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MoffettNathanson Media and Communications Summit

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MANAGEMENT DISCUSSION SECTION

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Okay. We're going to get started. And I'm really excited for our next speaker. His name is Glenn Enoch. Glenn is the – he is Nielsen's Senior Vice President of Audience Insights. He joined Nielsen last year after a long and distinguished career with a company called ESPN.

Now, the truth is I always look forward to reading Glenn's analysis. We thought it would be really valuable for all of you to hear from Glenn live himself. He's here to share his thoughts on current trends to consumer viewership and consumption of video. So we really encourage you to take advantage of his expertise here, his presence here. We open up for questions after his presentation.

So thanks, Glen, for being here. And thanks, Kate, for being here too.

Glenn Enoch
Senior Vice President-Audience Insights

Am I on? Can you hear me? Okay, cool. If you all sat in the front so I wouldn't have to yell.

All right. So this is our – or my standard media trends deck. I give this talk a lot to clients. You may be familiar with our quarterly Total Audience Report and very frequently people come to us and say, can you come and give us the Total Audience Report presentation and we don't really have one. So I created this one, so that I have something when people ask us that question. And it changes over time. So probably some of the stuff I'm going to show you today, nobody has seen yet.

And maybe a trend and change in media consumption starts with devices and services that bring people content. And that's sort of the history and all change in the year. It's that you have some device that enables a behavior or maybe a behavior on a location that you haven't been able to use before and a service that brings you content that you want to consume. And this is based on our national panel, and it's just a sampling of 10 kind of major technologies and services that we measure. Some of them are very highly penetrated and aren't growing very much, pretty much everybody in the U.S. at this point has an HD TV, at least one. I think everybody that wants a

smartphone at this point probably has one. The DVD has reached the mountaintop and is coming down the other side.

But a lot of the behaviors in services or some of the technologies and services are still growing. So enabled smart TVs, about one in five households has a smart TV that's connected to the Internet and knows that it's connected to the Internet. And that's growing very, very fast. We saw a 43% increase year-to-year.

Multimedia device is a phrase I'm going to use a lot in the talk, and it's a bucket that describes all of those things that you connect to your TV set that enable video streaming. So Apple TV, Roku, Amazon Fire, the Google device, all of those things that you connect to your TV that enable streaming of various services including SVOD. SVOD is at about half of households, but it's still going at a very fast clip. So there are things that are very highly penetrated, some things that are not highly penetrated but growing very fast.

I wrote a paper that was published in the Journal of Advertising Research in June of 2010, like my sole academic reference, and we posited these seven principles of cross-platform research based on work we were doing at ESPN. And the first one was every new technology creates a new stratum of owners.

And people – not everybody is going to buy everything. Apparently, I'm wrong about HDTV, but pretty much not everybody buys everything. And the ones who do buy it, buy it in combinations of other things that they already had, and they create all these little cells of usage. And that's what makes research so hard, is that if everybody would just go out and buy the same thing and use it the same way, they'd be easier to measure. But all these dozens and dozens of different cells of ownership and usage and access to content create all these different cells of usage that we have to examine.

This is a slide we talk about a lot. This is a very long look at media options and media behavior. And the thing you take away from this is, I hope, that as people have added these different devices and these different services, it has increased the total amount of time that they spend with media. So in this case, we're looking at fourth quarter of 2005. And the average adult spent about 54 hours a week with these different devices. And in 2015, 10 years later, it looks like about 69 hours a week for these different devices.

So one thing that has happened as people have added digital devices in particular is that they've added to the total size of the media pie. But the other part of it is that they have created pressure on traditional media especially radio and TV. So those are the two things.

This is a little more detailed look. And this is straight from the back of the Total Audience Report, except on the Total Audience Report, you're used to looking at it like this. But I've sort of set it up like this, and it's exactly the same data, though. And we've provided through each of the things that we look at in the Total Audience Report just a year-to-year trend for you. And there are a few that are declining. DVD penetration, as you saw, was going down, and DVD usage is declining as well as people find other sources of on-demand consumption. Both AMF and radio and live TV are going down. But I would say that two minutes and four minutes per day for radio and TV is not exactly a death, now. These are extremely large and pervasive behaviors, and we are a long ways away from the death of TV or radio. And that's live TV. We are getting an increase still in time-shifting – it's up 3% year-to-year.

But a lot of these are growing. The ones that are on light green are growing less. So PC, Internet, is growing, and that's not just video. That's any use of Internet on the PC is growing. Video game console usage continues to grow. And two that are growing at a very fast clip are smartphones, still continues to grow, but multimedia device, this bucket of Apple, TV, Roku, all the stuff. It's really the thing that is showing the greatest growth year-to-year.

So we're going to look at the big screens and the little screens. So I want to start with how Americans are using the television set of the big screen. This is sort of traditional TV, so it will be Live TV plus later in the cycles, as we started measuring DVRs, it would include time-shifting on a DVR. And if you look at all the years of data that we have, TV viewing is near historic high levels. We're not at the peak anymore, but we're not very far down the mountainside either.

