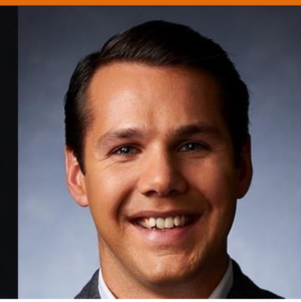
STATE OF DIGITAL MEDIA

MAY 2019

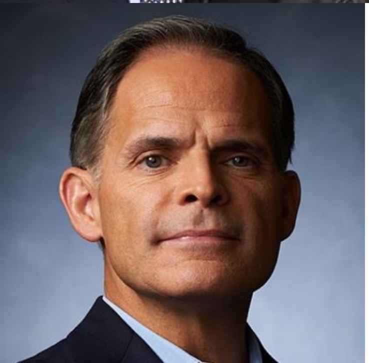
LUMA presents our annual State of Digital Media, which covers our views on the market, the industry trends and the future of the ecosystem. We hope you enjoy it.

Meet the Senior LUMA Team

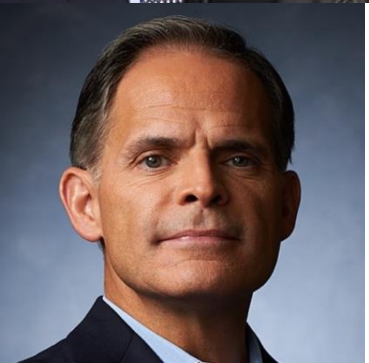
Terence Kawaja	Brian Andersen	Mark Greenbaum	Dick Filippini	Conor McKenna	Gayle Meyers
					
Founder & CEO	**Partner**	**Partner**	**Partner**	**Vice President**	**CMO**
Terry leads strategy, banking and content for LUMA. *He's also head comedy writer and performer.*	Brian is LUMA's marketing technology guru. *He excels at coaching both little league baseball and big league clients.*	Mark runs M&A strategy and execution for LUMA. *He's never met a term sheet he couldn't improve.*	Dick leads LUMA's mobile and gaming banking coverage. *You can find him holding court every February in Barcelona.*	Conor manages the execution of both deals and content. *Think of him as the glue that ties it all together.*	Gayle runs LUMA's marketing, events, and partnerships. *Think of her as top of the LUMA funnel.*

2018

CHANGE



At our Digital Media Summit in 2018, we characterized the state of digital media with one word: "CHANGE." With new regulations coming into effect, major digital media executives moving on, and evolving consumer expectations altering business models, change was indeed in the air.



And this year has been more of the same!

Digital Media is Facing Several New Challenges

Data Breaches

Cambridge Analytica

G+

Data Regulation

CCPA

CALIFORNIA REPUBLIC

Platform Abuse

The New York Times

A Genocide Incited on Facebook, With Posts From Myanmar's Military

Anti-Trust

THE WALL STREET JOURNAL.

Google Is Fined $5 Billion by EU in Android Antitrust Case

Decision marks the European Union's biggest-ever antitrust fine and sharpest rebuke to Silicon Valley

By Sam Schechner And Douglas MacMillan

Updated July 18, 2018 8:09 p.m. ET

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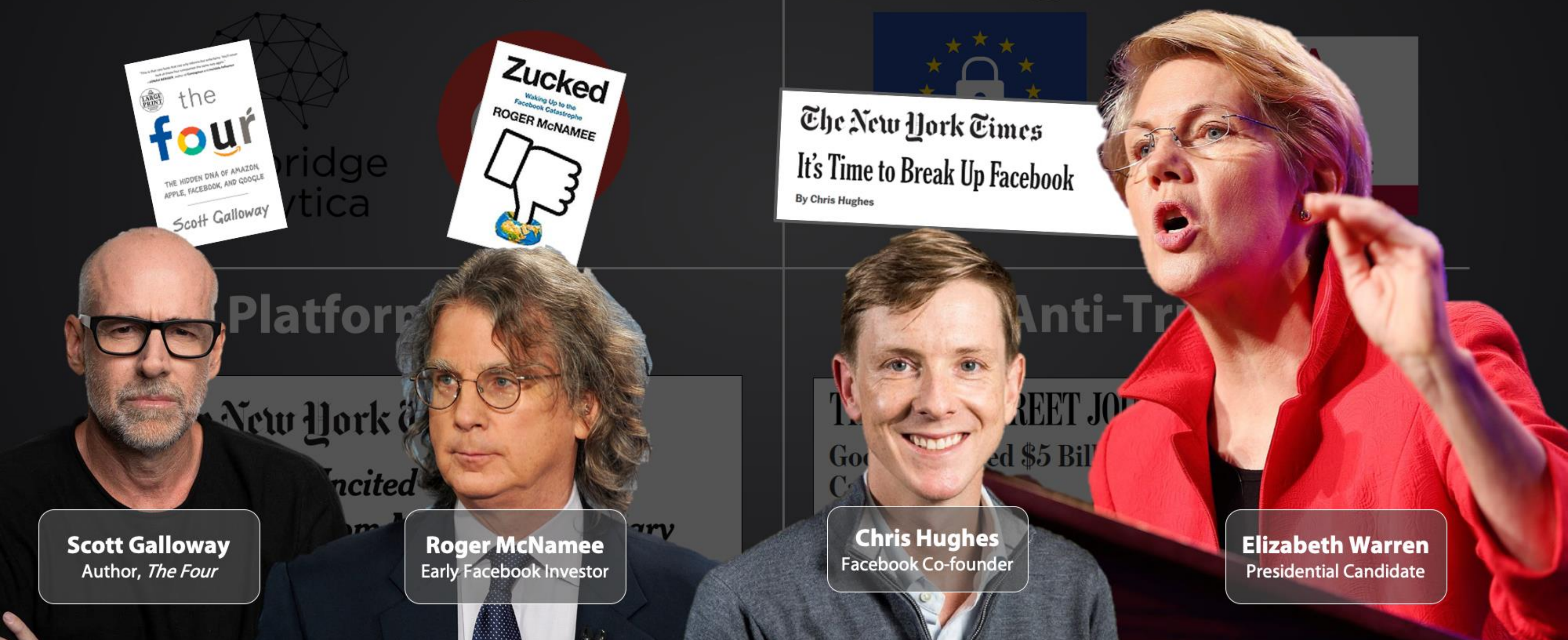
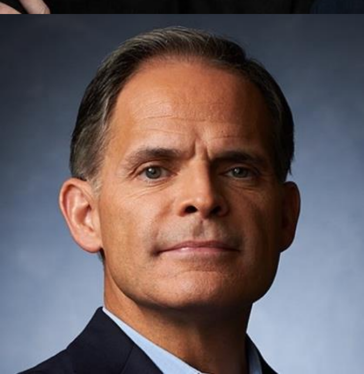
Digital media faced a new set of challenges this past year from the major data breaches, to increased regulations, platform abuse and anti-trust fines. These issues will leave a lasting effect on the industry and have already reshaped the landscape as we know it.

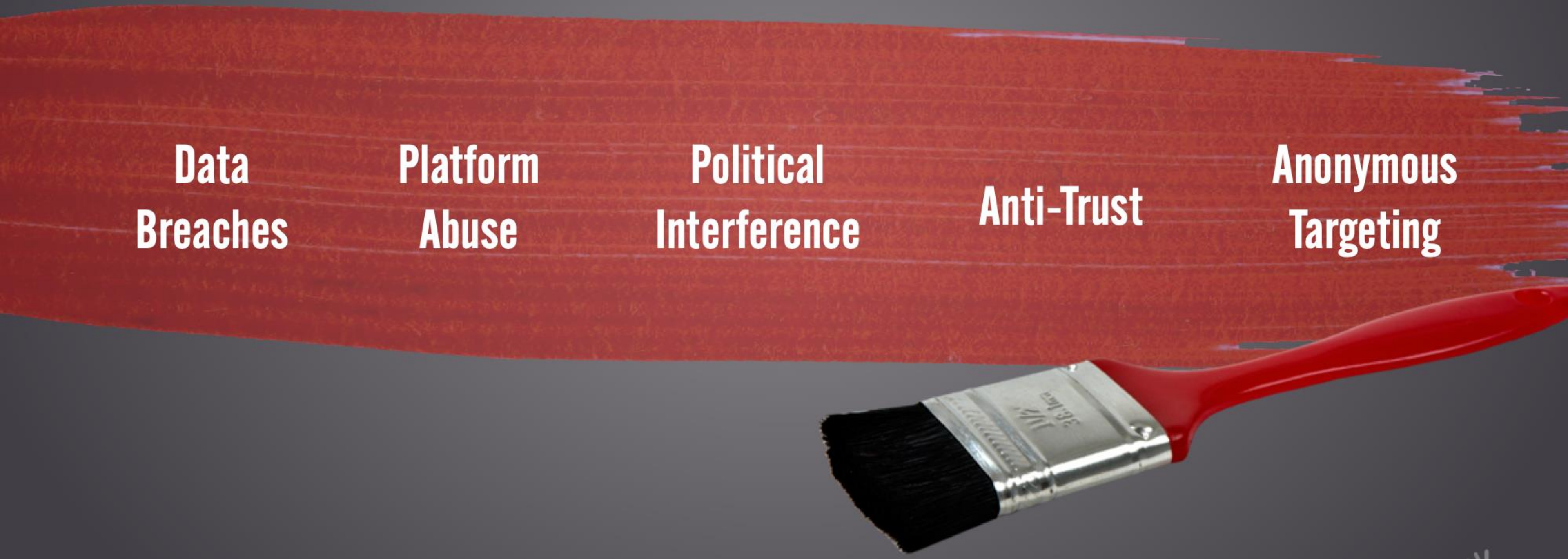
TECH-LASH!





These challenges have resulted in a full blown tech-lash. It started several years ago when Scott Galloway came out calling for a break-up of the Big Four (Google, Facebook, Amazon and Apple) which, at the time, seemed heretical. Now, that same call has been echoed by an early Facebook investor, Roger McNamee, and Facebook Co-Founder Chris Hughes. It's gone so far as to become a stump speech for 2020 Presidential candidate Elizabeth Warren, calling for the break up of big tech.

Challenge: Tech Issues All Painted with Same Brush

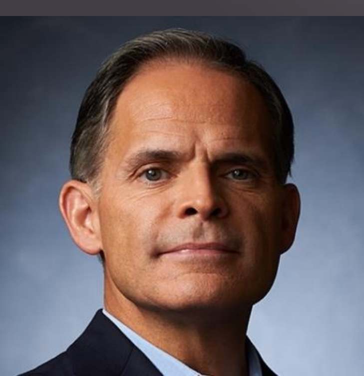


The challenge, however, is that these tech issues are all being painted with the same brush, thus grouping all digital media challenges under a similar level of severity.

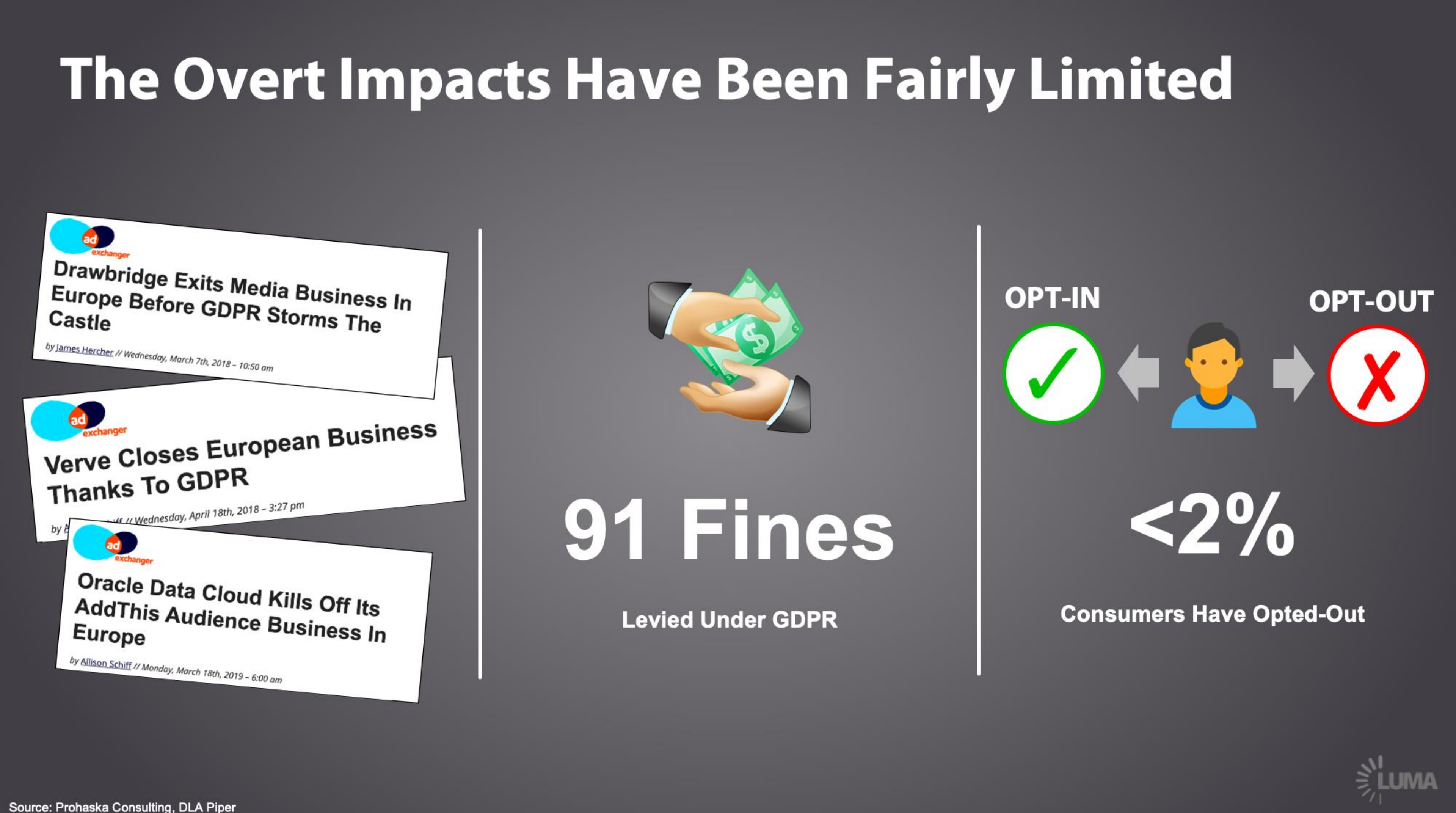
Reality: Data & Privacy Issues Vary in Severity

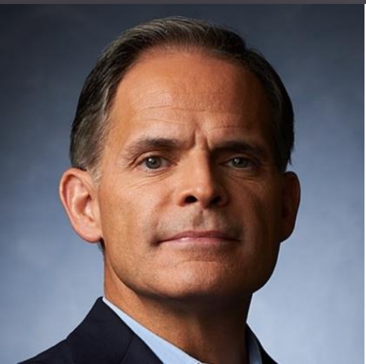
The reality is there is a big difference between these issues. On one side, there are material issues such as data breaches, political interference and anti-trust that need to be addressed and regulation seems like the best way to do it. On the other, there are concerns around anonymous data collection / targeting. While it's important to give consumers transparency around what data is shared and allow for opt-outs, the use cases and implications of these practices are not as nefarious as those on the left.

GDPR Came Into Effect One Year Ago



At this time last year, GDPR came into effect in Europe and there was a lot of uncertainty around how it would effect the digital landscape.





Since its implementation, the direct effects of GDPR have been limited. We've seen some companies simply close down their European businesses. There have been about 91 fines levied, but most have been fairly insignificant. Most importantly, consumer opt-outs have been pretty low. According to one study conducted with Prohaska Consulting, publishers saw less than a 2% opt-out rate in the first 6 months since the new regulation came into effect.

But the Underlying Impacts are More Worrisome

Increased Regulation

CALIFORNIA REPUBLIC

CCPA

Tightening Data Availability

ITP

Strengthening Walled Gardens

But the underlying impacts of GDPR (and more data scrutiny in general) are more worrisome. We've seen increased regulation in the US, specifically with the California Consumer Protection Act (CCPA) coming into effect and a tightening of data availability by the major tech providers. We believe that these impacts will ultimately strengthen the walled gardens as they start to build their walls higher.

Walled Gardens Increase Data Controls

ZDNet

Google CEO Sundar Pichai: 'Our mission is to protect your privacy'

By Liam Tung | December 11, 2018 -- 11:09 GMT (03:09 PST) | Topic: CXO

ad exchanger

Google Sharply Limits DoubleClick ID Use, Citing GDPR

by Alison Weissbrot // Friday, April 27th, 2018 – 1:51 pm

THE WALL STREET JOURNAL.

Google Prepares to Launch New Privacy Tools to Limit Cookies

Chrome users will get more information on what cookies are tracking them and how to block them

By Patience Haggin and Rob Copeland

May 6, 2019 10:11 a.m. ET

The New York Times

Facebook Set to Create Privacy Positions as Part of F.T.C. Settlement

By Cecilia Kang May 1, 2019

facebook.

A Privacy-Focused Vision for Social Networking

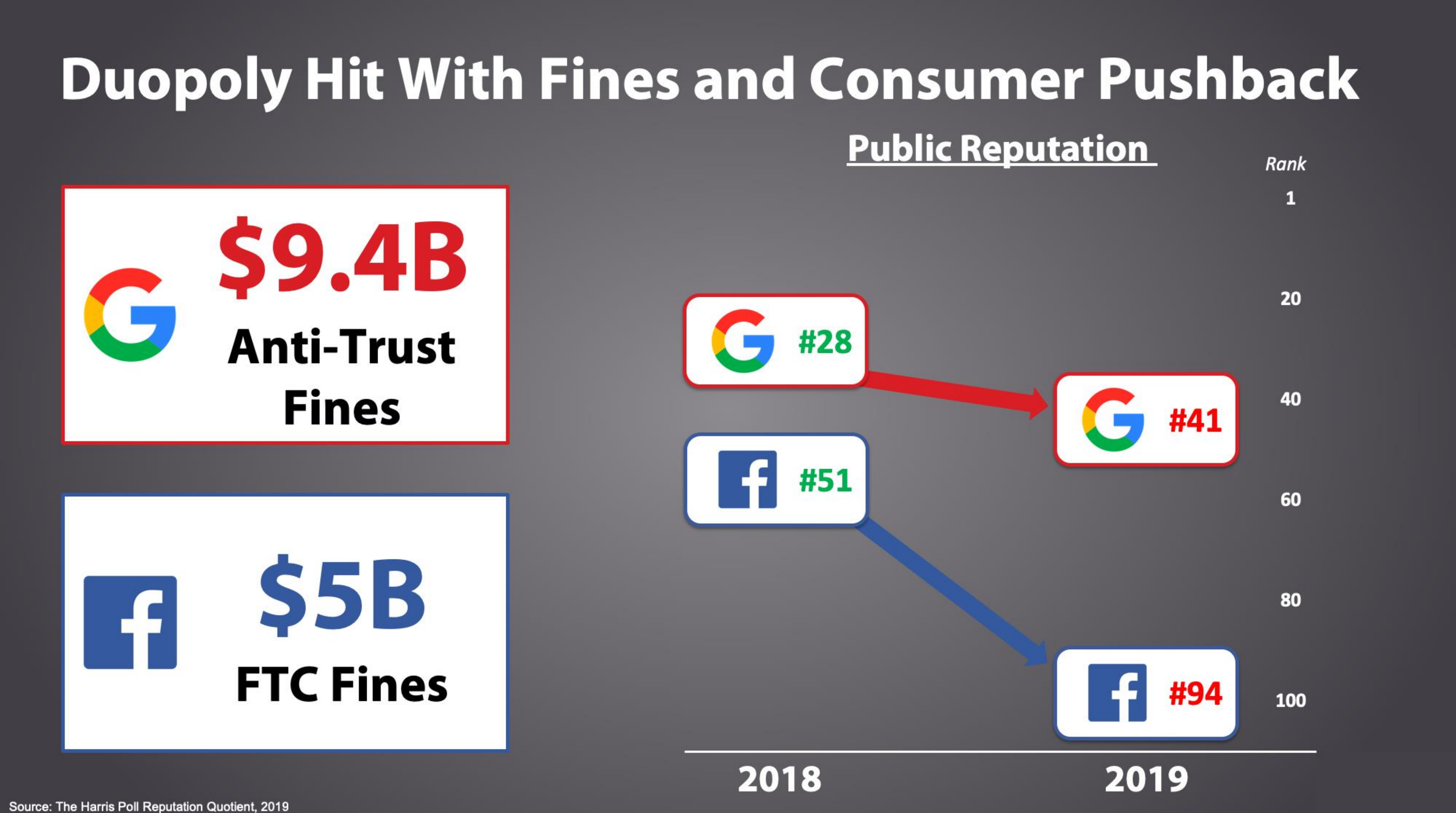
MARK ZUCKERBERG · WEDNESDAY, MARCH 6, 2019

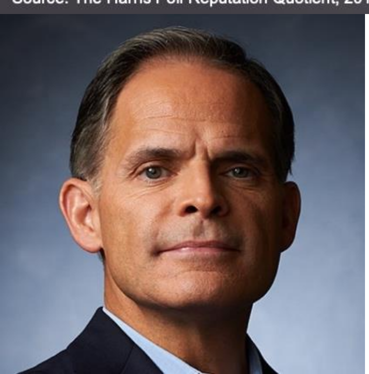
TechCrunch

Facebook will cut off access to third party data for ad targeting

Taylor Hatmaker @tayhatmaker / 1 year ago

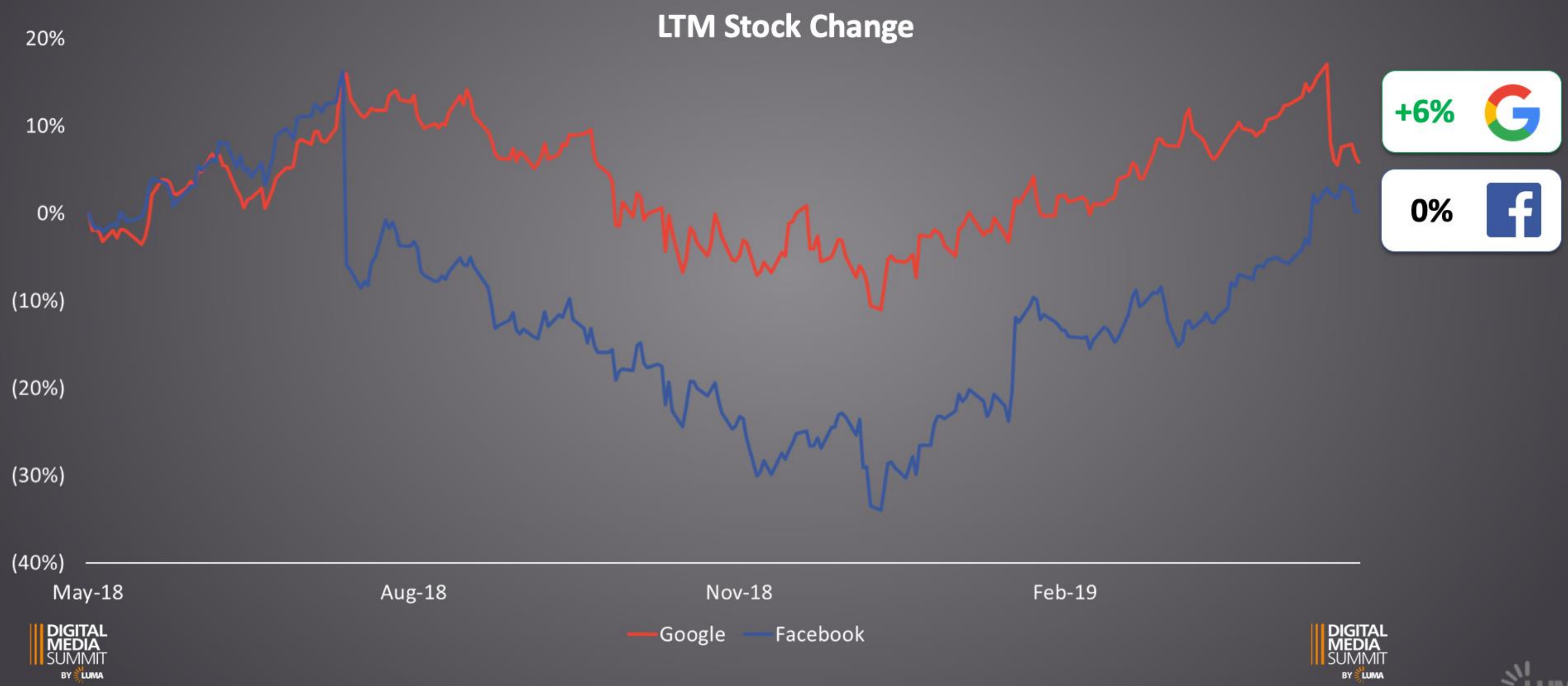
Google and Facebook have both already implemented measures to pull data back from third-party sources. While this is being done under the guise of privacy, these pullbacks actually give them more control over the data and limits other ecosystem players, strengthening their hands.





