



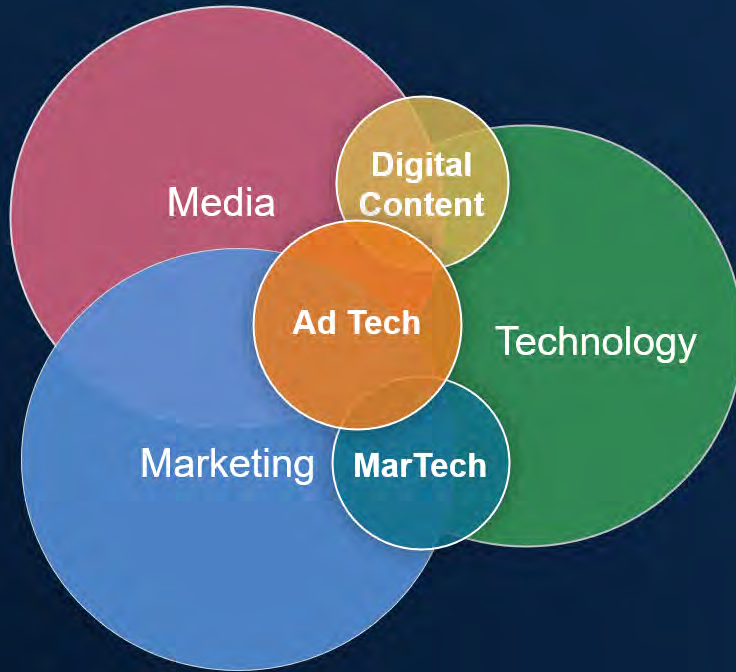
STATE of DIGITAL 2022



We are pleased to present our State of Digital 2022, as presented at our Digital Media Summit on May 17, 2022.



LUMA's Singular Focus on Media & Marketing Tech



- LUMA's expertise is at the intersection of Media, Marketing and Technology
- At this intersection exists:
 - Ad Tech
 - MarTech
 - Digital Content
- These companies employ a variety of business models including services, media, data, commerce and software hff

LUMA's Recent Deals (Since Our Last DMS)

<p>April 2022</p> <p>iSpot.tv</p> <p>has received a \$325 million investment from</p> <p>Goldman Sachs</p> <p>The undersigned acted as co-exclusive financial advisor to iSpot.tv, Inc.</p> <p>LUMA</p>	<p>April 2022</p> <p>DREAMSCAPE a CVC (I) portfolio company</p> <p>has made a strategic investment in</p> <p>SQAD</p> <p>The undersigned acted as exclusive financial advisor to Dreamscape and GTCR</p> <p>LUMA</p>	<p>March 2022</p> <p>tvSquared</p> <p>has agreed to be acquired by</p> <p>INNOVD</p> <p>The undersigned acted as exclusive financial advisor to TV Squared Limited</p> <p>LUMA</p>	<p>January 2022</p> <p>APPROVIN</p> <p>has agreed to acquire</p> <p>mopub a wholly owned subsidiary of</p> <p>Twitter</p> <p>The undersigned acted as exclusive financial advisor to Approvin Corporation</p> <p>LUMA</p>	<p>December 2021</p> <p>APPROVIN</p> <p>Secondary Offering \$622,000,000</p> <p>LUMA Securities, a wholly-owned broker-dealer of the undersigned acted as underwriting co-manager to Approvin Corporation</p> <p>LUMA</p>	<p>September 2021</p> <p>Reflektion</p> <p>has been acquired by</p> <p>SITECORE</p> <p>The undersigned acted as a financial advisor to Reflektion, LLC</p> <p>LUMA</p>	<p>August 2021</p> <p>publica</p> <p>has been acquired by</p> <p>IAS Integral Ad Science</p> <p>The undersigned acted as the exclusive financial advisor to Publica LLC</p> <p>LUMA</p>	<p>July 2021</p> <p>Outbrain</p> <p>Initial Public Offering \$160,000,000</p> <p>LUMA Securities, a wholly-owned broker-dealer of the undersigned acted as underwriting co-manager to Outbrain, Inc.</p> <p>LUMA</p>	<p>July 2021</p> <p>JetFuel</p> <p>has been acquired by</p> <p>Vungle</p> <p>The undersigned acted as the exclusive financial advisor to JetFuel, Inc.</p> <p>LUMA</p>
<p>July 2021</p> <p>Chartboost</p> <p>has agreed to be acquired by</p> <p>zynga</p> <p>The undersigned acted as financial advisor to Chartboost, Inc.</p> <p>LUMA</p>	<p>June 2021</p> <p>Simplifi</p> <p>has agreed to sell an equity interest to</p> <p>Blackstone</p> <p>The undersigned acted as financial advisor to Simplifi Holdings, Inc.</p> <p>LUMA</p>	<p>April 2021</p> <p>APPROVIN</p> <p>Initial Public Offering \$2,000,000,000</p> <p>LUMA Securities, a wholly-owned broker-dealer of the undersigned acted as underwriting co-manager to Approvin Corporation.</p> <p>LUMA</p>	<p>March 2021</p> <p>Vungle</p> <p>has agreed to acquire</p> <p>GameRefinery</p> <p>The undersigned acted as exclusive financial advisor to Vungle, Inc.</p> <p>LUMA</p>	<p>February 2021</p> <p>ADCOLONY a wholly-owned business unit of</p> <p>OTELLO</p> <p>has agreed to be acquired by</p> <p>digital turbine</p> <p>The undersigned acted as financial advisor to Otlon Corporation ASA</p> <p>LUMA</p>	<p>February 2021</p> <p>Parse.ly</p> <p>has been acquired by</p> <p>vip a division of</p> <p>AUTOMATIC</p> <p>The undersigned acted as exclusive financial advisor to Parse.ly, Inc.</p> <p>LUMA</p>	<p>February 2021</p> <p>Magnite</p> <p>has agreed to acquire</p> <p>SPOTX</p> <p>The undersigned acted as financial advisor to Magnite, Inc.</p> <p>LUMA</p>	<p>January 2021</p> <p>alphonso</p> <p>has agreed to be acquired by</p> <p>LG</p> <p>The undersigned acted as exclusive financial advisor to Alphonso, Inc.</p> <p>LUMA</p>	<p>December 2020</p> <p>Blackstone</p> <p>has agreed to acquire a majority stake in</p> <p>LIFTOFF</p> <p>The undersigned acted as financial advisor to Blackstone</p> <p>LUMA</p>
<p>December 2020</p> <p>BEEWAX</p> <p>has agreed to be acquired by</p> <p>COMCAST</p> <p>The undersigned acted as exclusive financial advisor to Beewax, Inc.</p> <p>LUMA</p>	<p>November 2020</p> <p>TAPAD a Group Company of</p> <p>telenor</p> <p>has been acquired by</p> <p>experian</p> <p>The undersigned acted as exclusive financial advisor to Telenor ASA</p> <p>LUMA</p>	<p>October 2020</p> <p>TRUOPTIK</p> <p>has been acquired by</p> <p>TransUnion</p> <p>The undersigned acted as exclusive financial advisor to TruOptik Data Corp.</p> <p>LUMA</p>	<p>April 2020</p> <p>factual</p> <p>has agreed to merged with</p> <p>FOURSQUARE</p> <p>The undersigned acted as exclusive financial advisor to Factual, Inc.</p> <p>LUMA</p>	<p>February 2020</p> <p>evergage</p> <p>has been acquired by</p> <p>Salesforce</p> <p>The undersigned acted as exclusive financial advisor to Evergage, Inc.</p> <p>LUMA</p>	<p>January 2020</p> <p>AI Factory</p> <p>has been acquired by</p> <p>Snap Inc.</p> <p>The undersigned acted as exclusive financial advisor to AI Factory, Inc.</p> <p>LUMA</p>	<p>December 2019</p> <p>rubicon PROJECT (NYSE:RUB)</p> <p>has agreed to merge with</p> <p>talaria NYSE:TLA</p> <p>The undersigned acted as financial advisor to The Rubicon Project, Inc.</p> <p>LUMA</p>	<p>October 2019</p> <p>clypd</p> <p>has been acquired by</p> <p>AT&T</p> <p>The undersigned acted as exclusive financial advisor to clypd, Inc.</p> <p>LUMA</p>	<p>July 2019</p> <p>SafeDK</p> <p>has been acquired by</p> <p>APPROVIN</p> <p>The undersigned acted as exclusive financial advisor to SafeDK Mobile Ltd.</p> <p>LUMA</p>