Last season, the average household spent 8 hours and 10 minutes watching traditional TV sources. If we correct for some sample changes in that period of time, it would be in the top 10 years ever. So again, because it's going down, people are kind of picking on it as if it's a dead behavior. But that's not true. It's still very, very high.

This is persons 18 to 49. So within households, we're still up very high peaks. But different demos are declining at different rates, and this is for persons 18 to 49. The way to read this is the first bar is minus 2%. What that means is that from January 11 to January 12, persons 18 to 49 were watching 2% less traditional TV. Traditional TV is live TV plus DVR. And for a long time, we were seeing a soft decline in viewing among younger adults, so 2% or 3% or so forth.

In the summer of 2014, things got really, really ugly. We were monitoring this at ESPN. We have the World Cup and we expected some things to happen at the SportsCenter. Networks are always looking for the halo effect. I spent all this money on the thing, so I'm expecting it to lift all of my boat. And we were looking for that halo effect with SportsCenter, and it wasn't happening. We started digging into it. We discovered that all of TV viewing was declining at a very fast clip. As you can here, August, it was nearly 10% down. That was kind of the lowest point.

The good news is that we seem to have been through the worst of that and things are looking up. So we're seeing less and less and less decline as we go on this season. It's looking much more encouraging. In fact, for April, the last full month, we see a 3% decline in persons 18 to 49 viewing which is about what we were seeing in 2013. So it's still going down but not at nearly the pace it was and there was a lot of press about, again, the death of TV. I will say if it was going down by 10% a year, yes, at that point, it would have been very ugly. But we're not seeing that anymore.

This is sort of the same thing. So I showed you that in April it is down 3% of 4%, in terms of the average of persons 18 to 34 and persons 35 to 39 but this is by quarter. So again, quarter after quarter after quarter, our yearly declines are less. But the thing to look at here is that persons 12 to 17 or teens and persons 18 to 34 are showing the largest decline. So the declines that we're seeing are not even by demo. They're the worst for persons 12 to 34 and I'm going to kind of dig into that a little bit for you.

But among older adults, persons 50-plus, we've actually seen an increase in TV viewing, and some of this is related to the news events and largely to the election cycle. So we've seen a lot of viewing of news. News tends to appeal more to older adults. And certainly, election news is something that older adults tune into. So we've actually seen a net increase in TV viewing among older adults and I would expect that to continue until at least the fourth quarter of 2016.

The reason that TV viewing, traditional TV viewing is going down is the live television part of it. Again, for years, we saw every year Americans are watching more TV and then suddenly 25 to 34s were not watching more TV. And that's kind of spread to the surrounding demos. And so the last full year, which is the second line from the bottom, virtually every demo was down. We didn't see so much of a decrease for persons 65-plus because that election stuff came in at the end and saved it. But we were seeing some kind of a decrease across the board in 2014. The worst decreases again are among 12 to 34s.

And what we're seeing here as sort of a larger trend of the shift from live consumption – I turn on the TV set, I found something I wanted to watch, and I watched it – to on-demand consumption, some of which is taking place on DVRs but some of other is taking place on other devices. So we're going to look at the other devices.

This is the collection of all devices that Nielsen measures. And one of the great things about the Nielsen service is that when we meter a household, we go into the household, we attach meters to all of their television sets, we're not only looking at the set-top box or the antenna viewing, but we're attaching metering devices to all of the devices that are connected to the TV set.

So the TV set is on and somebody is playing a video game or streaming through a video game console or they're playing a DVD or they are – they've attached an Apple TV and they're using the Apple TV – I'm trying to make sure I capture all of them. I think DVR, DVD, video game console, multimedia device. And even if they have a VCR, we're still metering those. There's not very much in there, but if they are using a VCR, we're getting all of that usage.

We don't know in every case what they're watching, but we know that they are using the device. And this is the sum of all those devices, average day usage by demo and it's going up. Over the past couple of years, usage of devices as a whole has increased 17% or 18% for persons 18 to 64. It's up more for persons 65-plus, probably the same absolute amount, but the relative increase is greater because of the underlying usage was less.

So usage of devices continues to increase. Different demographic groups use different devices. So we've stacked up the ones that we measure here, again, DVR, video game console, multimedia device, DVD and VCR. I [indiscernible] (11:53) VCR black or you couldn't see it. It's that little thin line at the top. For children, persons 2 to 11 are the biggest users of DVDs. And if you look at DVD penetration, it's higher in homes that have children. I think this is a lot of Safe Harbor viewing.

I think when you – I don't have any children of my own, but I'm told by those who do that despite your best intentions that you're going to spend every waking moment with those children, nurturing them, at some point, you got to do the dishes, right? So you put the kids in front of the TV. You didn't want to do it, but you got the TV set and you put the kids on front of it, but you don't want them watching Adult Swim. So a DVD is one way that you know what they're watching. So they are the highest consumers of DVD.

Teens spend more time with video game console – don't step in front of the line. Teens spend more time with video game console than all the other sources combined. This is gameplay plus any video use. And that makes a lot of sense, right? If you have teens, you would know this. Persons 18 to 34 use a lot of video game console also, but that declines steadily from the age 21 to 34. So penetration of video games is the same across all those ages, but you just use it less and less. But they are the primary users of multimedia devices. So that's really the heart of Apple TV, Roku, all those things, these persons 18 to 34, which is largely at this point millennials. Actually, millennials this year are kind of aging through 20 to 35, but for the purposes of this study, we're going to call it 18 to 34.

