Granularity of Choice

Gabriel by Dusil

In the days when there were only a handful of channels, the ratio between useful and *useless* didn't seem to matter - Especially when it was free and over the air (OTA[1]) content. But as Pay TV[2] came to market in the 90's, consumers were presented with hundreds of channels and monthly fees. The gap between relevant and irrelevant widened significantly. Throughout this transition subscribers became used to the notion that, "buying the entire book store", was necessary just to get a few books. It was a necessary evil for users to purchase more than they actually wanted to consume. There was no other way to get access to the handful of channels that we really wanted to watch.

> *I only watch four channels. Why do I need to pay for over 500?* [3]

But in today's internet world, consumers no longer need to buy the entire bookstore to get a few books. Consuming content is analogous to going to the library and only borrowing (i.e. viewing) what we want - then giving it back when we're done. Accessibility to online content has removed the need to subscribe to more than we need to consume. Whether it's head-end or long-tail[4] content, consumers only need to purchase and consume what they want, without any excess baggage and expense.

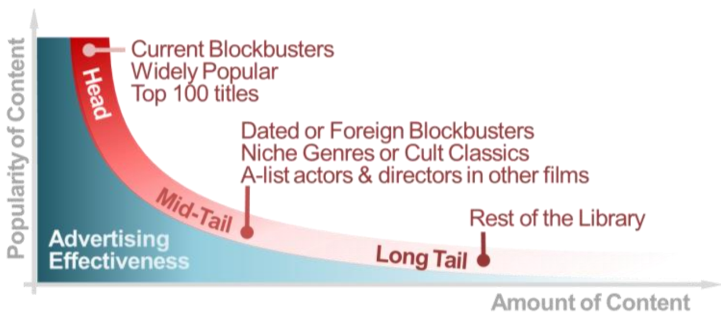

Figure i - The Long Tail of Internet Video Consumption

The frustration of having too many channels didn't matter, as long as we could watch what we wanted. But the challenge for broadcasters was introducing their subscribers to mid-tail to long-tail content otherwise unnoticed by the casual viewer. Cable and satellite providers addressed these market challenges through the introduction of EPG (electronic programming guides), and DVR (digital video recorders or PVR, personal video recorders[5]). With these new set-top boxes (STB[6]), subscribers became untethered from the limitations of linear broadcast. Finally consumers could watch their programming whenever they wanted, the freedom to pause or rewind if they wanted…or, dare we mention – fast-forward through commercials - to the irritation of advertisers. Nevertheless, there was still a string tying the subscriber to linear TV since the digital video recorder still needed to wait for the program to broadcast before it could be captured onto a set top box. A limitation that will always apply to live broadcast for that matter.

With Over the Top content (OTT)[7], services such as Netflix[8] and Hulu[9], subscribers could finally disconnect themselves completely from linear television, and just download what they wanted (i.e. any content), when they wanted (i.e. any time). With Apple's introduction of the iPhone in 2007[10] and iPad in 2010[11], consumers became untethered from their living rooms and could watch videos on any device and 'anywhere'.

> *For subscribers that have Cut-the-cord …*
>
> *… broadcast television has become a frustrating experience.* [12]

With the growth of online video, a trend has also begun with subscriber's *cutting-the-cord*[13]. This is a fairly recent phenomenon where consumers cancel their cable or satellite TV contracts, and exclusively use the internet for their viewing experience. This may include a combination of OTT services, cloud-based subscription services, or any number of websites which serve internet video. The accompanying chart shows that around 7% of global Pay TV subscribers have cut the cord, with another 8% proactively reducing their costs. From this group, 56% that made the change were motivated by saving money, and another 42% weren't watching enough television to justify the subscription cost. Overall this decline may not seem alarming, but for cable and satellite providers with millions of subscriber, this amounts to sizable losses in annuity revenue streams. In the U.S. alone, over a two year period from the beginning of 2010 till the end of 2011, the cable TV industry lost 2.3 million subscribers[14], and this downward trend is continuing unabated. With an ARPU[15] (Average Revenue Per User) of $53 US per month[16], this amounts to a loss of over $1.4 billion US per year. This decline doesn't appear to be slowing any time soon.

