nationally has a couple hundred advertisers driving the business. I don’t know if you have counted how many local spot TV advertisers there really are. But it’s not a million.

MR. RIPLEY: It’s not that many.

MR. SHIMMEL: So part of the reason digital has grown is they’ve been able to tap into advertisers that just would never think about buying an entire market or nationally.

The other big thing about ATSC 3.0 is that Netflix has an inherent advantage over any TV programmer. They have first-party data on every user. They know what each of us do when we use their platform.

They could use that to drive recommendations. They could use that to drive building new content. ATSC 3.0, when it’s enabled, will give Chris’ station Netflix-like census data to be able to make better programming, marketing — own the customer relationship.

MR. RIPLEY: Well said, Howard.

MR. SHIMMEL: I’m a data guy.

MS. MINTZER: Maybe Christina, against all of this, could you maybe tell us a little bit where Xandr fits in and where you see maybe the video advertising fitting into all of this and how it might differentiate itself?

MS. BEAUMIER: Yeah. I mean, we see it from — I like to look at things from the perspective of the consumer. And there’s no doubt that national traditional TV is converging with digital video. And this starts again with the consumer and how she’s consuming content across all different devices.

So, what used to be traditional TV being consumed on one device in the household, now it’s being consumed across a number of devices — a connected TV, the set-top box, the mobile device, et cetera.

And even actually different OTT apps, different app experiences where, from a delivery standpoint, it looks very fragmented. But for a consumer, it’s a unified and single experience.

So we spend a lot of time thinking about that. And so, even though the television and the digital video delivery systems are very different and remain different from a technology standpoint, for the consumer, they're increasingly one. And we think also from the perspective of the advertiser, these are coming together also.

The delivery aspects and the technology are catching up, and that's what we're really focused on at Xandr. We see ourselves in a unique place because we straddle both worlds.

In the television world, we own those pipes, from a paid TV perspective, with the DIRECTV business, DIRECTV Now and our TV Everywhere applications. And that's been a good business for us, for our overall video business.

So for the past couple of years, we've grown this business. We are the leader in addressable. Howard talked about addressable advertising. That is a really powerful value prop for advertisers and also for consumers.

But we also offer the ability to buy on a GRP in a more clustered way. So that traditional model is something that we don't see going away per se, but are starting to think about the evolution there.

And that really brings us to the other world, which is digital and OTT. And here, that's where AppNexus comes in as the global Internet company that uses data and machine learning to power a set of enterprise, cloud-based advertising technology products that are sold to buyers of advertising, as well as sold to publishers — media owners.

Over the course of the life of AppNexus, it's historically been very display-focused. But over the last few years, we've developed a lot of the video capabilities. And so, there's the enterprise business. And then there's also the marketplace.

And so, marketplace is effectively where we bring together the buy side and the sell side in order to facilitate a transaction, again largely in the digital world. But we see these things — what has typically been very siloed, two sort of siloed universes, because for the consumer it's coming together, because the advertisers need them to come together, we're now building pipes and bridges to make TV — really to make — let me start with digital — to make digital look more TV-like as television goes digital, to allow for those enterprise products to facilitate both on the buy side and the sell side TV-like transactions and allow those to happen in the marketplace as well. And then also on the TV side, to enable a more automated way.

You had asked about what is programmatic. Programmatic can mean a lot of things. It's definitely buzz word bingo. It really depends on — in the eye of the beholder. But at a minimum I think we could agree that it is automation. And so, we see more automation coming to television and in that business as well.

MS. MINTZER: Okay. Catharine, on the automation front, I'm wondering if you have any thoughts, given the traditional way that advertising has been transacted in a very personal business. Do you see that being adopted readily?

MS. HAYS: Yeah. I think it really kind of brings together a lot of what's been discussed, and not just in this panel, yesterday as well and earlier today. And that is when you talk about targeting, essentially what you're talking about is understanding who this person is.

And so, they're not viewers. They're individuals with habits and personalities and observable sorts of information that is increasingly being collected so that this targeting can happen in a far more specific way.