Once you get to the age of 35, though, it's primarily the DVR that people are using. So there's a big difference between 18 to 34s, which is the kind of the millennial group, and Gen X, which are, at this point, age 35 to 49. Big difference. And the big difference is that the 18 to 34 is much more likely to use multimedia devices and Gen X much more like they'd use DVR. And the older you get, the more likely that you're only using the DVR.

So not all the devices are showing even growth. The ones that you generally don't connect to the Internet like the DVR and the DVD are not showing much growth, and in some cases are showing a decline. The ones that you do

connect to the Internet that enable video streaming, like the video game console and multimedia device, that's where we're seeing the growth.

And I pick out a couple of these to kind of drill in on. And one is the DVR. We saw a steady increase in time-shifting through the DVR from many years. This is a new slide, by the way. I keep saying this I thought I should probably prove it. The kind of pinkish purple is the penetration of DVRs in American households or in U.S. TV households. And it grew from 21% at February of 2008 up to 49% currently. And the top part is the average rating that we would say for DVR usage, all-DVR usage are rolled up together. And the two of them of grew together because what was happening was that in DVR households, which is the top blue line, the usage didn't change much year-to-year, but there were more DVR households. So the overall usage grew and grew and grew.

Lately, the last couple of years, we have seen an uptick in DVR usage in DVR households. And we're also seeing an increase in time-shifted viewing in households that don't have a DVR. Our bucket of DVR playback includes DVR time-shifting – that's what most of it is – but would also include what we call encoded VOD. So for clients who have VOD content on through Comcast or something like that, if they encode it and if the stream has the same commercials as their original telecast, we can roll that into the ratings. And we've seen an uptick in that, and that accounts for a lot of this later increase we've seen. But DVR penetration itself is really not growing.

This is – so less growth for time-shift to viewing, as I said. In fact for 12 to 34s, it's going down. For teens, it's down about 11%. For persons 18 to 34, it's down about 8%. And this is one of the reasons why their traditional TV viewing is going down faster than other demos, because in the past, when live TV viewing started to get soft, DVR playback would make up for some of that. So they're kind of balancing each other off. Now, this group has both pieces going down, and so their traditional TV viewing is falling faster than these other demo groups.

This is multimedia device usage, and this is where we're really seeing the strong growth. We're seeing nearly doubling year-to-year, certainly 80% or 90% for all these demos. This is where most of the growth in device usage is occurring.

Now, you may look at this and say, even for 18 to 34s, which as I've said is the primary group, you may say to yourself, well, 20 minutes of usage a day doesn't really sound like all that much. But this is the average of the population. Among those who have the devices, who are using the devices on a given day, there's enormous amount of usage, as I'll show you in a minute.

So I'm going to talk to you about why we're seeing – how am I doing for time? Excellently. So I hit the first high-water mark. Another thing that we talked about in our paper for the Journal of Advertising Research was at the time, there was a lot of talk in the digital community that we couldn't use those old media metrics to measure this new digital media. These are new behaviors and new devices and new horizons and you couldn't use any of these old metrics to measure this new media. And as a company that has assets across more platforms than any other, I think that is still true.

We said, you don't need metrics to divide these platforms. You need metrics that unite them. We need to be able to find something that enables us to measure across all these devices. And we said there's only three things that you need to know, really, to do this. And one thing is how many people are doing a behavior or set of behaviors. The other one is how often they do these behaviors. And the third is how long they spend doing these behaviors when they do them. And we said, for all of these platforms, all these metrics already exist. We really call them different things. So how many is reach for TV, that's queuing for radio, it's some version of uniques for digital. Well, we have the pieces we need to start working to bring these things together.

All of these is playing – we don't have time for another presentation today, but all of these is playing out at Nielsen's total content ratings where we use how many, how often, how long to pull all these pieces together.

So I like to tell the shopping mall analogy. So Nielsen is like measuring shopping mall behaviors. If you were a TV network, you would have some store in this mall or some set of stores in this mall. Every day, people would come to the mall and wander around. And some number of those would wander into your store, right? And they would come into your store however many times per day they came in, and they have that dwell time that we could measure.

What Nielsen is telling each of these stores is in the average minute of the day, how many people were in your store? But what how many, how often, how long enables us to do is to tell you how your average-minute customers or average-minute audience as we call in TV is changing. If your average-minute audience is going down, it's either because fewer people are coming to your store or they're coming less often or they're not staying as much time in the store when they come. That's exactly what we're doing with TV networks and radio networks and all the other things that we measure. So how many, how often, how long is an excellent way of drawing together behavior across platform. It's also an excellent diagnostic device.

So we looked at television viewing through the lens of how many, how often, how long. So is television viewing down because fewer people are watching television? No. We look fourth-quarter-to-fourth-quarter here, just as many persons in our sample are watching TV as ever. It's 98%, 99%, even 100% of people in each of these demo groups are watching TV at some point. In fact, it's one of the most pervasive behaviors among Americans. There are very few things that you do as much as you watch TV in total. We think radio is also extremely pervasive, very high-reach vehicle. But among other kinds of behaviors, I would say eating and sleeping are the other two I can think of that you would do at these sorts of levels.

