BINGE WATCHING

THE NEW CURRENCY OF VIDEO ECONOMICS
INTRODUCTION

The traditional TV market has been immediate and appointment-driven. The top shows run at a particular time on a particular channel; their consumption is measured by surveying a subset of the public and extrapolating the results.

In the OTT market, however, consumers are not subject to the constraints of an Electronic Programming Guide (EPG); they select from the available shows and watch where and when they want. In such a market, audience sampling is no longer sufficient, and the measures by which the popularity and desirability of a given video asset can be judged must shift.

The most popular content in the OTT world is often binge-watched; that is, consumers either wait for a few – or all – episodes to be available and watch them in a very short span of time. These binge-watchers represent dedicated consumers, whose continued engagement is the lynchpin of building long-term value in the property. Identifying, serving and leveraging such an audience will be the rock upon which the next generation of TV is founded.
THE GENESIS OF CONTENT

Content does not spring unbidden from a magic brook at the heart of an enchanted forest. Rather, it is carefully selected at the earliest stage of development, nurtured through a piloting process, examined by strangers and intimates alike, and if found worthy, released into the wild.

The development season, which occurs each year between roughly January and April, closely resembles a Silicon Valley tech company accelerator. According to industry estimates, a major network will make a pilot for every five or so scripts purchased. For context, for the Fall 2013 season, ABC made twelve comedies and twelve drama pilots. So for twenty-four pilots, we can assume over a hundred scripts were initially purchased. With an estimated cost of $2M for each comedy pilot, and $5.5M for each hour-long drama pilot, this is no small investment for what is, at its heart, one episode of each. Of those twenty-four pilots – made at an estimated cost of some $90M – eight made it to air.

The investments are substantial, yet the returns are unpredictable. For all the years of experience and over a half century of Nielsen ratings, no studio or network has demonstrated an ability to reliably predict the next great hit.

PREDICTING SUCCESS HAS BEEN DIFFICULT

In a world of Google Maps, Fitbits, and Amazon Recommendations, it feels strange that the greatest providers of TV entertainment can’t reliably tell a hit from a flop if their lives depended on it. What gives?

The reality is that visibility has been surprisingly shallow. From the first days of television, when it was all delivered over the air (OTA), it was possible to tell what was being sent but not who was receiving or watching it; the waves carrying the signal did not communicate back to the central office. Thus was born the idea of the Nielsen Diary: a subset of the public would keep score of what they watched, send it in, and let the early Data Scientists extrapolate said data to estimate who was watching what.

When Pay TV delivered via cable and satellite was born, the promise of measurement was renewed. In principle, the service provider could know what each subscriber watches, as they controlled the set top box. This information, however, was collected differently by each provider and represented data that can be exceptionally useful during re-transmission fee negotiations. Suffice it to say, this was not information which was reliably shared with the content providers.
So we continue to use the panel-and-extrapolation Nielsen model. Because of this we are unable to answer questions more sophisticated than “who’s watching which channel at a given time”. We cannot see, for instance, how long customers stay with a show, whether they return, or even whether they record it on their DVR and skip the first ten minutes of each episode.

**WHY SOPHISTICATION MATTERS**

Understanding the consumption pattern of a show can fundamentally change its fate. Imagine a new show introduced on Fridays at 9pm and two corresponding scenarios. In the first, it receives very few viewers and is slashed from the schedule to make room for something that delivers eyeballs for committed advertisers. In the second, imagine if we could see viewer engagement patterns and noticed that those viewers who started watching stuck with it. We can now see that this is extremely engaging, and rather than cancelling it, we might be well served to move it to a better viewing slot – say Thursdays at 8pm – while providing more promotion. Now, what was threatening to be a multi-million dollar bust becomes the breakout hit of the year.

Applying collected intelligence at a granular level is the essence of building systems that can make reliable predictions. If hedge funds can predict movements on stock markets, shouldn’t TV companies be able to predict hit shows?

**OTT CHANGES EVERYTHING**

In the OTT world, every view can be counted. In a password-protected environment, each subscriber’s preferences and usage can be seen, allowing providers to do a better job of meeting expectations.

The implications are huge. The largest stakeholders in the industry can derive extraordinary benefits from this sort of visibility:

- **Content providers**: gain customer intimacy so they can finally see who watches what, how long, and where they go once their favorite show goes on summer hiatus
- **Service operators**: gain insights into which of the services they are reselling brings value to their brand and which are just taking up space in the catalog
• **Advertisers:** have new opportunities to buy audiences rather than impressions

• **Consumers:** get to influence the production, distribution, and continued curation of content that truly meets their preferences.

