Craig Moffett, Co-Founder and Senior Research Analyst

Testimony to the United States House of Representatives

Committee on Energy and Commerce; Subcommittee on Communications and Technology

September 27, 2018

Thank you, Chairwoman Blackburn, and members of the Subcommittee, for the opportunity to appear before your Subcommittee today.

My name is Craig Moffett, and I am the founder of MoffettNathanson LLC, a sell-side research firm with roots in the Media and Communications sector. My personal focus is on the physical distribution side of media – that is, the cable operators, satellite TV distributors, and telephone companies that operate the physical infrastructure over which media, especially television, is distributed. I've spent nearly thirty years in these industries, first as a management consultant, and, for the past eighteen years, as a Wall Street analyst.

One of the most popular aphorisms in Media is that the Media industry has seen more change in the past five years than it had in the previous fifty. Never mind whether that is precisely accurate. As a call to action – *any* action – it is a good one. Change or be left behind.

But before we get too breathless about how revolutionary all of this is, I thought I would focus my remarks on two of the most important trends today – the emergence of so-called virtual Multichannel Video Programming Distributors (vMVPDs, like Sling TV, YouTube TV, and DirecTV Now), and the trend

towards vertical integration, as with AT&T's acquisition of Time Warner – through a decidedly un-revolutionary lens. Microeconomics.

Let's start with the emergence of vMVPDs. The phenomenon of cord-cutting is perhaps the most remarked-upon trend in modern media. The term isn't quite accurate, of course. The cord itself (that is, the physical infrastructure used to deliver video) remains the same, so what we're talking about here is merely switching video to a third-party provider that delivers the video stream over the public Internet. But the concept has captured the imagination of almost every business and technology journalist.

The appeal of cord-cutting is simple. It's cheaper. Some might argue that it is also about greater consumer control, and that it is a step closer to the much-discussed nirvana of a la carte, but the real appeal is simpler than that. A bundle of networks from a cable operator, with a handful of set-top boxes, costs an average of about $100 per month. The most popular vMVPD packages cost about $40 per month.

The problem here, of course, is that the programming itself doesn't cost any less to produce just because it is delivered over the Internet. Nor is it any cheaper for the aggregator – in this case, an vMVPD – to buy it from the content creator (in fact, the vMVPDs usually pay more for the same networks than do traditional cable and satellite operators, due to the fact they are generally smaller and have less negotiating clout). Nor is the video any cheaper to deliver by virtue of being delivered over the Internet instead of so-called linear cable; remember, the infrastructure underlying the delivery remains exactly the same. In most cases, it doesn't even avoid the need for a set top box; it's just that the set top box is provided by someone like Apple or Roku instead of a traditional set top box provider.

When there is no underlying technology or business model reason why a new service is cost-advantaged relative to an old one, one should be wary of over-promises.

But, all that being said, the vMVPDs are still cheaper for the consumer. *Why?*

Partly, it is because there are fewer networks included in the average vMVPD bundle. But the bigger reason is that the vMVPDs are currently selling the service at a zero or negative profit margin. The content in a $40 package from DirecTV Now or YouTube TV costs, by our estimate, around $40 at wholesale. After accounting for costs associated with things like billing, customer service, and marketing, the service is losing money.

There's an old saying among economists that when something is unsustainable, it will eventually stop. Selling a service for a loss isn't sustainable, even allowing for the fact that companies like Google (owners of YouTube TV) believe the path to monetizing video is not by selling the service to consumers for more than it costs but instead by trying to sell advertising against it.

It has been widely observed that many of the changes in Media are about trying to keep pace with Google and Facebook. It will be very hard for traditional distributors to compete with a service provider that is willing to lose money on selling the service. The question is… how long will even Google and Facebook tolerate losses? There's a limited amount of advertising inventory for them to sell, and the assumption that better targeting of advertising, based on all the information that companies like Google and Facebook know about you, will lead to higher advertising prices (in industry parlance, CPMs) may not prove to be correct.