THE
**DIGITAL
MEDIA
SUMMIT**
BY **LUMA**



Meet the Senior LUMA Team



Terence Kawaja

FOUNDER & CEO



Brian Andersen

*CO-FOUNDER & HEAD OF
DIGITAL MARKETING INVESTMENT BANKING*



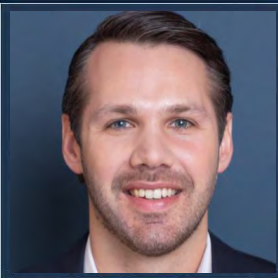
Mark Greenbaum

*PARTNER & HEAD OF
MERGERS AND ACQUISITIONS*



Dick Filippini

*PARTNER & HEAD OF
MOBILE INVESTMENT BANKING*



Conor McKenna

DIRECTOR



AGENDA



MARKETS



DATA & IDENTITY



CTV



COMMERCE MEDIA



AUDIO



MOBILE APP

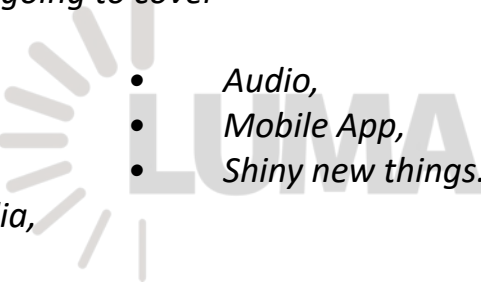


SHINY NEW THINGS



My partners and I are going to cover

- *Markets,*
- *Data & Identity,*
- *CTV,*
- *Commerce Media,*
- *Audio,*
- *Mobile App,*
- *Shiny new things.*





PREAMBLE



But first a preamble.



Change Has Become a Constant Theme

Most Recent
State of Digitals

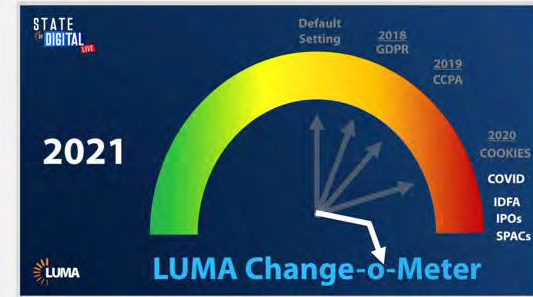
2018



2019



2021



2022:



We opened our 2018 digital media summit with the concept of change. It seemed like there was tremendous amounts of change in the industry that was taking place in the year 2018. Well, in 2019, we called it more change. Then in 2021, when we did our virtual presentation, it seemed like we were breaking the needle on change. Or so we thought until, of course, 2022's answer to that – "Hold my beer."



From 2021: Digital Media's Perfect Storm

INDUSTRY

- Growth
- Addressability
- Performance
- Accountability
- Pandemic Inflection



MACRO

- Gov't Stimulus
- COVID Recovery
- Demographics
- Cheap Capital



MARKETS

- All-Time High Valuations
- IPO / SPAC Activity
- Rampant M&A Deal-Making

PERFECT STORM



Because it seems like we are now in a state of constant change in this sector. Last year, what we called a perfect storm was the combination of very positive industry developments and very positive, demand-producing macro environments with cheap money and lots of stimulus. Together these produced positive markets, all-time highs, record M&A activity, and financings - you name it. So, we called that a perfect storm, and, of course, fast-forward one year...

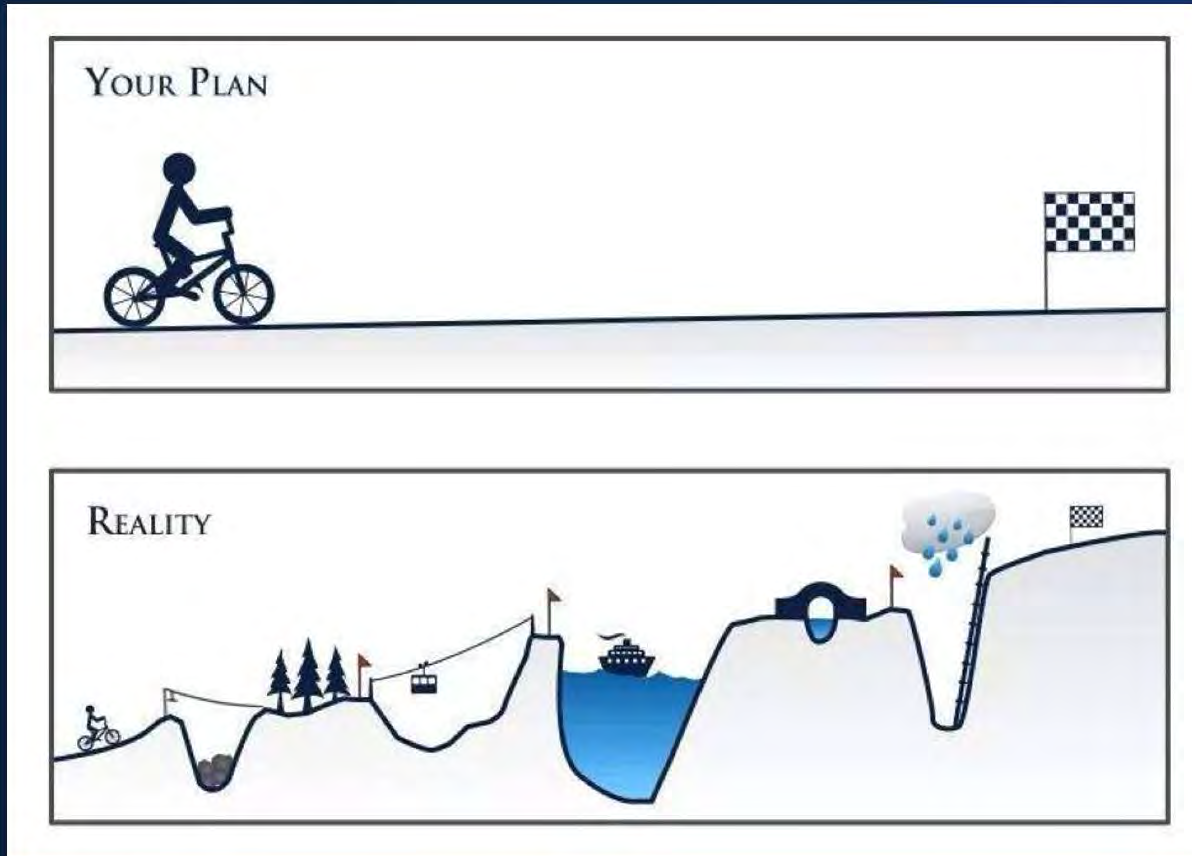


From 2021: Digital Media's Perfect Storm



... and we've got all kinds of reversions from this. Most of them are macro environment exogenous impacts largely from government policy. Yes, the industry still needs to deal with data depreciation - there's both positives and negatives from this as we'll be discussing. But these macro exogenous impacts are affecting the industry and the markets.

The Path is Never Easy



The path is never easy. It's never a straight line to success, but this industry has been through challenges before, and it's got the kind of agility and resiliency to succeed regardless.

And we will get past these existing challenges because we're convinced that ...

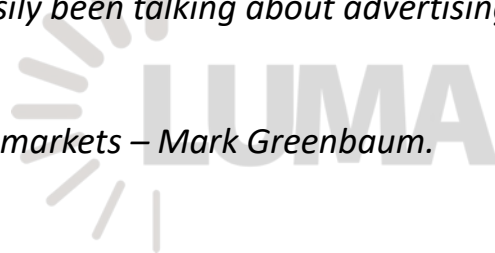


But Advertising is Here to Stay



...Advertising is here to stay. Rishad Tobaccowala famously analogized agencies to cockroaches. He could have just as easily been talking about advertising itself. It is, ladies and gentlemen, here to stay.

So now to talk about markets – Mark Greenbaum.