In a world where Netflix offers an extensive movie library and Hulu offers the same for TV serials, then what is left for broadcaster's to differentiate their offering? Currently this includes live sports and news events. These may be the traditional broadcaster's last remaining holy grail - but for how long? Protecting their revenue streams has created a sense of urgency, more so than embracing new online revenue opportunities. It's no mistake that most of the 2012 Olympics in London were only available via selected broadcasters world-wide[17].

The Internet has significantly disrupted the traditional TV subscription model. Even if consumers still watch their television for live news and sports, for some it has become a medium for background noise within the confines of their living room. It's a relaxing release from having to make a choice of what to watch. For others the autonomy to make content choices has widened, and the ability to granularly access that content also has.

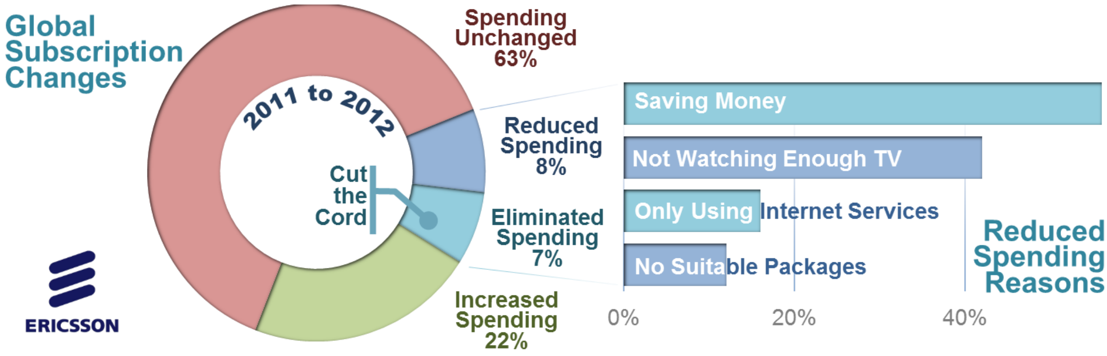

Figure ii - Global Subscription Changes & Reasons for Reduced Spending

The need to own content is also being diluted by accessibility. As service providers continue to consolidate libraries, extended their content rights, and provide multiple ways to consume content, the need for ownership is slipping from the minds of consumers. This may be partially the reason behind the dip in disc sales over the past few years. According to Rentrak[18] and DEG[19], the decline in Blu-Ray and DVD disc sales is currently around 16% per year. Despite the growth in Blu-Ray disc revenue, this hasn't offset the decline in DVD sales[20].