So just as many Americans are watching TV as ever, but they're watching for fewer days. This is really the thing that's causing the decline in TV viewing. And among persons 12 to 34, if we look year-to-year, out of a 91-day quarter, they're watching for four fewer days. And if you back up another quarter, it would be another four days. It's also the case that they're watching for fewer minutes on days that they view, but that's a much smaller contributor to the overall decline in TV viewing. And we think what may be happening is that something is coming and then bumping out these days. And the thing that could be bumping out these days is the use of these TV-connected devices.

So for TV-connected devices, across the board – they're not as pervasive behaviors; the reach is not as high. But the number of days is increasing. The number of minutes per day is increasing. So if you look at persons 18 to 34, for example, 86% of people use a TV-connected device in a quarter. They're using it for four more days and they're using it for 2% more minutes per day. And they're not using it every day, but on the day that they're using it, they're using it for like two-and-a-half hours. So this paints a picture of millennials who are coming home. They're turning on the device because they want to catch up on Game of Thrones or whatever it is that they're doing. My friend told me of this series. I want to check this out. And they're staying there for virtually all the time that they have the big screen turned on. And it's bumping out a day of TV viewing. So it's a displacive behavior. That's our theory.

So we looked into this theory, and one of the things we looked at was we have this great sample and we looked at the average household on the average day when they turn on the big screen, what do they do? Do they watch traditional TV? Do they use a TV-connected device or do they do both? About 90% of homes watch TV on an average day. So that's the top of the bar there. That's 90%. Last September 2014, about 27% of them used of one of these TV-connected devices. A year later, about 30% were using a TV-connected device, an increase of 10%. So definitely, this is behavior that is creeping in. But not that many households were only using a device. That's the

golden stack, piece of the stack there. It was 3% last year, 4% this year – it's not that big an increase. But when we look at it by demos, it paints a completely different picture.

For persons 2 to 34, if they turn on the TV set, about 40% of them are using a device on any given day that the TV set is on. And for 18 to 34, 15% of the day, they're only using the device. So about one in seven days that they turn on the TV set, they're only using the device. And again, there's markedly different behavior in this regard when we compare 2 to 34s to 35-plusers. And this is the behavior that millennials are bringing forward as they move – as they get older.

So I guess the multi-billion dollar question is, is this Netflix's fault? And we've had a healthy – I'd say a healthy dialogue with MoffettNathanson about the role of Netflix in all of this. We've had several long conversations, and Michael's come up with a way of estimating this that we're not endorsing. But we are agreeing with the – his heart's in the right place. He's tried to track this down.

Michael B. Nathanson

MoffettNathanson LLC

You're so kind.

Glenn Enoch

Senior Vice President-Audience Insights

I mean everyone wants to know this and we certainly have done some behind-the-scenes work on this. But Nielsen's going to have the ability to measure the amount of time that people spend with Netflix. And honestly, I don't want to come out with one number and that's to call it back and come out with a different number. So I'm waiting for our number to come out.

But he's using the existing data. I think that our work together has given me one of my greatest findings about the data that Netflix releases, which is everybody takes their hours of usage and estimates U.S., perfectly legitimate. And then they divide by the number of subscribers and say, well, this is the average person at Netflix is spending two hours a day watching Netflix, which is absolutely not true. Because they're not dividing by subscribers, they're dividing by subscriptions. How many people are on each of these subscriptions? We have no idea. How many people are in front of the set every hour that this is on? We have no idea.

So you really can't produce a number that is actually comparable to this. But in Nielsen we are measuring all these leased devices, and we know if a household has access to an SVOD service. And so we looked at that. So the first thing is that homes that have access to an SVOD service watch less TV, but they don't necessarily watch less TV because they have the SVOD service. SVOD homes have a couple of things in common. One of them is that they have younger householders. So they're younger people like the group in front of me. And they're higher-income households like, I presume, the group in front of me. And since I started researching TV, having more money and being younger are two positive correlations to watching less TV. The younger you are, the less TV you watch. The more money you make, the less TV you watch.

So we actually created a method, which I'm not going to bore you with here. But we created a matrix of behaviors and we kind of factored out of the age and income piece. And we explained about half the difference between SVOD homes and non-SVOD homes. But there's that other half that we couldn't explain through these means alone. So we went back to our little exercise where we look at how households behave on an average day, and we looked at homes in the sample. So 30%, as I've said to you before, are using a TV-connected device on any given day. And we look at homes that have access to SVOD content. We look at homes that have high-speed Internet or

broadband but don't have SVOD. And we looked at homes that have neither broadband nor SVOD. And across the top, pretty much all these homes, 90% of them are turning on the big screen on any given day.

But in homes that have access to SVOD, 44% of them are using a TV-connected device on any given day, and 6% of them are using only the device. And this is very, very different than the homes that do not have access to SVOD. So I can't tell you how much Netflix is having an impact or how much Hulu's having an impact. We know that SVOD changes the way that people use these devices, and we know that these devices are having a displacive effect on traditional TV viewing. Oops, sorry, went to fast.