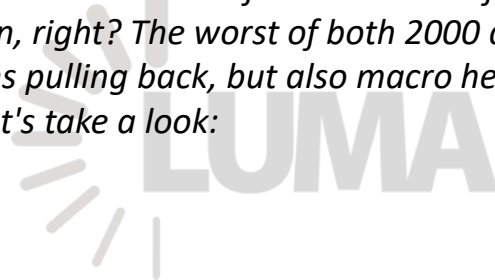




MARKETS

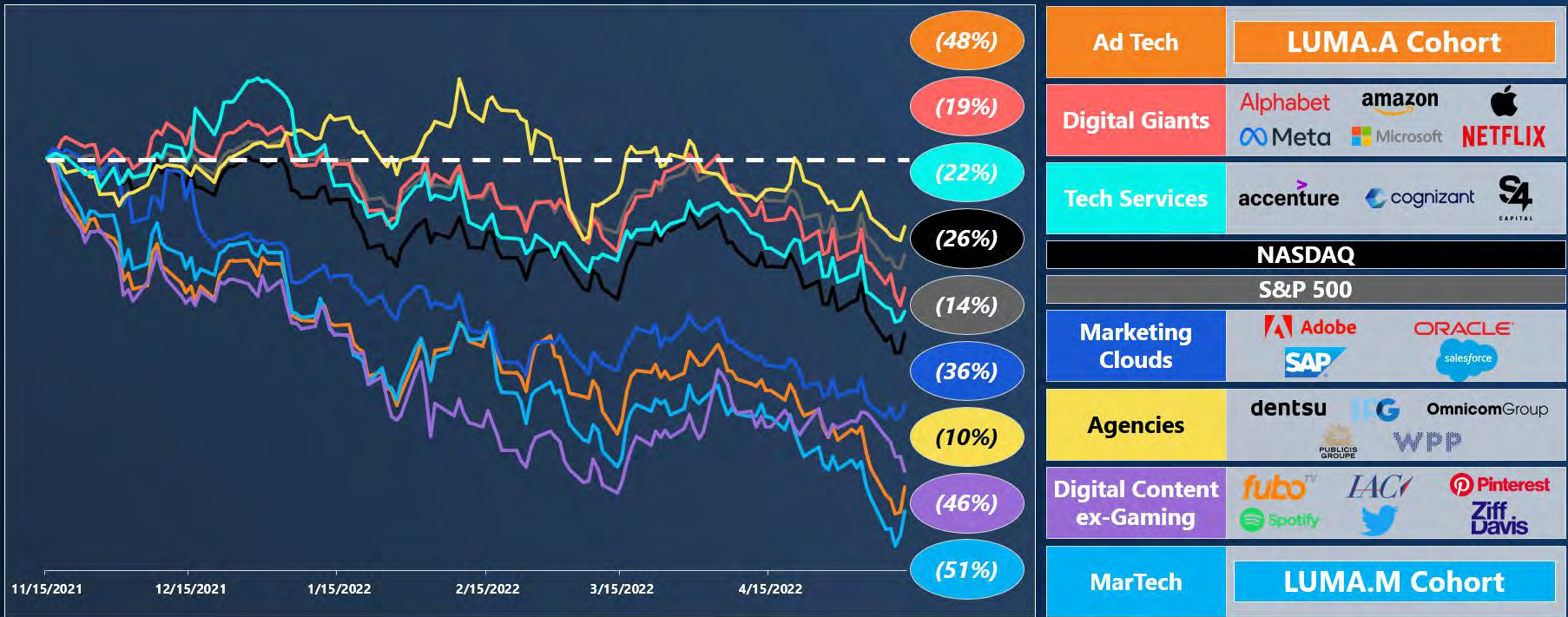


Let's touch on markets -- I'm almost afraid to look -- if you read what's out there in the press, you think it's Armageddon, right? The worst of both 2000 and 2008; not just speculative tech companies' valuations pulling back, but also macro headwinds like inflation, interest rates, talk of recession and war. Let's take a look:



It's Been A Rough Few Months...

Last 6 Months Market Performance of Ad Tech, MarTech & Top TMT Sub-Sectors



Note: % figures denote performance from Nov 15th 2021 – May 13th 2022

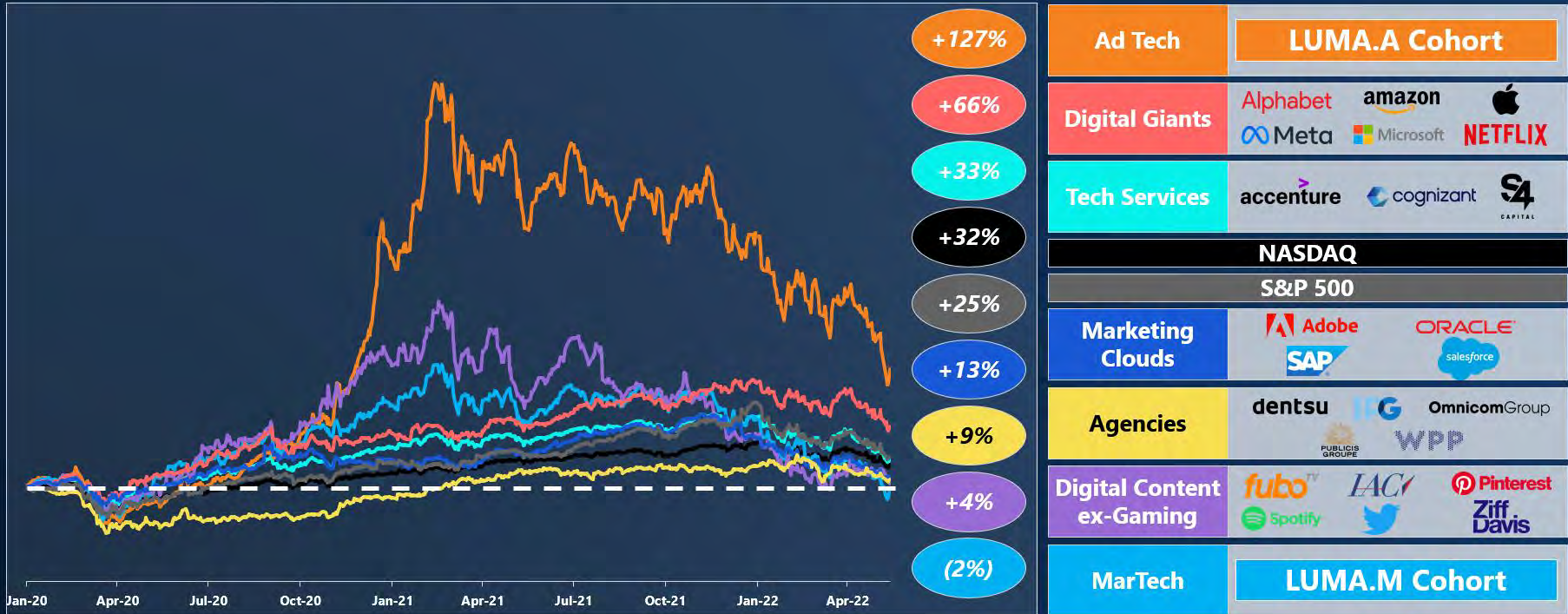


Ouch! Yes, it's been a rough few months. In fact, all of the sub sectors we track are down and down meaningfully, especially MarTech, Ad Tech and Digital Content ex-Gaming all down by about half from where they were just six months ago.



But, Most Sub-Sectors Are Up Compared to Pre-Pandemic

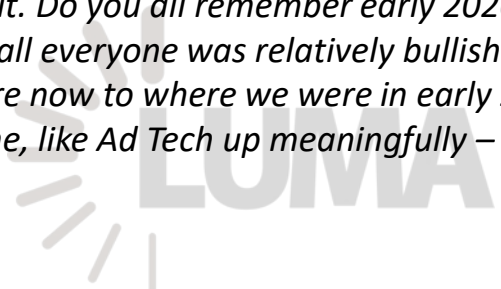
2020 - 2022 YTD Market Performance Among Ad Tech, MarTech & Top TMT Sub-Sectors



Note: % figures denote performance from Jan 1st 2020 – May 13th 2022



But let's pull back a bit. Do you all remember early 2020? It was pre-pandemic. I know it feels like a lifetime ago, but I recall everyone was relatively bullish about sector trends back then. If you compare where we are now to where we were in early 2020, almost every sub-sector is actually up since then – with some, like Ad Tech up meaningfully – over a hundred percent.