Over the last year, both Google and Facebook have been hit with hefty fines, totaling nearly $15B between the two companies, over data / privacy and anti-trust issues. Consumers are also starting to look negatively on these companies, resulting in a decline in public reputation.

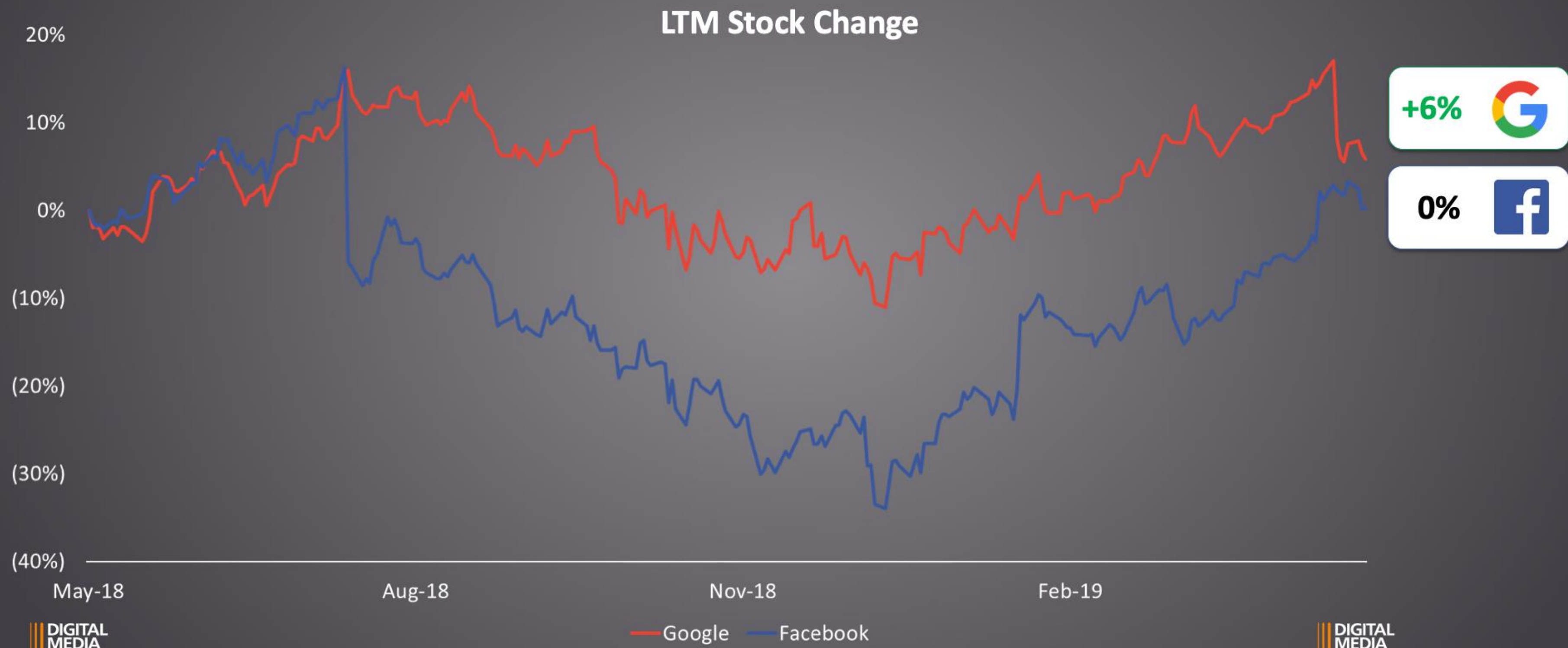
Although Investors Haven't Seemed to Care



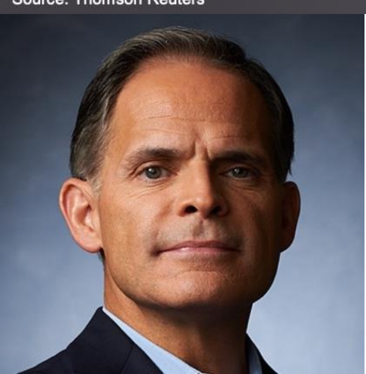
Source: Thomson Reuters

Despite the public pushback and increased fines, investors have not seemed to care. The fines are miniscule compared to the profits Google and Facebook generate, and they've been able to continue growing in the face of declining public sentiment.

Although ~~Investors~~ Advertisers Haven’t Seemed to Care



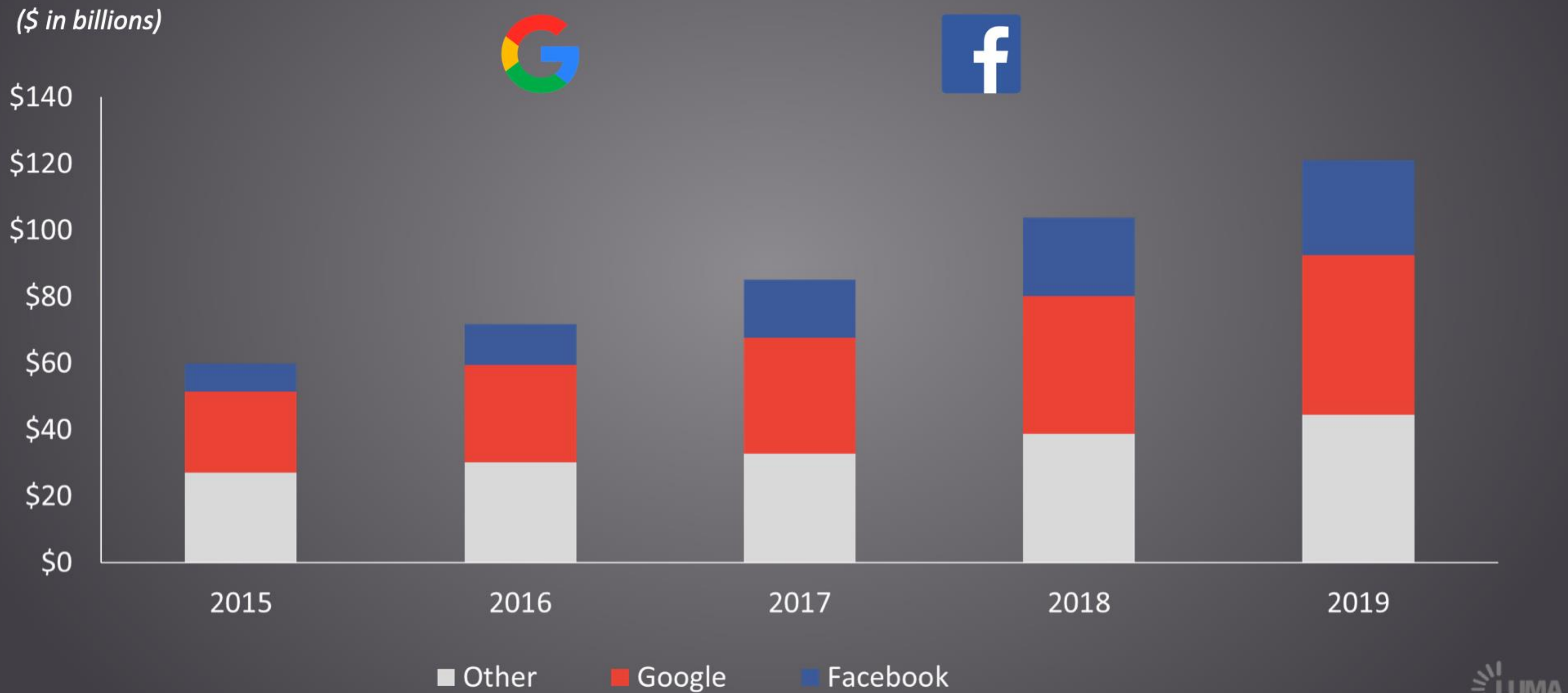
Source: Thomson Reuters



So perhaps it’s not investors who haven’t seemed to care, but rather advertisers, who have continued to pump more dollars into these platforms.

Ad Spend Continues to Grow

U.S. Digital Advertising Spend

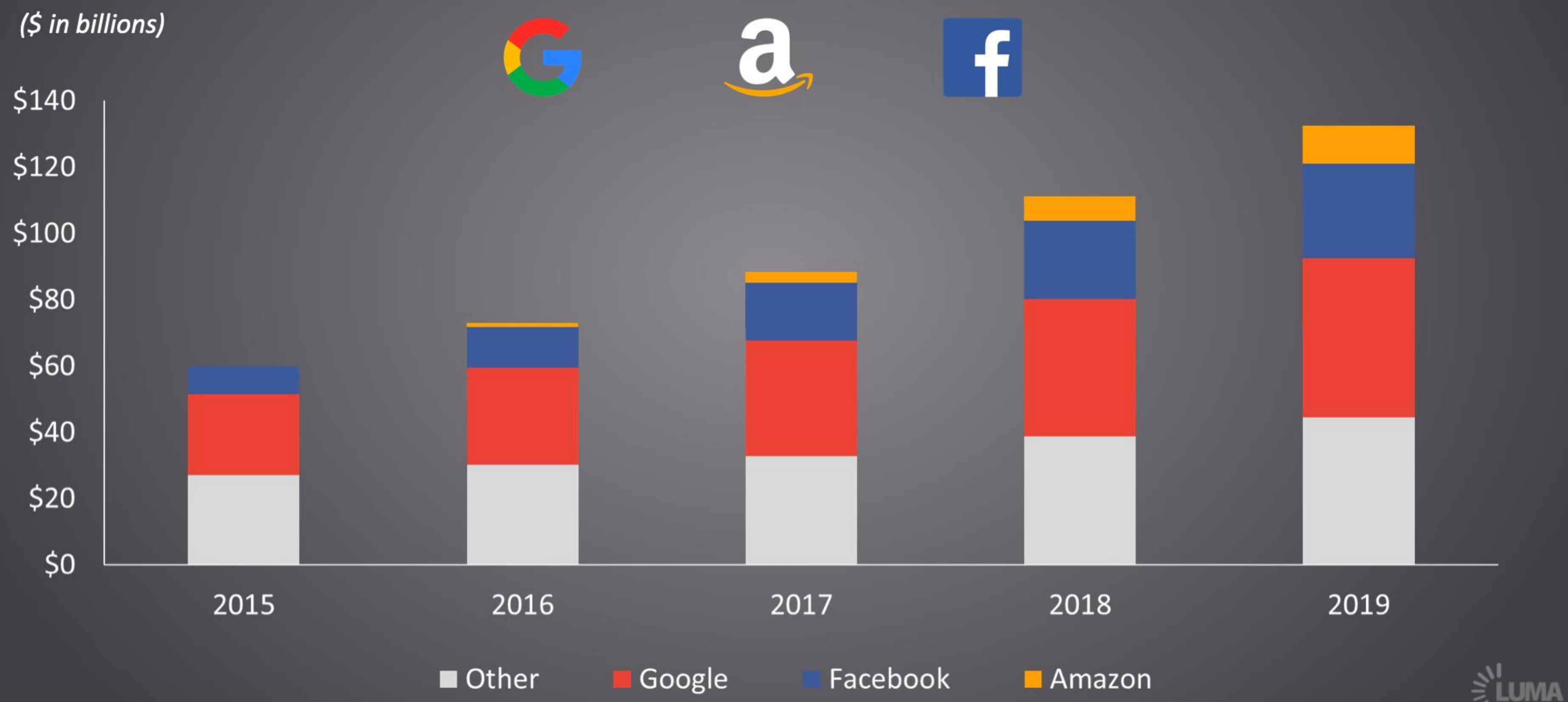


Source: eMarketer

With this, the Duopoly continues its dominance over the advertising ecosystem, garnering most of the digital ad spend in the United States.

Amazon is Becoming a True Contender

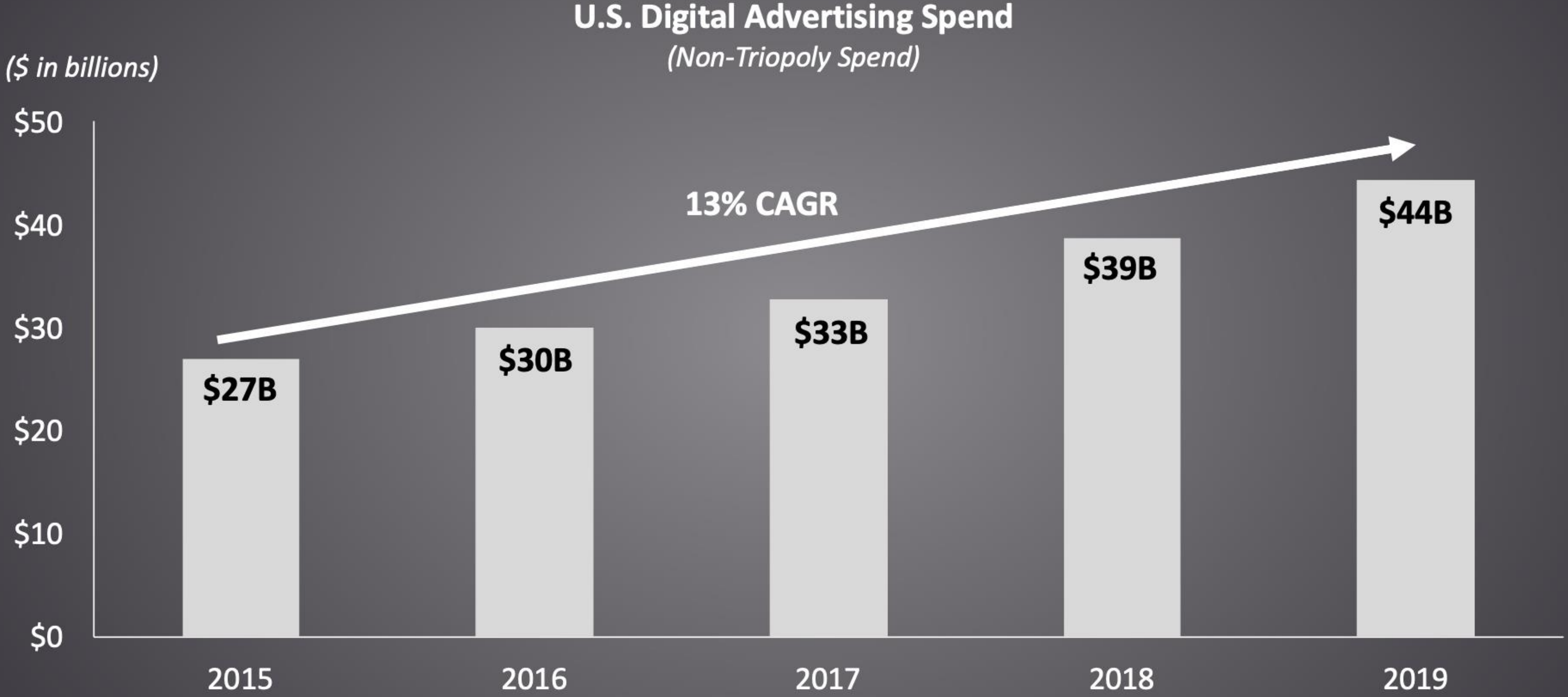
U.S. Digital Advertising Spend



Source: eMarketer

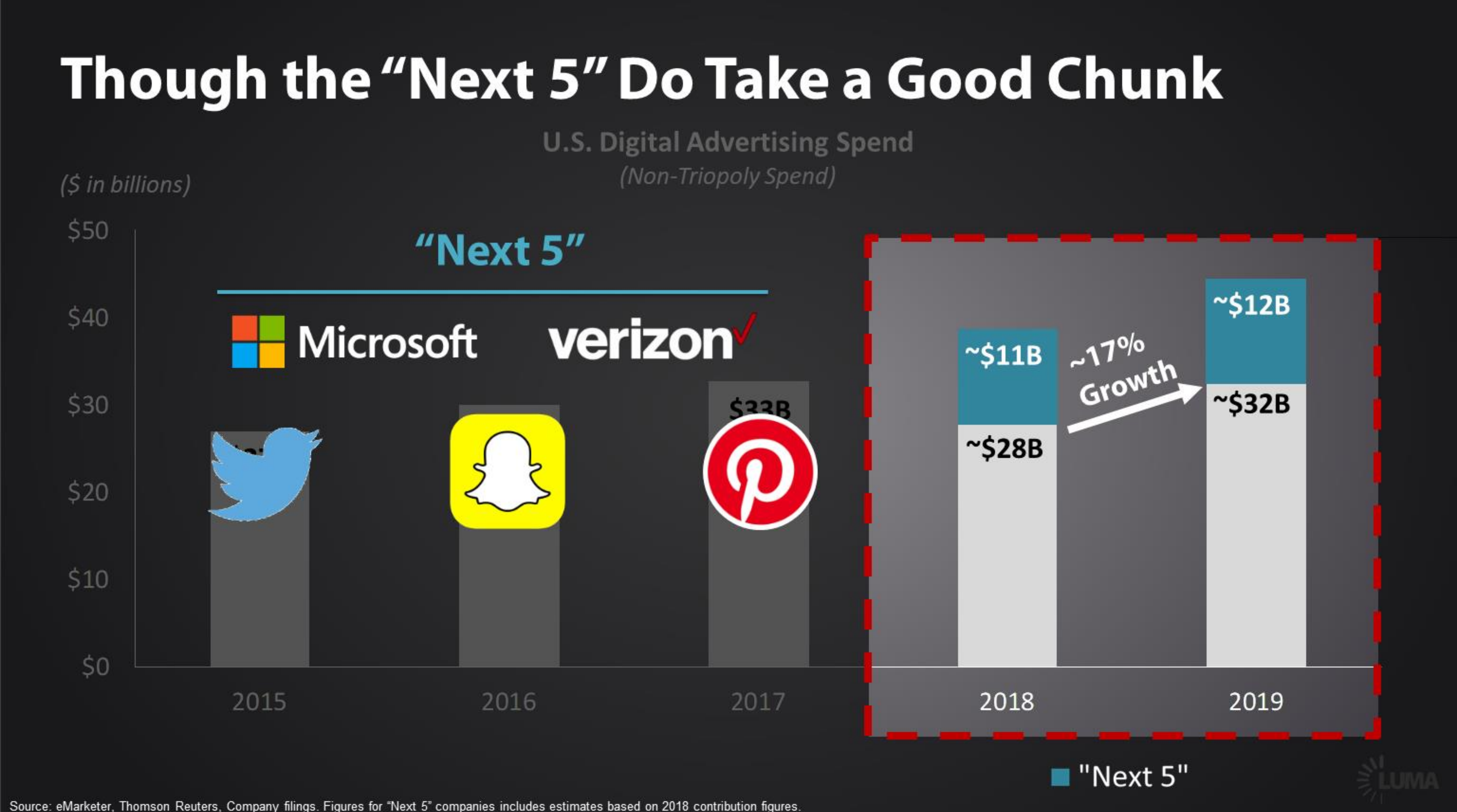
Or should we say the Triopoly continues to dominate. Over the last year, Amazon has made its presence known as a true contender in the digital advertising space, garnering over $7 billion in ad spend in 2018.

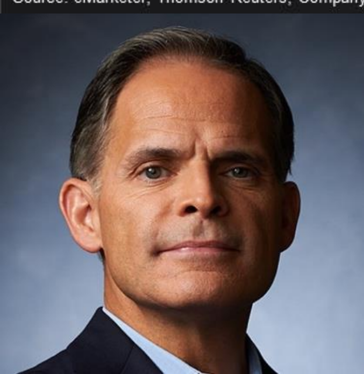
Still A Massive Market Outside of the Triopoly



Source: eMarketer

Let's not forget that the non-Triopoly digital ad spend is still a massive and growing market, which offers a lot of opportunity for independent Ad Tech players to succeed, despite the Triopoly's grip on the space.





Even when you account for the "Next 5," which includes Microsoft, Verizon, Twitter, Snap and Pinterest, there is a still a growing $30 billion market up for grabs.

Led by Programmatic, Video & Mobile

PROGRAMMATIC

82%
Of Digital Display Ad Spend

30%
Growth

VIDEO

48%
Of Digital Display Ad Spend

36%
Growth

MOBILE

65%
Of Digital Ad Spend

33%
Growth

Source: eMarketer; IAB / PwC 2019

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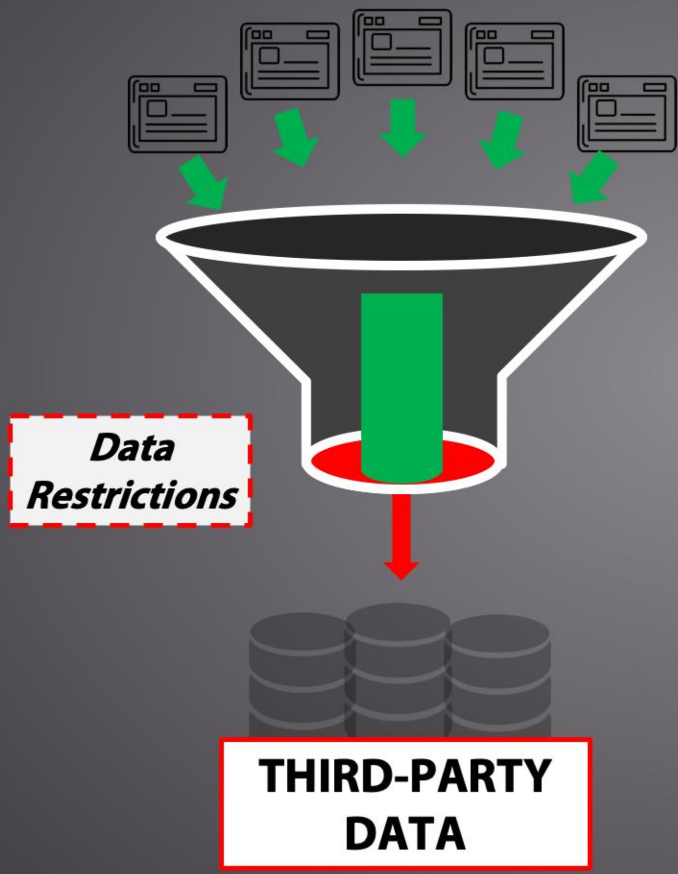
What's behind this growth? Programmatic, Video and Mobile. Programmatic now accounts for 82% of digital display ad spend and is still growing. Video accounts for just under half of all digital display ad spend and is the fastest growing display channel. Lastly, mobile accounts for two thirds of all digital ad spend.

