



YouTube: Prove It or Lose It

Converting >1bn Users to Subs

Reaching an \$18bn Business in 2020

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The Hardest Conversion... Free to Paid

Digital advertising is about the "conversion funnel"

Google understands this as data science



Encouraged with rising ad load on "free" service

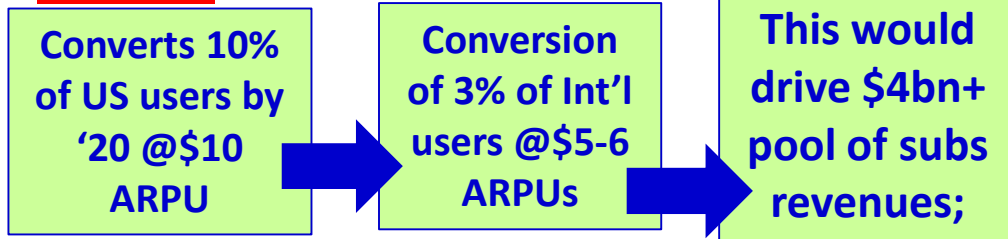
Content consumption accelerating online/mobile video taking TV ad spend

- Led by NFLX, YouTube, FB – CDOs tell us it will further *accelerate materially* in 2016
- Professional content blending with "premium" UGC and brand ads (e.g., *Always Like a Girl*)
- Led by rising smartphone/tablet/TV streaming penetration, fuelling digital video watch time

Following NFLX playbook, limited initial content, ramping quickly

YouTube at the forefront – Plausible to see \$18bn in 2020 revs

- De-risked initially on content investment relative to NFLX, AMZN, others
- UGC+ and partnerships with MCNs/prof'l media companies for content/distribution
- Already key infrastructure platform for content producers/brands



Ample UGC + offline + ad free incentives = no need to press media owners, invite regulatory scrutiny

You Tube starts as the only global video platform, with 1.2bn+ MAUs (if not more!)

YTR the start of a new subscription business model for Google

With 50m+ subs, You Tube could "calibrate" content spend based on willingness of media owners to license

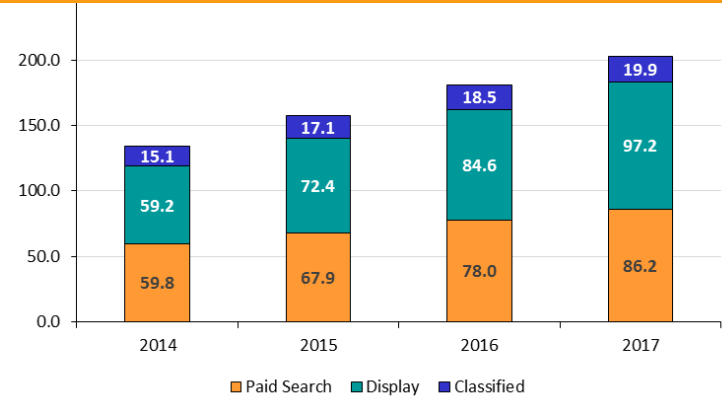


Video/Social Lead Growth in Ad Spend

Top-down Internet ad spend data suffer from poor methodology:

- **IAB** relies on a) self reporting by private companies and b) double-counts ad spend.
- **Zenith Optimedia:** Global Internet ad spend grew 20% in '14, forecasts 15% annual growth to '17E.
- Search projected to grow 13% p.a. (plenty more innovation in image, video, mobile, etc.).
- **Display growing fastest** driven by programmatic, rising from **\$59.2bn to \$97.2bn (2014-2017E)**. Traditional display declining, but online video +24% and social media +28%, led by **mobile +44% to '17E** vs. desktop 3% to flat.