Record Issuances for AdTech and MarTech in 2020 & 2021

	2020 PubCos	2020 Issuances	2021 Issuances
Ad Tech			
MarTech			
	24 companies	5 companies +	20 companies
	25 companies going public since 2019		



And IPOs were on fire in the last two years. We saw the number of public companies in Ad Tech and MarTech double in two years to almost 50 now.



New Issuances Have Currently Stalled

	2020 PubCos	2020 Issuances	2021 Issuances	2022 Issuances
Ad Tech				
MarTech				
	24 companies	5 companies	+ 20 companies	

25 companies going public since 2019



And admittedly, while this year we have seen zero new issuance which is understandable given current market conditions...

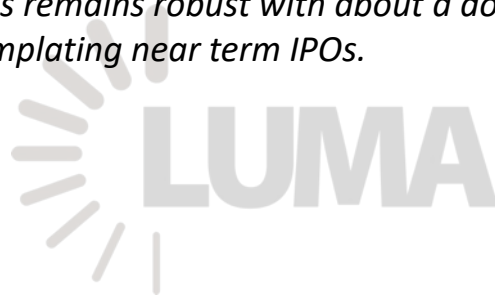


Though Many Remain Ready To Enter The Public Market...

	Pre-2020 PubCos	2020 Issuances	2021 Issuances	2022 Issuances	Filed / Pending	2022+ Rumored
Ad Tech						
MarTech						
	24 companies	5 companies	+ 20 companies			
	<i>25 companies going public since 2019</i>					



...The pipeline for IPOs remains robust with about a dozen companies that have either filed or rumored to be contemplating near term IPOs.



Where We Were



So, looking at the public company ecosystem, the ETFs that we track at LUMA, **LUMA.A** for Ad Tech and **LUMA M** for MarTech.

It's also important to look at more than just the stock prices. Where were we pre-pandemic? Each sector had about a dozen companies reflecting a little over \$100bn of total market cap. MarTech enjoyed about twice the total market cap and twice the revenue multiples than Ad Tech.

Where We Have Been

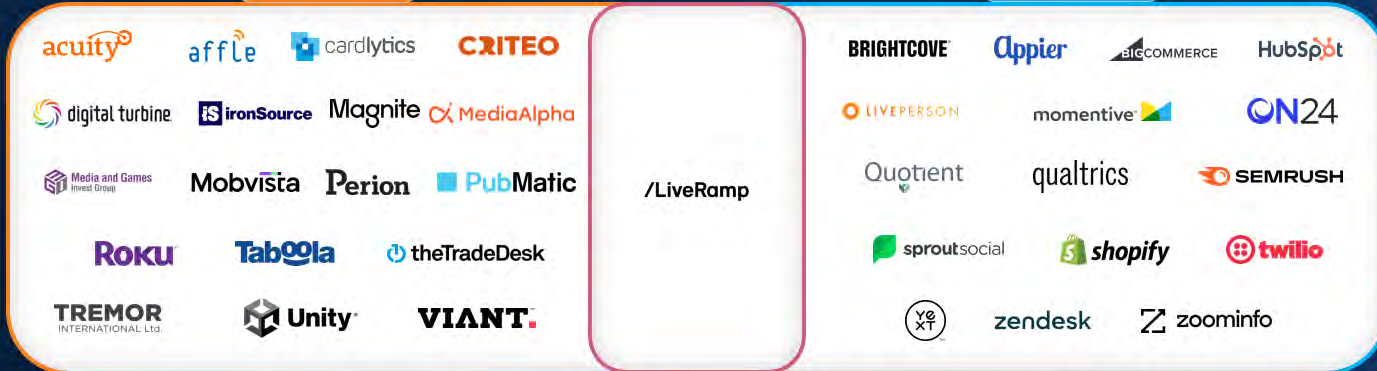
AD TECH

LUMA.A

Q1 2021

MARTECH

LUMA.M



So where did we get to? This is about a year ago, somewhere near the peak. \$450bn of total market cap spread out over about 35 different companies. But look at those multiples; well into the teens! And importantly, you finally saw public company investors start to appreciate Ad Tech business models, the benefits of variable pricing models, “re-occurring” revenue and the balance of profitability and growth, often called the rule of 40. We saw Ad Tech multiples appreciate to reach parity and actually slightly eclipse those in MarTech.



Where We Are

AD TECH

LUMA.A

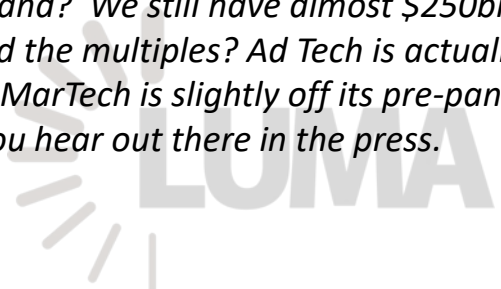
Today

MARTECH

LUMA.M

13	19	26	# of Co's	12	17	26	
\$35bn	\$147bn	\$93bn		Combined Enterprise Value	\$82bn	\$295bn	\$151bn
4.4x	16.5x	5.3x		Average EV / LTM	8.2x	15.2x	6.3x
Jan 2020	Q1 2021	Current		Jan 2020	Q1 2021	Current	

... And where did we land? We still have almost \$250bn of total market cap spread across almost 50 public companies. And the multiples? Ad Tech is actually trading at a premium to where it was pre-pandemic. And while MarTech is slightly off its pre-pandemic levels, at over 6x it's not exactly the "doom and gloom" you hear out there in the press.



SPACs Activity is Down – But Many Still Looking For Target

SPAC Capital Raised (\$ in billions)



Source: SPAC Insider; SPAC Alpha (as of April 2022)



While we're talking about public markets, let's touch on SPAC activity. No surprise there - SPAC new issuances have fallen off a cliff. . . But the key take-away here is that we still have over 600 SPACs racing against the clock trying to find a deal before they expire. While we expect the public markets will be more scrutinizing than they have in the past, for quality companies, SPACs could be a way to accelerate the path to public markets.

M&A Activity Was Historically Robust

Prepare for the Mother of All M&A Booms



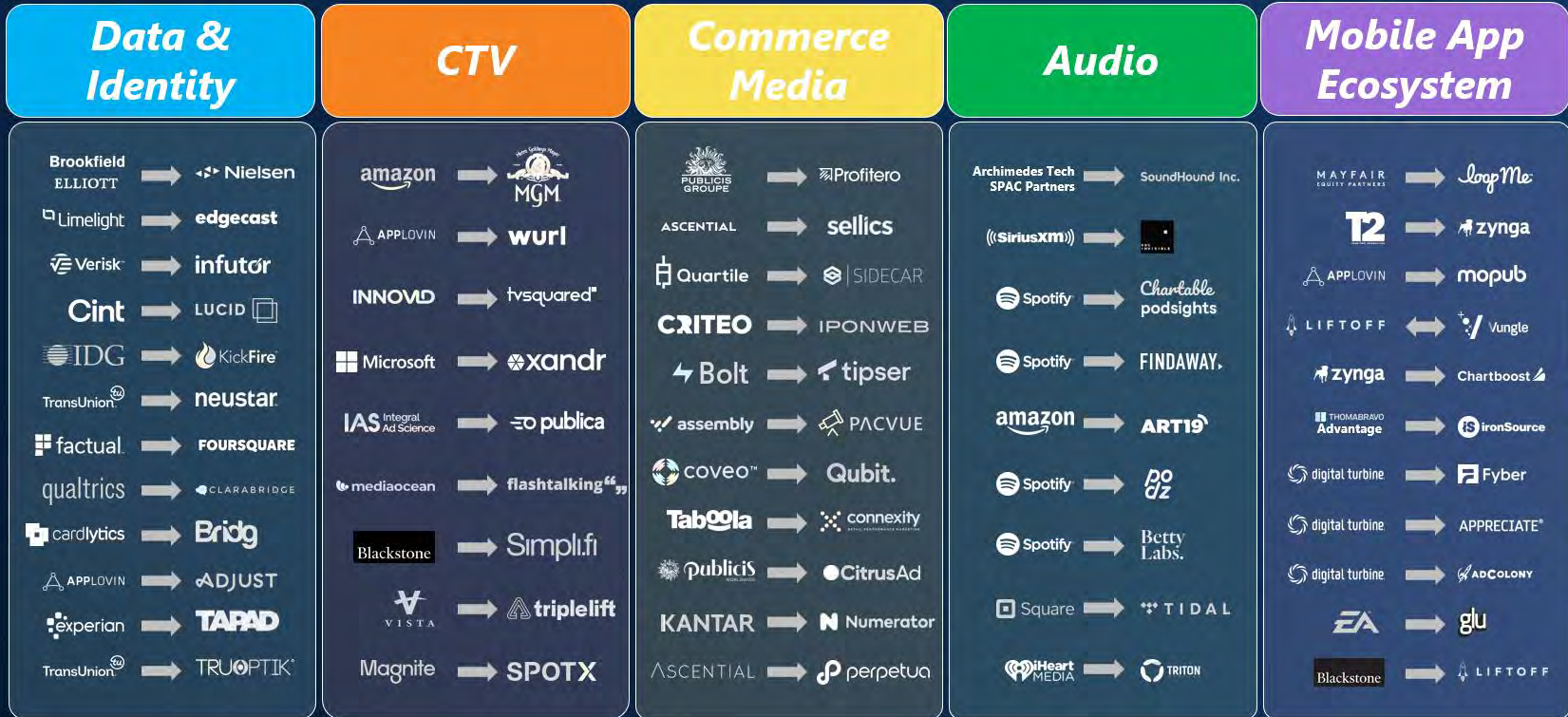
Forrester Research Guest Columnist | Tuesday, May 11th, 2022 | 12:33 pm