Programmatic Built On the Back of 3rd Party Data

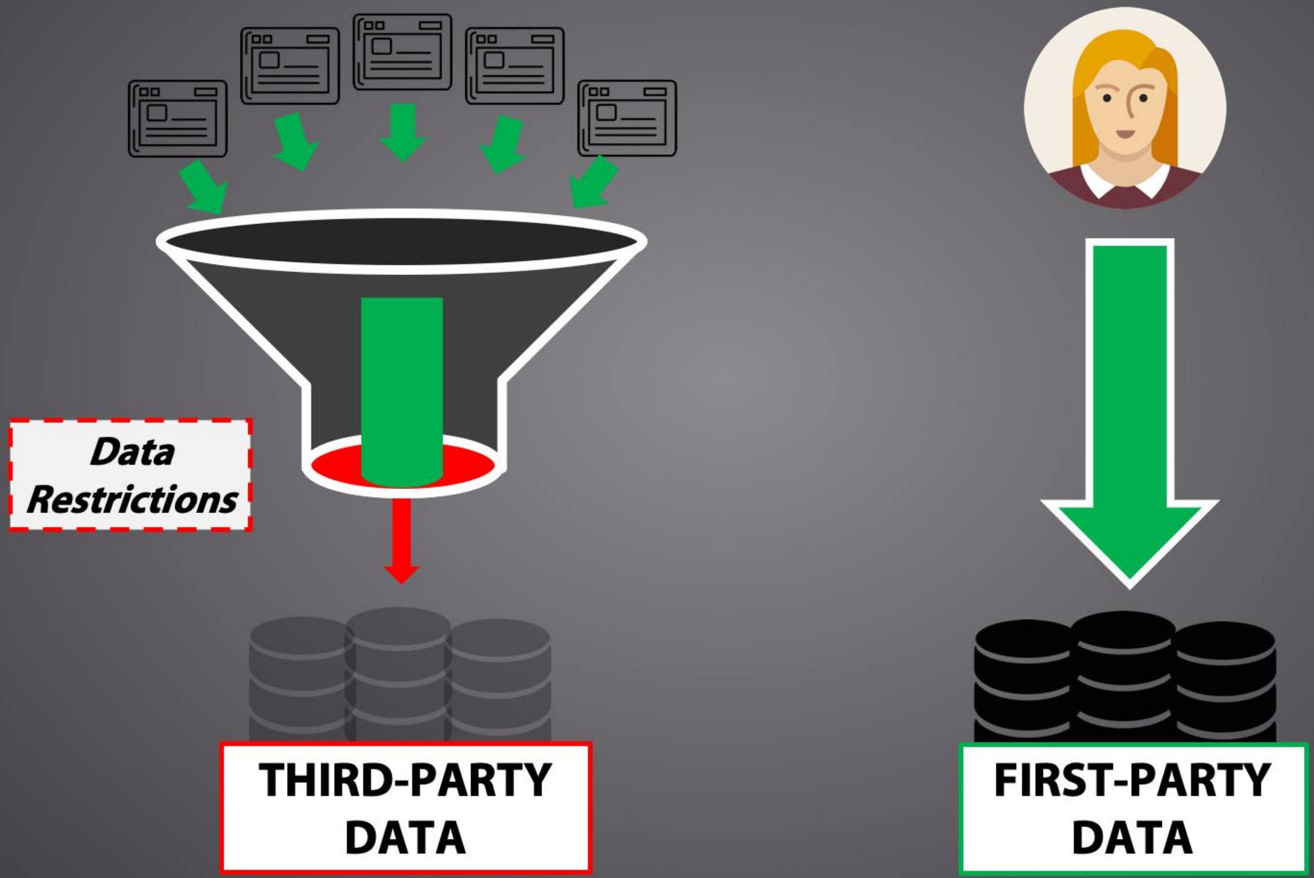
As noted, programmatic advertising has become pervasive in digital advertising. Yet programmatic was built on the back of third-party data.

But, Now Third-Party Data is Constricting

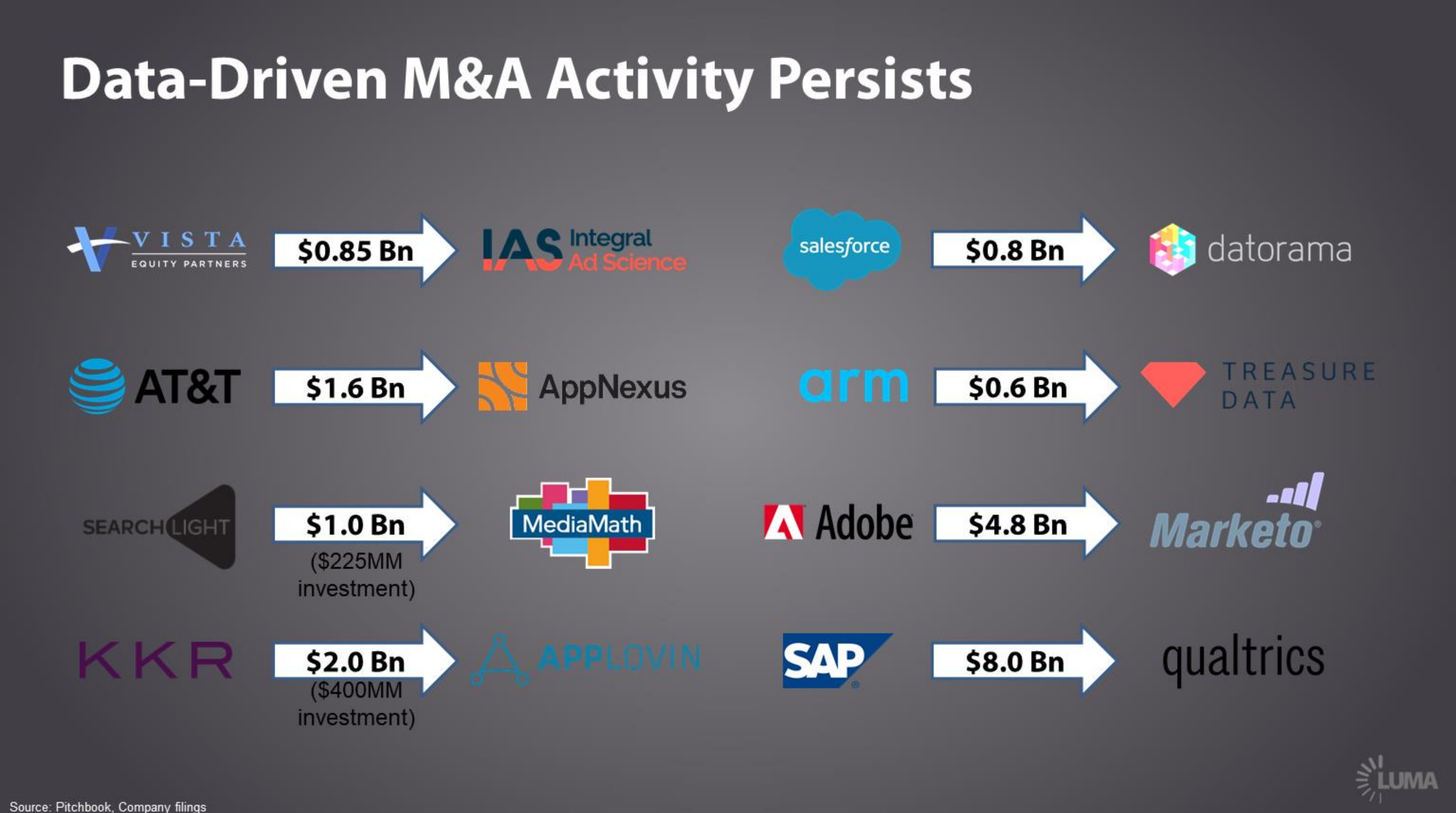


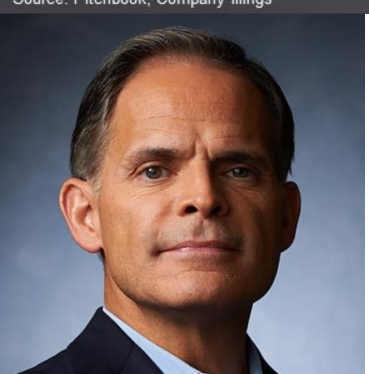
Now, we are seeing a constriction of third-party data availability due to data restrictions as a consequence of increased scrutiny and regulation.

Increasing the Need For First-Party Data



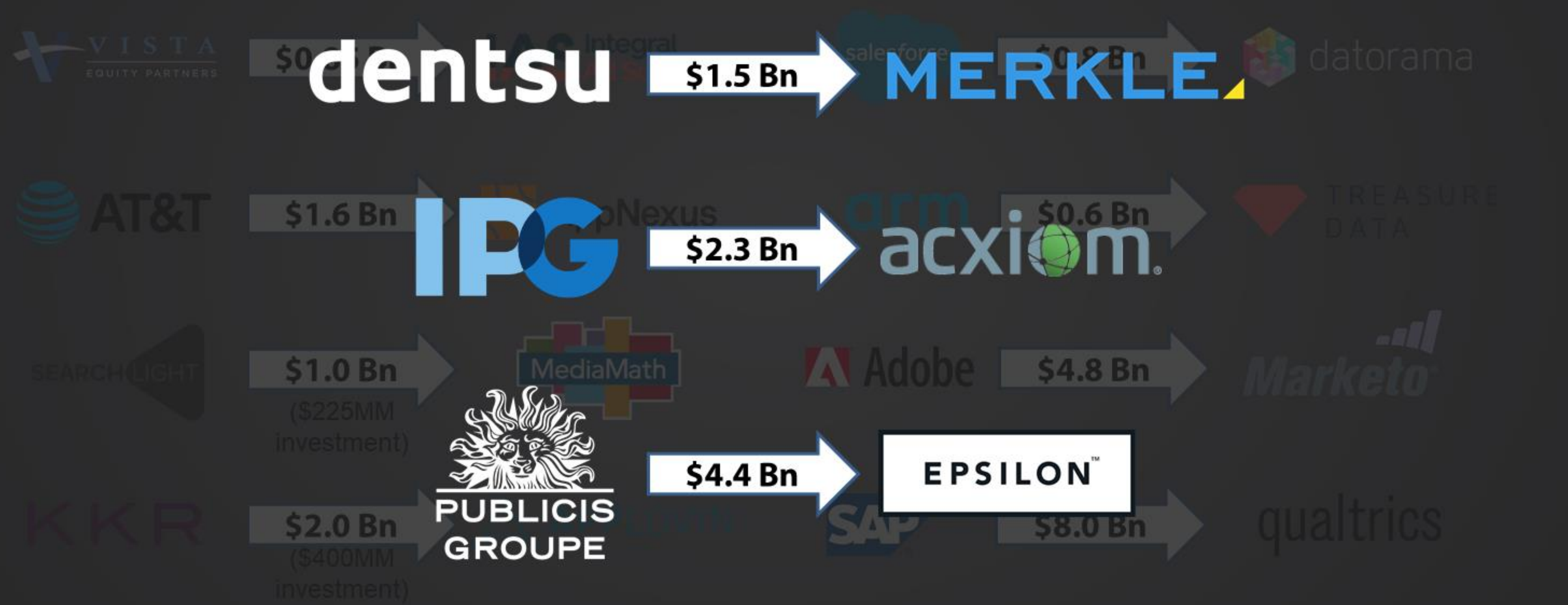
The result of this is an increased emphasis and need for first-party data. This is something we've been calling for for some time. So, while the data restrictions are challenging in the near term, we believe the focus on first party data will be beneficial in the longer term.



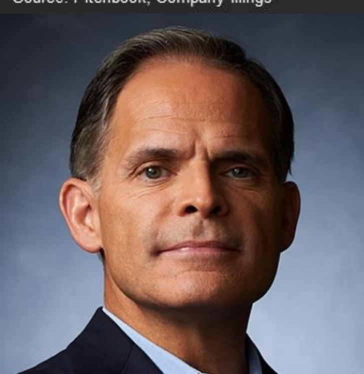


Many thought this scrutiny would have a negative effect on M&A surrounding consumer data. Instead, we saw an increase in data-driven M&A. In what we dubbed the "Summer of Data," there were a few billion dollar acquisitions just after GDPR went into effect, and the large acquisitions have continued since.

Even the Agencies Have Gotten into the Game

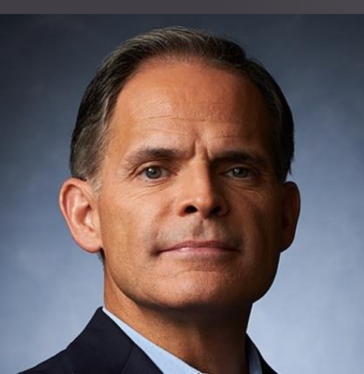


Source: Pitchbook, Company filings

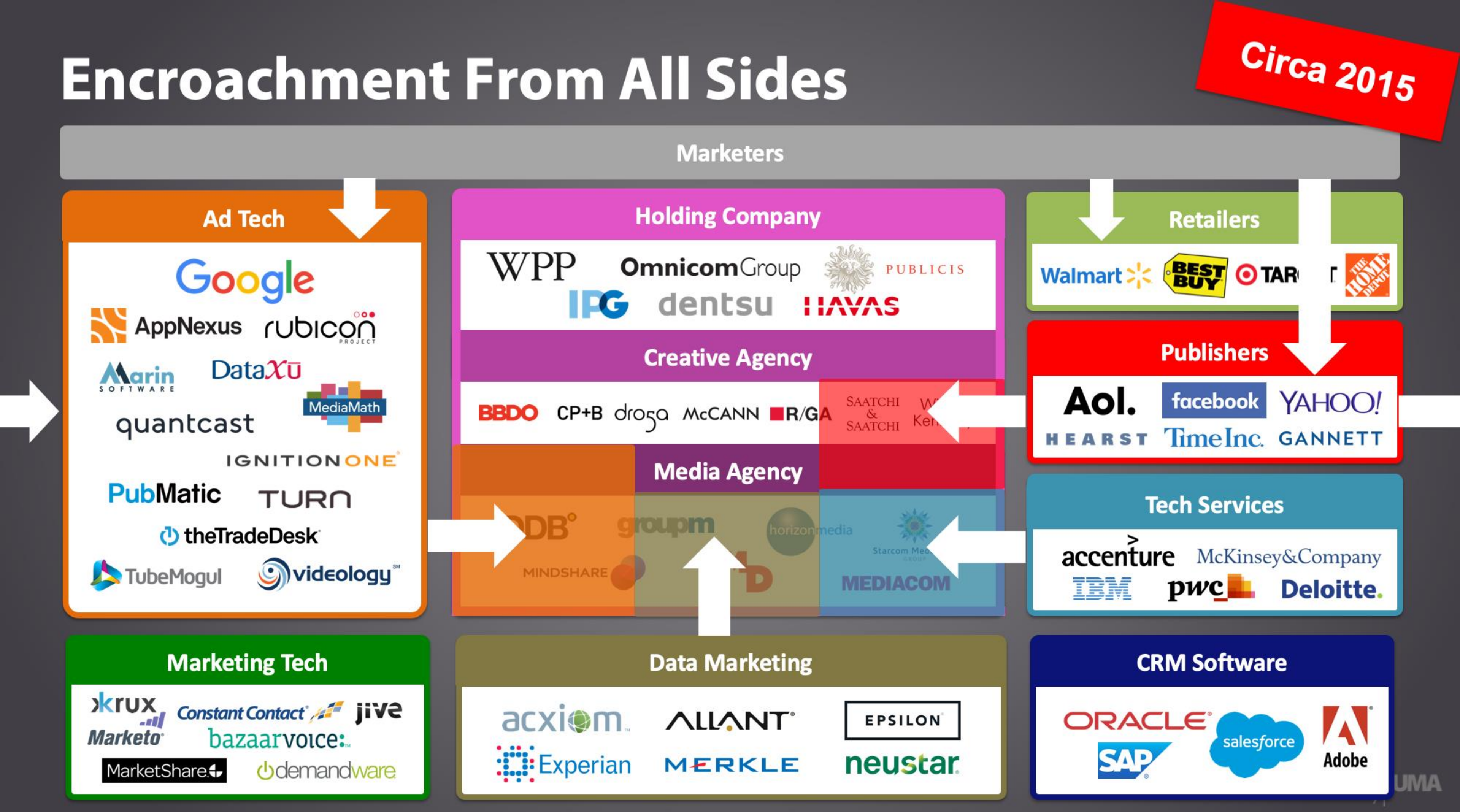


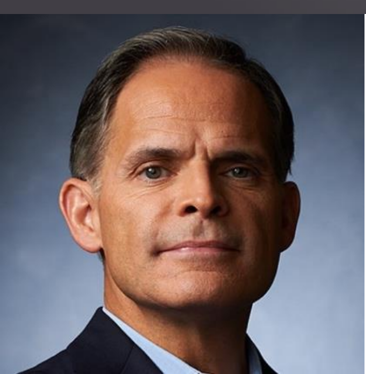
We have even seen agencies emerge as data marketing services acquirers, totaling $8 billion in transactions. This began with Dentsu Aegis acquiring Merkle several years ago, and now within the past year Acxiom and Epsilon have both been acquired by IPG and Publicis, respectively.

Agencies Have Been Under Pressure for Some Time



Looking back to 2015, we published a Digital Brief titled "Back to Mad Men," in which we spoke about the future of ad agencies.



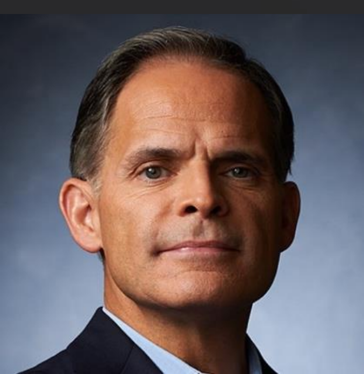


In this, we highlighted the challenges facing agencies as they were being encroached from all sides from – Data Marketers to Technology companies – and even insourcing directly from Marketers.

Our Prognostications…4 Years Later

Circa 2015

1. Hold Co Mergers Won't Work
2. Tech Acquisitions Will Fail
3. Acquire Data Businesses
4. Acquire Tech Services
5. Strategy & Systems Integrator



The conclusions we came to four years ago surrounding the future of agencies were the following: 1) Holding company mergers wouldn't work, 2) Tech acquisitions would fail, 3) Agencies should acquire data businesses, 4) Agencies should acquire tech services, and 5) Address the need for a strategy & systems integrator. Let's see how our predictions held up.

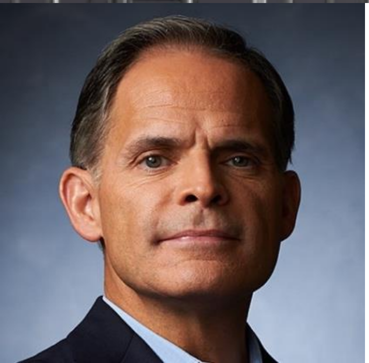
Our Prognostications…4 Years Later

Circa 2015

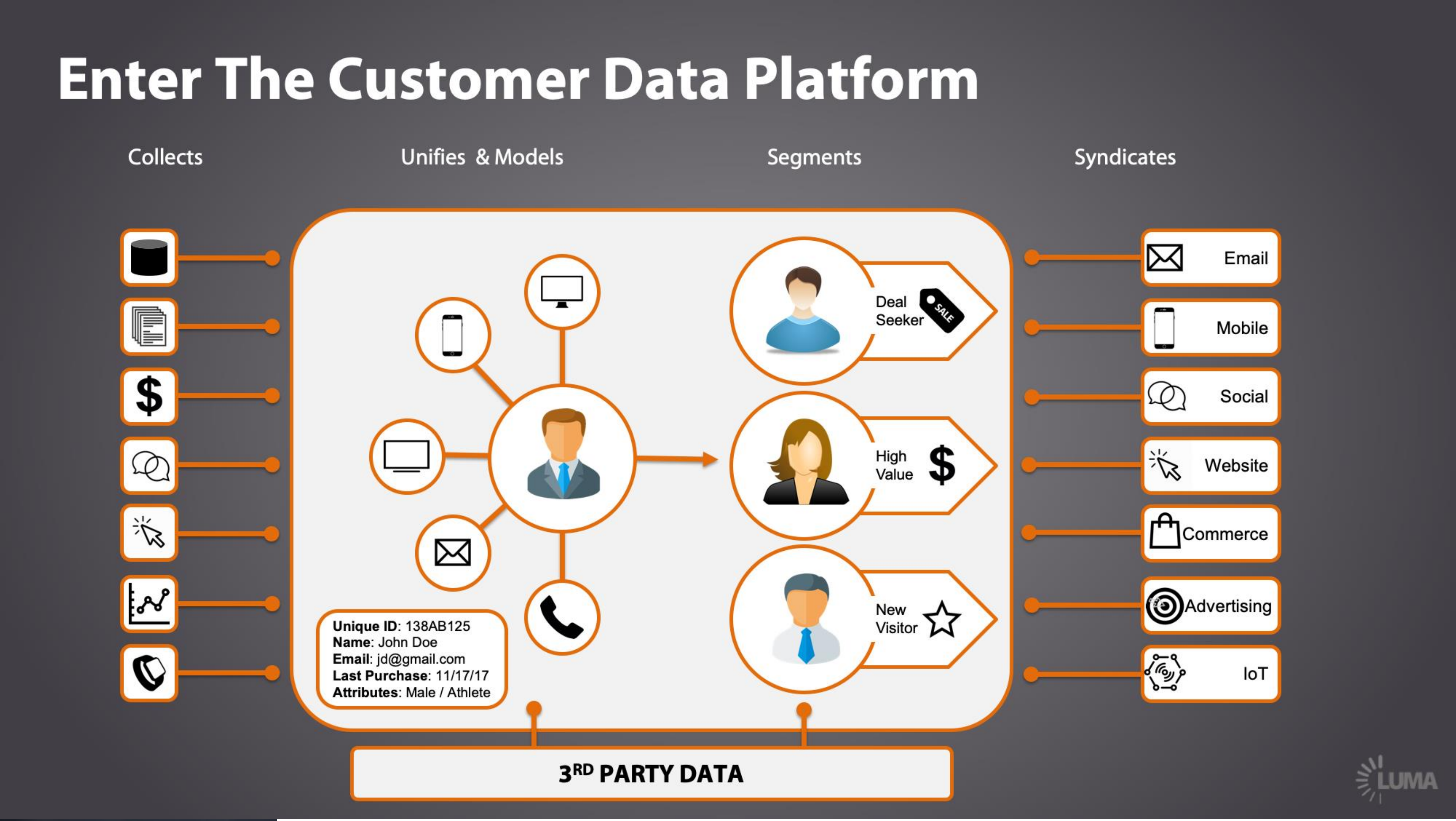
1. **Hold Co Mergers Won't Work** ✓
2. **Tech Acquisitions Will Fail** ✓
3. **Acquire Data Businesses** ✓
4. **Acquire Tech Services** ✗
5. **Strategy & Systems Integrator** ?

1) Correct. No additional Hold Co mergers were attempted. 2) Correct. Agencies have generally been poor acquirers of tech. 3) Correct. $8 billion in deal value surrounding data businesses. 4) Wrong (for now). We haven't seen much activity in this space, but Sir Martin Sorrell's S4 Capital might change that. 5) Yet to be seen. The challenge is that to provide this solution, ad agencies would need the correct business model, talent, and, most importantly, marketers' trust.

Marketers' Challenge: Siloed Data



It is clear that the industry recognizes the need for data to be successful, but marketers' are still dealing with the challenges that stem from siloed data.



Enter the Customer Data Platform (CDP). One of the most talked about technologies right now is the CDP. This platform allows for the collection, unification, segmentation and, ultimately, activation of various first- and third-party data sources.