**BINGE-WATCHING: A VERY-NEARLY-NEW CONCEPT**

When we talk about binge-watching we’re talking about a phenomenon with two definitions:

- Accessing an entire season, or multiple seasons, of a single show and watching them over a short period of time. For instance, watching all 10 episodes of season 1 of *Game of Thrones* on a flight from San Francisco to Europe.

- Following a show closely enough that it is watched as soon as is convenient after it becomes available. For instance, watching the season finale of *Homeland* the very next day after it is made available.

While the usage patterns are different, the foundational assumption is not: these audience members will, all else being equal, watch each and every episode of the show. There are really only two things that will prevent them from doing so:

1. The content disappoints by losing the interest of the viewer; or
2. The delivery disappoints by either making an episode unavailable, or providing an unsatisfactory viewing experience.

This isn’t truly a new concept: it started in the 1970’s with the advent of the home VCR. Of course the VCR was clunky and provided no feedback to the entertainment providers. We have since moved to the DVR (thank you, Tivo!), which is not only easier to use by those over the age of 12 but also provides feedback to providers (such that Nielsen is now able to provide +3 and +7 numbers, audience counts that include viewing three or seven days, respectively, after initial broadcast).

OTT, however brings it all together in a new way. Consumers can opt to stream (as they might with a DVR), to download and play offline, or to combine the two. Content owners can opt for different release windows and track directly what individual viewers are doing. Operators can extend their business model and leverage new ways to generate revenue through affiliation and syndication.
**BINGE-WATCHING WILL DEFINE TOMORROW’S HITS**

Today’s TV hits are defined by some of the bluntest instruments imaginable. By extrapolating the activities of a few thousand people for a given stretch of time on a given day (i.e., the pilot), legends are born. If more people watch NBC at 9pm on a Thursday than any other network, then whatever is showing is the toast of the town.

The story of Family Guy is almost a thing of legend now: a show that was cancelled due to low ratings, yet reincarnated after DVD sales went through the roof. The moral of that story: without a clear way to measure, it’s hard to gauge the level of engagement of a core fan base. With a clear measuring stick (like packaged DVDs, or, now, requested streams or downloads), engagement can be clearly identified.

The other moral of the story is that engagement is way more valuable in an environment not defined by time and scarcity: a show that attracts a million viewers on a major network during prime time is a liability because that valuable screen real estate could as well be used by some other show that would attract a larger audience. In an OTT world, however, time-based scarcity is a thing of the past; once a show is made available, it can be watched when convenient for the viewer. So a show with a million-viewer audience is not detracting from air time for a show with a five-million-viewer audience, and both can reasonably co-exist. Indeed, with higher engagement, it can outperform the larger audience-defined property, with brand extensions across retail and beyond.

In short, a show with a highly committed audience can continue to survive and thrive, so long as it can quantify its viewer base, and correlate its success to the core operating metrics of the business: retaining subscribers, and/or driving advertising dollars.

**THIS IS NOT A SMALL PHENOMENON**

In 2014, Netflix found that 61% of viewers regularly binge-watch shows. Given that current estimates put the OTT-watching audience at a shade over 190 million people, that would mean the binge-watching audience is right at 115 million sets of eyeballs.
And they continue to proliferate. For our survey we asked a qualifying question: do you binge-watch shows? The number of respondents who said no was *de minimus*. This is not a Millennial thing, this is a fundamental shift in usage patterns.

**WHAT IS ‘AVAILABLE’?**

Conviva studies show that viewers of premium content have limited patience for below-par experiences: fully 75% give up on an experience they consider inadequate in 4 minutes or less. Indeed, a follow-up question demonstrated that fully 33% abandon a shoddy experience in 30 seconds or less.

**HOW LONG WILL YOU WATCH A LONG VIDEO WITH POOR RESOLUTION / FREQUENT INTERRUPTIONS?**

![Clocks showing watch times](image)

<table>
<thead>
<tr>
<th>Time</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 4 min</td>
<td>33%</td>
</tr>
<tr>
<td>5 - 10 min</td>
<td>43%</td>
</tr>
<tr>
<td>11 - 30 min</td>
<td>14%</td>
</tr>
<tr>
<td>30+ min</td>
<td>5%</td>
</tr>
<tr>
<td>30+ min</td>
<td>3%</td>
</tr>
</tbody>
</table>

So availability is not just about listing a show on the guide. Rather, it requires that the asset be delivered within an experience that meets or exceeds the quality anticipated – even demanded - by the audience. In other words, without a great picture, delivered smoothly, a show cannot truly be said to be ‘available’.