Global Digital Ad Spend Forecasts, \$bn

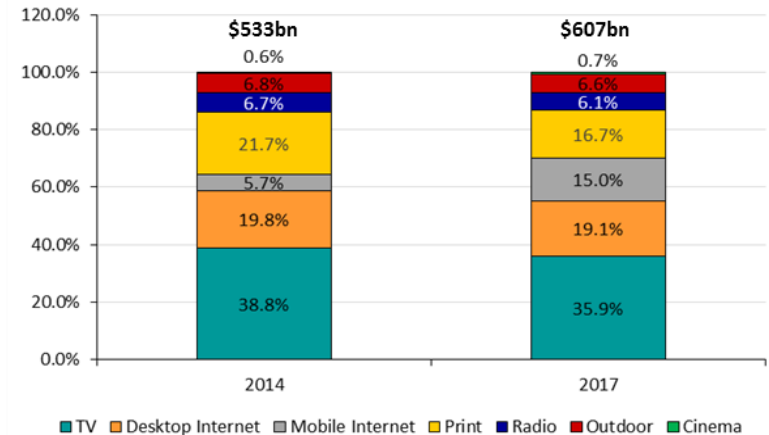


The next five years will see advertisers shift more TV budgets ('15: ~\$60-\$70bn market in US, ~\$210bn globally) to online video ('15: ~\$8bn US, ~\$14bn globally)

- Viewing habits changing rapidly
- Advertising has yet to respond to this fully, but will shift in '16
- Digital advertising allows more targeting for aggregate reach and frequency



Share of Global Ad Spend by Medium



Source: Zenith Optimedia, Sept 2015

Going After the Great White Whale of US TV Ad Spend



Tipping Point: Digital Eating into TV Time Spend

Less time spent on linear TV, rising VOD consumption

- Linear TV viewing declining: down in France and Russia since '13, UK and US since '14, starting to drop in China in '15; TV ratings fell this year in US, in UK 18-24yo viewing - 22% in 4 yrs.
- Agencies think 1/3rd due to on-demand content, 2/3^{rds} attributed to lack of measurement across devices.
- Clear trend of time spent moving to video-on-demand NFLX (SVOD) and online video, e.g., YouTube (ADVOD).
- Top 33 cable networks (Nielsen Oct '15 universe) down an average of 2.5 million subscribers YoY.

➤ Led by broad smartphone/tablet penetration and in part by Smart TV and streaming sticks (FireTV, Chromecast, Roku, etc.)



Eating into TV ad spend, even if TV still perceived to be best for 'reach' across large audiences

An upgraded multi-platform UI/UX, has contributed to the shift to online viewing

Average time spent per adult 18+ per day (US)

	2Q13	2Q14	2Q15
Live TV	4:29	4:19	4:11
DVR/Time-shifted TV	0:26	0:29	0:29
AM/FM Radio	1:56	1:52	1:49
DVD/Blue-Ray Device	0:09	0:08	0:07
Game Console	0:09	0:10	0:12
Multimedia Device	0:01	0:05	0:09
Internet on a PC	0:46	0:48	0:43
App/Web on a Smartphone	0:36	0:56	1:06

Monthly time spent by medium in hours : minutes among users (US)

	Total	2-11	12-17	18-24	25-34	35-49	50-64	65+
Live TV+DVR/Time-shifted TV	138:50	97:18	76:42	85:34	107:52	134:16	179:57	214:52
DVR/Time-shifted TV	22:38	16:17	11:53	13:41	21:19	25:30	28:20	27:51
AM/FM Radio	58:01	na	34:43	48:43	53:16	62:04	68:46	60:24
DVD/Blue-Ray Device	9:52	13:15	8:57	11:03	11:33	9:02	9:01	7:00
Game Console	26:00	23:10	33:45	44:48	29:30	16:03	11:33	10:07
Multimedia Device	23:18	22:24	18:24	28:44	28:48	21:55	19:40	22:38
Internet on a PC	29:02	4:12	7:38	28:51	34:11	34:12	34:04	24:24
Video on a PC	12:36	9:18	8:29	18:38	17:30	13:57	10:51	5:42
App/Web on a Smartphone	45:59	na	na	55:20	52:55	49:55	36:44	28:05
Video on a Smartphone	2:04	na	na	3:36	2:34	1:49	1:14	0:39

Source: Nielsen, Total Audience Report 2Q15

Ad spend shifting to digital/VOD from linear TV, following time spent



Video: Fastest Growth in Internet Ad Spend

TV budgets shifting to digital video

- Over the past two years, US broadcasters lost \$400m vs. a loss of \$600m this year for cable networks at the upfronts.
- In 3Q15 reports from CBS, Discovery, Time Warner, Fox and Viacom show ad revenues down 1-8% YoY.
- Digital Content NewFronts:** Internet players making a push for online video to capture ad dollars.
- AOL (2015 State of Video Industry Report): 39% of buyers said incr. digital video advertising comes from broadcast (2012: 18%). 31% from cable TV, 31% from display ads.