CDPs Continue to Attract Significant Funding

~$600M

Invested Since 2017

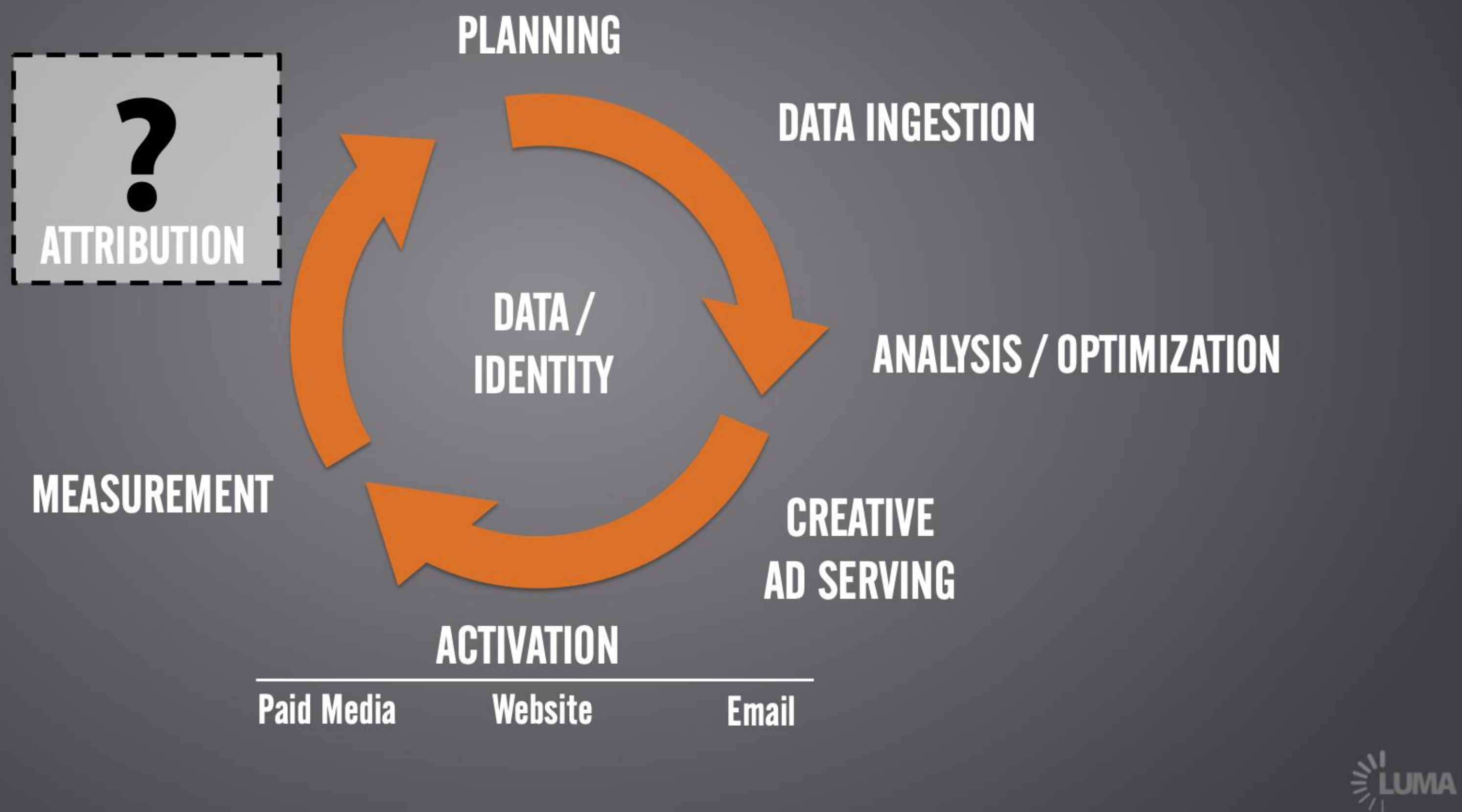
Lytics BLUECORE bouncex mparticle

Segment ACTIONIQ sessionM TEALIUM

amperity ZAIUS smarterHQ Simon Amplero

Beyond the market chatter, investors are betting with their wallets. The category has raised approximately $600 million in venture capital over the past two and half years and continues to gain momentum.

The End Goal: Holistic Marketing Solutions

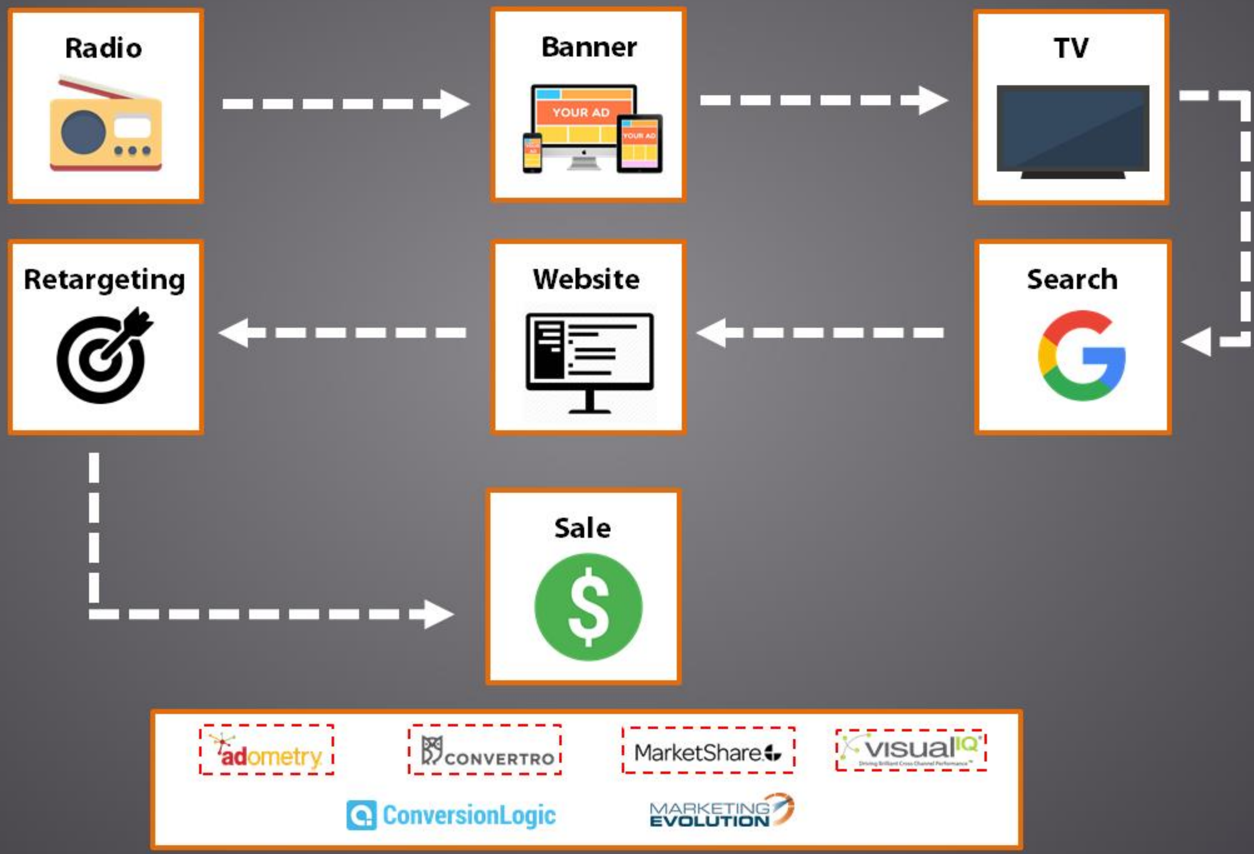


What's the end goal of leveraging all this data and technology? To attain holistic marketing solutions that tie together planning, targeting, activation, measurement and attribution in one closed loop tied together with data/identity. While there has been significant progress on many parts of this, the weakest aspect of the loop is attribution.

Amazon Has Closed The Loop

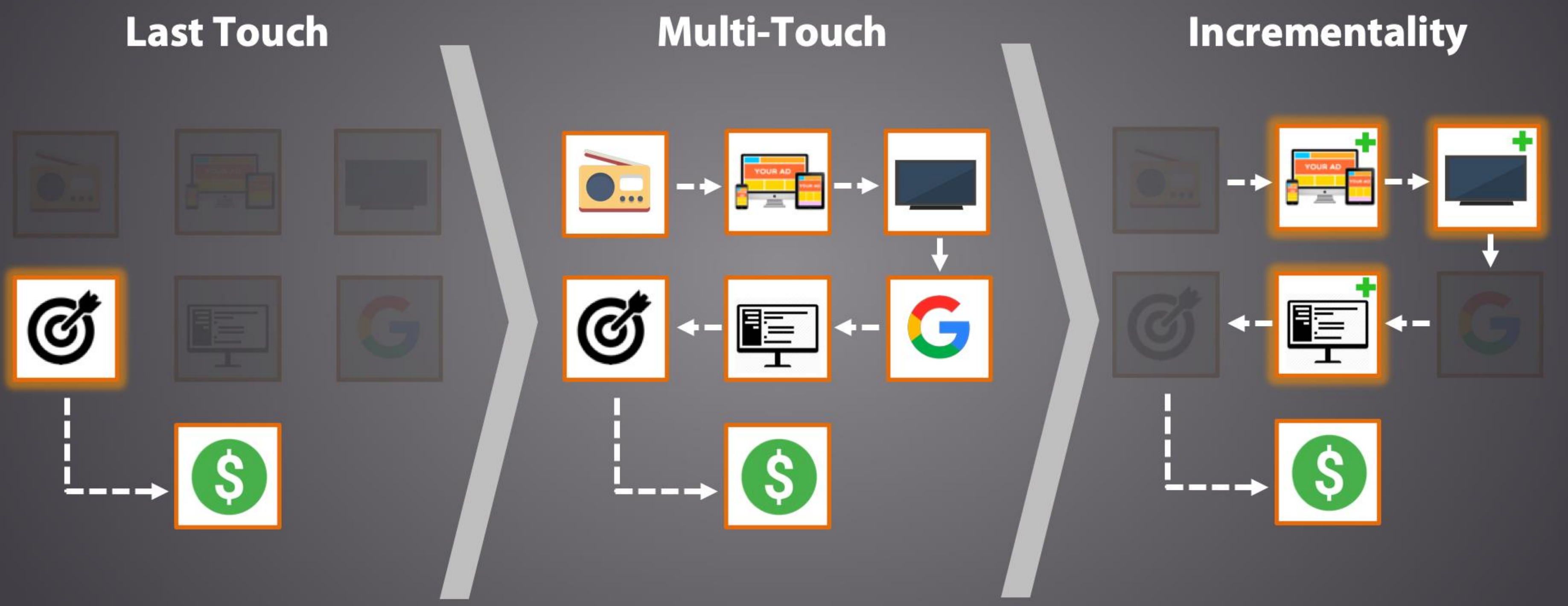
Amazon has successfully closed the loop within its own stack. Amazon started at the bottom of the funnel in shopping, but has continued to move up. It began with moving into intent by improving search capabilities to such an extent that over half of all shoppers search on Amazon first. Now, as Amazon has improved its advertising business, they've moved up to awareness as well, successfully closing the loop on advertising.

Multi-Touch Attribution Needed in Open Ecosystem



How do you successfully close the loop in an open ecosystem? The first step is to focus on multi-touch attribution. It's not enough to measure each channel individually, they need to be viewed collectively.

True Attribution Focuses on Incrementality



Not only do we need to move from last touch to multi-touch attribution, but the next step is focusing on incrementality. Even once all the touchpoints are known, it's crucial to know which touchpoints truly drove conversion and which were just noise. This is a very challenging problem to solve, but has begun to garner increased attention.

What Should Brands be Focusing On?

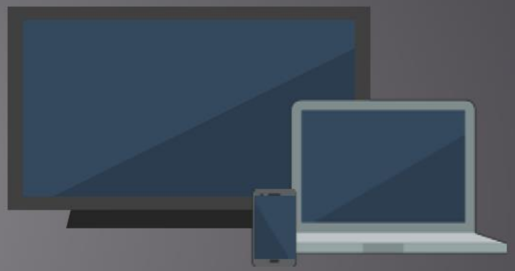
As of late, we have been talking to marketers around this notion of "Forest for the Trees," which highlights which trends brands should be focusing on.

FOLLOW THE CONSUMER

We suggest a good methodology is to follow the consumer. There is a lot to be learned by following and understanding what the consumer is doing.

Consumers Driving Innovation

Direct-to-Consumer (D2C)

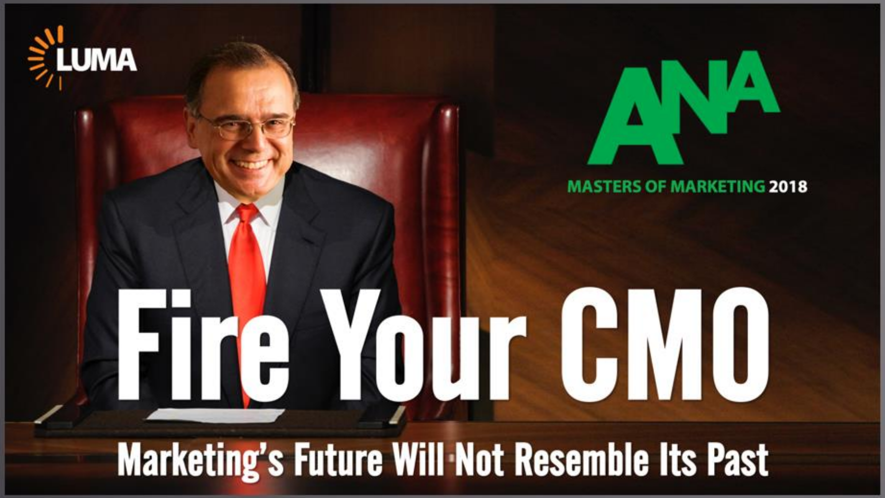


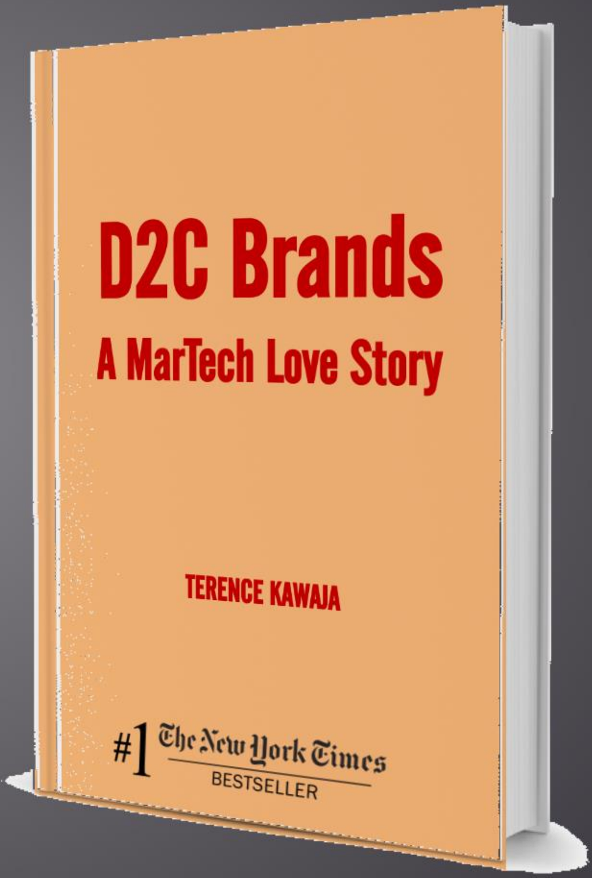
Convergent TV (CTV)

The two biggest consumer-led trends that Marketers should be focused on are: Direct-to-Consumer (D2C) and Convergent TV (CTV).

We'll start by digging into D2C.

How We're Talking About D2C





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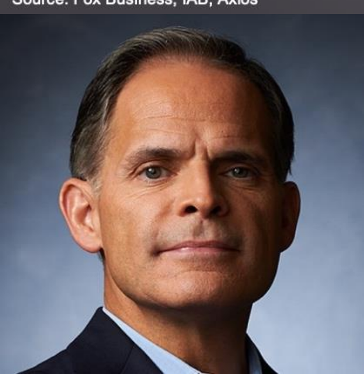
We came out with a presentation last year titled "Fire Your CMO," which focused on the rise of D2C brands and what lessons marketers should take from this. While suggesting that companies fire their CMO was a good way to wake up the room, the real story is that these D2C brands have done an excellent job at leveraging marketing technology. The D2C phenomenon could also be described as "A MarTech Love Story."

D2C Rapidly Taking Significant Market Share

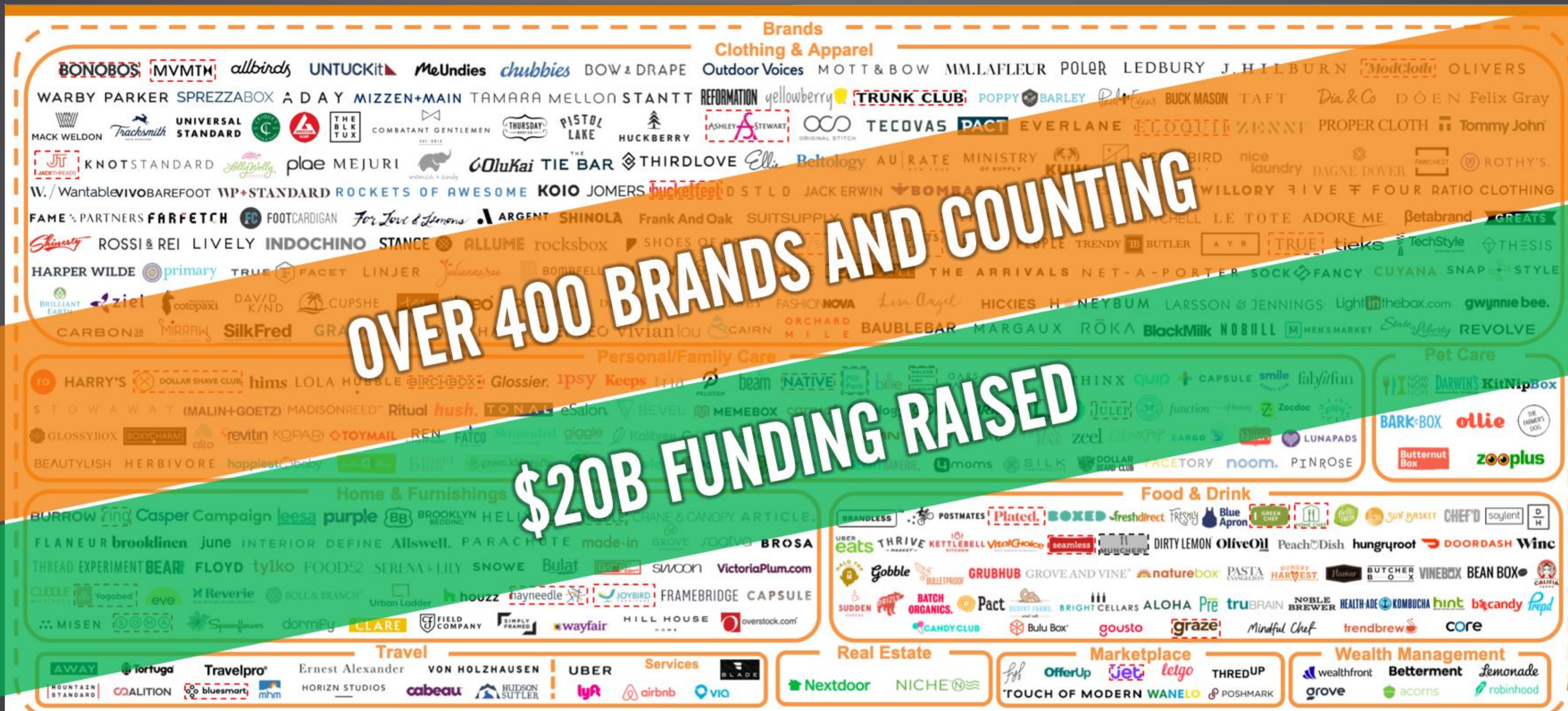
CATEGORY	RAZORS	SHOES	MATTRESSES
D2C BRAND MARKET SHARE	12%	15%	20%
ILLUSTRATIVE COMPANIES	DOLLAR SHAVE CLUB HARRY'S	allbirds M.GEMI	Casper TUFT&NEEDLE
CATEGORY INCUMBENTS	Gillette	adidas	Sealy

Source: Fox Business, IAB, Axios

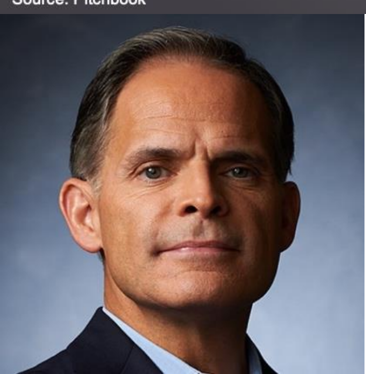


We've seen relatively young startups with minimal funding garner double-digit market shares against category incumbents who have been building brand equity, sometimes for decades.

D2C Brands Are Rapidly Proliferating



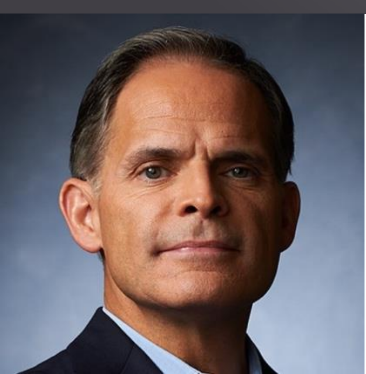
Source: Pitchbook



And it's rapidly proliferating. We have accounted for over 400 brands, which span across nearly all verticals and have attracted $20 billion in funding in a short amount of time.

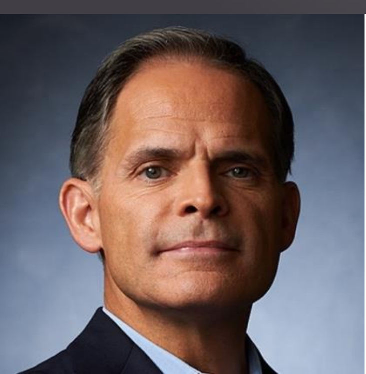
The DNA of D2C Brands

1) **Digital native; mobile-centric**
2) **Focus on product design / UX**
3) **Disintermediation** (agencies, retailers, etc.)
4) **Identity-focused customer relationship**
5) **Performance-oriented media spend**
6) **Content marketing for brand storytelling**
7) **Growth-focused marketing talent**



What makes these D2C brands different? Here are our DNA traits of D2C. They are: 1) digital native, mobile-centric, 2) focus on product design, 3) disintermediate the middlemen, 4) use identity-focused CRM, 5) have a performance-oriented approach to marketing, 6) place emphasis on content marketing to tell their story, and 7) deploy marketing professionals with different talents than traditional brand marketers.

Marketers Taking Notes from D2C Brands



Marketers are now taking notice and learning from D2C brands in order to compete. Incumbent brands are cognizant of the direct brand phenomenon and are taking steps to participate in the opportunity such as taking control of their data, launching D2C brands, investing into D2C startups and making strategic D2C acquisitions.

Incumbent Brands Acquiring Into D2C

Walmart
amazon
Unilever
Edgewell PERSONAL CARE
NORDSTROM
MOVADO
Albertsons
Kroger
P&G

$10B
Total Value

~5x
Average Rev Multiple

jet
DOLLAR SHAVE CLUB
BONOBOS
HARRY'S
MVMT
NATIVE
ring
ELOQUII
graze
TRUNK CLUB
Plated.
Pill Pack
HOME CHEF
WALKER AND COMPANY

LUMA

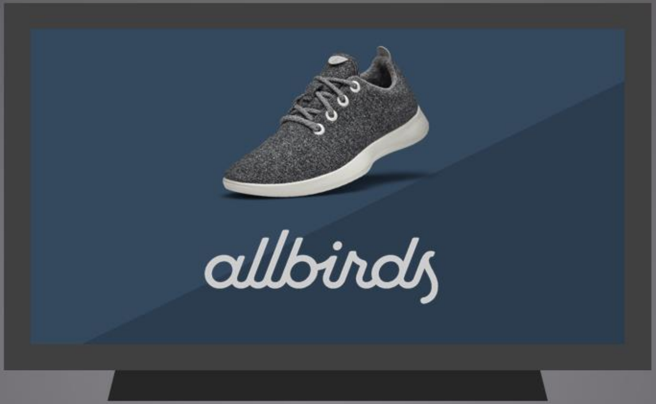
Source: Pitchbook

The most prevalent aspect of the D2C playbook has been strategic M&A! With the recent announcement of Edgewell acquiring Harry's for $1.4 billion, we have now seen $10 billion in deals with incumbent brands acquiring into D2C. With an average revenue multiple of 5x, these companies are garnering valuations well beyond traditional competitors.