Either way, one has to conclude that we very likely face one of two outcomes. Either Google and Facebook will come to dominate video distribution in a model that is based on highly targeted advertising – raising obvious questions about privacy – or the prices of vMVPDs will rise significantly to become self-sustaining, and in the process, the distinction between "new" and "old" models won't look so significant after all.

Here's another observation. It has been much remarked that there has been a flowering in top shelf content production in recent years. In a widely-cited statistic, there are now nearly 500 scripted series in production, a fifty percent increase in just the past few years. To state the obvious, viewership has not grown by anything like fifty percent. Indeed, viewership of traditional video is declining as traditional media increasingly competes with social media and non-traditional forms of digital video.

Massively increasing supply while demand is falling is no more sustainable than an aggregation model that doesn't make money.

It is hard not to conclude out of all of this that we are currently in something of a bubble. I don't necessarily mean by that that we are in a valuation bubble, although some so-called "new media" valuations do appear to me to be unjustified. Instead, what I mean is that we are in a bubble wherein we are not yet seeing the natural consequences of changing economics in media… but we will. Those changes are likely to lead to higher prices for vMVPDs services, and the production of less "top shelf" content going forward.

Now let's talk about the second trend shaking the media business. Vertical integration.

There had been widespread speculation that a wave of vertical integration would follow Comcast's acquisition of NBCU in 2011, and that speculation has only grown following AT&T's acquisition first of DirecTV in 2015 and then of Time Warner this year.

Whether these vertical integration deals make sense economically remains to be seen. Comcast arguably hasn't even tried to capitalize on being vertically integrated yet; they've been subject to consent decree conditions that have prevented any meaningful attempts to do so. And AT&T's acquisition is too new to judge.

Certainly, the capital markets have not judged either strategy favorably. Comcast shares have significantly underperformed those of Charter, which has *not* pursued a vertical integration strategy, and AT&T's shares have even more significantly underperformed those of Verizon, which has similarly eschewed vertical integration.

We are skeptical that this is the beginning of a broader trend among traditional media and telecom companies. That said, however, it is important to view the trend towards vertical integration in traditional media through the lens of a broader migration to what I would refer to as "closed media systems," and to consider where this is likely to take us (whether the traditional media companies vertically integrate or not).

Today, closed systems dominate almost every important aspect of digital life. Apple's closed system, once written off as all-but-dead in its competition with the open-PC platform, has grown into a closed iOS *universe*. Facebook is quintessentially closed. So is Uber. Google's supposedly open search engine is, in reality, a closed advertising platform.

At the very core of every closed system is the concept of exclusivity.

Exclusivity has been antithetical to the Pay TV industry, at least in the U.S. Each and every cable network has always been available to each and every distributor. This is at least as much a consequence of legal precedent as it is of microeconomics; it was almost thirty years ago, at the birth of the satellite TV industry, that vertically integrated cable operators were legally enjoined from withholding content from their satellite competitors. Since then, content exclusivity has been, for all intents and purposes, illegal. And not just in the TV business. Way back in 1948, the Supreme Court found that it was impermissible for movie studios to own movie theaters. In the decades since, the idea of "openness"

has been so deeply ingrained in the American TV ecosystem that most people can't even imagine the alternative.

But the age of "open media" is almost over.

It is tempting to suggest that all this hangs in the balance in the upcoming appeal of AT&T's acquisition of Time Warner. But truth be told, the DOJ is litigating yesterday's war. The age of Closed Media is coming irrespective of what happens in the DOJ's appeal of Judge Leon's decision. Netflix, Amazon, and Hulu have already created their own closed systems. Disney has announced plans to go direct to consumers. HBO is already on the same path. All will be closed systems.

And now we have Comcast's acquisition of Sky in Europe. The very premise of the deal is content exclusivity, and the bid to create a closed system to rival Netflix. The rest of the world has never had the same blanket expectations of openness in Media as the U.S. Comcast's bid for Sky presumes a world, and not just in Europe, where content exclusivity isn't just permissible, but is commonplace.