Okay, let's shift to M&A - Terry called this a year ago. It was a perfect storm so hold on for the mother of all M&A markets. And sure enough, we had a boom with M&A activity at historically high levels across all subsectors.



With Significant Deal Making Across All Categories



We saw a ton of strategic deal making in all categories including Data, CTV, Commerce Media, Audio, and Mobile App.



PE and New PubCo's Expanded The Buyer Network

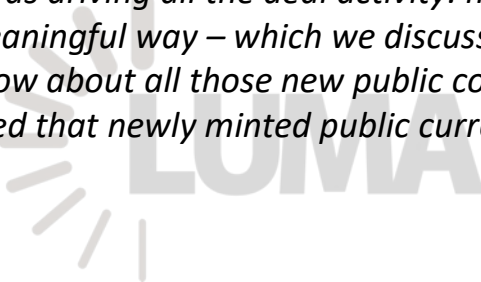
Selected Private Equity Transactions



New Public Companies Seek Inorganic Growth



The other thing that was driving all the deal activity: more buyers! We saw private equity come into the space in a very meaningful way – which we discussed on our main stage private equity panel, available [here](#). And how about all those new public companies? They did not sit on the sidelines. A half dozen of them used that newly minted public currency to buy, accounting for another 16 strategic deals.



And Scaled Financings Accelerated Over The Last Year

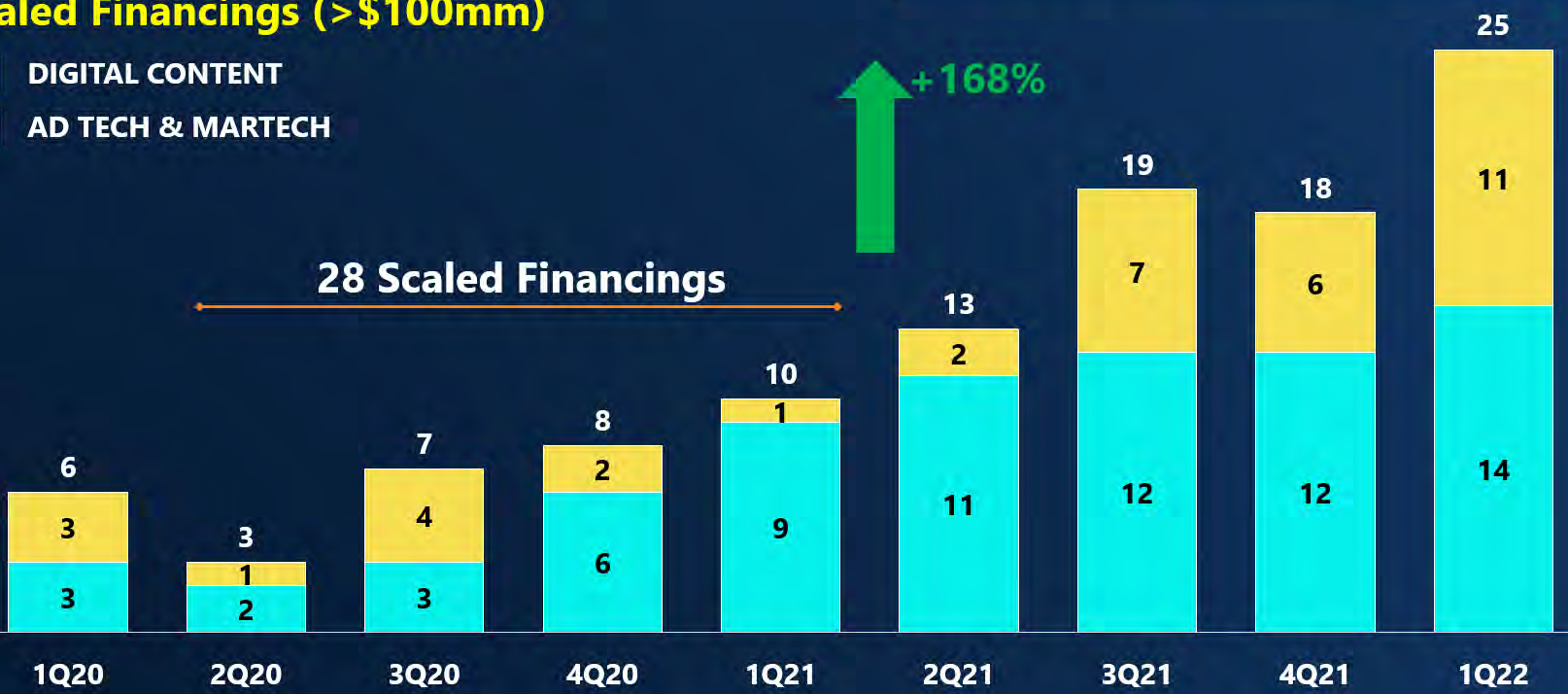
Scaled Financings (>\$100mm)

- DIGITAL CONTENT
- AD TECH & MARTECH

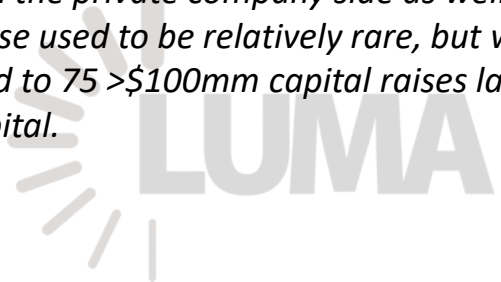
75 Scaled Financings

28 Scaled Financings

+168%



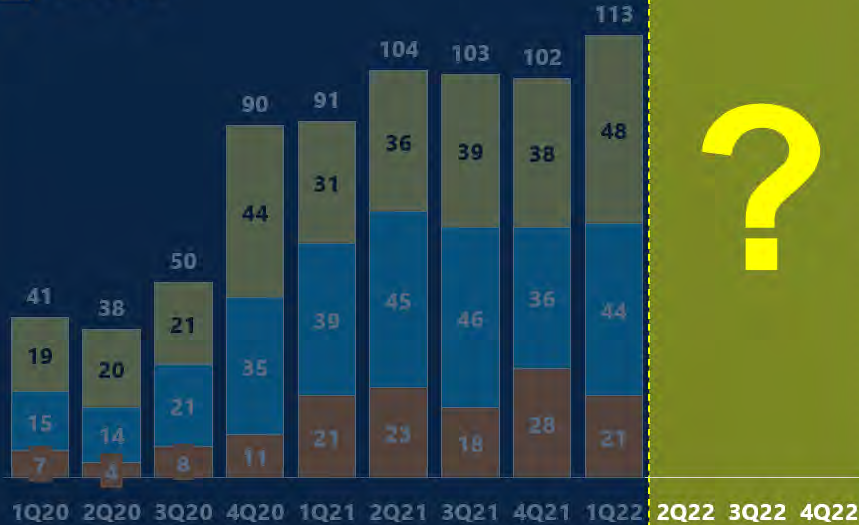
And record activity on the private company side as well. This is a snapshot of big financings, the >\$100mm raises. These used to be relatively rare, but we saw 28 of them a couple years ago. That number almost tripled to 75 >\$100mm capital raises last year. The private markets were also flush with newly raised capital.