So this is one of those cases where it walks like a duck and it quacks like a duck, and it might just be a duck. Well, I just can't tell you how big the duck is yet. So we're working on how big the duck is, but in the meantime, we can confirm the existence of ducks.

All right. But the other thing about this is that the decline in TV viewing, as soft as it is – again, we're not seeing like death rattle yet. We're seeing a soft and gentle decline. It's not just about TV-connected devices. There's a much bigger picture we have to keep in mind. And the big picture is this. If you look at hour-by-hour throughout the day, the blue below the line is the difference in average minute audience for TV in millions, and the kind of orange-colored piece above the line is the increase in TV-connected devices by hour in millions. And the thing to notice here is that in some parts of the day, TV-connected device usage just simply explains a fair amount of TV decline. In other parts of the day, especially in the morning, it explains less, but the overall decline in TV is not equal to the overall increase in TV-connected devices. These are not equal pieces. One minute of behavior here does not become one minute of behavior there.

If we add all the other behaviors that we're measuring, and now we're going back to the beginning where we were looking at all these behaviors and what was happening with TV consumption and the media consumption over time, we can see that there's a lot more going on here than just can be explained on the big screen. There's an increase in usage of PC still, but more recently an increase in smartphone usage, an increase in tablet usage, all of which is taking place throughout the day. And TV is just part of this whole media choice.

Now, we do not have the ability to take a minute of TV viewing last year between 8:00 and 9:00 in the morning and tell you exactly where that minute went for a couple of reasons. One thing is that the pie is getting bigger. So some minutes have been added that weren't there before. And I don't know whether your minute went to another minute or your minute was replaced by the added minute or where there's smartphone and that was an added minute or that was moved minute. It's very complicated to do.

The other thing is in order to do this, we would have to have a sample of millions of people who have to agree to let us measure all of their media behavior and they have to stay in place for two years in order for us to sort this out. We could not possibly pay for this kind of research. But we have good samples and good measurements for all these pieces and we can lay out the minutes of behavior like this and say, well, clearly, there's more going on here than just what's happening on the big screen.

I would also add that TV still represents, by far, the largest piece of video consumption in the country. This is, again, hour by hour, and it doesn't change in usage. It's the usage. So for persons 18 to 49, 9:00 to 10:00 o'clock is sort of the peak. A little over 40 million people in the average minute are watching TV. Throughout the day, the blue part, traditional TV, live TV plus DVR, time-shifting, and a little bit of encoded VOD, represents 75% of all the video consumption I'm showing. The digital piece on PC, smartphone, tablets represents a relatively small piece of the pie. It's getting all the attention. Apparently, millennials are only using these devices to consume video, apparently, but not according to our data.

And in fact, the more important piece, again, is the TV-connected device piece. And I know from work that we did at ESPN that when WatchESPN goes out, we were able to measure exactly what devices were using it. People spend a relatively small amount of time doing it on their smartphones – I feel like walking into the speaker – relatively small amounts of time watching it on their smartphones, more but still relatively small amount of time on the tablets.

But when they were streaming to WatchESPN through the Apple TV or the Roku device and they were sitting down upon the big screen, they were watching ESPN for as much time as they would if they were doing it through their set-top box. There's just something about the big screen and sitting down that causes long behavior. You do not get that as much with mobile devices, but you do get it with TV-connected devices.

Probably it will be remiss that I didn't talk about the little screens as well. So we're going to talk a little bit about digital trends here. So again, PC, smartphone, tablet. We've talked about PC continuing to grow, smartphone showing tremendous growth; tablets are growing as well. In fact, we're seeing more growth – we'll see more growth from the Total Audience Report that's released next month. What do we include and what do we don't?

When we talk about digital measurements – you don't have to read every one of this – but basically, if the Internet is connected to an app, or if you were streaming, web browsing, we're including that in our PC, smartphone, tablet measurement. If you're doing something else that's not Internet-related, we're not including it. If you're sending email through office, not included. You're making a phone call, not included. If you're texting somebody, that's not included. But if you're on the Internet, included.

So this is digital usage. Again, this is the same chart I've been showing all along TV, TV-connected devices, radio, PC, smartphone, tablet. And the digital piece, PC, smartphone, tablet, all the attention goes to millennials. But the fact is that persons 35 to 49 are actually spending more time with these devices than 18 to 34s.

The CRE or Committee for Research Excellence – I may be making that up, but I know it's CRE; I think it's Committee for Research Excellence – which is funded by Nielsen but it's an industry committee, did a fascinating study, their very first study which was called the Video Consumer Mapping Study. It was a great study. And they found by following people around all day long and measuring everything that they did through media, that people in middle ages have TV usage like their older cohort but digital usage like the younger cohort.

So what you're seeing here is sort of a perfect convergence of, I have a PC because I have a job that uses a PC, I can afford to buy all these devices, I can afford to buy all the services that are connected in these devices, I have more leisure time, and so I spend more time with digital. But persons 18 to 34 have less media usage overall. So if we divide the digital use by the total, it's a bigger part of their total usage. In fact, if we combine TV-connected devices and digital, we find that these quote's intentional. New media sources represents about 45% of all of their media consumption compared to about 20% per persons 50-plus.