And so, from the standpoint of programmatic, I think, yeah, it goes from automated to programmatic to taking that data and infusing it with artificial intelligence and far more capable means of very, very quickly honing in on what is going to motivate this person to do something.

And this is in addition to how much we're realizing and understanding and infusing all of this with what we're learning in neuroscience, with biometrics, all the different ways that we can just understand, not just — way, way beyond demographics. But are they in the mood to shop? Are they in the mood to buy? Who else are they with? Why are they with them? Where were they yesterday? Where are they going tomorrow? What are they wearing? Are they sad? Facial recognition.

All of these passive technologies are putting all of what we're talking about, taking this notion of targeting and putting it on steroids. And so, I think what we need to do is understand, as we're talking about these things in kind of business clinical sorts of ways, that at the end of the day that's what's happening and that currently we're talking about viewership and channels and pricing in terms of how we need to be seeing who has the power. But probably more importantly, as the conversation has gone on about walled gardens and the data that they have that they're not sharing with anybody else, but what they're able to discern from those walled gardens is really fascinating.

With Walmart going to the new fronts and being able to show all of your shopping data, everything that you're doing, presumably anonymized, it really I think is something that we need to think far more out than just the immediate future about the implications of how the data portion of it and what's happening to it and how people can be targeted in ways that they don't even understand.

It's one thing if you watch a show or don't watch a show. It's a very other thing if you're being targeted because you're in an emotional state that you might not even really well understand.

MR. MINTZER: Fascinating. On the walled garden front, which you just mentioned and we heard a little bit about yesterday, I'm wondering if people have thoughts on whether the convergence of TV into the digital space and the growth there will have any effect on, opening up some gardens, adding another dimension of competition for these folks, whether we think the talk around privacy, whether privacy maybe will become a larger dimension of competition.

We heard Professor McAfee mentioned a browser, Brave, that doesn't track your cookies. Is that going to be an offering that maybe consumers are going to be looking for more going forward?

MS. HAYS: Can I just jump in?

MS. MINTZER: Please.

MS. HAYS: You know, I mentioned that when we first started — when we first put the future of advertising programming together, there was just all this concern that there was this massive increase in ad-blocking. And also remember when it was like DVRs, you can skip through the ads. And so, you can't even see them.

There was this notion of the empowered consumer who had far more ability to take control over how brands and media companies were talking to them. So I think it seems as though it's become a bit of an arms war. It's like, oh no, we can still find you. We can still track you. We can pick data from so many different places. We can have these wonderful collaborations about people who know my buying behavior, my healthcare behavior. There are already apps in cars, in mobility to understand what my driving behaviors are and to therefore adjust whether to even give me insurance at all or what prices I pay.

So I just think as though we really need to sort of delve into this notion of where is the competition going to be happening and the ownership of it and what the collaborations are going to be, to be able to put that together in really powerful ways that change the balance of power.

MR. MORGAN: Yeah, if I could — if I can add, I think, what's possible is obviously extraordinary. And I mean, I've lived in this world, starting one of the first behavioral targeting companies.

And I apologize for those shoes that are following you around the Internet. We didn't realize that retargeting tactic would be so effective.

But I think this is one of the things we need to understand, which is you may have this idea, and we can talk about the extraordinary amount of science and energy that we're bringing to these things.

But typically businesses that operate at massive scales, like media and advertising, it's a tactic or two that sometimes are pretty blunt that can really change the effectiveness.

And so, while you could really want to know everything about what they buy, the most important thing is just if someone actually looked at something in the last few weeks, their likelihood to buy that is much, much higher than somebody else.

And even if they did already buy one, because you're always wondering, I already bought it. Don't they know that? How dumb are they? Even if you already bought it, your likelihood to rebuy it is so much higher than not giving targeted.

And so, I think where we're probably going to see the most impact in this business, where the walled gardens probably will participate and open up a little bit more, is some of the simple tactics that can dramatically improve the effectiveness, efficiency, and consumer experience. Thus, like wasted frequency, no one wins.