Applying Data-Driven Tech to Traditional Channels

While these brands started their journey on the digital channel, heavily relying on social media to market to the consumer, we are now seeing the need for D2C brands to move beyond digital to achieve scale. So far, we've seen forward integration into physical retail and the utilization of audio/voice and Out-of-Home (OOH) as new advertising channels.

Applying Data-Driven Tech to Traditional Channels



DIGIDAY

Pivot to traditional: Direct-to-consumer brands sour on Facebook ads

JUNE 7, 2018 by Ilyse Liffreing

adexchanger

Why DTC Brands Are Flocking To Television

by James Hercher // Monday, April 29th, 2019 – 5:19 am

Beyond those channels, we feel that TV will provide the most significant opportunity for the continued growth of D2C brands, especially as television capabilities continue to evolve.

Consumers Driving Innovation

Direct-to-Consumer
(D2C)

Convergent TV
(CTV)

This brings us to Convergent TV.

The Conundrum of TV's Future

Forbes
As Television Gets More Digital, TV Advertising Needs To Follow Suit
10,348 views | Mar 1, 2018, 09:32am

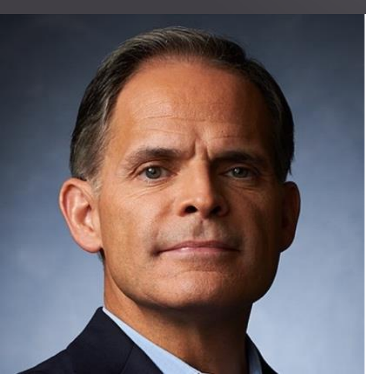
MARTECH TODAY
Traditional TV rolls with the times, remains a viable entertainment channel to both viewers and advertisers
Robin Kurzer on June 22, 2018 at 9:17 am

BUSINESS INSIDER
Cord Cutting Is Real: Pay TV Loses Subscribers For The Second Straight Quarter
Jay Yarow Nov. 17, 2010, 1:01 PM

CMO by Adobe
TV Advertising Isn't Dead—It's Evolving
September 26, 2018

TechCrunch
Internet TV and The Death of Cable TV, really
Jon Orlin @jonorlin / 8 years ago

SmartBrief
Here's why TV is still the most powerful ad medium
Daniel Gulick · August 28, 2018



For years we have been hearing that TV is dead or dying and that it needs to fundamentally change. But the reality is that the TV upfronts continue to get stronger and the business of TV is still powerful. So how do we make sense of this conundrum? We believe it is a natural gestation of TV's evolution that needs to work its way through to the end.

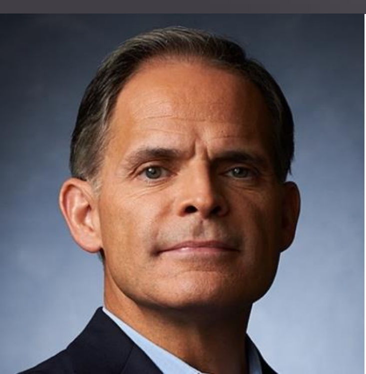
Consumers Have Fully Converged

One Screen

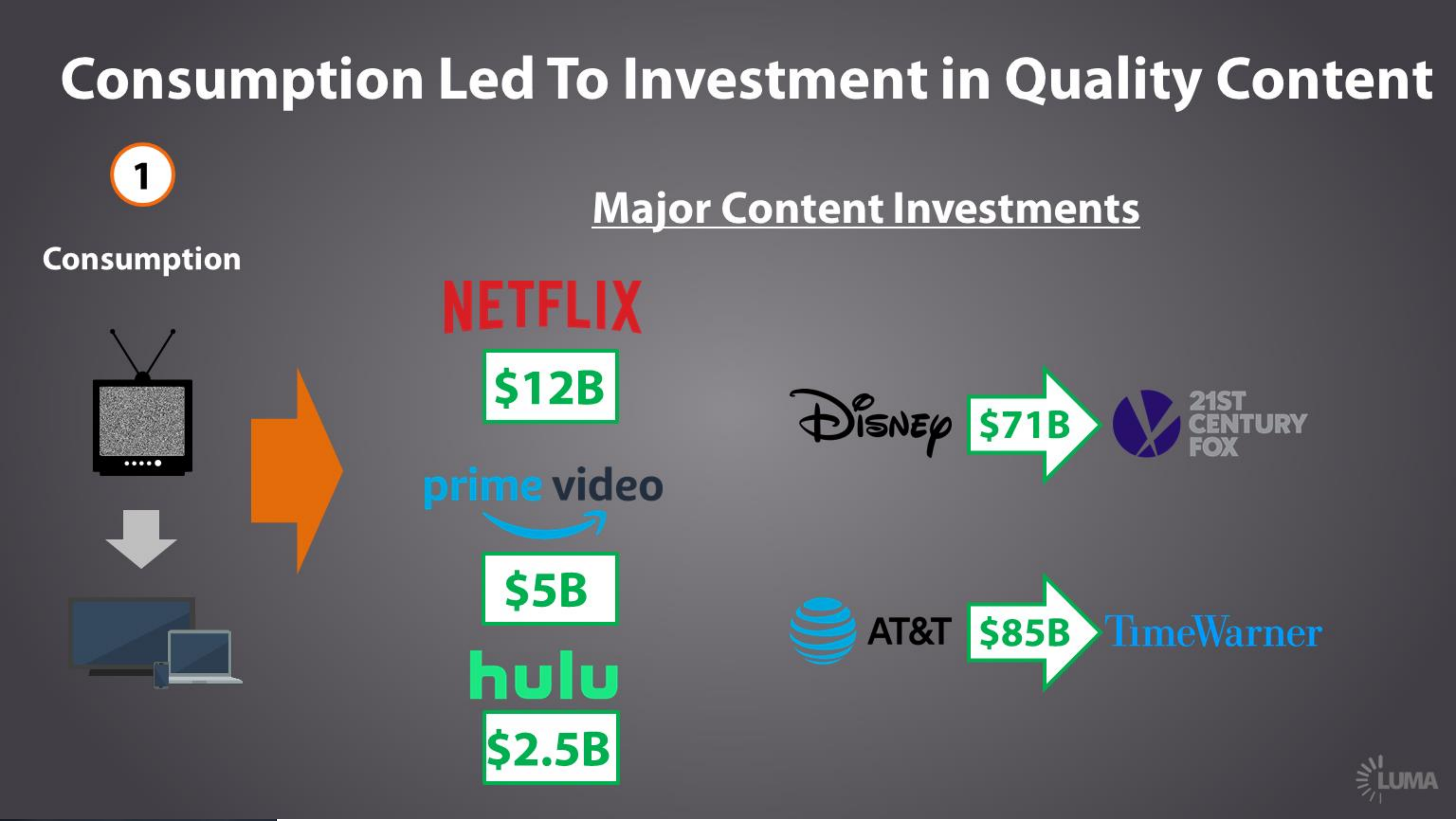
Watch what's on

Multiple Screens / Options

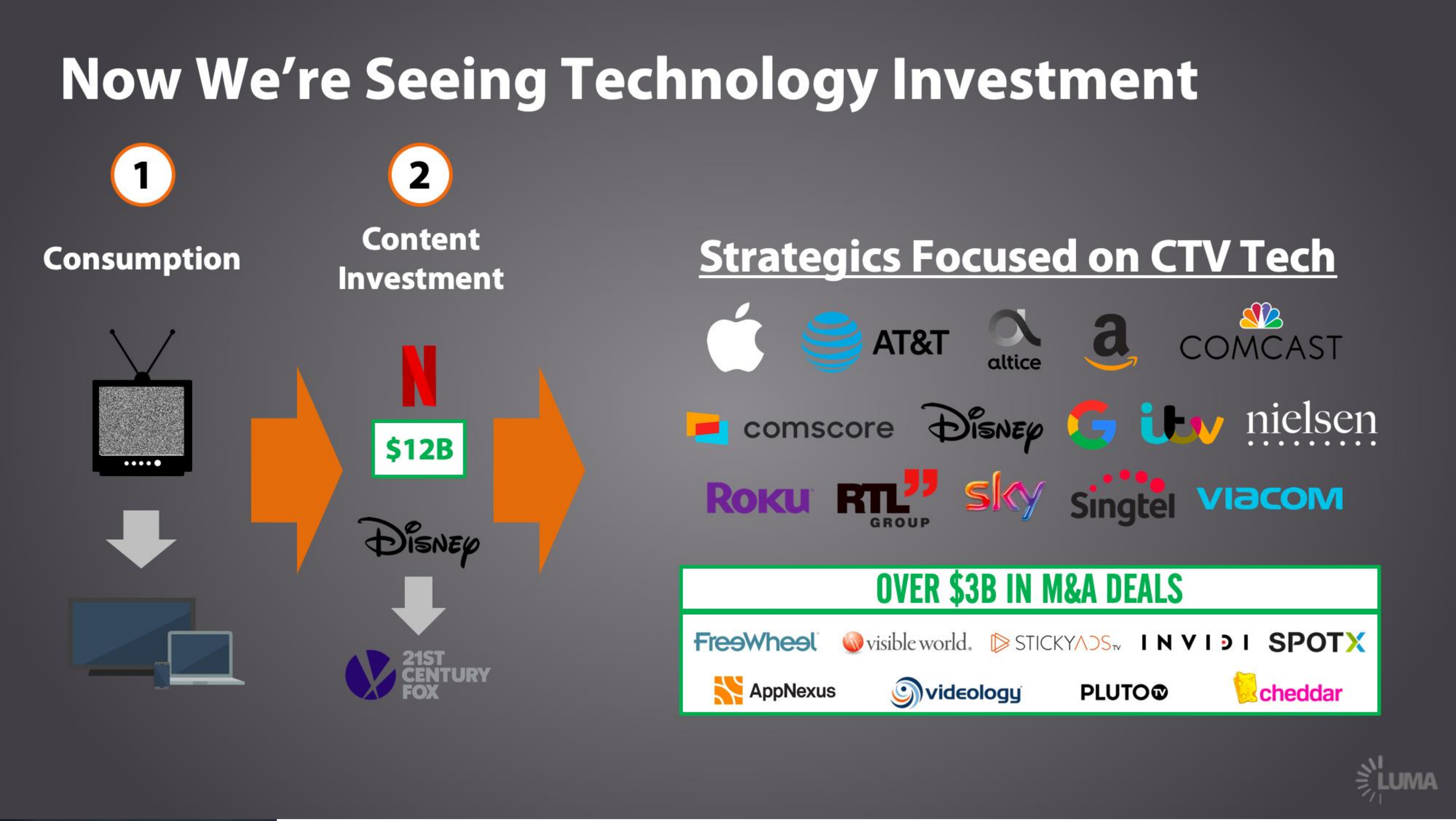
Watch what you want, when you want, where you want



As mentioned earlier, the first step is following the consumer, and consumers have fully converged. They have moved from watching on one screen, to now watching what they want, when they want, and where they want.

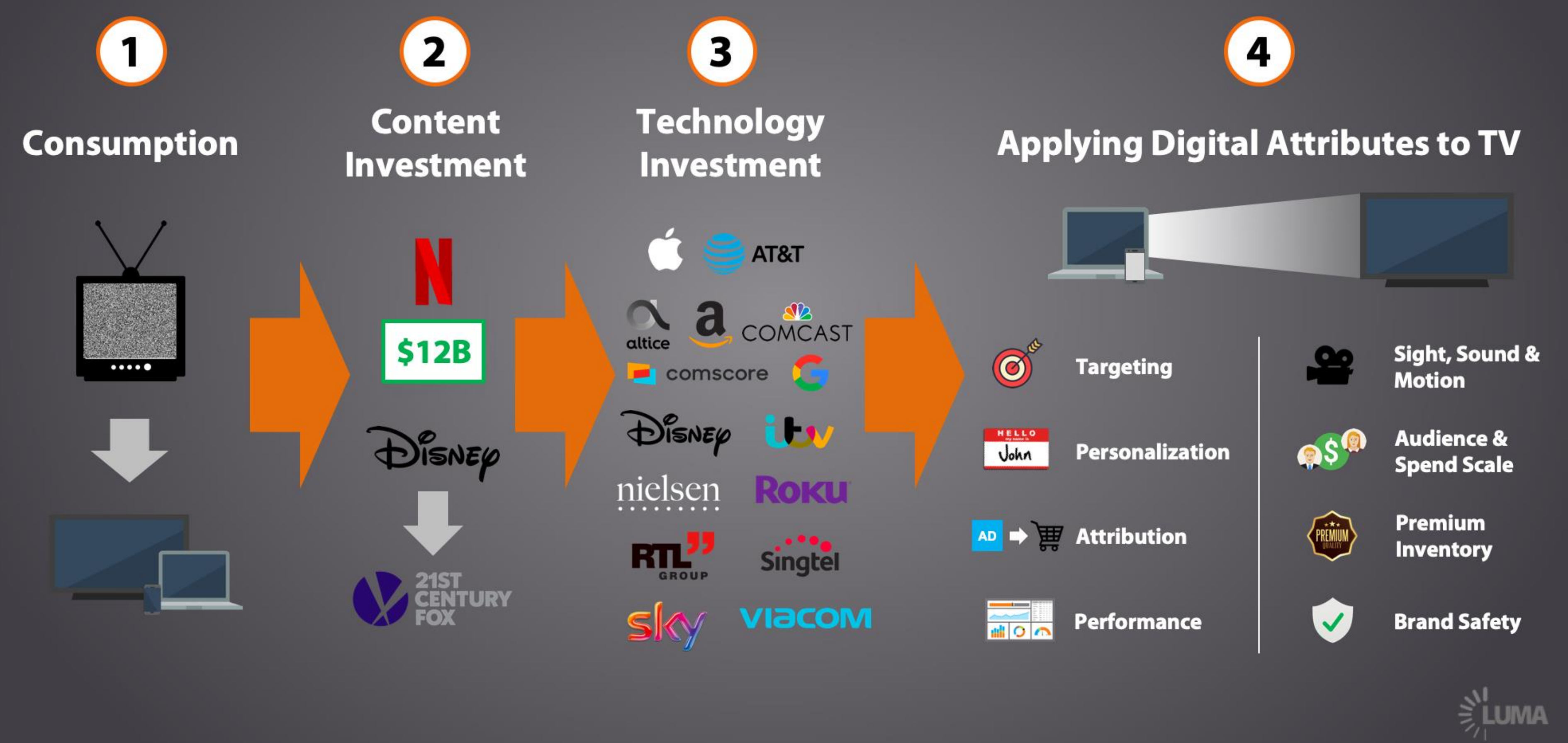


As consumers' consumption habits changed, the next phase in this gestation was investment into premium, high-quality content. We have seen this come to fruition through internal investment into original programming, and also through major M&A transactions.



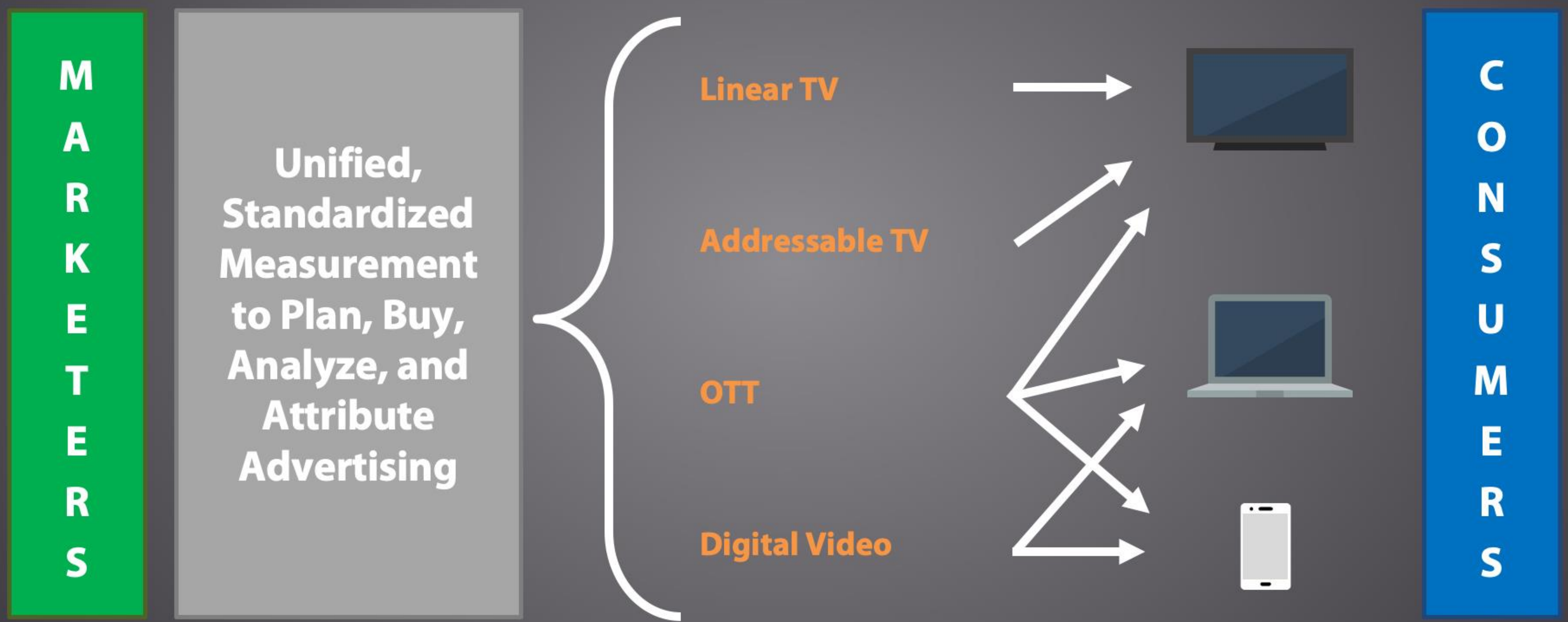
The third component involves technology investment to support the evolution of television advertising capabilities. We have seen strategics invest in their own CTV technologies and acquire assets in order to bolster their existing tech stack.

Next Up: Advertising Adoption

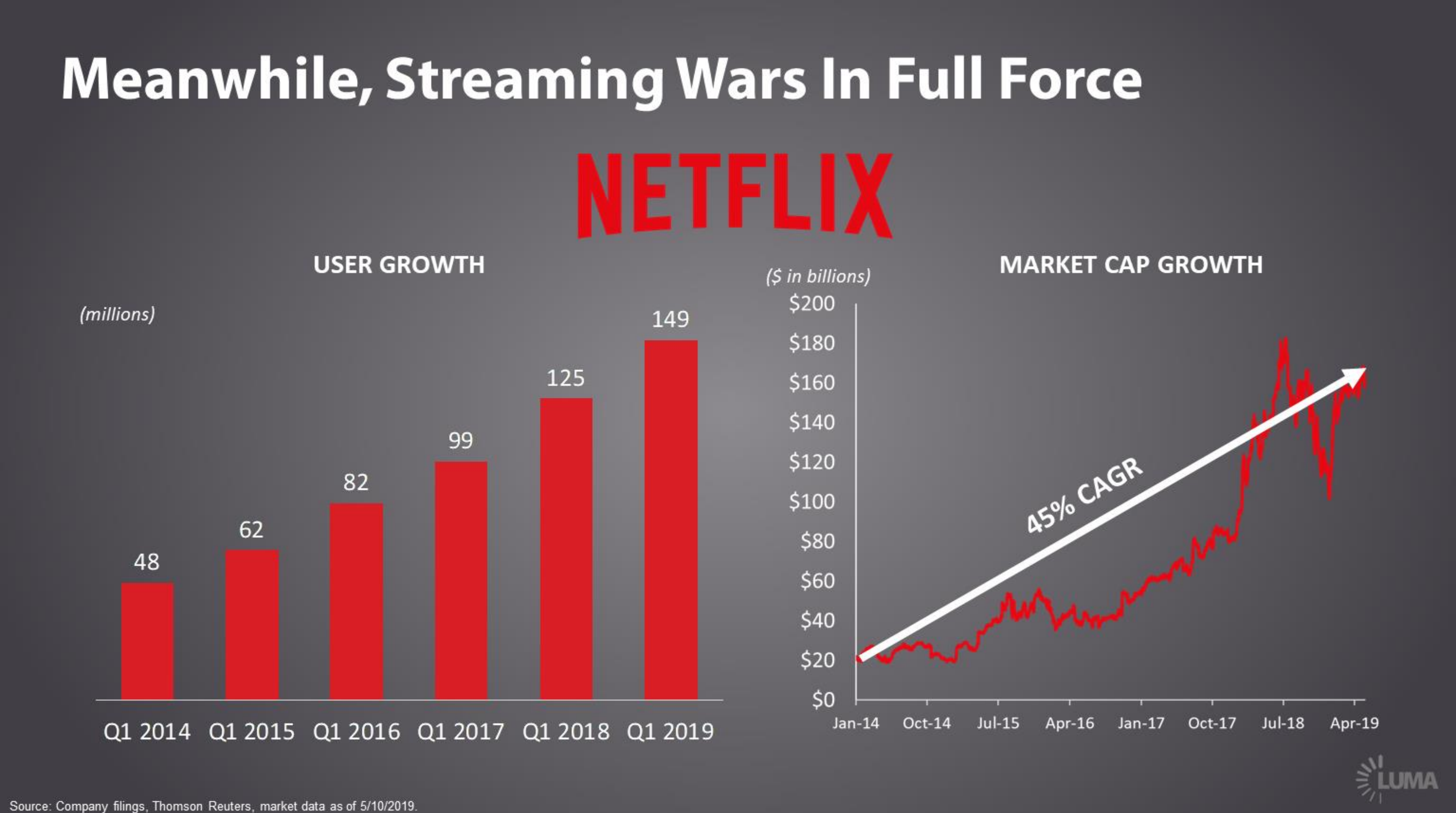


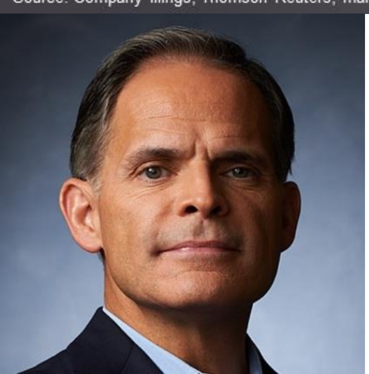
The first three phases of this gestation has set us up for the next and final phase: advertising adoption. This adoption phase will bring the digital attributes of targeting, personalization, attribution and performance to TV's sight, sound and motion format, audience and ad spend scale, premium inventory, and brand safety.

Complexity Has Kept Ad Adoption at Bay



Complexities around figuring out how to unify a buy across all forms of video, whether it may be linear, addressable, OTT or digital, remains a challenge. For a holistic perspective on channel spend, marketers need a unified, standardized way of being able to plan and buy TV media.