Different devices are used in different ways. This is PCs. What we've done here is we're showing the percent of all usage that we measure, all Internet-connected usage that we measure, that goes to video, to social sites, and to audio streaming. For persons 18 to 34, across the board, they spend more time with these usages than other demos. The older you are, the less likely you are to spend time with these three things. You just spend time doing other things, whatever other things those are.

Unidentified Participant

[indiscernible] (33:27)

Glenn Enoch

Senior Vice President-Audience Insights

This is total digital usage. Total usage of digital. Another word would have been more clear. Thank you, and I will make that change the next time we do this. Total usage of PC, total usage of smartphone, total usage of tablet in this case. And for PC, the thing to notice is that the primary single piece of the three is video. So PC still represents the largest part of video streaming on digital devices. So for persons 18 to 34, about a third of the time that they spend with Internet usages of the PC is for streaming video.

For the smartphone, social is the biggest part. So for persons 18 to 34, about a third of the time they spend with Internet-connected usage for the smartphone is social use, so Facebook, Instagram, Twitter, all those pieces. Video, actually relatively small which, again, makes a lot of sense. You're talking about a very small screen that you're not going to stand here like this for three hours doing, and it's very hard on your plan if you're doing any kind of cellular streaming. So people don't really spend that much time with a video on a smartphone.

The tablet is sort of a balanced between the two. There's more video usage than the smartphone but less than the PC. There's more social usage than the PC but less than the smartphone. And then the largest section of audio usage is on the tablet. I haven't developed a theory for that yet, just the fact of our measurement. But about 10% of the time the persons 18 to 34 spend on the tablet, it's with the audio.

So to summarize, overall media minutes are increasing over time. Traditional TV viewing is decreasing although we're seeing less of the rate of decline than we saw last season and the season before that. TV-connected device usage is increasing and those enable video streaming of those are increasing the most especially the multimedia device. The reason that TV viewing is declining is people watching for fewer days especially persons 2 to 34.

We know that days with TV-connected devices usage are increasing, and we think that's a displacive effect. About 40% of the time that persons 2 to 34 turn on the TV set, they're using one of these devices and households with SVOD access are much more likely to engage in this behavior. But changes in TV viewing are part of a larger consumer trend. We can't explain this through TV-connected devices and SVOD alone. There's a much larger consumer picture with the little screens that we have to take into account.

And if we look at the little screens, we see that the highest minutes of digital usage are actually among persons 35 to 49, although the highest proportion is among persons 18 to 34. In fact, the use of new media if we combine TV-connected devices and digital, it represents 45% of all the media behavior of persons 18 to 34 that we're measuring. Video, social and audio usages of digital represent a larger proportion of usage for younger demos than they do for older demos. And different devices had different usage. So for PC, the video is the largest piece. For smartphone, social is the largest piece. And tablets are more balanced although they get the largest proportion of audio usage.

Wow. That worked out great.

Michael B. Nathanson

MoffettNathanson LLC

Glenn, thank you. Thank you.

Glenn Enoch

Senior Vice President-Audience Insights

We'll have enormous amount of time for questions.

QUESTION AND ANSWER SECTION

Q

Yes, questions on the floor.

Glenn Enoch
Senior Vice President-Audience Insights

A

Didn't you already ask a question?

Q

[indiscernible] (37:01 – 37:09)

Glenn Enoch
Senior Vice President-Audience Insights

A

Outside my area of competence. I'm not sure how we would even – we'd have to know the package of the people on it. It's not clear to me that we're gathering that information. I would assume that unlimited would mean more, though, just by definition.

Michael B. Nathanson
MoffettNathanson LLC

Q

On that, how often you measure – four less days in the fourth quarter.

Glenn Enoch
Senior Vice President-Audience Insights

A

Right.

Q

I wonder if there's any view on other seasonality. Do you think also you have to – do you think there's a seasonal factor that affects maybe the third quarter more than the fourth quarter based on programming or activity time?

Glenn Enoch
Senior Vice President-Audience Insights

A

Well, I mean it's year-to-year.

Michael B. Nathanson
MoffettNathanson LLC

Q

Right.

Glenn Enoch

Senior Vice President-Audience Insights

A

Well, I mean, it's year-to-year. It's year-to-year. People watch TV less in the third quarter. They watch – TV is much more seasonal than a lot of other platforms because it's based on in-home behavior, and the more time you spent at home, the more TV you watch. So it's highest in the first quarter, really, fourth and first quarter, and lowest in the second, third quarter, and third quarter at the bottom.

For many years, that was also fed by the fact that broadcast networks did reruns in the summer, but cable sort of filled all that in, and now it's really largely based on in-home factors. So if you're at home, you watch TV. If you're not at home, you don't watch TV. If you're using video through other sources, they are now gathering to a total content rating. But I don't know enough about total content ratings to know how that is done seasonally. That's a great point. I should look at that.

Another question. Do you have another question?