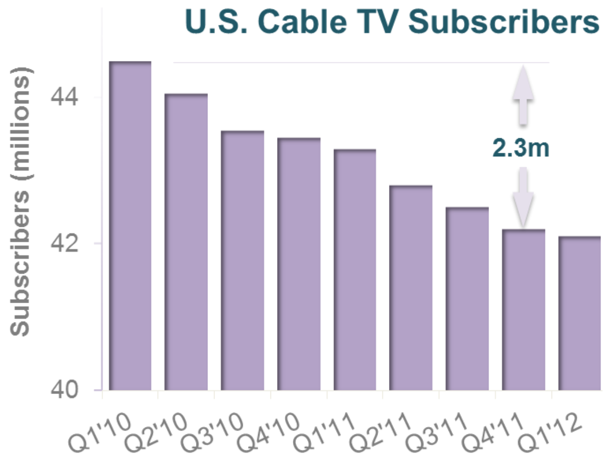

Figure iii - Decline in U.S. Cable TV Subscribers

According to Rentrak, video sales continued to steadily rise until 2005, fueled in part through a combination of rental and sell-through revenue. The turning point of the video industry appears to be around 2006. This was the year when Blu-Ray was introduced. Around this time Internet speeds had finally caught up to the ability to deliver video in real time. Albeit, first in standard definition (SD). In the middle of the decade video streaming technologies such as Real Time Streaming Protocol (RTSP)[21] took hold. 2006 was also the year when Google[22] purchased YouTube for 1.65 billion US$ - less than 18 months after it was founded. Another critical milestone was the launch of FairPlay[23] DRM (Digital Rights Management) by Apple, and PlayReady[24] DRM from Microsoft in February 2007. This brought some comfort to movie studios that their titles will be secured when distributed online. On the 29th of June 2007 Apple begins shipping the first iPhone[25], which was instrumental in fueling the popularity of mobile video. Steve Jobs[26] certainly recognized that he could create unique products that where a culmination of multiple technological innovations. During this time, the defining changes in consumer behavior could be attributed to both an improvement in video quality, the introduction of 1080p televisions, and the growth of OTT services bringing low-cost or *no cost* video to the end-user.

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Even though VoD (Video on Demand)[28], has slightly offset the decline in entertainment sales alone, overall the video disc rental and ownership industry is in a steady 2% decline per year. It has yet to be determined whether the global accessibility of legitimate internet video services, international expansion for content rights, and 4K UHD (Ultra High Definition)[29] will be able to reverse this trend. Certainly the revival of 3D[30] hasn't managed to save the industry in these past few years. In the meantime, it appears that this downward trend won't be

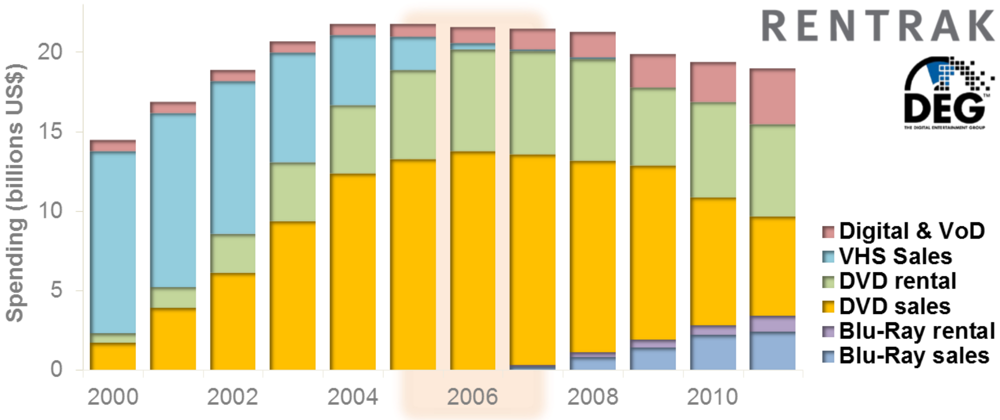

Figure iv - Consumer Entertainment Spending in U.S. Homes

recovering any time soon.

The need for ownership is now outweighed by our ability to easily access online content. For instance, YouTube[31] is already seen as the most popular method of watching and listening to music videos[32]. Why purchase a CD when a high quality audio and video track of the artist is readily accessible online? And it's free! This has caused Generation X consumers to sit back and wonder how they managed to spend thousands of dollars in building massive disc collections. Especially when, in the case of a DVD - the movie is only watched once. The same applies to music CD's that have been played a handful of times. The concept of physical disc ownership is beginning to be an archaic concept. CD, DVD, and Blu-Ray sales will continue to struggle amongst the rapid rise of internet-based video and music distribution[33].

> *The linear schedule works because it takes choice away from people…*
> *…VoD takes a lot of thought processing.*
>
> Anthony Lukom, VP/MD,
> Turner Broadcasting, London, UK [34]

Furthermore, physical collections are made obsolete through the re-release of titles at better qualities. This cycle has been repeated as far back as the VHS transition to DVD, and again when DVD's transitioned to Blu-Ray. The consumer frustration of replacing collections is apparent at every juncture. Blu-Ray disc may certainly be the final physical medium for content distribution[35] but does not eliminate this cycle from repeating itself when 4K content is released. The technological innovations in bandwidth, processing power, and screen resolutions are certainly enabling video to be delivered with pristine quality video via the internet, without the need for disc storage.