**THE SIZE OF THE CHALLENGE**

The binge-watching audience is clearly huge by any measure. The question is how much that audience consumes. Certainly, we have estimates of total per-week OTT viewing that are fairly high: eMarketer, for instance, estimates US consumers spend about 9 hours a week watching video online.
But that doesn’t really answer the question of binge-watching volume. Our survey respondents were asked how many shows they watch at the same time. The answer may surprise you:

As it turns out, 87% can only handle binge-watching 3 or fewer shows at the same time. The top 1% who claim to watch ten or more series at the same time are significant outliers.

We can reasonably conclude that the average viewer is likely able to commit to give-or-take two shows at any given time. Given that each viewer may burn through a season in just a week or so, we could imagine a situation in which half of the viewer’s time spent watching video is dedicated to this (from our numbers above, let’s call that 4.5 hours). Multiply that by our estimated audience above of 115 million and we are looking at over half a billion hours of binge-watching per week.

THE VALUE OF EACH USER

How do we define the value recognized by the provider each time a binge-watcher views a show? The truth is that we almost cannot, because the true value of a single viewer is tiny. The NCTA estimates it costs a subscriber 25 cents an hour to watch cable; if we assume that ad revenues are roughly equal to subscription revenues (a pretty decent industry rule of thumb), then we can call the value per minute of each viewer just under a penny.
If OTT is, as it appears to be, the future of TV, let’s make the assumption it needs to get the same returns. So those half billion hours should be worth a quarter billion dollars.

However, that misses a key point, which is that content providers derive their income from many sources. Let’s take a very public and famous example: Game of Thrones.

From public sources, we know that GoT costs approximately $3M per episode to make. We also know that this is offset to a good degree by approximately $2.6M per episode in international syndication fees. So it’s fair to say that there is a solid $26M riding on each successive season.

Meanwhile, viewers can also buy the content to have and to hold (if not always to own) and to watch whether online or offline. Based again on publicly-available information, it would seem that each episode is currently worth a shade under $1M in download rights; and potentially another $3 million in DVDs.

There is a lot of change in the numbers: DVD sales, for instance, have sunk quickly, while downloading numbers have accelerated. And there is, of course, the effect of HBO Now that has yet to be measured. This is reflected in how consumers prefer to gain access to their binge-watching material:

**WHEN YOU BINGE-WATCH A SHOW, HOW DO YOU VIEW IT?**

- **61%** Stream online
- **11%** Download watch offline
- **28%** Both

If you start a new series, what happens to the others you may have been watching?

- **59%** Watch old & new together
- **25%** Put old series on backburner
- **11%** Old series gets left behind & forgotten
- **4%** New series replaces old series only if it’s great

If you stop binge-watching before the end of a series, how likely is it you’ll finish it later?

- **45%** Very likely
- **29%** Likely
- **21%** Possible
- **4%** Unlikely
- **2%** Very unlikely
Download to own, then, should represent between 11% and 39% of the total; streaming between 61% and 89%. We can reasonably anticipate that these numbers will continue to skew more towards streaming, although at some point they will hit a point of uneven equilibrium – after all, audiophiles still buy records, so some consumers will still prefer to download videos to watch videos in higher fidelity.

Fundamentally, then, the value of each user is somewhere between the marginal price of a download (call it $3.50), and the marginal price of an international TV view (call it $0.25), with a theoretical audience number of 10 million.

More important to consider, however, is the value of each view. A one-time viewer is good; a committed, binge-watching viewer who tells her friends and changes her Facebook cover photo to Daenerys Targaryon is the real prize.

**WHERE THE REAL FANS ARE**

There is a popular idea today that we will all soon be watching at least half of our video on smartphones. True as that might be, it does not appear to be the case for binge-watchers. When asked how they preferred to consume their shows, they showed a clear preference for a larger screen:

![Graph showing device preferences for binge-watching](image)

Note that one in three is still using regular Pay TV video on demand, and that it is the second largest concentration of users. However, the number one device for binge-watching is the tried-and-true PC, followed closely by connected devices (Apple TV, Roku, etc.); smartphones are used less than half as often as the PC, and nearly a third less often than connected devices.
In a world in which we are constantly barraged with short news clips the latest from Grumpy Cat and Lip Sync Battles, is this a shock? Ultimately, no. Premium content is fundamentally designed to be consumed on a large screen at high quality, with a lean-in audience that is dedicating its energies to immersing itself into what is going on.

This is not to say that the numbers for other devices are insignificant: one in four of our respondents binge-watched on their (doubtless large-screened) smartphones, and one in four uses a game console (connected to the TV, of course). This clearly tells us that breadth of offering is key to capturing and maintaining that audience—that is, they want to jump from device to device and have their content follow them.

