**“THE FUTURE OF BROADCAST TELEVISION”**

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Good afternoon, everyone, and thank you for having me today. I’m pleased to be here at Penn Law’s Center for Technology, Innovation & Competition—because that’s exactly what I want to talk to you about. I want to offer thoughts about one of our oldest forms of media, and one that I expect will continue to play an exciting role in our dynamic media ecosystem: broadcast television.

This is the signal that comes for free, over-the-air, to your house. You don’t need an internet connection for it because—perhaps surprisingly—it predates the idea of an internet connection. Growing up in Kansas City, we watched channel KMBC 9, KCTV 5, and NBC – the low numbers. We tuned in for the news we trusted, to hope for snow day announcements, and, of course, to watch Royals and Chiefs games. But it might not be what you tune into now. Actually, we have a lot of students in the room, so I’m almost sure it’s not what you tune into. Broadcast TV has faced increasing competition over the course of my lifetime, and especially yours, first from cable channels like ESPN and CNN, then from social media, and then from streaming services.

For us, as viewers, competition is great—it puts us in the driver’s seat, gives us more options of what to watch and when and how to watch it. For the competitors themselves, it’s a challenge. How to win eyeballs, how to attract new viewers. In the face of new technology and growing competition, legacy businesses like broadcast television must innovate. They must make a better product, to potentially win back viewers they’ve lost, and even earn new ones, all while not losing sight of their identity—the thing that keeps their core base tuning in every night.

But if there’s one thing I know, it is that the broadcast industry sees opportunity. One of the key ways is by transitioning to a new operating standard—ATSC 3.0. This standard, developed by the Advanced Television Systems Committee—that's how I get the ATSC—is IP-based, meaning it has all the benefits that internet protocol offers, but it still comes to your TV set for free, over-the-air, with the click of a button. You don’t need a high-speed internet connection—the gating item for streaming services. In a fully-transitioned future, if you can receive a broadcast television signal, you will be able to receive the benefits of ATSC 3.0.

Having the TV broadcast industry use the same language as the internet means that the public airwaves can be another form of distribution for the content that you find on the internet, or on streaming media, in addition to what we think of as traditional broadcast content. I’m excited about the potential benefits of this. More free content, over-the-air—the opportunity for a greater diversity of programming that represents broadcasters’ communities, with the high video and audio quality you’re accustomed to with streaming, but for free, for everyone; and the possibility of hyper-local content, which could be used to enhance emergency alerting capability. But I also know that with all types of innovation come new use cases and challenges. Here, it means that broadcasters will have access to large amounts of user data for the first time. My job as an FCC commissioner is to support innovation, not to slow it down. That means we need to be on the lookout for how to build in privacy-protective measures to this new technology while it's developing. We all know a lot more about personal data collection and use now than we did when tech companies first started collecting reams of this data 15-20 years ago. Broadcasters have the opportunity to live up to their reputations as trusted members of their communities and be good actors from the start. I call on them to do so.

1. **A New Frontier for Broadcasting**

Let’s rewind. How did we get here? Nearly five years ago, the FCC authorized broadcasters to voluntarily transition to ATSC 3.0. And in that time, they have made remarkable progress. Today, ATSC 3.0 has been commercially deployed in over 50 markets, and over 60 million households now have access to at least one of these next generation signals. Here in Philadelphia, broadcasters have announced they are working together to bring ATSC 3.0 service to all of you.

This progress is particularly impressive because the transition is entirely market-driven, and broadcasters are accomplishing it with only their existing spectrum. This isn’t the industry’s first transition—in 2009, broadcasters completed their transition from analog television to today’s digital television (also called the ATSC 1.0 standard). But that was a very different process. Congress mandated it, and the FCC gave broadcasters extra spectrum to accomplish it, so that they could air their analog channel and their digital channel at the same time. Spectrum is scarce, and has become an increasingly valuable resource. At the FCC, we even “repacked” the television band, moving stations to free up spectrum for wireless service. An extra allocation of spectrum was never a part of this transition. But despite what could seem like a limitation, the 3.0 transition is much more advanced after five years than the transition from analog to digital was at a similar stage. This impressive progress to date shows the broadcast industry’s commitment to innovation for the benefit of its viewers. Like I said, broadcast may be an “old” form a media, but broadcasters are showing they are playing hard in today’s dynamic media marketplace.

So it’s an exciting time to be a broadcaster. It’s also an exciting time to be a consumer. The level of competition in today’s media landscape means that news, entertainment, and sports programmers are competing for ears and eyes, and Americans have more choices than ever—you can see that in how cultural critics refer to this era of “peak TV” and “prestige TV.” Broadcasters are a particularly beneficial competitor for us consumers here, because a broadcaster’s primary responsibility, right there in the Communications Act, is to deliver free, over-the-air content that meets the needs of its community of license. ATSC 3.0 means more free, over-the-air content and more options for viewers. The new standard also supports significantly increased picture and sound quality, which consumers are otherwise used to having to pay for—either directly to a streaming service, or via their internet bill—at no additional cost. That kind of democratization of content benefits all Americans.