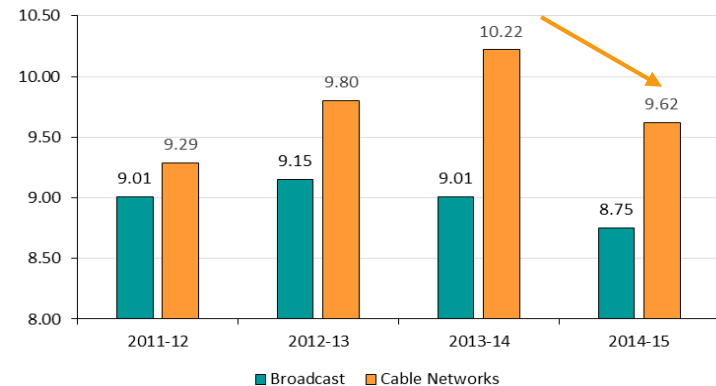
Video ad-tech growing top-line ~20%

- AOL Report found half of buyers shifting budgets to digital video, reallocating from TV.
- Online video now part of media buy cross-platform; US market >50% of total global online video spend.
- Major buyers like Verizon and Mondelēz shifted double-digit portions of TV ad budgets online, accelerated by programmatic.
- GOOG, FB and YHOO all making acquisitions to bolster tech offerings and consolidating market.**

Video ad-tech consolidated

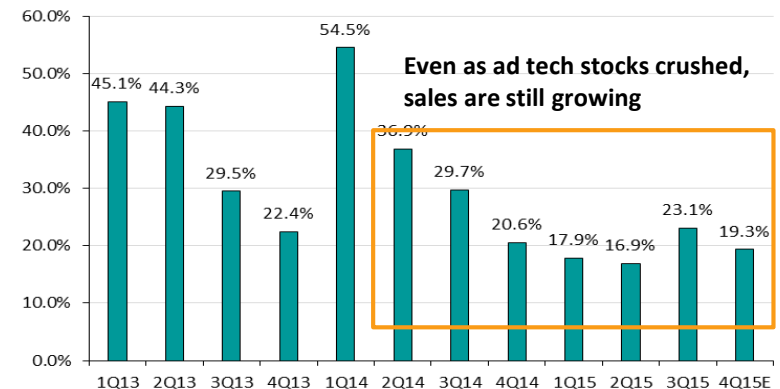
Short list of platforms: **Google, Facebook (Liverail), Yahoo (Brightroll), AOL (adap.tv), Videology, Tubemogul, Tremor and Yume.** Content owners investing in their own platforms, e.g., RTL/SpotX, CondeNast).