I mean, the large movie studios today that will drop $60, $70 million in advertising for a four-quad (what they call a big, big film coming out in three weeks' time). They will miss twenty percent of the people who are watching TV who are frequent moviegoers, even though they're spending so much money so quickly.

And the ten percent that watch the most of the kinds of TV they typically buy will get on average about a hundred exposures to that ad in that two-and-a-half week time period.

Now, I don't know if ten is — if five is too few or if a hundred is too much. But we're going to get much better at that. And I think those are the areas where the data is going to work to see where we can trim out those fifty wasted exposures, reinvest that money in different places.

MR. SHIMMEL: But I think about it in a couple of ways. One is the walled gardens have every right to use data to drive yield on a given deal, right? And they need that ability in a world where it's getting harder to drive yield impressions.

But I don't think that means that the walled gardens shouldn't be willing to let some visibility into what they're able to accomplish sit in something like an agency planning tool.

For those of you who aren't familiar, there is a person at an agency who is given a $50 million TV budget — video budget. And they have to decide on the allocation.

And it's important that they understand what Xandr is going to do relative to Simulmedia, relative to Sinclair, to be able to optimize that plan. So there needs to be this sort of balance of let the walled garden have their yield, but make data available so an agency can do the appropriate job of planning it relative to other media.

MS. MINTZER: And is that being done today? How much sharing is going back to the agencies or back to —

MS. BEAUMIER: I mean, it's one of our — so, yes. It is. And I would say that it's an important — it's definitely — as these worlds kind of come together, agencies are telling us over and over again that things are getting fragmented and it's very hard to do — to do this sort of meta-planning that happens, even before you go into a platform and start to build a plan, things like what they call strategic planning or budget allocation.

When you're talking now about fragmented — what used to be a TV budget and a digital budget and an out-of-home budget, now this starts to get splintered across a number of different devices. And it's difficult to do this in a consistent way.

And that's something that we see as a market need, for sure — to be able to kind of help planners and help the buying community be able to build a strategic plan that takes all of this into consideration in a way that ultimately means that, at the end of the day, the viewer shouldn't be getting that high level of frequency. That's not good for the consumer. That's not good for the advertiser. No advertiser would want to see that. And we agree.

So, but the key is it's hard to do this today because of the technology measurement hurdles and having all of the devices out there that exist today.

So, figuring out ways to stitch it together on the front-end kind of throughout the campaign life cycle — through strategic planning, tactical planning, execution, reporting, measurement, attribution — we think is going to help really bring the industry forward so that we're prepared and we can help our clients be prepared to deal with these challenges that are only going to get worse. Things will become more fragmented, not less. We don't see one mega device that's going to rule the world.

MS. HAYS: And I just would add, in terms of the walled gardens, I think there's something fundamental about the scale that has been created in terms of their ability — the amount of data that they have, both behavioral and temporal and all sorts of other things.

We did a couple of research projects with Facebook, and their ability to put together markets or groups of people on completely different criteria that are completely based from an organic perspective in terms of what their behavior is and what their activities are and what their whole profiles are that have nothing to do with demographics.

And the effectiveness of that in terms of experiments that were done were that much more effective, and they were able to provide them with communications that were that much more personalized and customized.

So I think there's also now being a backlash — I don't know if you all are seeing it — where larger advertisers, large marketers are going after their own first-party data. I heard McDonald's give a presentation not too long ago saying, okay, fine. We actually have a lot of information about our customers too —

MS. BEAUMIER: Yeah.

MS. HAYS: — and going more into loyalty programs and trying to kind of come up with competition in that regard to have that same kind of data insights.

MS. MINTZER: Chris, what impact has data had going backward, and then looking forward with ATSC coming. How do you see it?

MR. RIPLEY: Sure. It's a great discussion on addressability and data. That's a very national advertising focus and that's certainly an important part of our business.

Inherently, though, we focus mainly on local markets. And they're dealing with the same issues. But they can get addressability and data for video ads from digital service providers like Roku, for instance.