But, Uncertainty Is Never A Friend of Transactions

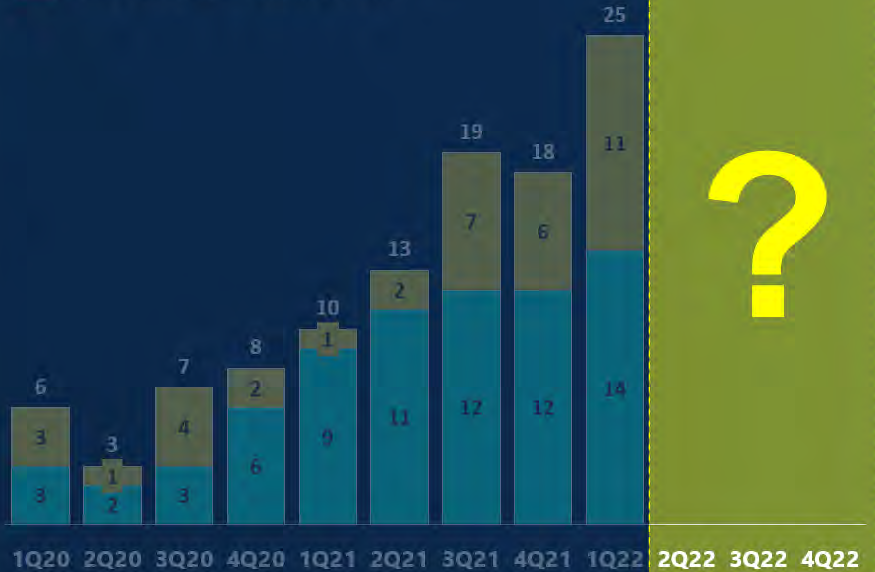
M&A

- DIGITAL CONTENT
- MARTECH
- AD TECH



Scaled Financings

- DIGITAL CONTENT
- AD TECH & MARTECH



As you're going to hear today, LUMA believes most of the industry related trends driving consolidation remain intact. But we are clearly flying through a fair amount of macro uncertainty, and we know uncertainty does not help deal making. In the near-term, we expect continued headwinds, but it won't surprise to anybody in this audience to hear that LUMA remains bullish long-term for the sector.

Next up: Brian Andersen to talk Data & Identity.



DATA & IDENTITY



Identity is Core to the 360° Marketing Cycle

Data-Driven Marketing

Optimize the Customer Experience by sending the ...



Right Message

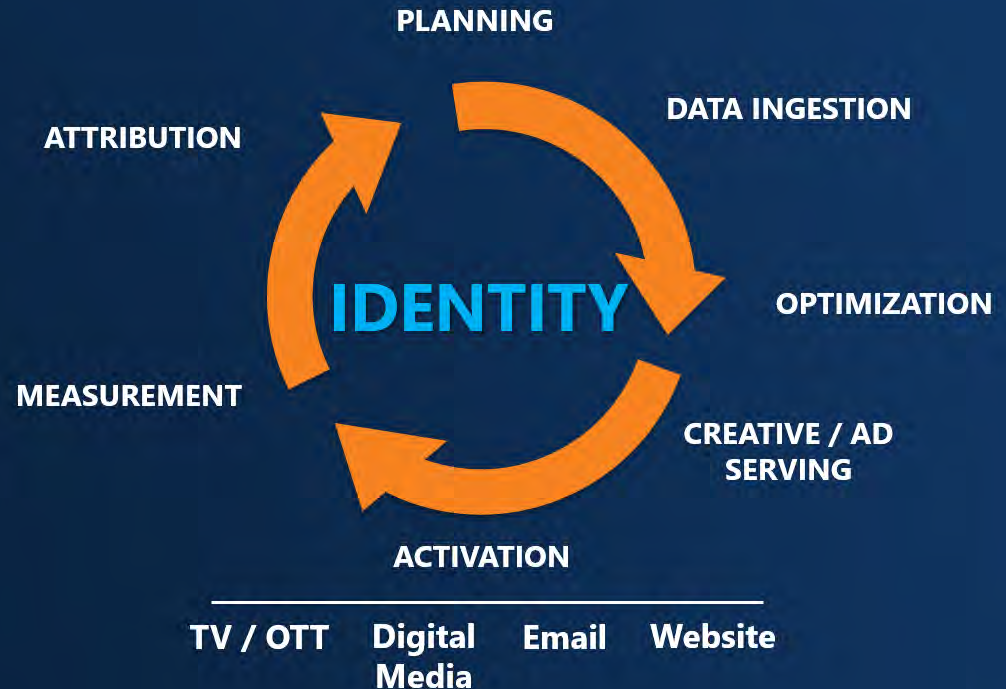


Right Time

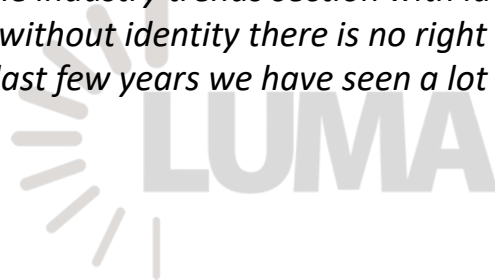


Right Person

Required Capabilities




We wanted to start the industry trends section with identity since identity is so core to our industry. To state the obvious, without identity there is no right message getting to / reaching the right person. But over the last few years we have seen a lot of challenges emerge.



Identity Changes Create Challenges



Challenges
<ul style="list-style-type: none">▪ 1:1 Targeting (Open Web)▪ Facebook advertising (CAC )▪ Measurement (MTA)



Regarding privacy regulation, we've seen two new state laws enacted with more pending. A recent new data restriction is Android deprecating the Google advertising ID, joining Chrome cookie deprecation and Apple changing the IDFA to opt-in – with the net affect being less identifiers. Challenges include loss of targeting on the open web as well as the mobile app ecosystem, and customer acquisition costs going up significantly on Facebook, affecting a lot of D2C brands in particular. And measurement gets more difficult without identifiers, with certain types like multitouch attribution fundamentally breaking without identifiers.

Identity Changes Also Create Opportunities



- | Opportunities |
|------------------------------|
| ▪ Contextual |
| ▪ Creative |
| ▪ First party data |
| ▪ Data & Identity solutions |
| – CDPs |
| – Open internet IDs |
| – 1P Identity graphs |
| – Incrementality Measurement |
| – 2P Sharing |
| – Data clean rooms |
| – Commerce media |



But, where there are challenges, there are new opportunities. We've seen a resurgence of contextual advertising and creative technologies. And there has been a spotlight on 1P data, with enterprises focused on gathering, managing, and utilizing consented 1P data. All this has driven really nice growth and opportunities in a number of areas: CDPs, new identifiers, identity graphs, incrementality measurement, data clean rooms, and commerce media.