US TV upfront advertising spend, \$bn



Source: SNL Kagan

Combined Sales Growth of TUBE, TRMR, YUME



Source: Arete Research, Company data

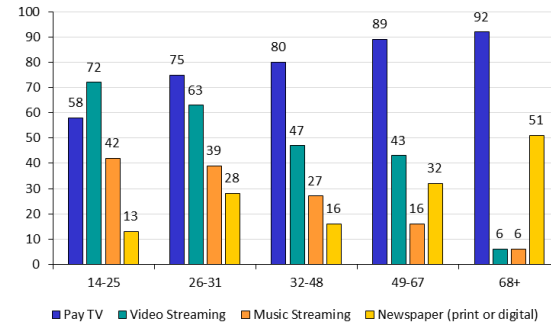


Audience Shifting: Online Video vs. Linear TV

Millennials Are Watching TV Less

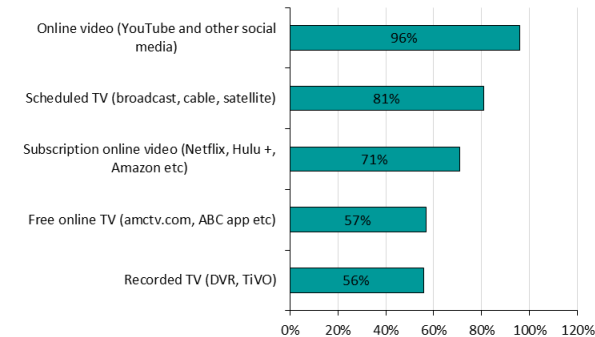
- YouTube and social media changing viewing habits.
- Linear TV embracing You Tube: NBC (Fallon), CBS (James Corden), Comedy Central, etc.
- **Audience wins: YouTube reaches more 18- to 34-year-olds in US than any cable network.**
- Short-form content one factor driving shorter “attention spans” and impacting creative side of agencies.
- **The top-five celebrities for US teenagers (13-18) are ALL YouTubers; in the UK, 6 of the top 10 teen influencers are YouTubers.**
- 2015: **29% of UK kids 12-15 prefer YouTube to TV (25%),** (Ofcom), in 2014 this was 25% for YouTube and 30% for TV, with the remainder indifferent between the two.

Generation Gap in Media Preferences



Based on a survey among 2,076 US consumers conducted in November 2014. Source: Deloitte

US youth prefer online video (% of 13-24yos)



Source: Defy Media, March 2015

Short form format complements long-form content; will get more focus with YouTube Originals

- Google spent ~\$200m on top 100 YouTubers for prof'l content/Spaces.
- Since '13, major media (Hearst, Disney, RTL, ProSieben, AT&T/Chernin Group, Discovery, Warner Bros.) invested >\$1bn in YouTube MCNs.

Top MCNs on YouTube: subscriber trends

MCN	Dec-14	Mar-15	Jun-15	Sep-15	% chg YTD
Vevo	171.4	181.3	184.7	203.2	18.6%
Maker Studios	125.6	135.1	152.8	168.3	34.0%
Machinima	59.7	63.7	54.4	57.6	(3.6%)
Collective Digital Studio	43.2	51.3	54.0	52.5	21.5%
Fullscreen	36.3	32.9	34.3	25.9	(28.5%)
Mitu	7.5	8.1	8.8	16.2	115.2%
BroadbandTV	6.4	6.5	6.5	12.9	103.4%
Next New Networks	8.2	8.6	9.0	9.4	14.2%
StyleHaul	6.9	7.7	8.5	9.2	33.8%
Big Frame	6.1	6.7	7.1	7.6	24.5%

Source: YouTube, Socialblade, and SNL Kagan estimates

Content investments follow audiences, esp. youth.



Key Points from YouTube Upfronts, pre-YT Red

- In UK, +60% in watch time in last year, while 18-24s -22% in TV viewing time in last four years. Some 53% watching TV also watching video on mobile at same time.
- Audience engagement: 50%+ of YouTube users said last video watched was >5 mins**, 30% watched with others.
- Avg. mobile viewing session more than doubled YoY, to a record 40 minutes per session.

In '15, 4 of top 10 trending videos from brands.

- Driving change for product/services advertisers: e.g., top three unboxing channels have 1bn collective views. **Products HAVE to be on YouTube.**

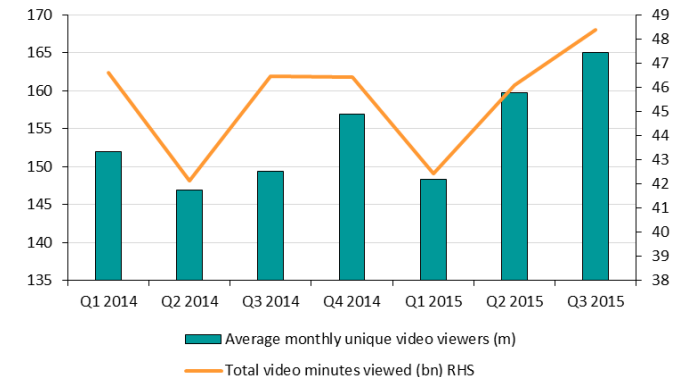
Range of new products cited by marketers

- Google Preferred:** (30% of advertisers new to YouTube, grabbing traditional TV advertising spend).
- Extra Reach Tool:** (based on 3yr. effort with Kantar panel using YouTube to supplement TV campaigns) promoting ~25% shift in budget to YouTube, over 11K campaigns for 18-34s.
- Brand Lift Surveys:** measuring ad recall, brand awareness and intent to purchase; **Shopping Ads:** still in beta, for Google Merchant Centre accounts, using website cards.
- Customer Match:** launched at Adweek – adding email database and YouTube users to find similar audiences.