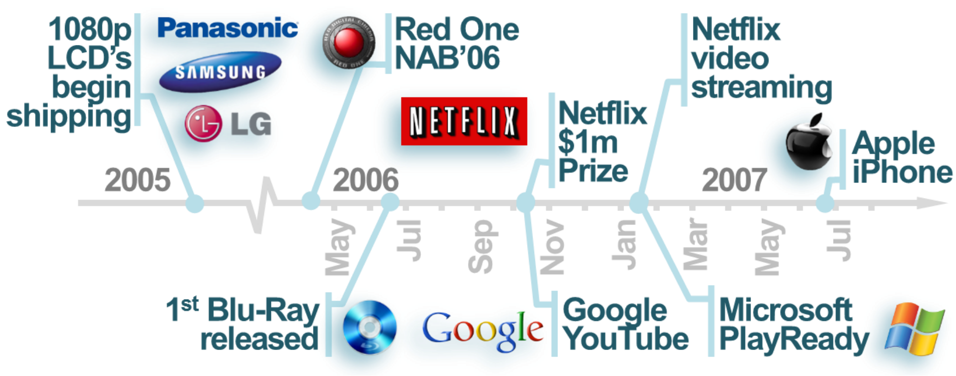

Figure v - 2006: The Turning Point for Digital Video

As a final note, it's worth mentioning that the current high definition broadcasts are usually limited to 720p[36]. This is mainly due to preserving precious bandwidth, and also helps reduce transcoding time and storage costs in the back-end. 1080p[37] video double these resource requirements in all directions . High compression ratios also help to squeeze as much video as possible in today's precious bandwidth. For the moment this ensures that Blu-Ray continues to maintain a significant lead at the high-end, maintaining stellar video quality at 1080p. In some cases Blu-Ray contains over ten times the video information of its downloadable or streaming counterpart. Blu-Ray's bandwidth requirements of 25 to 50Mbps are simply not feasible for today's average internet subscriber. So the lucrative 1080p market remains safely in the hands of Blu-Ray, for the time being.

> *If the subscription fee is set correctly, consumers' perception of being able to access any content outweighs the value of ownership*
>
> Simon Frost
> Head of TV Marketing, Ericsson [38]

Internet speeds are increasing, both for wireless and wireline, and online video providers are creeping into this market with their own 1080p offerings. By the time 4K disrupts the market within this decade, it is likely that technological innovation will converge to stream ultra-high resolutions in real-time - leading perhaps to the demise of disc sales.

Read Additional Articles in this Series

I. Consumption is Personal

- *http://dusil.com/2013/02/28/consumption-is-personal/*

In the days of linear television, broadcasters had a difficult task in understanding their audience. Without a direct broadcasting and feedback mechanism like the Internet, gauging subscriber behavior was slow. Today, online video providers have the ability to conduct a one-to-one conversation with their audience. Viewing habits of consumers will continue to rapidly change in the next ten years. This will require changes in advertising expenditure and tactics.

II. Granularity of Choice

- *http://dusil.com/2013/04/01/granularity-of-choice/*

The evolution from traditional TV viewing to online video has been swift. This has significantly disrupted disc sales such as DVD and Blu-Ray, as well as cable and satellite TV subscriptions. With the newfound ability to consume content anytime, anywhere, and on any device, consumers are re-evaluating their spending habits. In this paper we will discuss these changes in buying behavior, and identify the turning point of these changes.

III. Benchmarking the H.265 Video Experience

- *http://dusil.com/2013/04/22/benchmarking-the-video-experience/*

Transcoding large video libraries is a time consuming and expensive process. Maintaining consistency in video quality helps to ensure that storage costs and bandwidth are used efficiently. It is also important for video administrators to understand the types of devices receiving the video so that subscribers can enjoy an optimal viewing experience. This paper discusses the differences in quality in popular video codecs, including the recently ratified H.265 specification.

IV. Search & Discovery Is a Journey, not a Destination

- *http://dusil.com/2013/05/13/Search-and-Discovery-Is-a-Journey-not-a-Destination/*

Television subscribers have come a long way from the days of channel hopping. The arduous days of struggling to find something entertaining to watch are now behind us. As consumers look to the future, the ability to search for related interests and discover new interests is now established as common practice. This paper discusses the challenges that search and discovery engines face in refining their services in order to serve a truly global audience.