Q

[Inaudible] (38:34-38:51)

Glenn Enoch

Senior Vice President-Audience Insights

A

Well, I know a lot about sports, so I'm going to rest on my area of competence. I mean, at ESPN, we didn't even really – we measured live plus same-day. We never even went back to live plus [ph] same day (39:00) because we didn't care. We didn't get enough lift after same-day. Most of our time-shifting was within 30 minutes, in fact.

And there were a couple of shows that were time-shifted more than that, but not – just they were very few. And sports news, program genres that you need to be live represent a larger percent of live viewing as we go on because other types of programs get time-shifted more. We did a press breakfast, and we released that information so it's available, where we started looking at how genre affects how much you will time-shift. And this is all made possible, this total content rating, the next [indiscernible] (39:37) mentions, product that we have. And what we find is that certain kinds of programs even outside of news sports, that get time-shifted more. So if you have a reality show that's competition-based, just going to wait while you all think of one, pretty much all the behavior's done within the first week because you got to watch one week before you can watch the next week.

Serial dramas. I was at a PBS conference yesterday, and they were looking at Downton Abbey, for example. You got to watch one Downton Abbey before you really see what's going on. So character-based dramas are time-shifted less. Episodic dramas – so I've not looked at NCIS, but I'm using that as my example. So crime dramas, things where you could watch them out of order, people will time-shift those more. Sitcoms, people will time-shift more than that.

The genre we found that got the most time-shifting was animation, adult animation, so things that you can watch them totally out of order. In fact, you can go back 15 years and watch one and enjoy it just as much as you enjoy the one that you watched this week. They got enormous amounts of audience lift, up to 58% after the first week over like a 17- or 18-week rating period.

So it goes beyond the ones that are just viewed live. We're starting to detect different shades of shifting even when we look at other kinds of genres. And if you're going to see 360 – no, they're not going to see 360. Never mind. We're going to continue to look at this and release data to the industry as we continue to dive into this.

Hi.

Q

[Inaudible] (41:08-41:14)

Glenn Enoch
Senior Vice President-Audience Insights

A

Yes, end of [ph] 15 (41:15).

Q

[Inaudible] (41:17-41:49)?

Glenn Enoch
Senior Vice President-Audience Insights

A

I really don't know. I mean, when we were at ESPN, we thought we had broken the industry. We thought what had happened was that everybody had gone to watch the World Cup on WatchESPN and had suddenly discovered the wonderful world of video streaming. And once the World Cup was over, they went searching for HBO GO and CBS All Access and those other things. That was our view to world. I don't think that's it. But it is possible that there was an adoption that was very quick. I don't think I have the data to support that, but that's what we're imagining. But whatever happened, people sort of did it and then they settled in and they reached to a point of stasis and were more balanced moving forward. But that's just my guess.

The other thing I would say is I would also be wary of this kind of – I hear this a lot – well, this is where TV is going. This is where it's all going to be. Well, there is no, all going to be. When DVRs first came out, everybody in a room like this, if it was an industry room, how many people have the DVR? It was chorus. Everyone had one. And they all had one. And they said, everybody watches TV like I am, I'm out of a job. We're all screwed. Well, it was never the case that everybody got a DVR. We've reached about 50% and it hasn't increased in 18 months or 24 months, something like that. Everybody that wanted a DVR got one, but it wasn't everybody.

And that's the point, is not everybody is going to get an Apple TV, not everybody is going to get a Roku. [indiscernible] (42:54) the same kind of households that get those two different devices. So again, some people are going to get it and some people are not, and they're going to have different combinations of behaviors that we're going to have keep track of.

Michael B. Nathanson
MoffettNathanson LLC

Q

Glenn, I know it's to come, but...

Glenn Enoch
Senior Vice President-Audience Insights

A

I didn't mean to leave you sitting back there. I'm sorry

Michael B. Nathanson

MoffettNathanson LLC

Q

No, it's all right. This chair is so big anyway.

Glenn Enoch

Senior Vice President-Audience Insights

A

I'll just sit on the arm of it.

Michael B. Nathanson

MoffettNathanson LLC

Q

Exactly.

Glenn Enoch

Senior Vice President-Audience Insights

A

There we go.

Michael B. Nathanson

MoffettNathanson LLC

Q

You have – excuse me, new chairs next year. That's our mission. Encoded VOD is what you have there.

Glenn Enoch

Senior Vice President-Audience Insights

A

Yeah.

Michael B. Nathanson

MoffettNathanson LLC

Q

When we look unencoded VOD, is that a much bigger bucket of viewing?

Glenn Enoch

Senior Vice President-Audience Insights

A

Yeah, so much bigger bucket of viewing. We get that – we call that CPVOD or cross-platform VOD because it could come from various sources. And several clients have had to start looking at programs with CPVOD. If you look at total content ratings, over time that's really where you get the lift in viewing. So our analyses show that early on, people watch live, obviously, if it's important to them, or they time-shift it through DVR or they get to the RTVOD which is all within the first week.