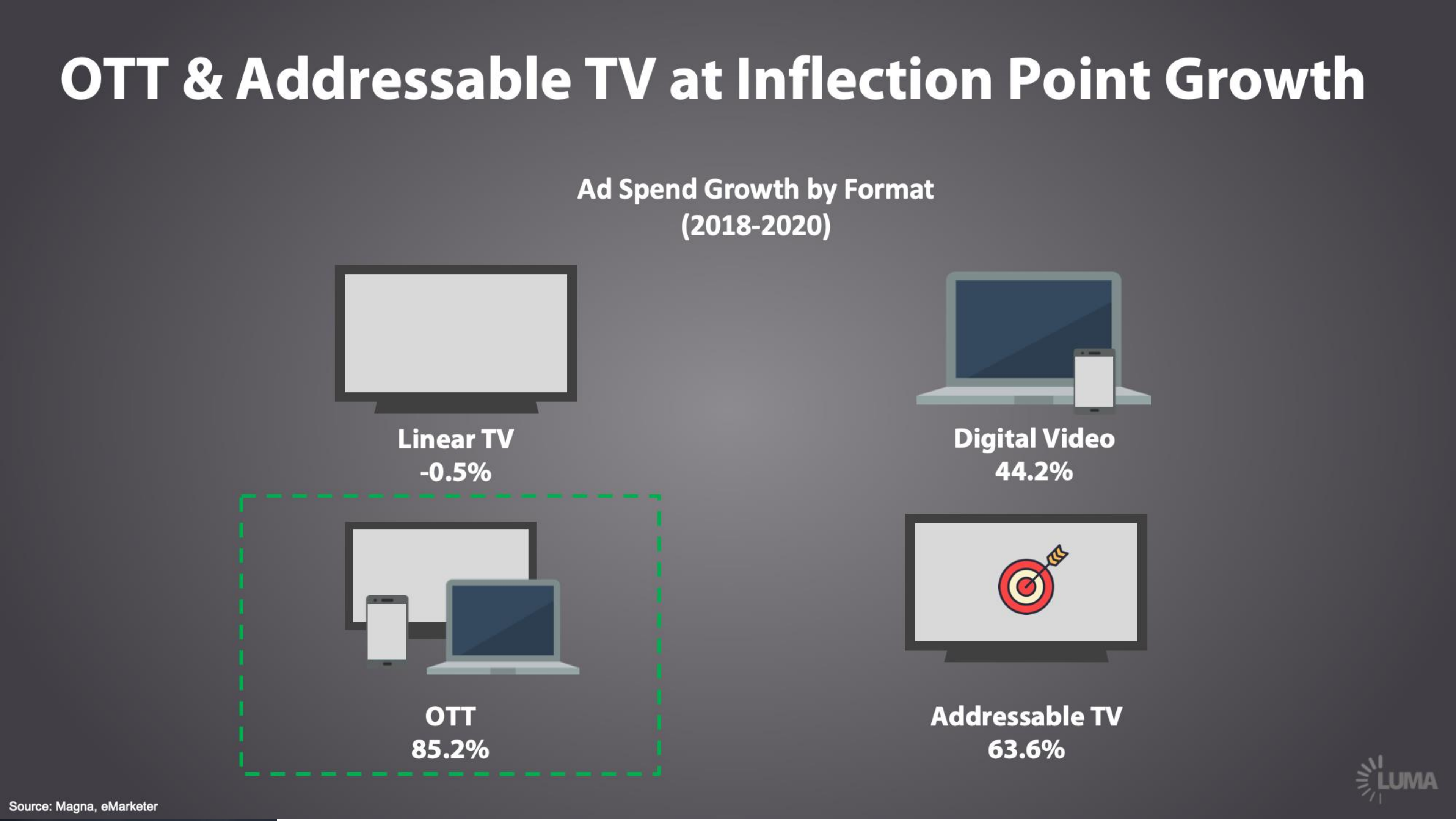
Meanwhile, the streaming wars are in full force. Category leader Netflix has continued to dominate, growing 45% over the past 5 years and hitting nearly 150 million users earlier this year.

Meanwhile, Streaming Wars In Full Force

But new competition has come to the forefront. Most notably, Disney announced earlier this year their own streaming service, Disney+, which will combine both owned and acquired assets to compete in the streaming wars. Additionally, Apple has announced a new streaming service, while traditional competitors Comcast NBCUniversal and AT&T have also announced upcoming proprietary streaming services. Let the games begin!

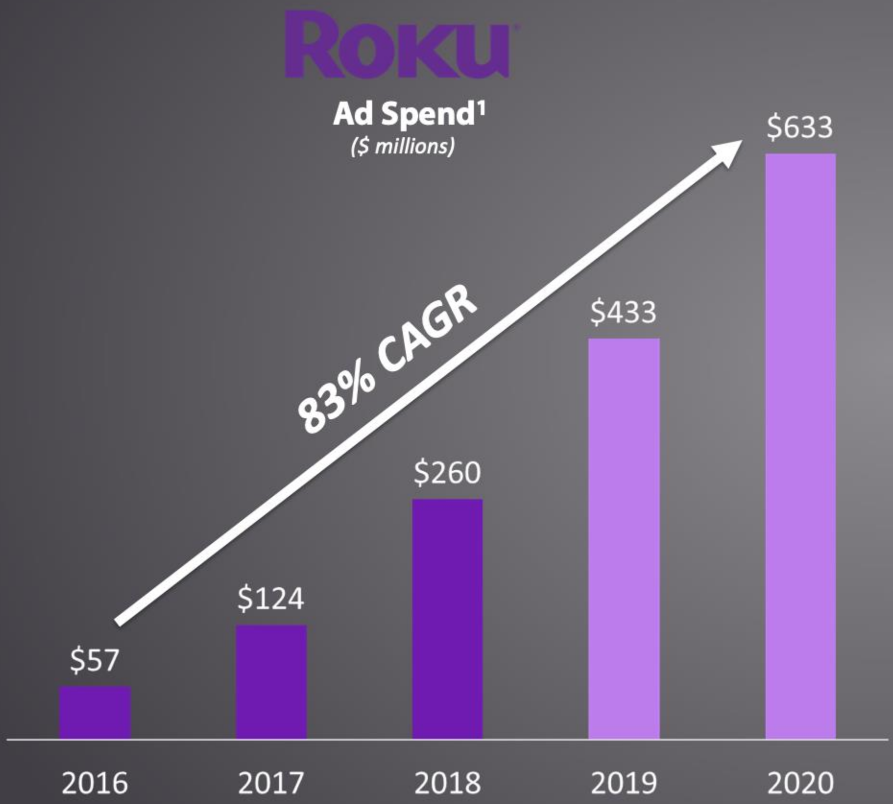
SVOD & AVOD: Balancing the Scales

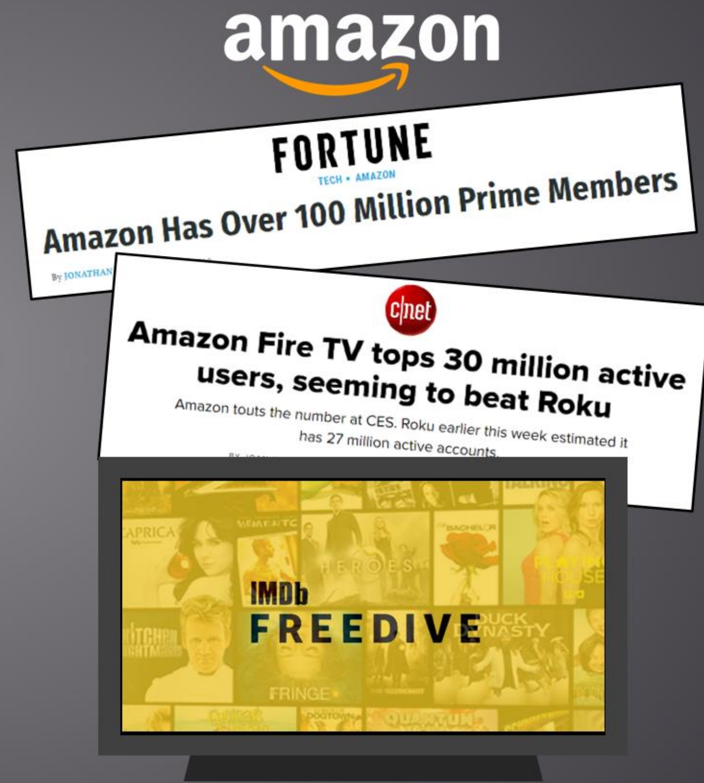
A lot of attention has been given to the subscription video on demand (SVOD) services, thus tilting the scales decidedly in their favor. But we are seeing advertising video on demand (AVOD) services work to balance the scales.



OTT TV offers a huge opportunity in advertising as ad spend across the channel is forecasted to grow 85% over the next few years.

Roku & Amazon Leading AVOD Adoption





Sources: (1) eMarketer

Much of this growth can be attributed to players such as Roku and Amazon. Roku leads the way in AVOD adoption, with $633 million in ad spend expected next year. Additionally, Amazon has gotten into the AVOD space as well with the recent announcement of IMDb Freedive, and a built-in audience of 100 million Amazon Prime members.

Traditional TV Acquiring Their Way In

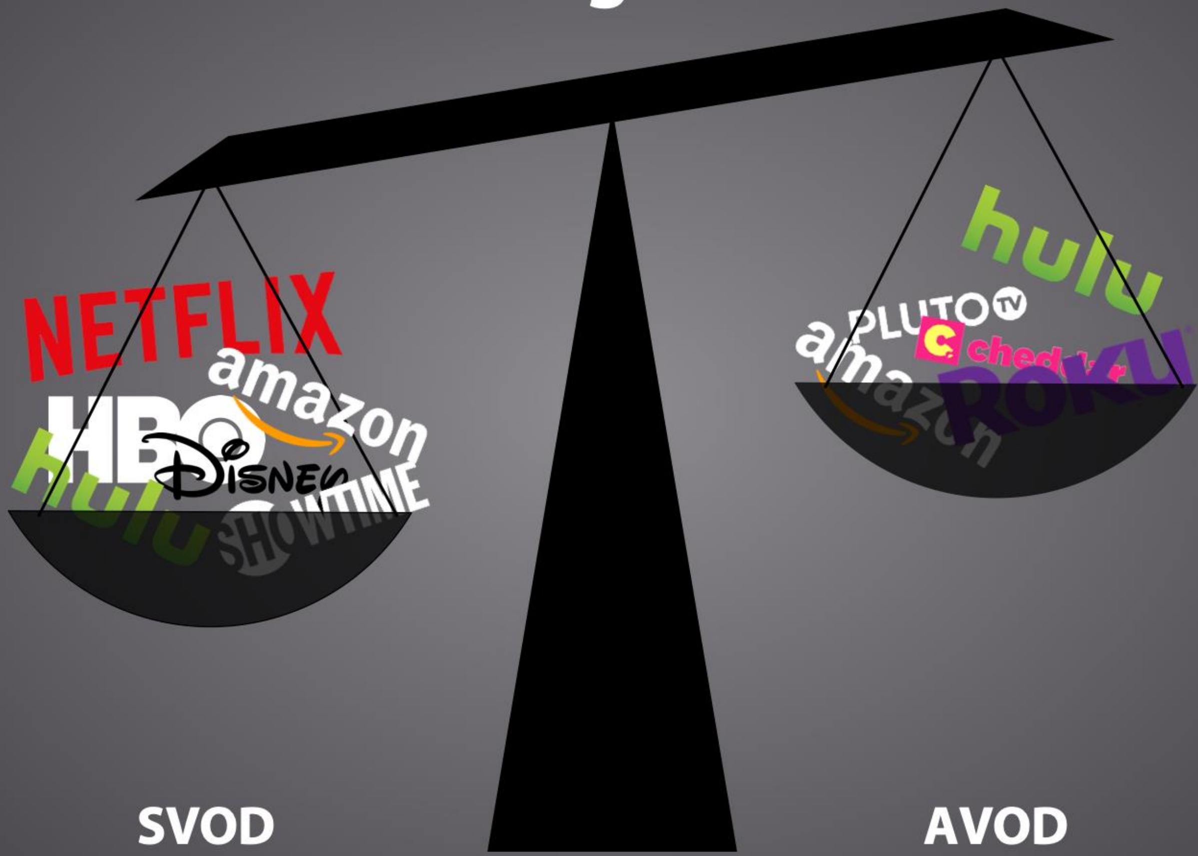
viacom → $340MM → PLUTO TV

altice → $200MM → cheddar

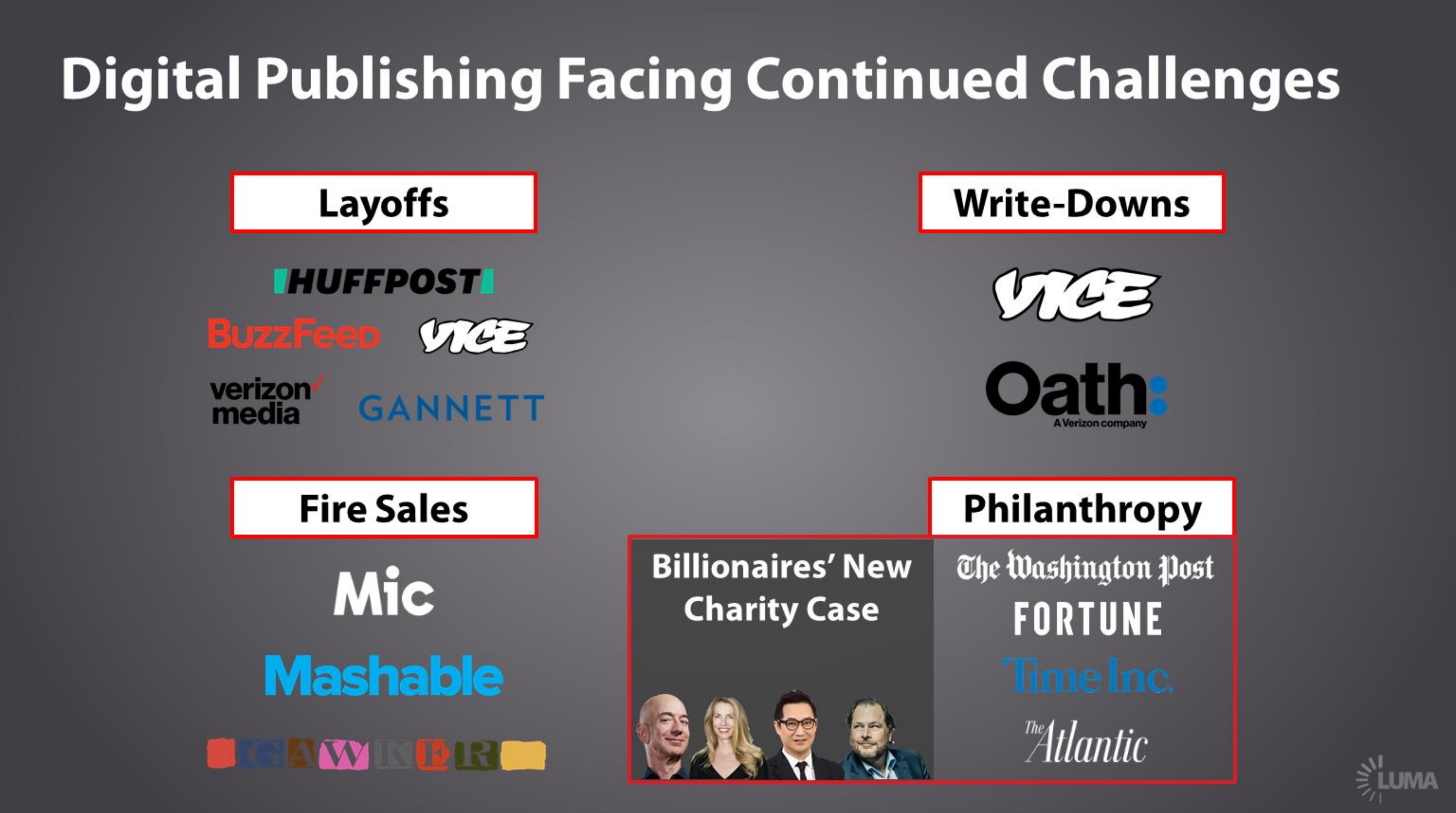
Source: Pitchbook, Company Filings

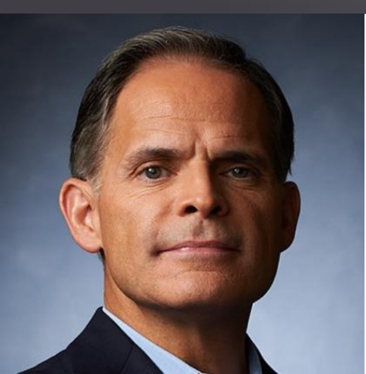
Traditional TV players are acquiring their way in, most notably with Viacom's acquisition of PlutoTV and Altice's acquisition of Cheddar.

SVOD & AVOD: Balancing the Scales



With both organic and inorganic growth, AVOD will continue to work to balance the scales and offers a huge opportunity in TV advertising's future moving forward.





Speaking of publishers, digital publishers on the print media side have seen better days as that ecosystem continues to face a number of challenges. From major layoffs, to write-downs and fire sales, and even exits via billionaire philanthropy, these issues have cast a dark cloud across the digital publishing landscape.

But There Are Bright Spots

AXIOS

~12MM Monthly Unique Visitors

100% Revenue Growth

The New York Times

~3.5MM Digital Only Subs

15% LTM Digital Rev. Growth

LUMA

Sources: INMA, Company filings

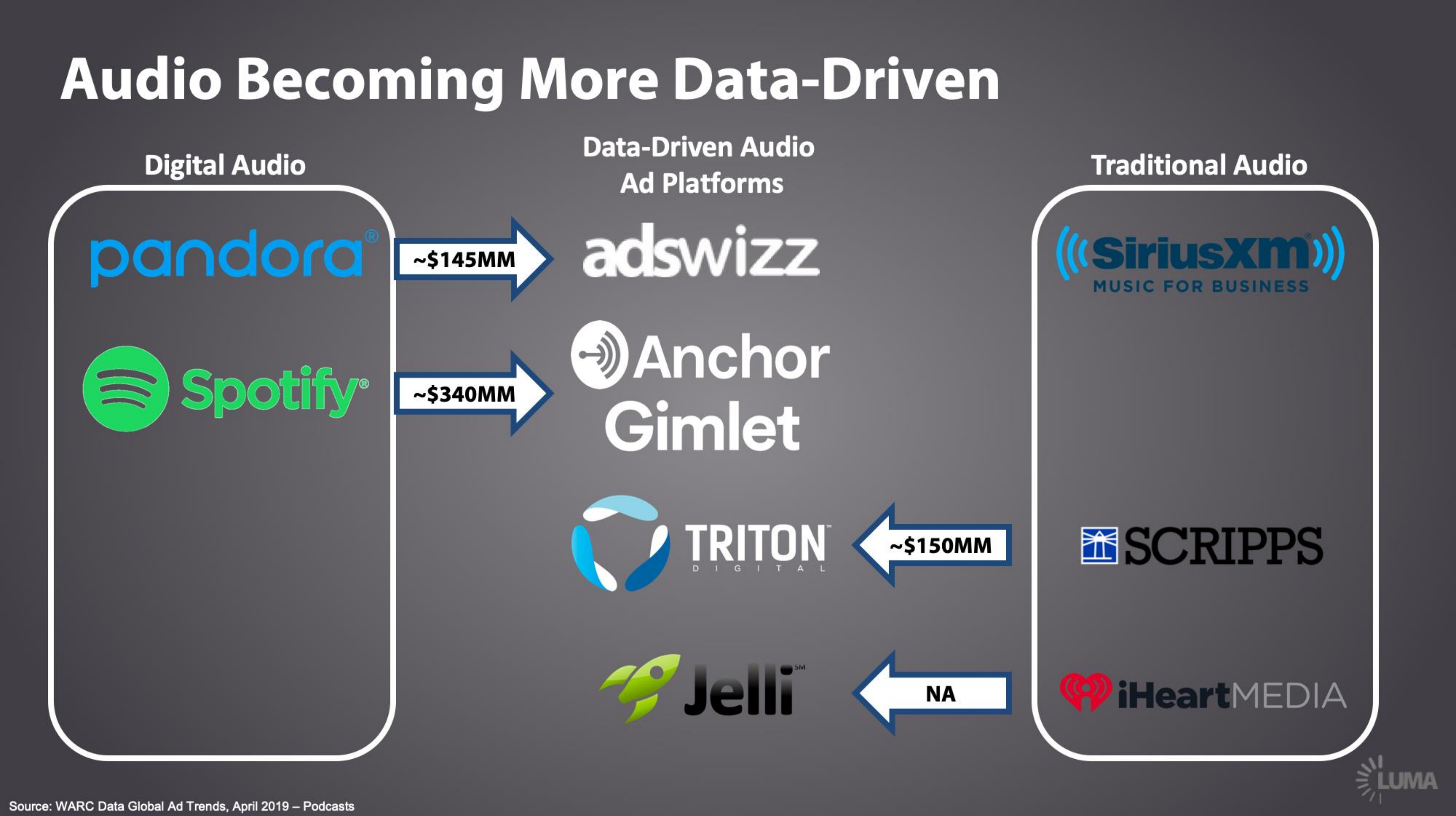
But there are bright spots! Axios continues to impress as they double revenue year-over-year and attract 12 million monthly unique visitors. And The New York Times is pushing forward after transitioning from primarily advertising to a growing digital subscription business with 3.5 million subscribers and 15% digital revenue growth. We look forward to seeing continued success from these industry leaders.