Customer Data Platform Growth

Unicorn (& Near Unicorn) CDP's

ACTIONIQ

Amperity &

Insider

mparticle

TREASURE DATA

TEALIUM

CDP Employees



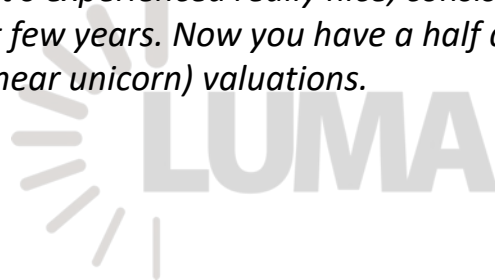
CDP Funding (\$mm)



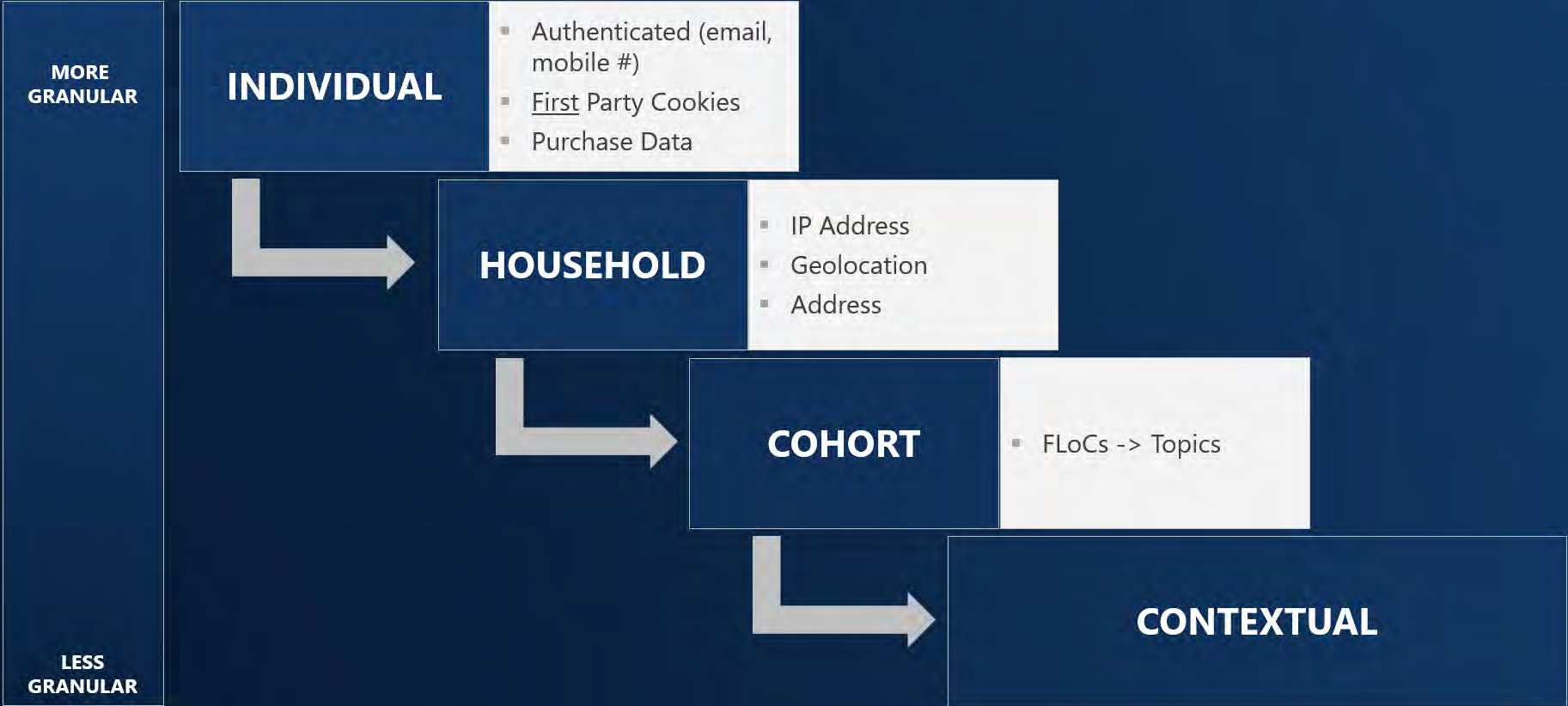
Source: CDP Institute (January 2022)



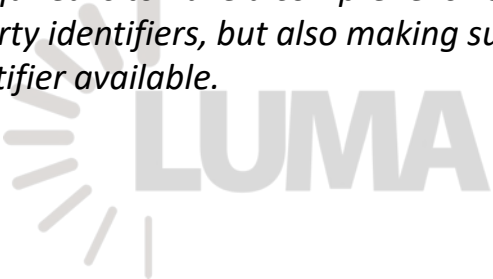
In the CDP category, it's experienced really nice, consistent growth of revenues, employees, and funding over the past few years. Now you have a half a dozen companies in this category alone that are at unicorn (or near unicorn) valuations.



Extensive ID Strategy Becomes Table Stakes



For brands, what's required is to have a comprehensive identity strategy. So yes, gathering and utilizing those first party identifiers, but also making sure they understand what they are going to do when there is no identifier available.



~~One Identity To Rule Them All~~

/LiveRamp
ATS

 LiveIntent
Authenticated Bridge

 BritePool

 ID+
ZEOTAP

Unified ID^{2.0}
 theTradeDesk

 ID5

 hadronID
audigent

FTRACK ID
flashtalking“”