How do we make sure that all Americans get access to these benefits, and soon? It’s not simply a case of having broadcasters move the transition along faster. ATSC 3.0 isn’t backwards-compatible. This means that consumers will have to buy new equipment in order to receive these new signals. This was the case with the transition from analog to digital as well—anyone remember rabbit ears?

The first television sets that could receive ATSC 3.0 signals hit the market two years ago. But soon consumers will have over 120 sets from four different manufacturers to choose from, at a variety of price points, with more on the way. It’s good to see competition and choice in the consumer electronics side of this transition as well. But many Americans don’t—or can’t—just go out and buy a new TV, certainly not as often as the consumer electronics industry wishes they would. We need to pursue a two-pronged approach for these viewers:

*First*, we need to help all Americans get access to 3.0 programming. This is another area where industry can show off its innovation chops—are there low-cost converters or dongles that the consumer electronics industry can develop? Can they be distributed at community events that broadcasters frequently host or participate in? The industry has managed the transition thus far without the level of government involvement characteristic of the digital transition, which is to be applauded, but I can’t overcome my job title: is there perhaps an effort for the FCC to lead here, as we did in developing a Congressionally mandated digital transition equipment subsidy program, or using our role as the regulator of television equipment? Let’s get creative. I want to hear the industry’s ideas here.

*Second*, we need to ensure the continuation of current service until access to 3.0 is widespread. Until a critical mass of Americans have 3.0-compatible devices, broadcasters must continue to provide the programming that viewers expect in ATSC 1.0—and, to be clear, they are required to by our rules.[[1]](#footnote-3) Broadcasters offer an essential service, and they must continue to do so. This means that broadcasters should be highly motivated to promote widespread adoption of 3.0 equipment. With these incentives aligned, I hope Americans can begin receiving these benefits in the near future.

1. **The Advancements of ATSC 3.0**

I’ve mentioned some of the benefits of ATSC 3.0, but let me say a bit more, so that you really understand why this is such a great development for the industry, consumers, and the media landscape at large.

ATSC 3.0 offers higher-quality picture and audio. Broadcasters can air content in 4K resolution, with high dynamic range. When it comes to sound, the Dolby AC-4 standard incorporated into ATSC 3.0 means that there is consistent loudness across programming from multiple sources, and viewer-adjustable dialogue enhancement. Broadcasters will also have the ability to deliver interactive and on-demand content. These features are necessary for broadcasters to compete against other media sources, but critically, unlike the sources today that may already incorporate these benefits, broadcasters will be offering them for free, over-the-air.

Not only does ATSC 3.0 offer higher-quality content, but it can provide *more* of that high-quality content. Gone are the days of limited airtime meaning that content needs to appeal to the broadest number of viewers. Instead, let a thousand flowers bloom. One of the best things that streaming media has brought us is more diverse content, reflecting groups who don’t often see themselves on television. Representation in media isn’t abstract or hypothetical—it directly impacts what stories are told, and who gets to tell them. And that’s a big part of how we learn and understand the world around us. This is what drives my actions on some of our most important media issues at the FCC, including equal employment opportunity and ownership, and it’s important here too. Broadcasters should be thinking about the members of their communities whose stories aren’t being told, who might speak different languages or live in isolated areas. How can this benefit of additional, free content be used to serve them?

The fact that broadcasters can offer additional programming is a benefit in and of itself. Under the ATSC 3.0 IP-based system, broadcasters can transmit *more* in their same six megahertz channel—including more programming and new features. This is a great example of how to use spectrum efficiently: broadcasters are creating a more robust and intensive system, within the same amount of spectrum. Spectrum is a scarce resource, and all FCC licensees should be encouraged to do the most they can with their license. Broadcasters are to be commended for using their spectrum efficiently.

From a technical perspective, 3.0 broadcasts are more robust over-the-air, and are less susceptible to environmental noise and other issues associated with over-the-air broadcast television signals.

The new standard also includes the ability to offer hyper-local programming. It will be interesting to see the ways that broadcasters use this new ability. Many stations serve multiple communities in different geographic areas. We’ve seen stations like this start to use ATSC 3.0 to target news content to the appropriate region, which means they’re producing more news, on a more local level. They might also offer second language content, as I mentioned. I’m interested to hear other future applications that broadcasters and programmers contemplate.