Emerging Technologies

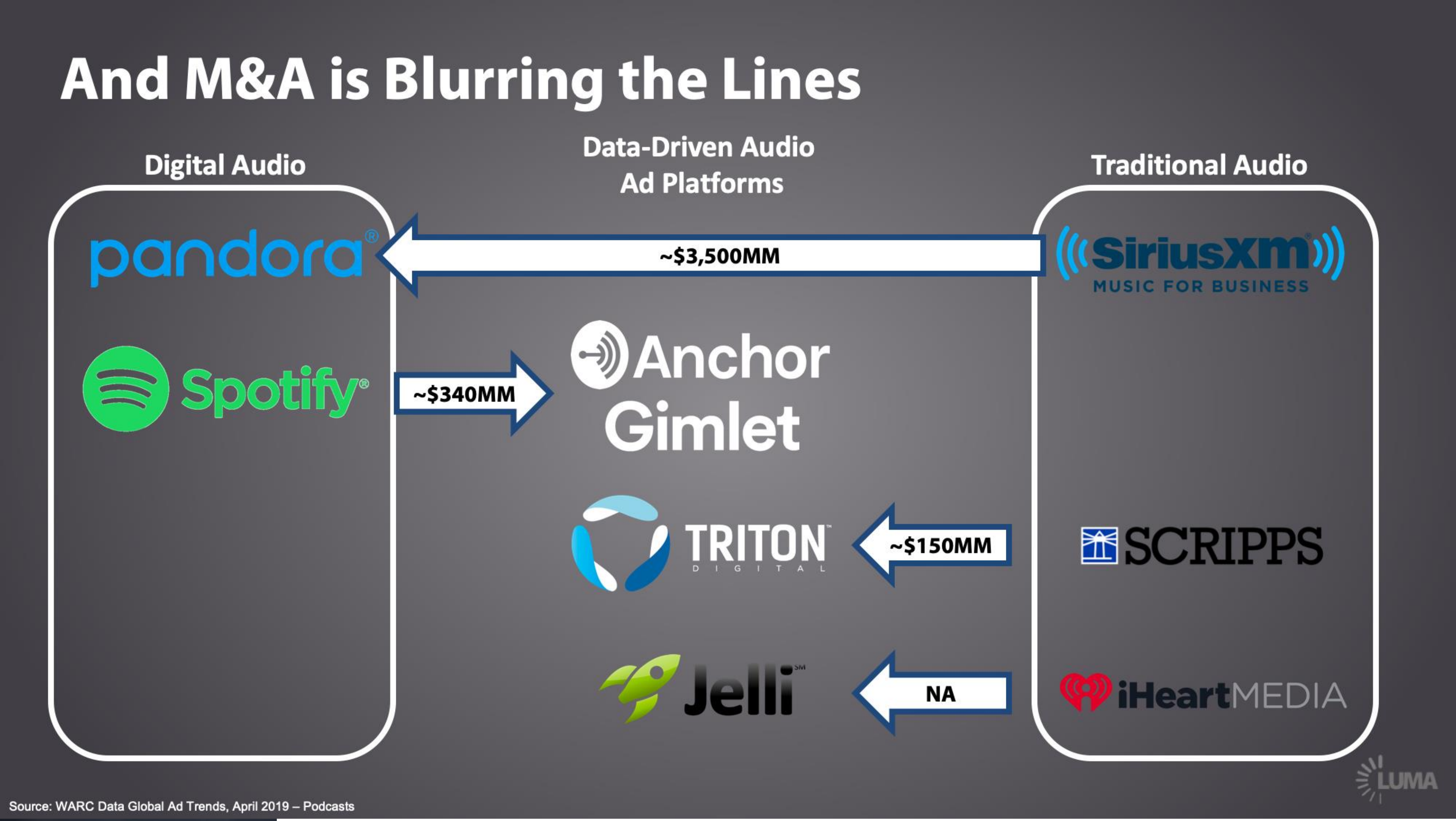
Audio & Voice

Artificial Intelligence

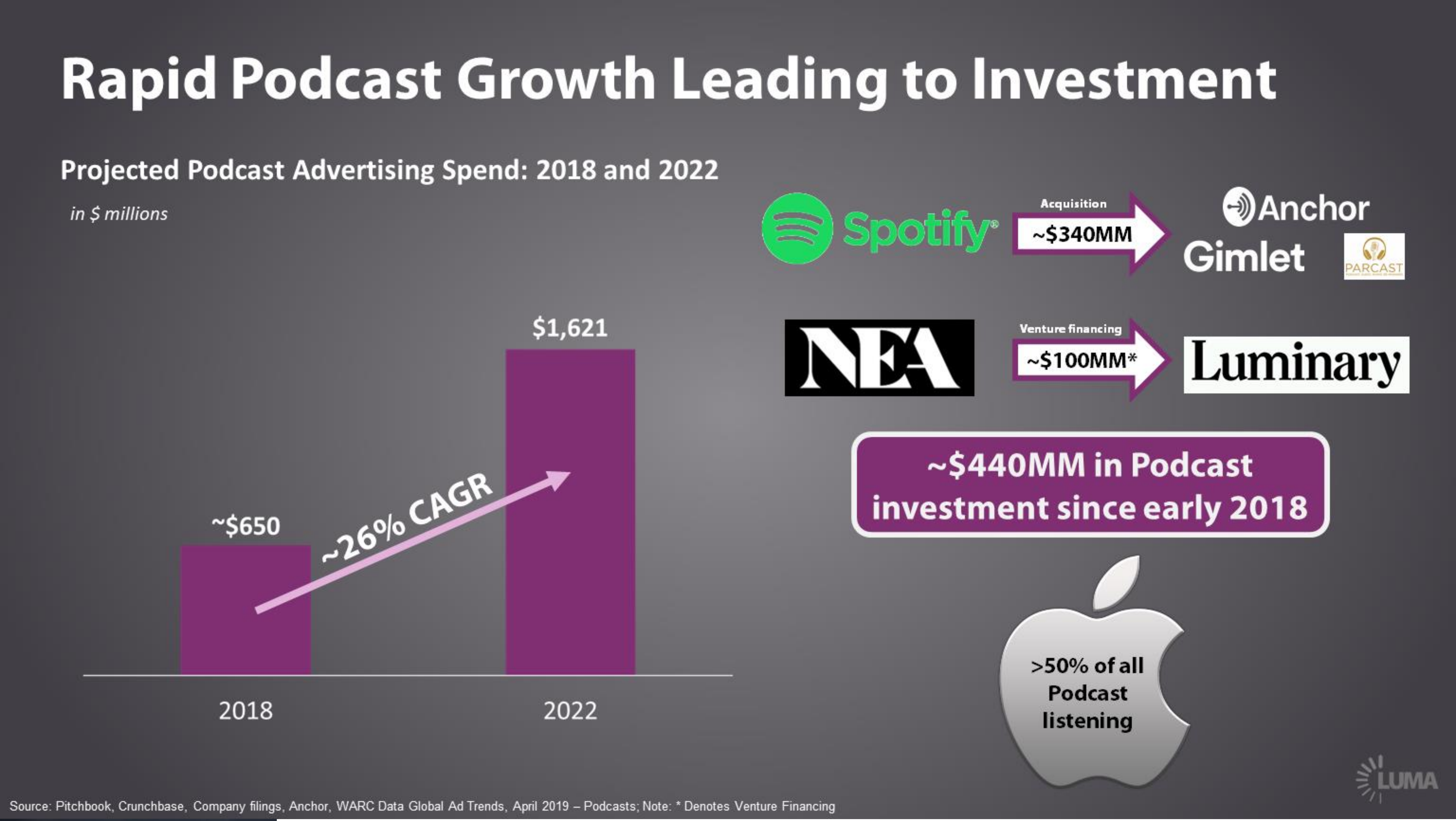
Looking ahead, it's important not to get distracted by shiny new objects and to focus on the emerging technologies that will have an impact within digital media moving forward, which we see as Audio/Voice and AI.



M&A activity around data-driven audio has ramped up in the past year, with players from both traditional audio and digital audio making significant investments into a data-driven audio future.



And these investments are even blurring the lines between digital and traditional audio players.

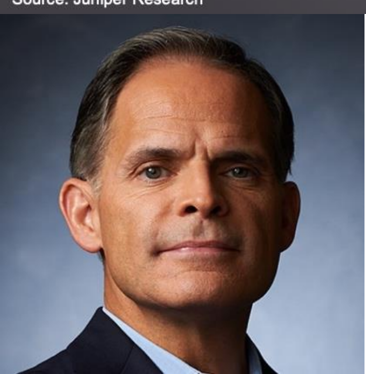


This activity can be mostly attributed to the growth of podcasts as an advertising channel. Although still nascent from a size perspective, podcast advertising spend is expected to grow ~26% over the next several years. This is all despite the fact that Apple currently dominates the podcast market, accounting for over half of all podcast listening.

Smart Speakers Offer Huge Potential for Marketers

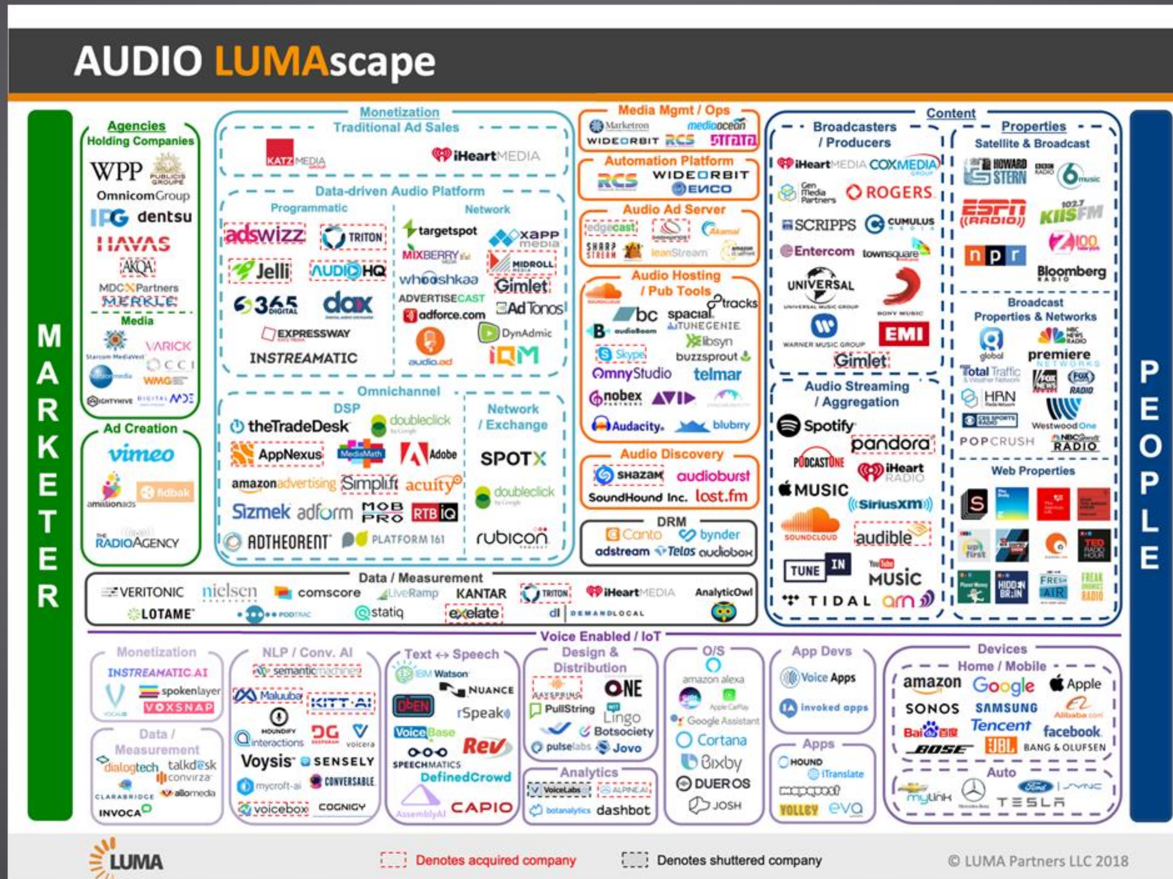
Installed in 55% of US Households by 2020

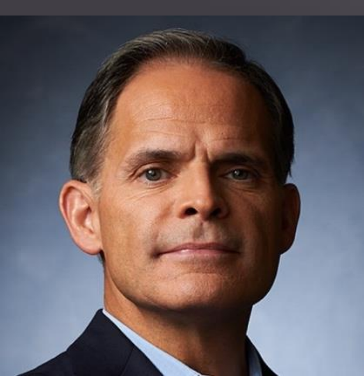
Source: Juniper Research



And smart speakers continue to infiltrate homes all across the US, and will be installed in over half of all US households by next year. We suggest keeping a close eye on how voice will be utilized by marketers moving forward, as it has huge potential to capture intent from consumers.

Introducing the Audio LUMAscape

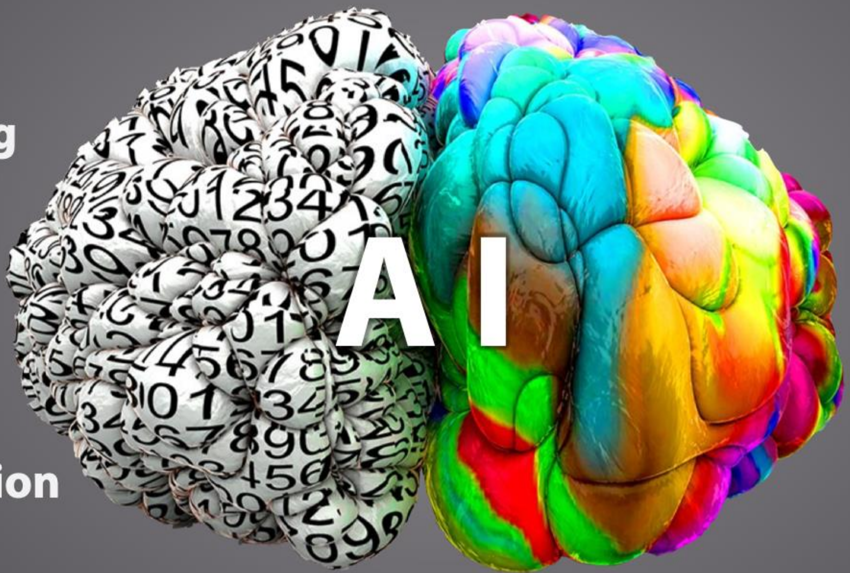




Because we see tremendous potential in this space, we are excited to announce the addition of the Audio LUMAscape to our collection. I can be separately downloaded here: https://lumapartners.com/content/lumascapes/audio-lumascape/

AI Will Be the Intel Inside

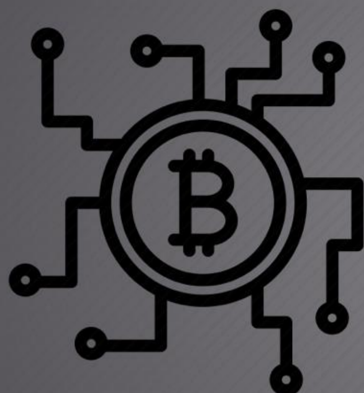
Propensity Modeling
Predictive Analytics
Media Buying
Ad Targeting
Lead Scoring
Dynamic Pricing
Marketing Automation



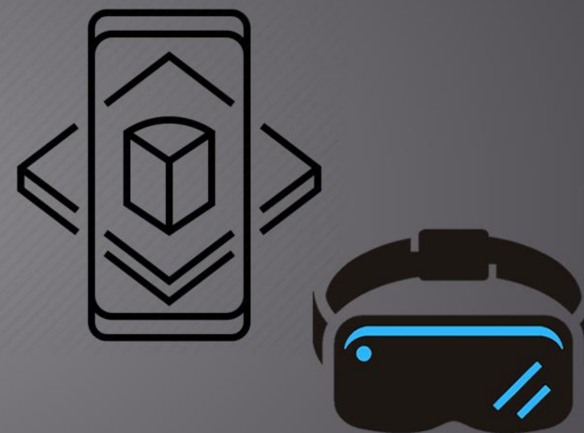
Ad Copy Generation
Automated Content
Content Curation
Chat Bots
Voice Search
Web Personalization

We liken AI's application to "Intel Inside" and believe it will play a huge role in marketing as the underlying technology for many applications. We are used to AI performing a lot of the left-brain capabilities such as propensity modeling and predictive analytics, but what we are excited about are the right-brain capabilities AI has to offer.

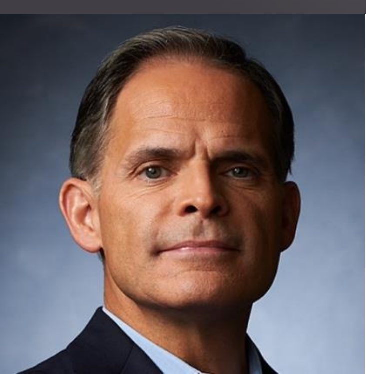
Shiny New Objects, Mostly Still Distraction



Blockchain

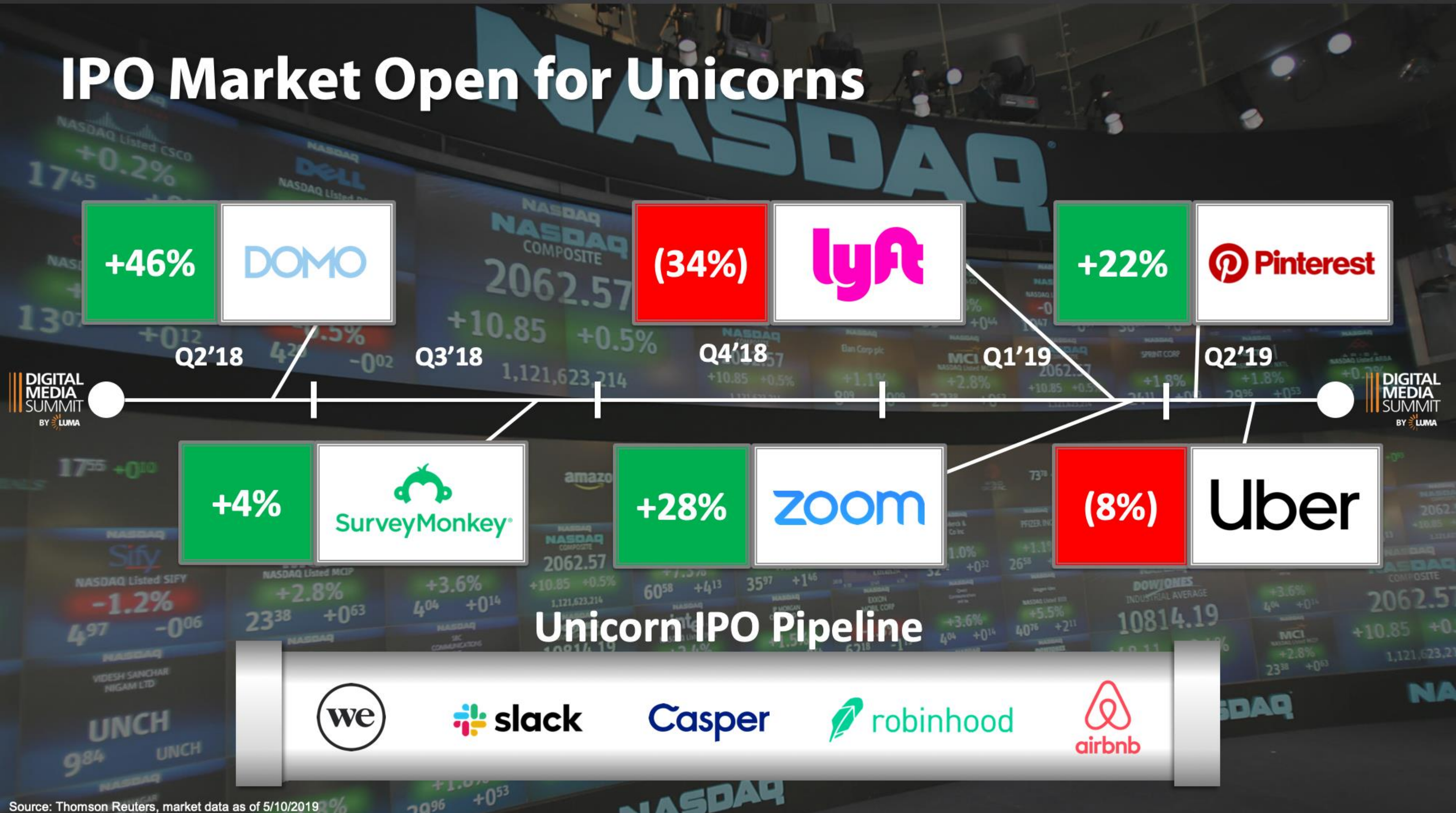


AR / VR



A few trends we suggest putting the hold button on are Blockchain and AR/VR. Although Blockchain is cutting-edge technology with huge potential, we haven't seen the application to marketing yet and it is unclear how that will unfold. Same with AR/VR, where we don't see a lot of scale application for advertising and marketing in the future.

State of the Market



Starting with the IPO market. In 2018, we saw a few scaled MarTech IPOs in Domo and SurveyMonkey that have traded pretty well in the after market. 2019 has looked more like 1999 with the stampede of highly valued, often unprofitable Unicorns finally coming to market. While post-IPO trading results have been mixed, the pipeline remains full across the broader tech sector.

Not So Much for Ad Tech & MarTech

Source: Pitchbook, Company Filings

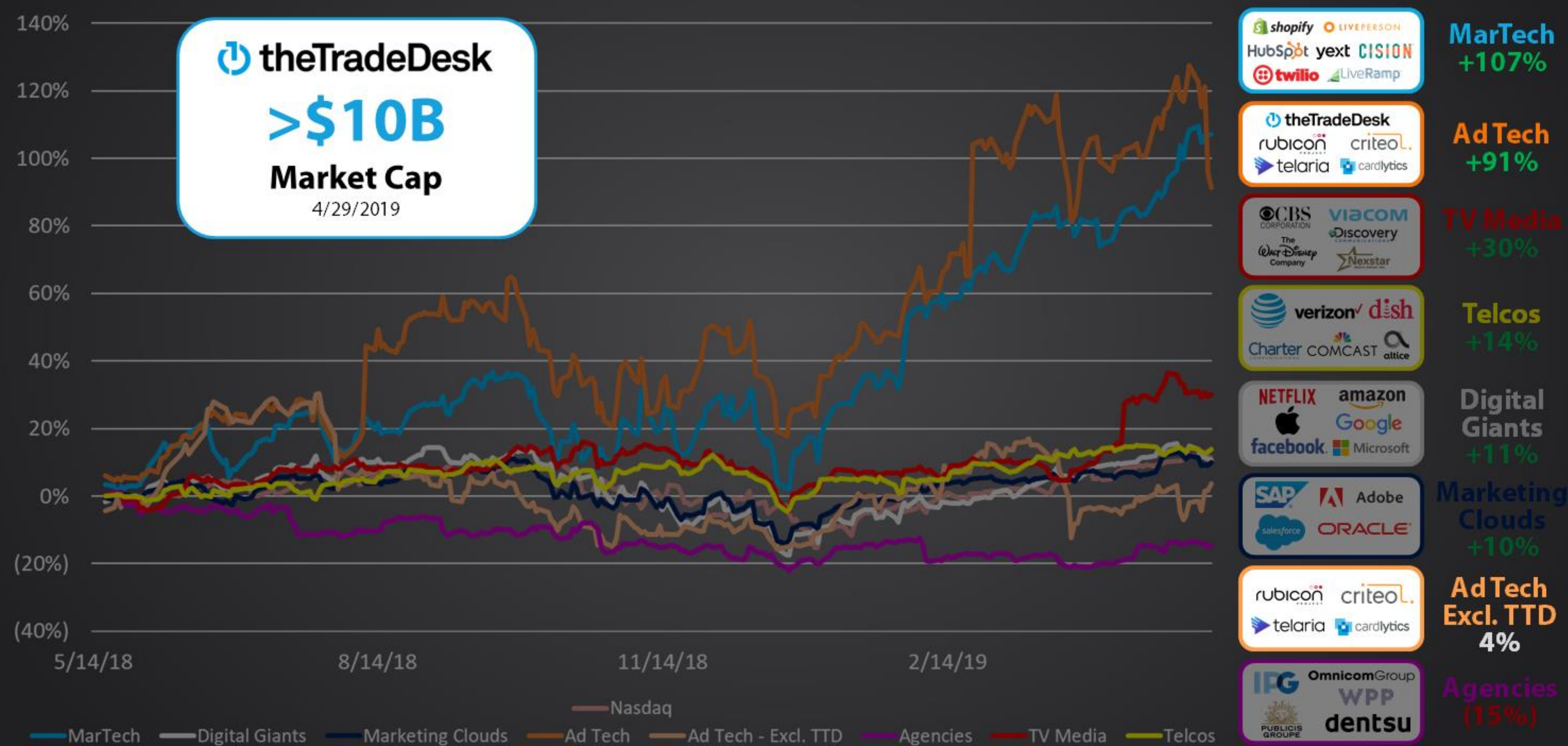
BUT, in Ad Tech and MarTech, the IPO pipeline remains much more sparse, with only Customer Experience player Medallia planning a listing in 2019.

Strong LTM Stock Performance Across the Board

Source: Thomson Reuters, market data as of 5/10/2019. Analysis includes adjustments to exclude estimated impact of acquisitions greater than $30 billion in enterprise value.

It was a decent year for tech overall (NASDAQ +9%), and look – unprecedented – our top two areas of focus: MarTech and Ad Tech were #1 and #2 in the charts last year, each up almost 100% since our last DMS.

Strong LTM Stock Performance Across the Board



Source: Thomson Reuters, market data as of 5/10/2019. Analysis includes adjustments to exclude estimated impact of acquisitions greater than $30 billion in enterprise value.

While MarTech saw strong performance from almost all players, Ad Tech was driven almost entirely by The Trade Desk which hit $10 billion in market value last week. Excluding TTD, the market cap-weighted Ad Tech sector was only up 4%.

Strong LTM Stock Performance Across the Board

Source: Thomson Reuters, market data as of 5/10/2019. Analysis includes adjustments to exclude estimated impact of acquisitions greater than $30 billion in enterprise value.