I think their addressable ads pretty much doubled in 2018, and those are available to local advertisers. They can get pretty good data and addressability from cable, through set-top boxes. And broadcast just needs to catch up. And it's really a disadvantage right now because we only have one offering right now and it's not targeted. It's limited in terms of data. We can give you a rating point and a few demos. ATSC —

MS. MINTZER: So you're just talking linear —

MR. RIPLEY: Linear, right. Well, linear, yeah, unless of course we're putting you on some of our streaming services. And ATSC 3.0, as I mentioned before, will be a game-changer from that perspective and put us on a level playing field with cable and digital.

MS. MINTZER: And are you doing anything — I just read about a consortium OAR. Does that have anything to do — are you involved --

MR. RIPLEY: OAR?

MS. MINTZER: Well, it's something — open, addressable, something with an R.

MS. BEAUMIER: Ready.

MS. MINTZER: Which I think with Vizio as the manufacturer and I think it has to do with the auto content recognition chips in the smart TVs that can collect some data. So, to the extent a stream is going over a smart TV, would that —

MR. RIPLEY: I'm not a part of that consortium. Perhaps someone else can take that one.

MS. BEAUMIER: So, we're part of that consortium. It's the Open, Addressable, Ready Consortium. And it's very new. And the goal there is to create standards that smart TV manufacturers, including Inscape Vizio, will adopt to help normalize the ability to deliver an ad across these different devices.

So, we believe it's going to move the industry forward to solve for some of the fragmentation, make it easier for both the buy and the sell side.

MS. MINTZER: Just one more question that I think a bunch of people have some views on is regarding addressability. On the one hand, we have heard that that's where it's going, and that's something that television needs in order to keep up with digital. But I have also heard the counter, that really it's the broad reach. And I think there was one analyst who noted the vast majority of advertisers who use TV effectively need to reach everyone.

"Many of the promises or perceived opportunities of advanced TV presuppose large advertisers actually want targeting in the way it's done on the Web. If you want that, you can use the Web." There still is this branding — this top-of-the-funnel function that television or premium video can serve.

And I'm just wondering what your thoughts are on that. Do you think that is a reason that addressable has stayed relatively small in terms of its rollout or do you see that going up or are there other —

MS. BEAUMIER: Yeah. I mean, I love this topic. I think the notions of how we talk about television and digital are from a delivery standpoint as being different. As we make progress in developing a platform that enables more seamless buying across national TV and OTT, we start to see this stuff kind of come together.

That said, we think that maybe a better way to talk about what the future might look like is not national TV and digital, but rather upfront and real-time bought or impression-based and unit-based.

And so, the difference really here is you kind of have to look from the perspective of an advertiser. There is an analogy that some people talk about in the industry. This is not an original analogy, but it's like when you lay a road down. You know, you need boulders and you need sand.

And so, if you're a marketer, you can take that kind of — I'll come back to the road in a moment. But if you're a marketer and you are putting out a new cereal brand, you need to be able to secure all of the major goods that you're going to need in order to launch that.

You need your cardboard. You need your wheat. You need all of those things. And then, you're going to need your advertising. And that's something that you're going to plan way in advance. You're going to need to know that you're going to have the ability to reach your audience to support that brand being out at the right time when you're launching your project.

So those are the boulders basically. And that's the role that TV has typically played within the media plan because you're able to kind of reach a lot of people at the same time.

So in this world where consumers consuming their TV content across a number of devices, marketers will still need the ability to secure large amounts of ad spend to reach an audience in a more upfront, guaranteed way.

They're also going to need the ability to fill in the sand to reach the very targeted audience, to follow up — to achieve the other media goals that they have.

And it will depend on the advertiser. It will depend on the content. But the important thing is that there's flexibility to accommodate for all of these models. As national TV becomes more digitally enabled, it doesn't mean that a lot of the good of television is going to go away.

MR. MORGAN: Yeah. I think I would add I think one of the challenges relative to addressable and the reach role that TV has historically played, one of the reasons it played that was that's all it could do.