Source: YouTube Upfronts, Oct 15

No other video platform remotely close to YouTube scale, global reach, engagement

US: YouTube desktop video viewing



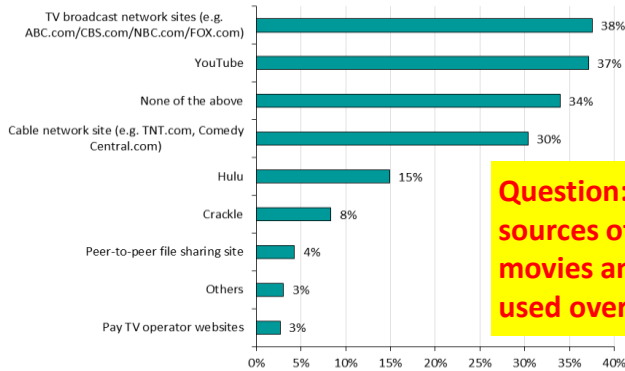
US: Top YouTube channels by subscribers (Sep '15)

YouTube channel	Primary genre	Total subs (m)	% chg subs YoY	Avg views per video (m)
PewDiePie	Games	39.6	27%	4.1
holasoygerman	Entertainment	24.3	25%	16.3
smosh	Entertainment	21.2	12%	8.5
RihannaVEVO	Music	17.5	20%	77.7
OneDirectionVEVO	Music	17.1	22%	28.2
KatyPerryVEVO	Music	16.9	22%	67.1
EminemVEVO	Music	16.4	22%	88.8
TaylorSwiftVEVO	Music	16.3	90%	92.1
JennaMarbles	Comedy	15.5	11%	6.9
nigahiga	Comedy	15.3	18%	9.5
vanoss gaming	Games	14.2	58%	8.9
elrubiusOMG	Games	13.8	63%	4.8
TheFineBros	Entertainment	13.2	30%	3.8
JustinBieberVEVO	Music	13.2	30%	60.8
machinima	Games	12.6	6%	0.2
ERB	Entertainment	12.6	15%	34.1
TheEllenShow	Entertainment	12.6	29%	0.8
lady16makeup	How To, Fashion, and Style	11.6	48%	3.6
skydoesminecraft	Games	11.4	9%	2.2

Sources: comScore Video Metrix, YouTube, Socialblade, and SNL Kagan estimates

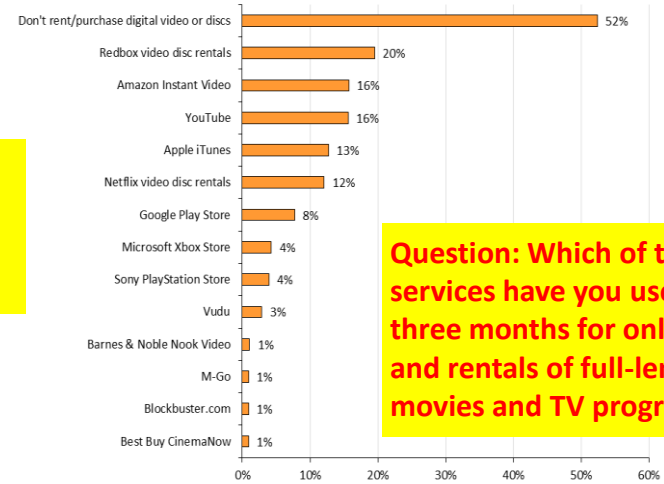
YouTube: Shifting Towards Professional Content

YouTube: Already a Source of Free Online Movies/TV



Question: Which of the following sources of free full-length online movies and TV programs have you used over the past three months?