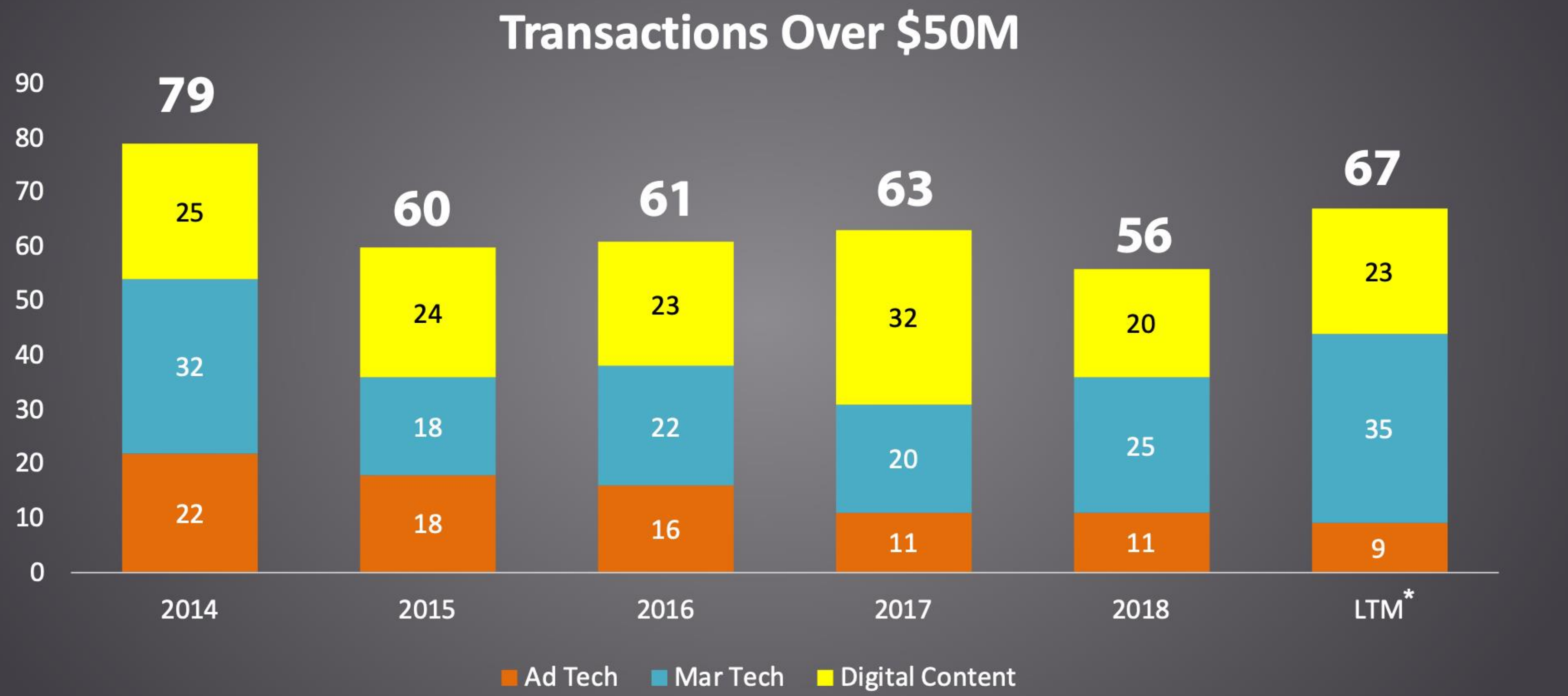
And the rumors of the demise of traditional TV may have been a bit exaggerated as the sector was up 30% last year, mostly on the strong performance of Disney.

Strong LTM Stock Performance Across the Board

Source: Thomson Reuters, market data as of 5/10/2019. Analysis includes adjustments to exclude estimated impact of acquisitions greater than $30 billion in enterprise value.

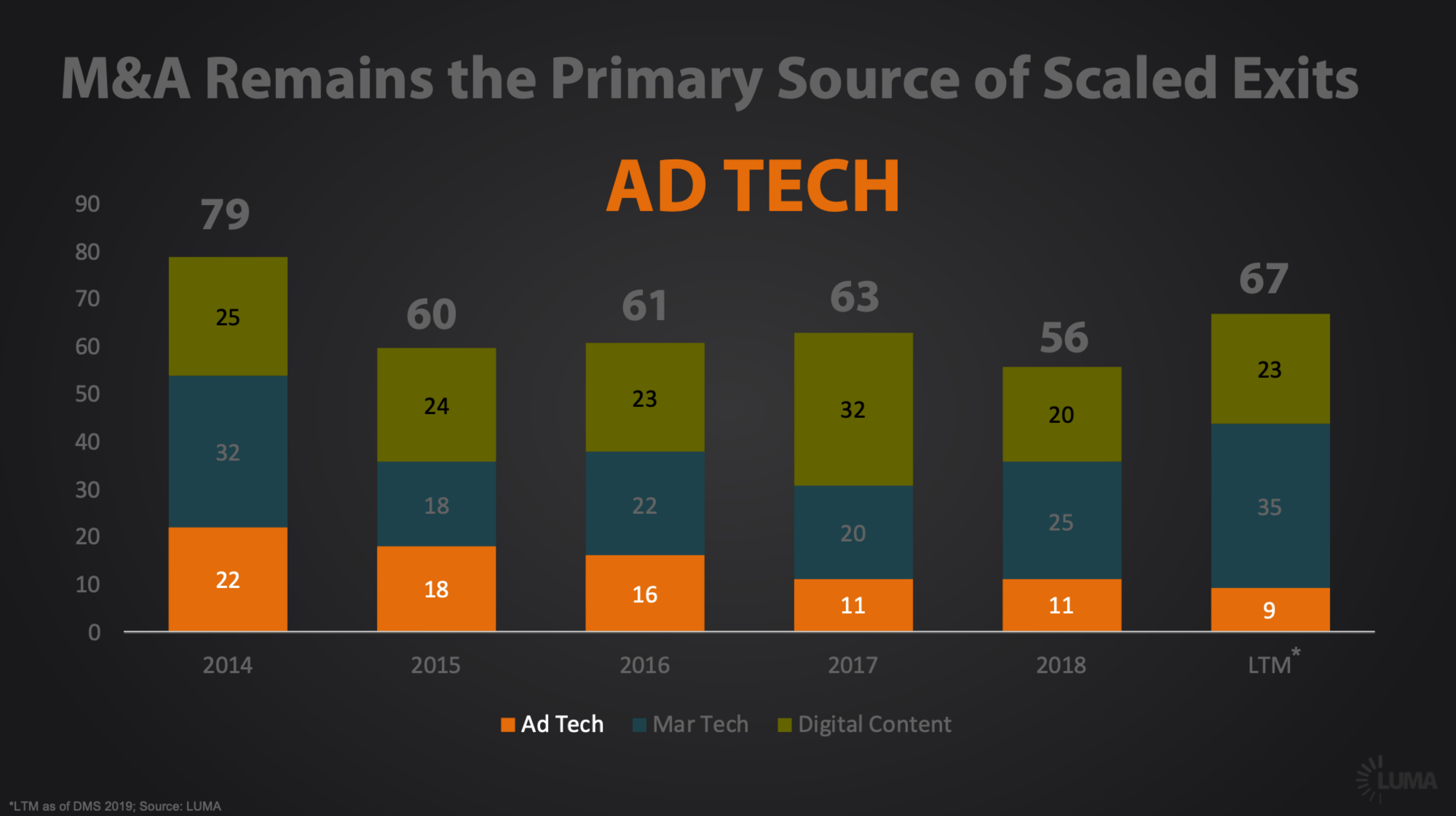
The huge market cap sectors (Telcos, Digital Giants, and Marketing Clouds) all pretty much tracked to market, while the Agencies continued to struggle.

M&A Remains the Primary Source of Scaled Exits



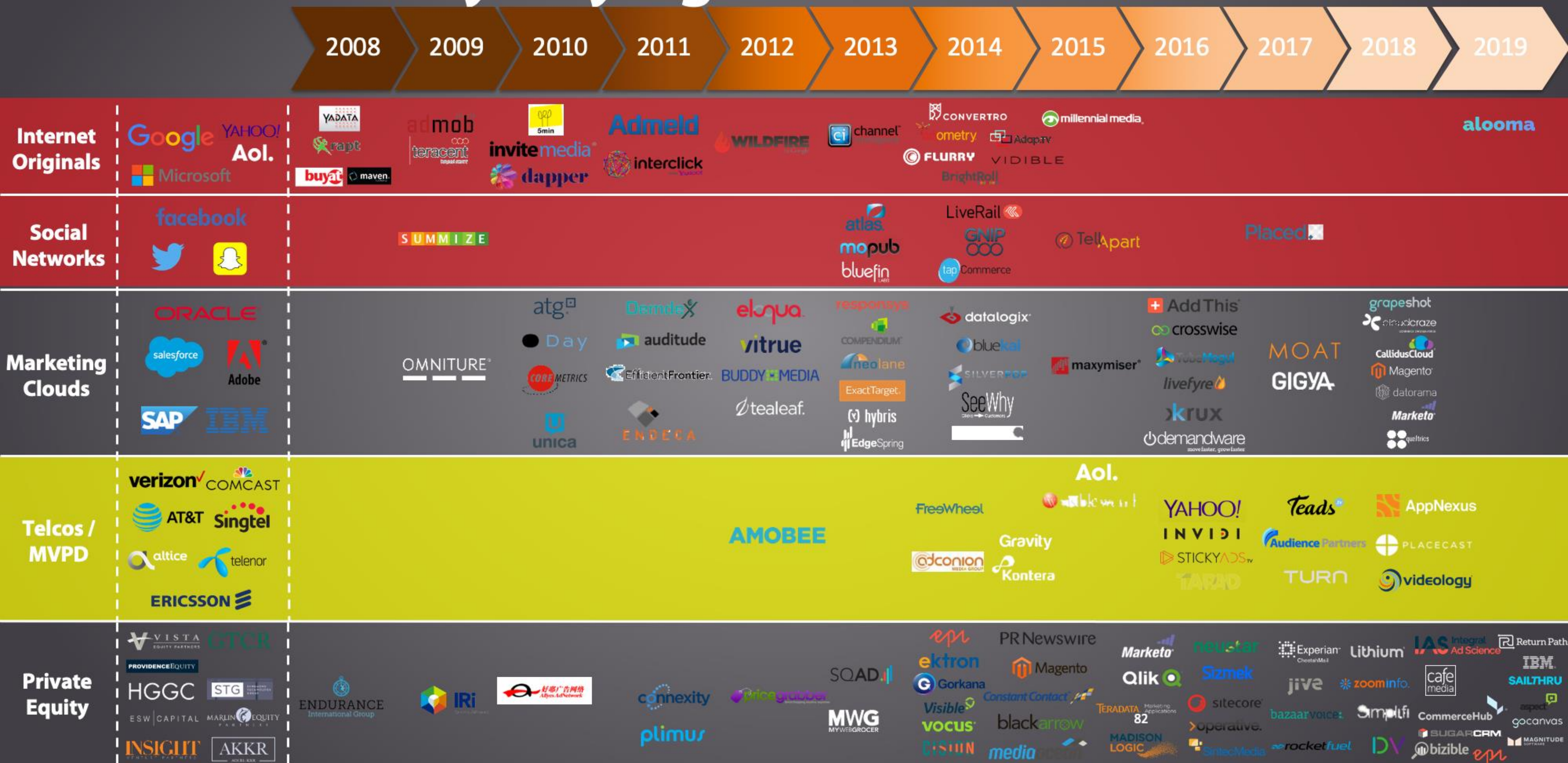
*LTM as of DMS 2019; Source: LUMA

M&A continues to be the primary source of scaled exits across Ad Tech, MarTech, and Digital Content with over 65 deals in the last year compared to only a handful of IPOs.



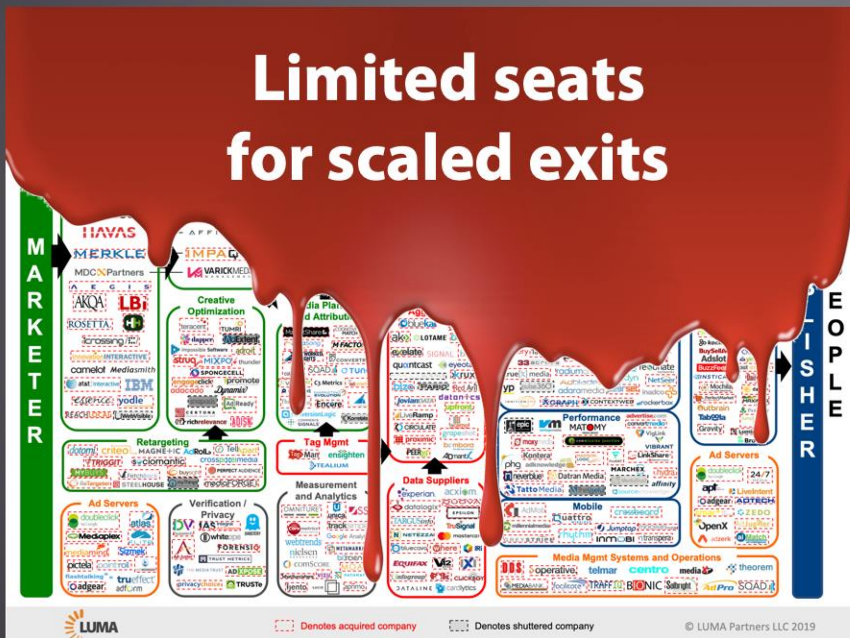
Ad Tech has seen decreasing M&A activity over the last 5 years. To understand this trend, we looked at who has been buying in the sector.

Who's Actually Buying Ad Tech?



Historically, Internet Originals and Social Networks were the most active buyers of Ad Tech. However, as these players have built out their stacks and have increasingly attracted increased regulatory oversight, that activity has slowed to a trickle. Telcos have been modestly active, but with mixed results.

Casualties of Challenging Ad Tech Environment



BANKRUPTCY

videology

sorenson MEDIA

DEFY MEDIA

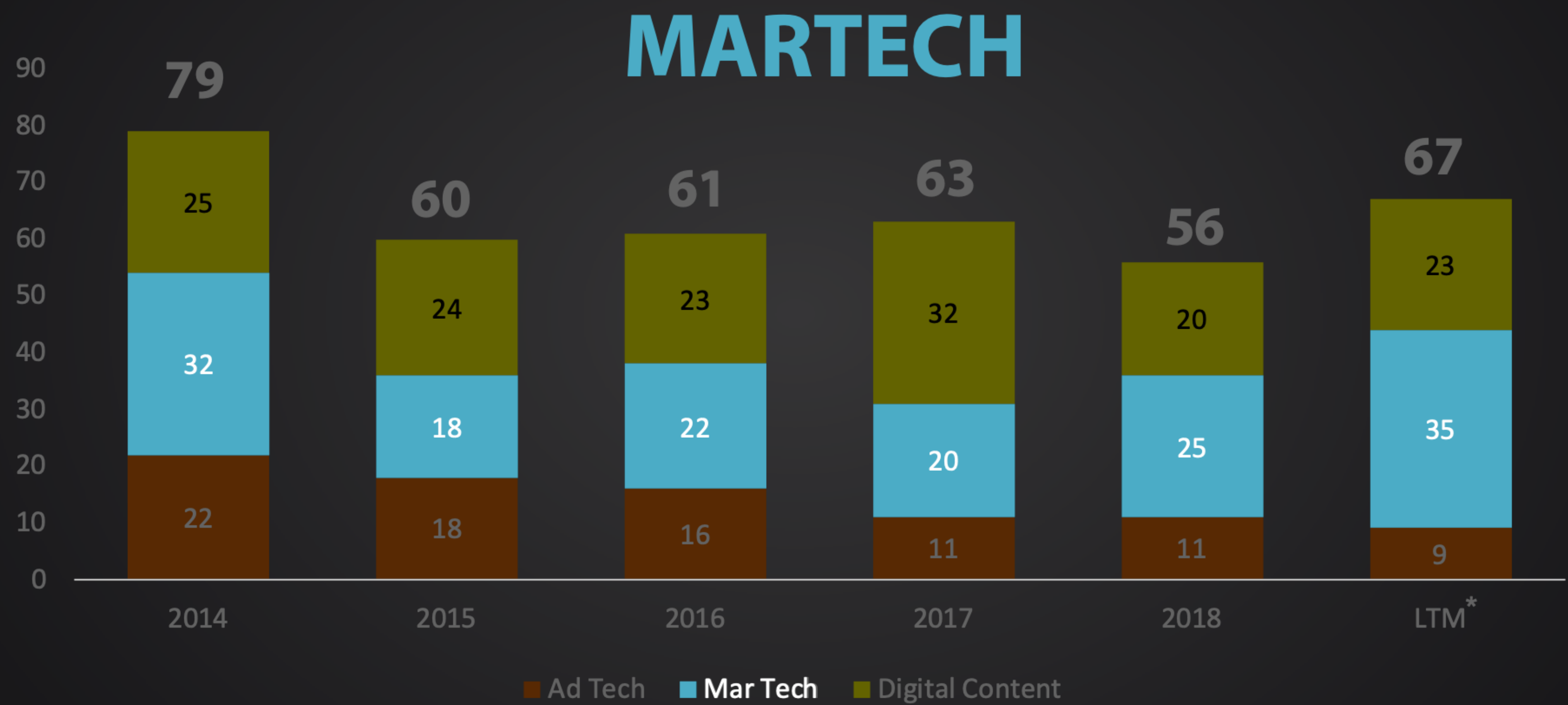
Sizmek

yieldbot

VISTO

Which has resulted in a supply/demand imbalance among sellers and buyers in Ad Tech. For some time, we've predicted there will be blood and, sure enough, the last year saw a number of bankruptcies of high profile Ad Tech companies in the last year.

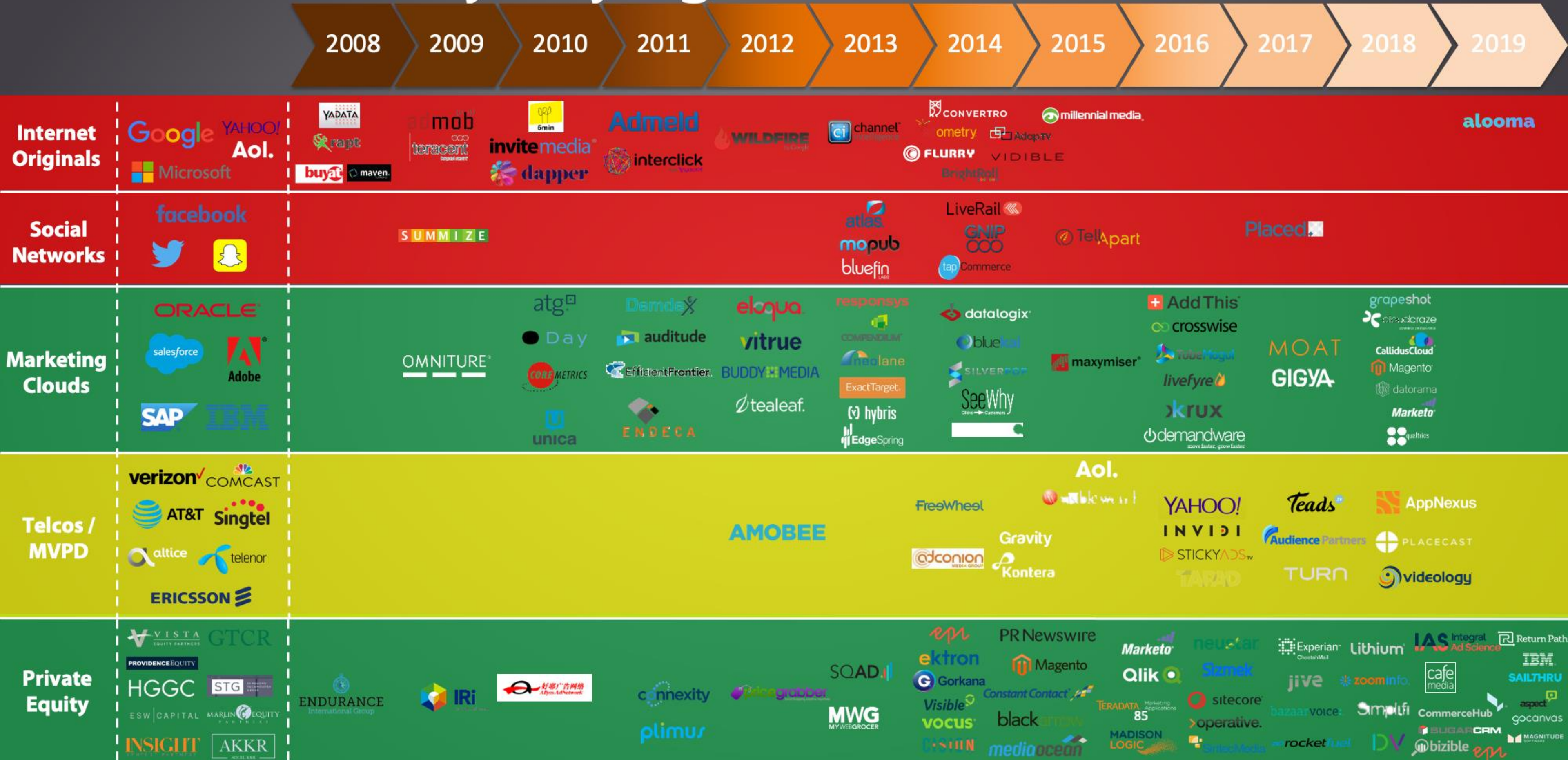
M&A Remains the Primary Source of Scaled Exits



*LTM as of DMS 2018; Source: LUMA

In MarTech we see a different story: The number of scaled exits has increased significantly over the last few years.

Who's Actually Buying Ad Tech & MarTech?



Why? Again, let's review that buyer universe. MarTech continues to enjoy robust strategic interest. Among the Marketing Clouds we see a handful of well capitalized, high multiple players actively competing to enhance their product offerings, often through M&A. And increasingly, Private Equity has emerged as the number 1 buyer in the category.

The New PE Playbook: Strategic vs. Financial

Financial Rationale ⟵ ⟶ **Strategic Rationale**

	FP Francisco Partners / Verifone	Siris Capital Group, LLC / web.com	THL Thomas H. Lee Partners / dun & bradstreet	Providence Equity / DV DoubleVerify	EQT / sitecore	Vista Equity Partners / IAS Integral Ad Science	Vista Equity Partners / Marketo	GTCR / CommerceHub
EV / LTM Revenue	1.8x	2.5x	3.8x	~4.0x - ~6.0x			7.5x	9.5x
EV / LTM EBITDA	14.6x	12.7x	12.4x	NA	NA	NA	NM	23.2x
Deal Value	$3,292M	$1,864M	$6,880M	$300M	$1,100M	$850M	$1,800M	$1,050M

Source: Pitchbook; Public Company Filings; Company Announcements

LUMA

And Private Equity has not just been bargain hunting. Increasingly, we've seen private equity buyers stretch beyond lower multiple, cash flow-driven deals and look strategically at opportunities, often competing with and out-bidding strategic buyers.

Key Valuation Drivers

	Ad Tech	MarTech
1. Growth	–	✓
2. Operating Leverage	✗	✓
3. Predictability	✗	✓

Focusing on the three primary drivers of value (Growth, Operating Leverage and Predictability), clearly Ad Tech is struggling while MarTech has them in spades.

Key Valuation Drivers

	Ad Tech	MarTech
1. Growth	–	✓
2. Operating Leverage	✗	✓
3. Predictability	✗	✓
4. STRATEGIC VALUE	X-FACTOR	

LUMA

That said, as we speak with strategic buyers, that strategic value component remains the "X-Factor" so we do expect to see a number of strategic exits for those differentiated companies in the space.

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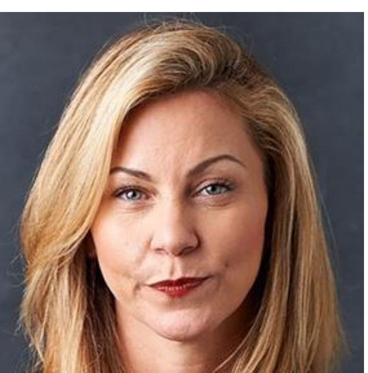

The mission of the LUMA Corporate Partners program is to provide education, insights and market development to all constituents of the digital ecosystem. LUMA's Corporate Partners are comprised of leading media, marketing and technology companies for whom LUMA's leadership team provides strategic advice on the latest industry trends and a fresh perspective to aid in making critical growth decisions. LUMA's proprietary insights, research, content and events initiatives afford personalized guidance and education at leadership off-sites, teach-ins and customer events. If LUMA can help your organization sort through this complicated and dynamic sector, contact Gayle Meyers, CMO at Gayle@lumapartners.com.