### AVAILABLE NOW...OR ELSE

Indeed, availability is not just about how many apps are out there for a given service; it’s also about ensuring each is properly supported. We asked our respondents what they do if the next episode they want isn’t immediately available to them – nearly half go look for something else and may completely abandon the current show:

**IF AN EPISODE OF A SERIES YOU’RE WATCHING IS UNAVAILABLE, WHAT DO YOU DO?**

- **START ANOTHER SERIES** 42%
- **WAIT FOR EPISODE TO BECOME AVAILABLE** 22%
- **LOOK SOMEWHERE ELSE FOR THE EPISODE** 25%
- **LOSE INTEREST IN SHOW & MOVE ON** 4%

Recall that our respondents told us that, on average, they watch just two shows at a time. With 4 in 10 saying they will go seek another series if their desired episode isn’t available, guess what happens to their engagement with the current one? And with 1 in four headed off to find the episode elsewhere, the stickiness of the service providing the content is under attack – unless the content is original and unavailable elsewhere, in which case we are simply irritating our paying customers.

The implications are significant and logarithmic: a customer who can’t find episode two of a twenty-six episode season is gone – for a total of 25 episodes. They also are one less audience member on the count of followers used
to define the value of the content when it comes time for that show to be syndicated or otherwise re-licensed. And they are one less person likely to buy a DVD at the end of the show. Potential loss from that one individual alone could be as high as $100 (25 episodes @ $3, plus a DVD @ $25); that's without counting the impact on re-licensing value, as each individual viewer is relatively meaningless.

Unless they aren't. A study in the UK in 2014 found that 1 in 7 consumers receives social recommendations about TV from the Web. A viewer who abandons her show will likely not write about it on social media and thus will reduce the discussion level by a small amount. Individually, perhaps still a blip, but if a thousand viewers leave frustrated, where then the revenue and the continued social media buzz?

**HOW MUCH CAN WE REALLY WATCH?**

Some viewers, however, told us they'd simply watch something else while they waited for their preferred show to come available.

![If you start a new series, what happens to the others you may have been watching?](image)

For the glass-half-full set, there is the observation that six out of ten customers will watch the old and the new together; 11% are more favorably inclined toward their old show, while only 3 in 10 put their old show on the back burner or abandon it altogether.

But if we look closer at these numbers, we have to ask the question: do 59% really watch both shows? Remember, the first question we asked in the survey was how many shows people watch at the same time and 42% said only one, leaving 58% at two or more. Respondents may very well feel like they'd keep with the old one, even though in reality, they move on to the next show.
Even if that's not the case, consider the possibility that our imaginary viewer couldn't find his second episode and went to find something else. We can now calculate a minimum chance of his not coming back any time soon at 29%. Multiplied by the potential cost we worked out in the last section ($100), we can say that the financial risk of an unavailable or unsatisfactory episode two is $29. If a show has an audience of a million, that's a $29M risk; for a hit like GoT, with some 10 million viewers, that's a risk that cannot be taken.

**ARE THEY EVER COMING BACK?**

Finally, we asked our survey respondents the real chances they'd come back to a show they had stopped watching, in principle ‘temporarily’. As it turns out the numbers strongly supported the last set:

In this case 27% were neutral to unlikely to return, which matches closely the 29% who said they would move on in the case of an unavailable episode.

For content owners, the 45% Very Likely to Return should be a wake-up call: one ‘miss’ and over half of your committed audience is shaken from its dedicated stance. 55% are less than fully committed to return, meaning not only is the value of each individual viewer at risk but the re-licensing fees as well.

Let's return to our GoT example, where a show is licensed for $2.6M per episode. What is it worth with 27% fewer viewers? 27% fewer dollars, for a total season's impact of $7 million? Perhaps; unless this is not the first season, and the drop in audience represents the beginning of the end for the property. At that stage, who knows how precipitous the drop would be?
**BINGE WATCHING AS CURRENCY**

The Pay TV world relies on Nielsen ratings, based on surveys and extrapolation, because TV is fundamentally a one-way street: Nielsen's estimates are the word of law.

OTT, in contrast, is a two-way street: we know what is popular, we know how popular, and we know with whom it's popular. Audiences show their commitment in the following manner:

- **Subscriptions**: consumers stick around to watch shows to which they are committed
- **Advertising**: engaged audiences can be demographically defined and targeted
- **Related revenues**: engaged audiences invest in related items, from media (e.g. DVDs) to tie-ins (e.g. toys to Happy Meals and beyond)

The best way to build value in content, especially episodic TV content, is to build a committed, engaged audience, and nothing achieves that like building an audience of binge-watching viewers. With volume, quality, and – above all else – clear, credible and defensible measurements, the most valuable video properties will be those who crack the binge-watching code.

**REFERENCES**

2. [https://www.ncta.com/industry-data](https://www.ncta.com/industry-data)