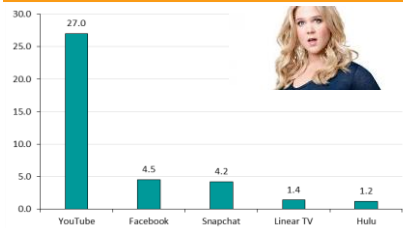
YouTube: Used for Paid Content (movies/TV)



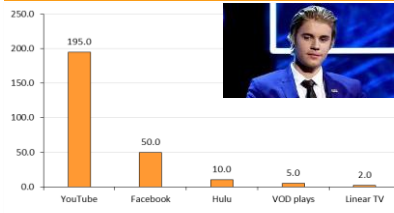
Question: Which of the following services have you used over the past three months for online purchases and rentals of full-length digital movies and TV programs?

Based on a survey of 2,573 US consumers conducted in Nov 2015. Source: SNL Kagan

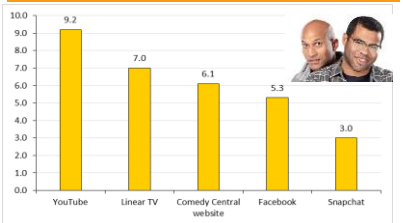
'Inside Amy Schumer' Season



'Roast of Justin Bieber'



'Key & Peele' Season 4A



Compares video streams/viewers (m)
Source: Comedy Central, Nielsen, Pixability

'Broad City' Season 2



Top Brands Realise This Shift Already

611,000
Videos uploaded to YouTube by top 100 brands

Brands will want to associate with YouTube audiences and content creators (e.g. Zoella)

73M Subscribers
16M Comments

Collectively, the top 100 brands own and operate **2,434** channels on YouTube.

The top 100 brands have a total of **40 BILLION** views across their channels.

Clear connection between leading content and top brands



Modelling Out a \$18bn YouTube in 2020

YouTube Revenue Model	2014	2015	2016	2017	2018	2019	2020
YouTube Global users (m)	1,143	1,200	1,260	1,323	1,389	1,459	1,532
<i>Growth</i>		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Total YouTube Red Subscribers (m)	0.0	2.5	8.5	15.5	27.0	40.0	61.0
<i>As % of total Global YouTube users</i>		0.2%	0.7%	1.2%	1.9%	2.7%	4.0%
Total YouTube Red revenues (\$m)	0	25	418	1,224	1,970	2,940	4,305
<i>Growth</i>			1570%	193.2%	60.9%	49.3%	46.4%
YouTube Red US subs (m)	0	3	6	9	12	15	21
<i>Net adds (m)</i>		2.5	3.5	3.0	3.0	3.0	6.0
<i>As % of YouTube US users</i>		0.9%	3.2%	4.7%	6.1%	7.5%	10.3%
<i>As % of US OTT users</i>		1.3%	2.9%	4.2%	5.5%	6.6%	9.0%
<i>YouTube Red avg subs (m)</i>			3.1	7.5	10.5	13.5	18.0
<i>Subscription price (ARPU), \$</i>		10	10	10	10	10	10
<i>Growth</i>			0.0%	0.0%	0.0%	0.0%	0.0%
YouTube Red US revenues, (\$m)	0	25	373	900	1,260	1,620	2,160
YouTube Red Intl subs (m)	0	0	3	7	15	25	40
<i>Net adds (m)</i>		0.0	2.5	4.0	8.5	10.0	15.0
<i>As % of YouTube users (Intl)</i>		0.0%	0.2%	0.6%	1.3%	2.0%	3.0%
<i>YouTube Red avg subs (m)</i>			0.6	4.5	10.8	20.0	32.5
<i>Blended subscription price (ARPU), \$</i>			6.0	6.0	5.5	5.5	5.5
<i>Growth</i>			0.0%	0.0%	0.0%	0.0%	0.0%
YouTube Red Intl revenues, (\$m)	0	0	45	324	710	1,320	2,145
YouTube Global advertising revenues (\$m)	4,200	5,800	7,164	8,532	10,020	11,765	13,812
<i>Growth</i>		38.1%	23.5%	19.1%	17.4%	17.4%	17.4%
<i>As % of Global online video adspend</i>	33.6%	36.0%	36.0%	36.0%	35.5%	35.0%	34.5%
<i>As % of Global Internet adspend</i>	3.1%	3.6%	3.9%	4.1%	4.3%	4.7%	5.1%
<i>As % of Global total adspend</i>	0.8%	1.0%	1.2%	1.4%	1.6%	1.8%	2.1%
Total Global YouTube Gross Revenues (Ad + Subscription), \$m	4,200	5,825	7,582	9,756	11,990	14,705	18,117

Source: Arete Research estimates, Company data

Only low levels of conversion needed to reach \$4bn subscription business by 2020

Reaching 40m subs @ \$5.5 ARPU = mix of developed (EU, Japan, Aus.) + selected EMs

YouTube can be \$18bn business in 2020

- Hard to gauge profitability, but content costs should scale like TAC
- Spend just as needed to keep subs on platform, engaged, content fresh

A World Seeing Red in 2020?