But over time then, what happens is, I didn't watch it live. It wasn't recorded on my DVR. How do I get through it? I get through it to VOD or digital. So you go to library content; you consume it in that way. And as I pointed out, some shows are just more open to that kind of consumption than others. CPVOD is much, much, much bigger than RTVOD because RTVOD is restricted not only by having to have the same commercials, having to be encoded, having to be done within the first week. We can now measure CPVOD in perpetuity. Two years from now, I can pick up an episode that aired in this year and find out over time how much audience did that accrue.

Michael B. Nathanson
MoffettNathanson LLC

Q

We're going to see that coming with Total Audience framework.

Glenn Enoch
Senior Vice President-Audience Insights

A

With total content [indiscernible] (44:41). Yeah.

Q

[Inaudible] (44:41-44:53)

Glenn Enoch
Senior Vice President-Audience Insights

A

It's counted if the client has made it possible for us to measure it. Everything that Nielsen measures has to be client-enabled. TV is enabled because they put a code on the TV signal that we can detect, or they provided us with some sort of a file that we can recognize the programming. VOD is no different. So in the case of VOD, if it's VOD through your set-top box with the same commercial within seven days, they'd had to put something on that that we know that that needs to be put back in the ratings. There's a little encoding that goes through that. That's why it's called encoded VOD.

With CPVOD, they're providing us with an audio file that we can use to recognize it. The reason that's important is that Netflix will not allow coding. So if you had something on Netflix, we wouldn't be able to recognize it through a code because they would strip it off or wouldn't allow you to put it on. So we use this signature file or fingerprinting, it's sometimes called, to recognize that that is the third season, fourth episode of some series, and we know you're doing it through your Apple TV, so we're able to kind of triangulate to that VOD or SVOD.

Q

[Inaudible] (45:56-46:03)

Glenn Enoch
Senior Vice President-Audience Insights

A

Oh, yes. Got it. It does not include VOD.

Q

[Inaudible] (46:06)

Glenn Enoch
Senior Vice President-Audience Insights

A

No. That is live TV, DVR time-shifting, and a little bit of encoded VOD that we get within seven days for some clients that enable it.

Q

[Inaudible] (46:14-46:23)

Glenn Enoch

Senior Vice President-Audience Insights

Oh, I have not had – I haven't been able to look and update it yet. And clients have not – there are different phases of enabling this measurement. So we would have to kind of have everybody on the same page. But TV, everybody that's measured is measured equally. Not everybody's allowing this VOD measurement yet or they were in the process of getting VOD but it already has the digital measurement in place. So we're in a hallway right now. We're not in a room yet.

A

Q

[Inaudible] (46:45)

Glenn Enoch

Senior Vice President-Audience Insights

But what I can do is I can do...

A

Q

[Inaudible] (46:49-46:54)

Glenn Enoch

Senior Vice President-Audience Insights

I can't do it by VOD, but what we can do is by total usage including all those connected devices. And when we do that, there has been a slight decline. Even if we include all those devices, there's been a slight decline in the use of the big screen and more at certain times of the day, less at other times of the day.

And that was part of my big-picture thing is that there's still more below the line on the big screen than above the line. It's different by different demos. It's more for younger demos. It's down, not so much for older demos. So the answer to your question is it depends. But I can't isolate VOD. There's not enough of it yet for me to do that.

A

Q

Michael B. Nathanson

MoffettNathanson LLC

We have time for one more.

Glenn Enoch

Senior Vice President-Audience Insights

Yeah. I know I'm the only thing standing between you and Grand Central, but go ahead.

A

Q

[Inaudible] (47:35-47:55).

Glenn Enoch

Senior Vice President-Audience Insights

A

Well, they're either cable subscribers who are falling back to antenna status. If you have an antenna and you have cable, you're considered a cable household. So if you drop the cable, you still have the antenna. I don't think you necessarily have to go buy one. Or you're a broadband-only household who decided to increase their viewing options by getting an antenna.

Q

That's more like the [inaudible] (48:14-48:20).

Glenn Enoch

Senior Vice President-Audience Insights

A

I have a report that can do this definitively. I don't want to stand up here and just make up the answer as I often do. But Kate can – it's the migration report. And when [ph] Christine (48:30) gets back from our honeymoon, we can respond to this with the data from our migration report. The total number of broadcast-only homes is growing, although it's a pretty steady pace over time. They're really, really interesting homes. There are more different kinds of broadcast-only homes than there are multi-channel homes. If you're a broadcast-only home that has SVOD, that's a fascinating group of people. And there's broadcast-only homes that don't have broadband or SVOD. They're dull.

Q

Michael B. Nathanson

MoffettNathanson LLC

They're what?

Glenn Enoch

Senior Vice President-Audience Insights

A

They're kind of dull.

Q

Michael B. Nathanson

MoffettNathanson LLC

Okay.

Glenn Enoch

Senior Vice President-Audience Insights

A

And we have a study that we're working on this year that you might keep your eye out for which is if I don't have multichannel and I saw this desire for different kinds of programming, how am I doing that? And we find that networks like ION and PBS that – they get viewing in cable homes, they get way more viewing in broadcast-only homes than, and it's a different kind of viewer. So we're going to be looking at that in some detail.

Michael B. Nathanson

MoffettNathanson LLC

Awesome. Thank you. The promise is good. Thank you so much.

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