V. Multiscreen Solutions for the Digital Generation

- *http://dusil.com/2013/06/24/multiscreen-solutions-for-the-digital-generation/*

Broadcasting, as a whole, is becoming less about big powerful hardware and more about software and services. As these players move to online video services, subscribers will benefit from the breadth of content they will provide to subscribers. As the world's video content moves online, solution providers will contribute to the success of Internet video deployments. Support for future technologies such as 4K video, advancements in behavioral analytics, and accompanying processing and networking demands will follow. Migration to a multiscreen world requires thought leadership and forward-thinking partnerships to help clients keep pace with the rapid march of technology. This paper explores the challenges that solution providers will face in assisting curators of content to address their subscriber's needs and changing market demands.

VI. Building a Case for 4K, Ultra High Definition Video

- *http://dusil.com/2013/07/15/building-a-case-for-4K-ultra-high-definition-video/*

Ultra-High Definition technology (UHD), or 4K, is the latest focus in the ecosystem of video consumption. For most consumers this advanced technology is considered out of their reach, if at all necessary. In actual fact, 4K is right around the corner and will be on consumer wish lists by the end of this decade. From movies filmed in 4K, to archive titles scanned in UHD, there is a tremendous library of content waiting to be released. Furthermore, today's infrastructure is evolving and converging to meet the demands of 4K, including Internet bandwidth speeds, processing power, connectivity standards, and screen resolutions. This paper explores the next generation in video consumption and how 4K will stimulate the entertainment industry.

VII. Are You Ready For Social TV?

- *http://dusil.com/2013/08/12/are-you-ready-for-social-tv/*

Social TV brings viewers to content via effective brand management and social networking. Users recommend content as they consume it, consumers actively follow what others are watching, and trends drive viewers to subject matters of related interests. The integration of Facebook, Twitter, Tumblr and other social networks has become a natural part of program creation and the engagement of the viewing community. Social networks create an environment where broadcasters have unlimited power to work with niche groups without geographic limits. The only limitations are those dictated by content owners and their associated content rights, as well as those entrenched in corporate culture who are preventing broadcasters from evolving into a New Media world.

IX. Turning Piratez into Consumers, I

- *http://dusil.com/2013/10/25/turning-piratez-into-consumers-i/*

IX. Turning Piratez into Consumers, II

- *http://dusil.com/2014/07/15/turning-piratez-into-consumers-ii/*

X. Turning Piratez into Consumers, III

- *http://dusil.com/2015/05/12/ott-multiscreen-digital-video-series-10-turning-piratez-into-consumers-iii/*

XI. Turning Piratez into Consumers, IV

- *http://dusil.com/2015/05/26/ott-multiscreen-digital-video-series-11-turning-piratez-into-consumers-iv/*

XII. Turning Piratez into Consumers, V

- *http://dusil.com/2015/09/22/ott-multiscreen-digital-video-series-12-turning-piratez-into-consumers-v/*

Content Protection is a risk-to-cost balance. At the moment, the cost of piracy is low and the risk is low. There are no silver bullets to solving piracy, but steps can be taken to reduce levels to something more acceptable. It is untrue that everyone who pirates would be unwilling to buy the product legally. It is equally evident that every pirated copy does not represent a lost sale. If the risk is too high and the cost is set correctly, then fewer people will steal content. This paper explores how piracy has evolved over the past decades, and investigates issues surrounding copyright infringement in the entertainment industry.

About the Author

Gabriel Dusil was recently the Chief Marketing & Corporate Strategy Officer at Visual Unity, with a mandate to advance the company's portfolio into next generation solutions and expand the company's global presence. Before joining Visual Unity, Gabriel was the VP of Sales & Marketing at Cognitive Security, and Director of Alliances at SecureWorks, responsible for partners in Europe, Middle East, and Africa (EMEA). Previously, Gabriel worked at VeriSign & Motorola in a combination of senior marketing & sales roles. Gabriel obtained a degree in Engineering Physics from McMaster University, in Canada and has advanced knowledge in Online Video Solutions, Cloud Computing, Security as a Service (SaaS), Identity & Access Management (IAM), and Managed Security Services (MSS).

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Tags

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