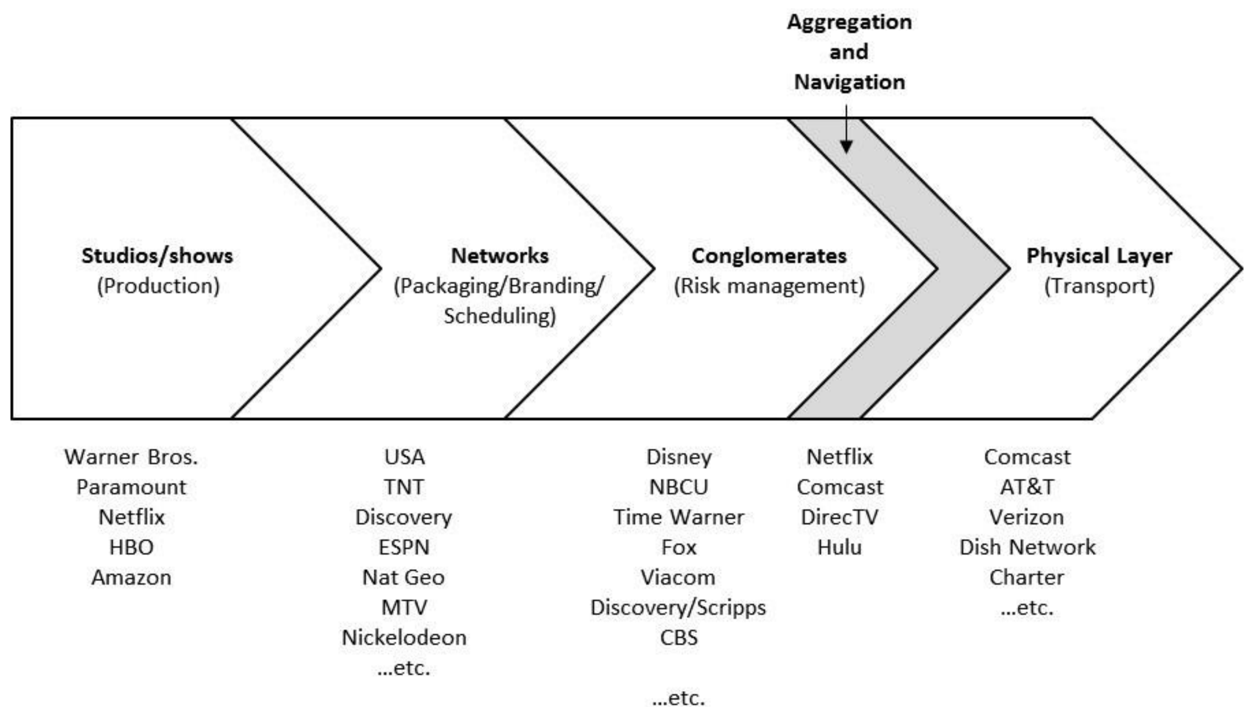
Before we go any further, it is important to be precise about the layers of the media value chain, and where closed systems are coming… and where they aren't.

The content production layer (TV studios, movie studios) has, since the end of Financial Interest and Syndication Rules in 1993, been integrated with the packaging/scheduling layer (this is indeed the principal economic function of networks), and networks have long been assembled into suites at the media conglomerates (providing a risk management function to which we will return shortly). Notwithstanding that the functions provided at each of these layers are quite distinct, today we think of all of these functions as simply "content."

But there has always been a bright line between "content" and the downstream layers. These layers have been broadly lumped together under the moniker "distribution." But just as is the case with "content," there are actually distinct functions being provided here.

For our purposes, the important distinction is between the aggregation and navigation layer and the physical (transport) layer. Historically, the aggregation and navigation function was provided by physical network providers, like Comcast or DirecTV. Customer ownership – and with it, functions such as billing – has historically been attached to this aggregation and navigation function.