One area where 3.0’s ability to provide hyper-local programming will be particularly valuable is in emergency alerting. Broadcasters are unique among services in being able to deliver emergency alerts: they have the spectrum, the resilient infrastructure, and the trust of their communities. People know to turn on broadcast television or tune into the radio for emergency information, even when other communications technologies fail. Extreme weather events are on the rise, and timely and targeted emergency alerts can save lives. This is proven true all too often during hurricane season, as hurricanes Ian and Fiona recently showed us.

Targeting alerts geographically helps reduce alert fatigue. But let’s see how 3.0’s other capabilities can make emergency alerting even more powerful:

* + Using interactive capabilities, can broadcasters deliver more information to those who need it, like evacuation routes and flooding maps?
  + What progress is being made to have alerts “wake up” a device that is turned off, to get the word out faster?
  + How can we make sure that the alerting system is secure? The FCC is currently examining this with the current EAS and WEA systems, but are there 3.0 developments that can help resolve security issues?
  + Is there a role for the FCC in facilitating cooperation between the different stakeholders here?

Today, these are hypothetical possibilities. I’m eager to see what tomorrow brings.

1. **ATSC 3.0 and Privacy**

You can see why I support this technology. It has key advancements, and I want to see American consumers benefiting from them in the near term. But like many promising innovations, we must also set proper guardrails – in this instance I turn to the issue of consumer data privacy.

Today, broadcasters collect very little information about their viewers. They obtain audience information from third parties, such as Nielsen, and may collect some personal information from contest entrants, or through their apps and websites. But you don’t have a contractual relationship with channel 4 the same way you do your cable or internet service provider. And you may not know it, but the FCC regulates what your cable provider and your internet service provider can do with the information they have about you through that relationship.[[2]](#footnote-4) Additionally, the market for broadcast TV isn’t like other consumer goods and services—I don’t see a viewer choosing to change the channel because they think channel 9 has a better privacy policy than channel 7, nor should that obligation be placed on him or her. Broadcast television is a part of the community, a part of the local information ecosystem. Broadcasters are stewards of the public interest, and must keep those obligations in mind as they move forward.

This technology is still developing, but for the last several years we’ve heard broadcast executives say that the ability to deliver targeted advertising is a promising potential revenue stream for ATSC 3.0. Broadcasting, to be sure, has always been an advertising-supported service. That’s what keeps it free. Not a problem. And like I’ve said, ATSC 3.0 will help make broadcasters more competitive, and one of those ways is by becoming more competitive to advertisers. So far so good. Where I start to have concerns is with the *uses* of that information. Using information about a user’s geographic location to send them, for example, news and weather specific to where they are makes sense, and can be a benefit to the user . But I have seen distinct harm in the ecosystem where the sale of geographic location information and other data to third parties and data brokers distinctly *doesn’t* benefit the user. We have a unique opportunity to get ahead of this, to make sure that broadcasters are good actors in the market from the start instead of racing to unwind any privacy harms—ex ante, not ex post.

To do so, we need to fully understand the facts:

* + What data will broadcasters be able to collect from users, and how do they intend to use it? How can they follow the important principle of data minimization, and work to achieve their goals with a minimum of data collected, stored, and shared?
  + Our rules limit how your phone provider can share your personal data with third parties, and for what purposes.[[3]](#footnote-5) How are broadcasters similarly thinking about these issues? Secondary uses of data—that consumers aren’t aware of, and can’t even contemplate—have generated some of our biggest concerns in recent years, and give me the most pause. What is the broadcast industry’s proactive thinking here?
  + Finally, there are distinct groups that have historically had legal protection when it comes to advertising. For example, at the FCC, we regulate the amount and content of advertising that can be aired during children’s programming, pursuant to the Children’s Television Act. And federal statutes like Title VII, the Fair Housing Act, and the Equal Credit Opportunity Act, prohibit discrimination in advertising of employment, housing, and credit, respectively. Tech companies have run afoul of these laws with their targeted advertising—just this summer, DOJ entered into a settlement with a large tech company resolving allegations that its algorithms determining which users receive housing advertisements violated the Fair Housing laws. This is instructive. We need to pay particularly close attention to these issues, and think about how to make sure the necessary protections are in place on the front end.

These are big questions, and they may not have answers yet. But this is what’s great about innovation, and where we are now in the development of the media and advertising ecosystem. We know to ask these questions, and we can make sure that the answers are developed with the public interest in mind. I look forward to the dialogue.

1. 47 C.F.R. § 73.3801(b). [↑](#footnote-ref-3)
2. *See* 47 U.S.C. § 551 (regarding cable subscriber privacy); 47 U.S.C. § 222 (regarding telecommunications carrier subscriber privacy). [↑](#footnote-ref-4)
3. *See* 47 U.S.C. § 222; 47 C.F.R. § 64.2001 *et seq.* [↑](#footnote-ref-5)