There's a bit of a self-fulfilling prophecy there. But what we are seeing — and we're seeing this now as companies and marketers understand more of who their customers are and have more data, and we now have twenty-plus years of real digital experience with direct relationships, where they realize that they do need to — maybe this isn't the best analogy.

But they might not want to use a rifle to target. But they certainly need to choke the shotgun. I came from Lester, Pennsylvania, in the mountains. So, and they realize it can really improve their performance. And it's not an accident that we're now seeing packaged goods categories that were historically seen as these massive broad reach ones being attacked by startups that are digital only and that are building from subway signs and out-of-home and podcasts and then they move to satellite radio and they add these things.

And they're finding that they can use media to effectively build these brands. And they're obviously creating awareness with these other things without this sort of quick hit to TV. Now, they are coming to TV later in their cycles, depends when they really want to accelerate.

But I think that one of the reasons we only talked about the reach awareness part of the funnel was for most of the media you couldn't see down the funnel. So it just wasn't a possibility.

MR. SHIMMEL: But I — I'm sorry. Go ahead.

MR. RIPLEY: Well, I'll say a couple of words on this quote that the vast majority of advertisers use TV. And I think what we heard from the last panel that we've got to remember, that there really are three sub-segments of what we are calling TV.

One is broadcast, then cable, and digital video. And all of those can be used for reach. They can all be used, as was discussed in the last panel, in a broad way. But they all can't be used for targeting.

Digital has the best targeting ability, cable next, and broadcast the least. We hope to change that with ATSC 3.0. And certainly, just in terms of the overall market, targeting is not going to be for everyone. I don't know where the equilibrium will be.

But we're seeing targeting take share away from non-targeted or linear, as was shown in Dave's slide. But where that equilibrium balances out, hard to say. But at the end of the day, for broadcasters, we're focused on making sure that we can actually play in both marketplaces.

MS. HAYS: One thing I might just say is, it's a little bit terminology, but we've talked a lot about targeting and addressable. And again, that's sort of a very one-way thinking about it. And another aspect that I think that these digital properties and all these addressable sorts of technologies enable is servicing.

And so, as that potential evolves for how brands and companies actually think about their relationships with their audiences, both current and potential, there's the opportunity to think about interactiveness and the ability to communicate, the ability to have two-way discussions that could also transform the value of those, both in terms of attractiveness for people to want to be part of those interactions as well as for prices that can be paid. So as those technologies evolve, I think that could be really interesting to watch.

MR. SHIMMEL: But I think a key thing, a key mistake the industry makes, is we conflate who to target with addressable, where we think addressable only means a very, very narrow target, right?

And think about *Avengers: Endgame*. In spite of how big that movie is, there's probably forty percent of the population who will never go to see that movie, no matter how many ads they see, no matter how persuasive the ads are. And if addressable could avoid those people, but still get reach and scale for the rest of the country, why not? Why wouldn't Marvel Studios want to avoid the waste that traditional TV brings?

MS. HAYS: And if you know you're not going to go, why wouldn't you want them to not keep telling you about it?

MR. SHIMMEL: Right, right, right, right.

MS. HAYS: Unless you kind of wanted to be part of the zeitgeist.

MR. SHIMMEL: Yeah, yeah. I mean, I will never walk into a fast-food restaurant for the rest of my life. So if McDonald's could avoid advertising to me, it improves their ROI and it reduces the annoying ads that I get.

So, I mean, I think again we've just got to think the one good thing about this stage of the market is there will be more addressable capabilities rolling out for advertisers, between ATSC 3.0 with local, with national networks being able to do addressable in their inventory.

So one of the reasons addressable isn't bigger is there's just a limited amount of supply. But as it grows, I think it's a natural thing for advertisers to use. And yeah, you don't want to only target your heavy users because you don't grow brands by doing that.

MS. MINTZER: And do you see any distinctions between national advertising and your local McDonald's advertising in terms of achieving the scale where addressable makes more sense?