Personalized subscription service

- US launch already saw 3.4m iOS d'loads in 1m.
- Differentiated by 1) MCN content 2) ad-free music and videos; 3) offline viewing.
- YouTube Originals to come in 2016, extension to games, shopping, other forms of promotion and monetisation.

From a base of 1.5bn "free" users, Google needs to drive ~4% conversion to reach 60m subs

YouTube Red can be a \$4bn+ business in 2020, based on 21m US subs and 40m globally - a mix of EU, Asia and EMs, at lower ARPU.

- Assuming stable \$10 price point (vs. inflation), layering in more "premium UGC" and original content. Also supports more content sales or incremental subscriptions via Play Store.

Incr. ad-load on free service to drive subs.

- YouTube already dominates MCN distribution; only platform to offer ad- AND sub-based services.

Internet brands = video aggregators?

- They have the Data,
- Own consumer/user relationship
- Multiple ways to monetize users

Web brands have giant drag-nets collecting oceans of meta-data

Infrastructure matters: GOOG, AMZN, FB, Apple can afford and manage DC/hosting cost.

YouTube becomes an aggregator and reseller



Long-tail of content: 1,000s of niche channels in sports, gaming, semi-prof'l entertainment, regional cultures to layer in

No one else offers so many channels the chance to reach such a large audience!

Lost in the Near-Term Noise

NFLX started out with a weak content slate and slowly grew originals from one series.

- Google is **world-class at managing digital conversion** funnel, now it can practice on direct payment on its O&O properties.

Under severe regulatory scrutiny, Google unlikely to openly disrupt media industries (e.g., see MPA in Mississippi).

Bringing Real Ratings to Online

- Current impediments to digital video ad spend growth are viewability, fraud and indep. measurement across devices.
- Nielsen intro. new standards (Total Audience Measurement) at 2016 upfronts, **doesn't expect it to be a transacted as a currency until '17.**
- **Distribution:** quality of experience needs to be high to compete with Pay-TV. **Infrastructure investment matters.**
- **Bandwidth:** T-Mobile's (US) moves positive for OTT distribution via mobile, while cablecos experimenting with data caps.

Content Disco Dancing

- Content disco dance happening between platforms and owners: **this will go on for years....**

Media companies going direct-to-consumer e.g., HBO Now, WWE, plays into YTR hands.

- Unlike Netflix, YouTube carries much less risk on getting content acquisition "right" as long as it has a broad slate of MCNs (and can promote new ones) as well as distribution partnership with media companies.

Bundle of Bundles

- **Battle of the Brands:** Who will define themselves as the go-to for digital video? Competition among thousands of OTT offerings and niche channels.
- Digitalsmiths survey: max \$40.50 for a la carte cable in US (17/18 channels).

YouTube Red in great position to unify (and curate) ocean of niche content into bundles



Another fine mess!

YouTube Red will need 2-3 years to reach global scale, with stable content slate.



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Overall Industry Risks: The digital video space is in a state of extensive flux, between a range of streaming OTT options and packaging efforts by established players like cable, satellite and telco IPTV. The underlying advertising industry is highly fragmented, often lacks transparency, and spans a wide range of players: Internet brands, agencies, enterprise software vendors and pure-play ad tech companies. The ability of any one offering to establish a large market share of digital ad spend or video subscription revenues is limited by disparate audiences, and vast numbers of both publishers (hundreds of millions of websites, thousands of content channels) and advertisers (constantly in transition to greater digital ad spend). The industry's main players – Google, Facebook, Apple, Amazon, Netflix, and the leading cablecos like Comcast are all well-funded and willing to invest for multiple years to establish their position.

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