Today, the aggregation and navigation function is being stripped away from physical distributors and is being captured instead by content owners… in closed systems.



In U.S. v. AT&T Inc., DirecTV Group Holdings, LLC, and Time Warner Inc. (i.e., the Time Warner case), the DOJ charged that AT&T could, in theory, use (abuse) the market power that comes with vertical

integration by withholding, or at least threatening to withhold, its content from competitors. AT&T, predictably, responded that they have neither the intention nor even the incentive to withhold content from competitors, and, to underscore this point, they preemptively agreed to baseball-style binding arbitration in programming disputes, precisely to prevent such an outcome (for a period of seven years). The Court rejected the DOJ's argument and, as you know, the case has been appealed.

It would have been far more interesting if AT&T had argued… *"Yes, of course we plan to withhold content from competitors. So what? That's what everyone is doing."*

It is Google, Netflix, and Facebook – all closed systems – who are calling the tune here, not Comcast and AT&T.

In our analysis of Comcast's acquisition of Sky in Europe, we have argued that content exclusivity – i.e. the creation of a closed media system – is central to the strategy. Just as Netflix recognized early on that they had to move upstream from simply being a content aggregator to content creator, Sky's new owners will need to pull off the same pivot, and rather quickly. It seems only a matter of time before Disney, HBO, Showtime, and more pursue their own closed systems.

There are a number of conclusions that one can draw from the emergence of closed media systems. Perhaps the most interesting has to do with risk, and what that means for required scale.

What we are witnessing with the emergence of Closed Media is the re-allocation, and re-concentration, of risk. When Comcast and others euphemistically refer to "global scale," what they are really saying is that, in the future, massive scale will be required in order to underwrite the enormous risk of abject failure. Content production has always been a risky business; investors intuitively understand that hits are rare and failures frequent. In response, the media industry has become rather adept at syndicating risk. But the risks that are inherent in content production are dramatically amplified in the context of

Closed Media (that is, the edifice built upon the content production "engine" is orders of magnitude larger, and, by virtue of being direct-to-consumer rather than pre-sold to others, volatility will only rise.) All this makes the risks of failure dramatically higher.

Risk, in other words, is being dramatically re-concentrated. Yes, there are good reasons why the next generation of Closed Media won't be winner-takes-all like so many other digital platforms. After all, a customer might easily subscribe to both a Disney service and an HBO one, and they might still keep Netflix as well. But that *things-won't-be-all-that-different* view ignores the concentration of risk. A single bad slate or two, and even a behemoth in the direct-to-consumer future could be brought to its knees.

There is an important complicating factor here, of course. The elephant in the room is that AT&T (and Comcast) aren't just owners of the aggregation and navigation layer, and therefore of customer relationships. They are also owners of the physical layer. It is here, and only here, that the really complicated issues arise.

The potential for anti-competitive behavior is clear in cases where content is integrated with the physical layer. This is particularly true in the U.S. broadband market, where in many geographies there are but one, or at most two, competitors. It is arguably true as well in wireless, where even with four players are there are significant lock-in risks. These are precisely the issues that have always been grouped under the umbrella of "net neutrality." One might argue that we are currently particularly exposed to these anti-competitive risks now that the FCC has reversed the prior administration's Title II framework to enforce net neutrality rules. In truth, however, that is likely not the case. Instead, it merely means that the FTC will have to remain vigilant to ensure that any anti-competitive behavior is appropriately policed, as, indeed, it always has been.

With this caveat duly registered, however, the broader takeaway here is clear. We appear to be headed in the direction of a relatively small number of very large closed media systems, very likely operating on a global rather than national scale.

From a policy perspective, the central issues surrounding these entities will be precisely the ones that legislators are only now beginning to grapple with in Social Media. How can we ensure diversity of voices? How can we ensure a free and open press? How can we ensure privacy and appropriate treatment of customer data? And how can we protect the values and objectives of the United States when the companies we are overseeing are global in scale and subject to a myriad of jurisdictions with potentially very different goals?