MR. RIPLEY: Well, addressable has a distinct advantage I think for local advertisers because often local advertisers want to geo-target around their catchment area, if they have a place of business.

And so, we're seeing a lot of activity there in terms of having appeal to local advertisers since they generally aren't always trying to blanket the universe.

MS. MINTZER: Is there some point where some waste makes some sense? There might be a cheaper CPM to target a certain geographic region.

MR. RIPLEY: Absolutely. Advertisers all the time are weighing different options on a CPM basis. Everything can be broken down into a CPM at the end of the day. Even if an ad is sold on a unit basis, you can still imply what the CPM is. You can see what's more efficient.

So you go to a cable interconnect, and it can give you something that zones around your specific location.

But if you get a cheaper price from a broadcast station which hits the whole DMA and you just do it on the equivalent of your target within that geography, you're just going to choose the one that gives you the cheaper price.

MS. HAYS: I also think there's something to that about quality too. And if you think about that advertisements aren't necessarily just for one individual.

So you might see an ad for McDonald's. But it's really hysterical or it's shareworthy. So you tell other people.

So there is an amplification effect and that's beyond the direct one-to-one kinds of measurements that we have in terms of virality and sharing and social and other sorts of things that advertisers and those who create ads really think a lot about.

And there's a lot of research coming out of Les Binet and Peter Fields, who also showed just how important that amplification effect is beyond just the media itself.

MR. MORGAN: Yeah, and I think one thing that it's important for people to understand, particularly with the digitally oriented growth marketers, we talk about geographic and DMAs and other things because they were based on either geographic zones or political designations or the reach of a broadcast signal. But in most cases, for a lot of these marketers, because they're deploying on a performance basis, it's just cells. It's cells on a spreadsheet.

MS. BEAUMIER: Yeah.

MR. MORGAN: And they'll just move money. I mean, if you look at like the large online travel booking services, they just use geography as another cell. Like when some cells are popping, they move it. They pull it back and other things like that.

So there are a lot of marketers that are just very, very fluid this way. I think that's one of the things where addressable or some of the geographic — it's a tradeoff.

And they'll see this has more spill, this has less spill. What's my performance? I'm shifting here. I'll take some spill. And as they're getting more longitudinal measurement and understanding not just what sold in twenty-four hours but what sold in twenty-eight days, and we're seeing that influence things too.

MS. MINTZER: And Howard, you mentioned ROI and it comes down to ROI. And I'm wondering what you see going forward. We have heard some concerns that it's really hard to measure attribution, the measurement, the attribution effectiveness.

And I'm wondering what you see there, what you maybe have seen. You referenced some other countries and what they're doing and if you see anything effective in terms of measurement standards or moving forward.

MR. SHIMMEL: Yeah. The reality is because of all of the data innovations that have happened, whether it is Nielsen has a service where they directly connect their TV panel with Catalina Marketing shopper data. So where you can go into that data set and you can directly see someone saw three ads on MTV for Kellogg's. Did they buy more cereal after the third exposure than they were buying before?

Bringing in a lot of what Dave's company does, bringing in client first-party data, aligning it with ad exposure data and to be able to do similar analyses. The capabilities are wonderful.

I think the issue becomes if I'm a media seller, there are a lot of other things beyond TV exposure or video exposure that drive the success of a brand campaign. There's the competitive environment. There's what different advertisers might do in-store.

So, the question is does it make sense for a media company to start guaranteeing it. Who knows? I think you'll see these tools used more and more in the marketplace.

MS. MINTZER: Well, one thing we've heard are the problems and challenges with cross-platform measurement.

And I'm wondering what you're seeing there. How can an advertiser compare the value of an ad, a purely digital ad, old-school display versus one on video or video shown linearly on a TV program? Maybe Christina, you have some thoughts?

MS. BEAUMIER: I mean, yes. I would say there are a couple of industry challenges when it comes to this fragmentation that we have today.

And measurement of an audience, unduplicated reach, management of frequency across platforms and overall measurement, right?

And so, at the end of the day though, getting to that bottom of the funnel action and understanding the outcome is really, we think, a common ground, a common denominator. As there are improvements and advances in how we measure, manage frequency across platforms, we think, grounding in the outcome is a good way for many advertisers to understand effectiveness.

MS. MINTZER: Okay.

MS. HAYS: One other thing in terms of cross-platform, I think a lot of it centers around attribution and tradeoffs and which one is more effective than another. But the reality of the customer journey is that all of these touchpoints work together.

So as an individual, you might see an ad. And if you're touched by customer service or you actually buy the product or somebody mentions it to you, there's this whole range of things.

And even within the bounds of what can be measured, there doesn't seem to be as much of what I would love to see more of, which is what are the interrelationships? What are the synergies? What are the best ways for various scenarios, various kinds of outcomes where the packaging of them works particularly well and where you can show what those cross-effects are, in addition to just who's winning? Should it be this platform or that platform? How do they work together?

MS. MINTZER: Great.

MR. SHIMMEL: But one of the things that's important is cross-platform is a challenge from a syndicated research provider standpoint — Nielsen and Comscore. It's less of a problem for companies who have their own first-party data.

So, like one great example is the retailer Target. They've built a data stack where they have all of their digital ad occurrence data. They have all of their CRM data when people go and use a Target loyalty program. They've integrated Vizio-ACR data.

And they've integrated that all using a company called Live Ramp, which has a device graph that allows you to link together what you're seeing through ACR, which is based on the household's router, with what you're seeing on phones and on PCs.

So because you have a company like Live Ramp, they've created a cross-platform view for Target that they're able to use in measurement.

MS. MINTZER: Great. Well, thank you. I did want to leave a few minutes for questions. So if anybody has any questions?

MS. HAYS: Do we get to ask the audience questions?

AUDIENCE MEMBER: I think you had a question over here.

MS. MINTZER: Oh, sorry.

AUDIENCE MEMBER: Over here.

MS. MINTZER: Oh, go ahead. I'm sorry.

AUDIENCE MEMBER: Mr. Ripley, you talked about acquiring content for digital distribution so that you could compete in that space a little bit.

But what constraints do you face in selling your main product in the digital space from your network affiliation contracts where they try to take control of digital distribution of your product?

MS. MINTZER: So the question, just to make sure it's recorded, was what constraints might Sinclair face from its network affiliation contracts in expanding into digital.

MR. RIPLEY: It's a great question. We have made a concerted effort to get into streaming because that's where the audience is. And we need to create more impressions to make available to advertisers overall.

We do have significant limitations on our network content rights as it stands today. We distribute that over the air and through cable and satellite and through virtual MVPDs. But for instance you won't find it on STIRR. And that's a contractual limitation we have to distributing that.

And so, we have fairly narrow lanes that we can stay in as it relates to our network content. So we're focused on creating other content, acquiring new content and providing it in places and new platforms where consumers are and could create additional impressions for us to sell.

MS. MINTZER: Yes, please?

AUDIENCE MEMBER: Monty Tayloe, *Comm Daily*. Mr. Ripley, you keep bringing up ATSC 3.0 as something that might help broadcasting compete with digital. But like the whole point of this workshop I thought was to — for DOJ to think about how they treat broadcast competition. If 3.0 goes the way you want, won't broadcasting be on an equal footing with digital and then DOJ won't need to worry about a competitive difference?

MS. MINTZER: The question is if 3.0 does go the way that Mr. Ripley has discussed, would that eliminate the differences between the broadcast advertising and linear — and digital advertising.

AUDIENCE MEMBER: Yeah. You got it.

MR. RIPLEY: Well, so —

AUDIENCE MEMBER: Way better than me.

MR. RIPLEY: — I think the point —

MS. MINTZER: I had more time.

MR. RIPLEY: — of this entire workshop is to dissect whether television, which everyone on this panel has been talking about television, I think it's been abundantly clear they're talking about broadcast, they're talking about cable and they're talking about digital video. And they're just calling it television.

And the point of this workshop is to understand whether those should be viewed in one totality as one fungible marketplace and, as I've stated before, there are differences in capabilities. But in terms of broadcast versus cable and digital video ads, digital video ads and cable have all the capabilities of broadcast.

But unfortunately broadcast does not have all the capabilities of those other two. And ATSC 3.0 will go a long way in leveling the playing field.

But it doesn't stop money from moving back and forth from these markets and it doesn't stop them from competing. If anything, it makes broadcast a less able competitor versus those other sub-segments.

AUDIENCE MEMBER: I wanted to follow up on that question. If the Justice Department doesn't allow broadcasters who are number three or four in their markets to merge, is it likely that they'll ever build out ATSC 3.0 and be able to compete in the market for targeting advertisers?

MR. RIPLEY: Well again, I can't predict the future. But rolling out ATSC 3.0 is a step that will cost money and resources and a commitment to the future. So if local economies of scale cannot support three- and four-ranked players, then I think your hypothetical would be correct, that 3.0 would not be rolled out robustly.

AUDIENCE MEMBER: And if we care about competition, which is the purpose of the agency, that would be a pro-competitive point of view, when what we've heard is that the ad market is moving toward targeting people, not just hitting them en masse, which has been considered to be inefficient or wasteful.

MR. RIPLEY: Did you want to restate the question or you just want me to answer?

MS. MINTZER: Oh, I wasn't — I didn't hear a question mark at the end. But go ahead and answer.

MR. RIPLEY: No, I think the short answer, yes, that would be a pro-competitive move. Upgrading broadcast to 3.0 will create more competition for digital video — for the digital video ad marketplace than for the cable interconnect marketplace. So I agree with your statement.

MS. HAYS: I also wonder whether there might end up being a premium for broadcast at some point in time that's not addressable, so that for those who really want to — I suppose that's there on a subscription basis, but somehow where it's really broad and you're still getting that reach that has the kind of zeitgeist where everybody's watching it, like the Super Bowl.

MR. RIPLEY: We can only hope.

MS. HAYS: Just putting it out there.

MS. MINTZER: Well, thank you everybody really very much for showing up. I really appreciate it. And thank you all for attending. I think, that closes it out for this panel and Daniel is going to give some short remarks.

MS. HAYS: Could I just make one quick remark?

(Applause.)

MS. HAYS: I'm terribly sorry. Just having been here since yesterday and having been part of the conversations and having been in an organization that was intended to be rather independent about how to look at this, these kinds of topics across the board, I do think there's a real appetite among many people with whom I've spoken to continue to support your efforts in learning about this and providing additional information in detail and resources that we have to inform what you're up to. So I think we stand ready to continue to help.

MS. MINTZER: Great. We appreciate it and we welcome all viewpoints.

MR. RIPLEY: Thank you, Erica.

MS. MINTZER: Thank you.

MR. MORGAN: Thank you.

Closing Remarks

MR. HAAR: I promise, everyone, I'll be very brief. Thanks, everyone. Thank you all for coming. Yesterday, Assistant Attorney General Makan Delrahim explained that workshops like these enable the Antitrust Division to stay current with emerging industry trends, new business models, and the latest economics.

After listening to the discussion for the last few days, I know we have accomplished that and more. Media advertising is a complex and dynamic industry. And we applaud the workshop participants for having engaged in such an informed discussion.

From industry trends and ad-targeting technology to understanding the changing ways in which advertisers think about connecting with consumers, these panels have given us a lot to think about.

We will give careful consideration to what we have heard during this workshop and consider the changes in the industry as we continue to update our competitive analysis.

We'd like to close by thanking once again Professor Susan Athey for her insightful lecture today and all of our panelists for sharing their perspectives with you.

I also want to thank Division staff — attorneys, economists, paralegals, and support staff — who were all working very hard behind the scenes for a long time to put together this wonderful event.

Thank you all for joining us for this discussion on competition in television and digital advertising. This closes the program.

(Applause.)