 AD-ID
Our Industry's Ad Registry

 MERKURY
MERKLE

LOTAME
PANORAMA™ ID

neustar
fabrick™

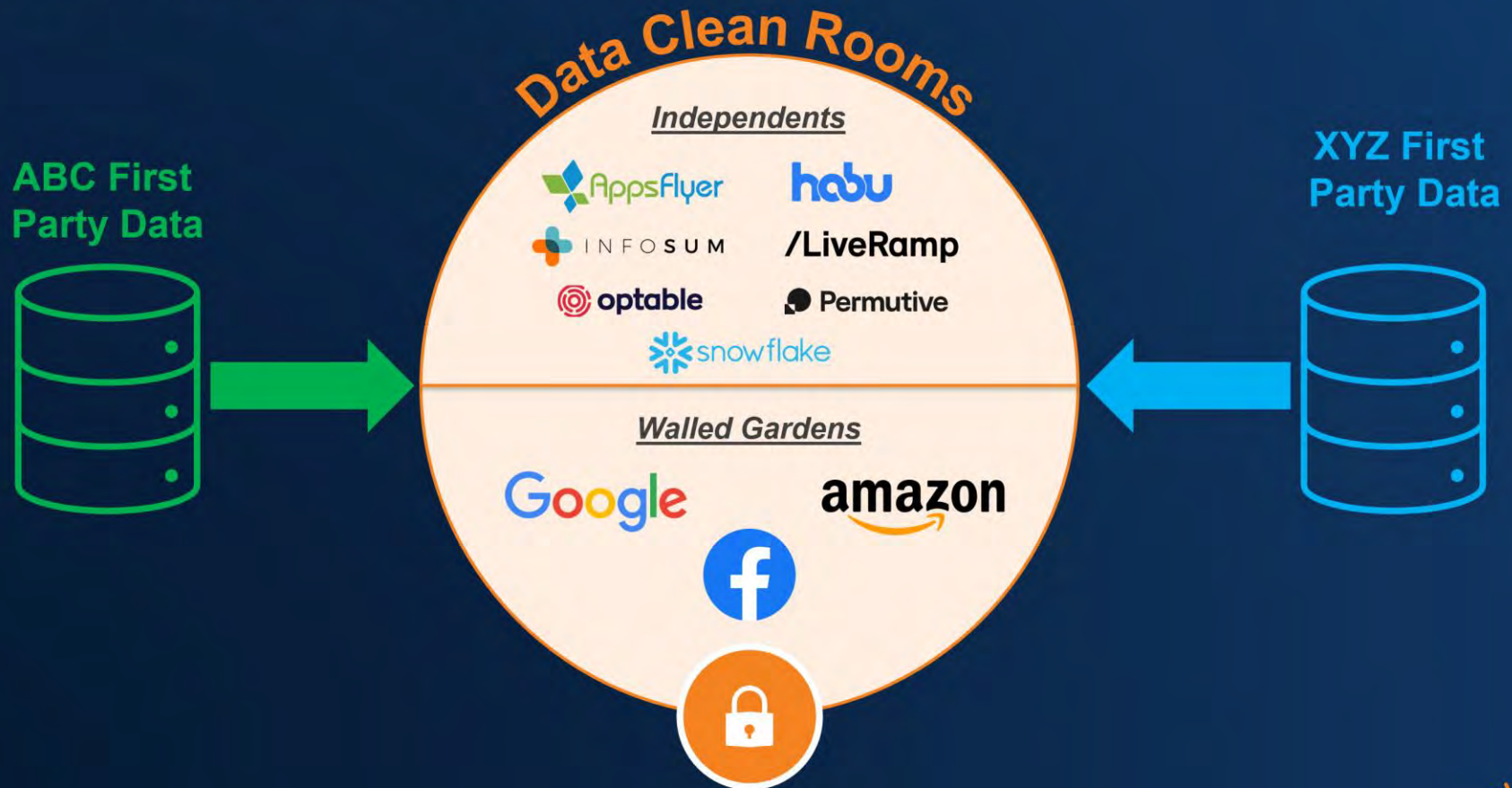
verizon[✓]
media
ConnectID

 LUMA



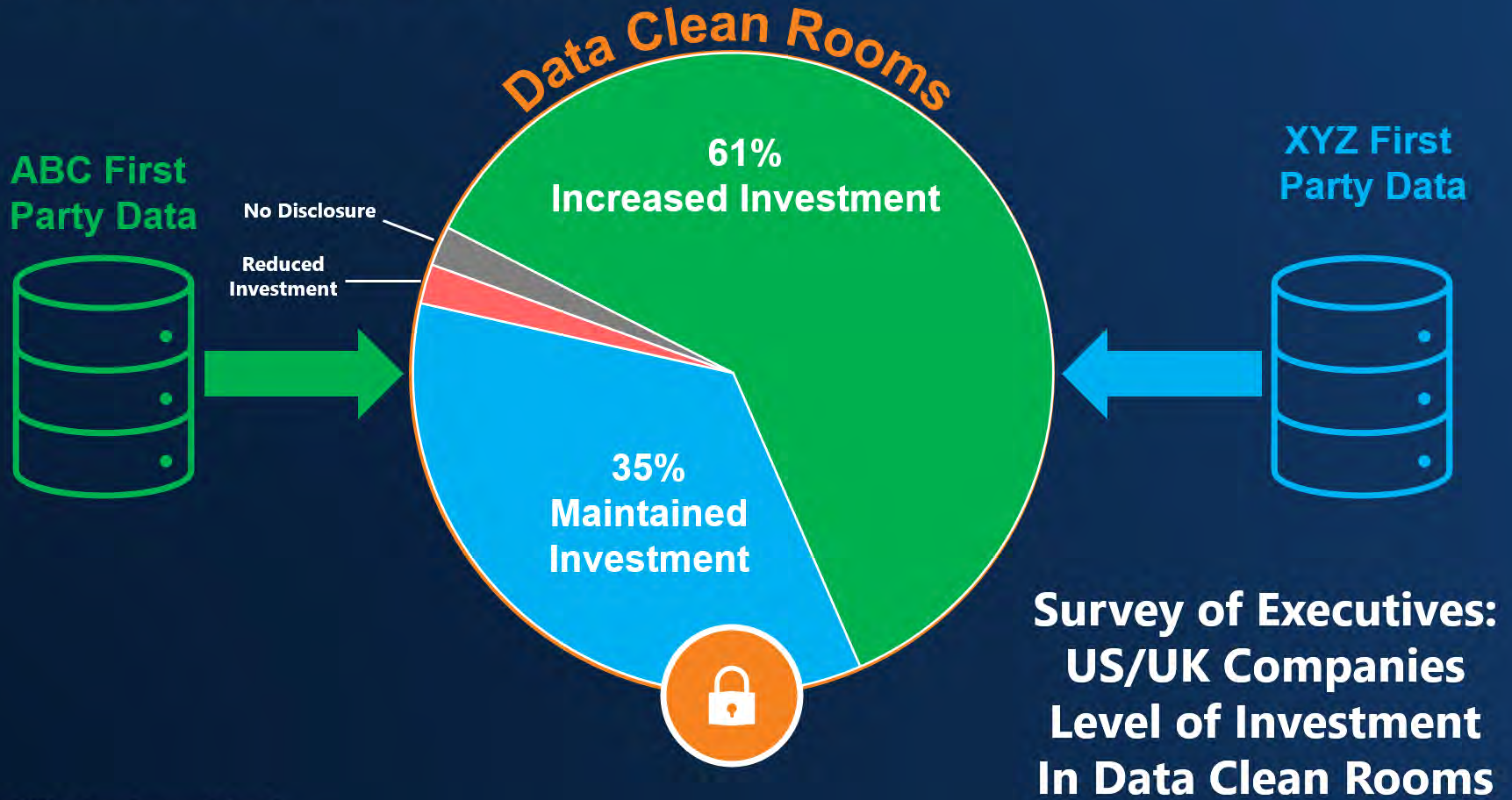
We've also seen a proliferation of new identifiers and identity solutions in the market. What we don't expect is to have a winner out of all this: there is no one identity to rule them all. What we do expect, and what we're seeing, is these identifiers and identity solutions working together. An example is LiveRamp ATS working with the Unified ID. Additionally, we see identity graphs - that traditionally have been used to tie together mobile IDs and cookies – now being used to link together all these identifiers. So really becoming an uber identity solution.

The Rise of Data Clean Rooms



We've also seen the rise of Data Clean Rooms. With enterprises focused on gathering and managing their 1P data, they want to utilize that data without data leakage. That's exactly what these technologies enable. Google launched Ads Data Hub years ago as the first clean room, but what has been notable in the last few years is the growth of the independent parties, such as Habu, Optable and InfoSum. These companies are enabling enterprises to create innovative data sharing and data activation capabilities while protecting that data.

The Rise of Data Clean Rooms



Source: Merkle, "2021 Customer Engagement Reports"

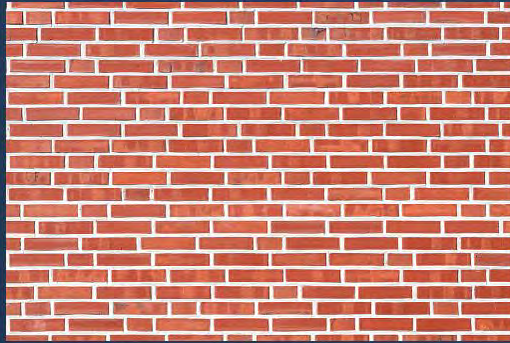


So we're very bullish on this category. We're not the only ones: a recent survey has shown that the majority of enterprises expect to invest further in this category.



Digital Media From Bifurcation to Trifurcation

Walled Gardens



Open Web

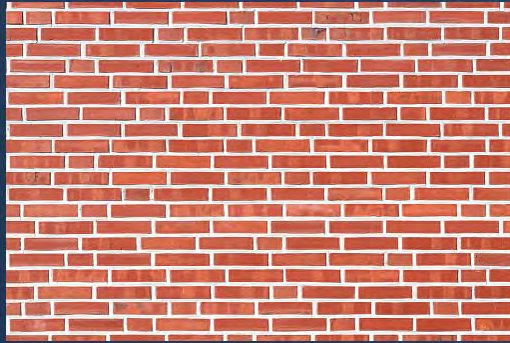


The digital ecosystem has long been described as a dichotomy: Walled Gardens and Open Web. Lots of developments are happening in these two realms. Google is under significant anti-trust scrutiny from multiple jurisdictions, Facebook is suffering from performance lapses and market cap decline, Twitter is in the middle of a bizarre ownership crisis and a newcomer TikTok is taking substantial share of time, attention and ad dollars.



Digital Media From Bifurcation to Trifurcation

Walled Gardens



Open Web

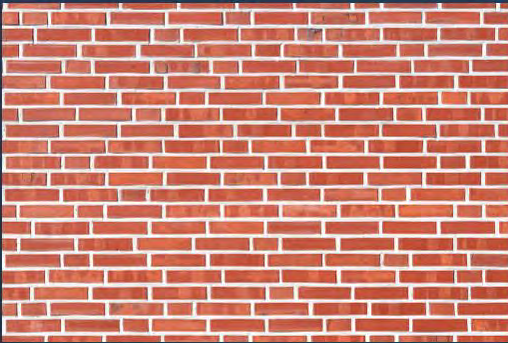


Meanwhile the open web is threatened by signal deprecation and times are tough for digital publishers. Some worry about the fate of independent journalism.



Digital Media From Bifurcation to Trifurcation

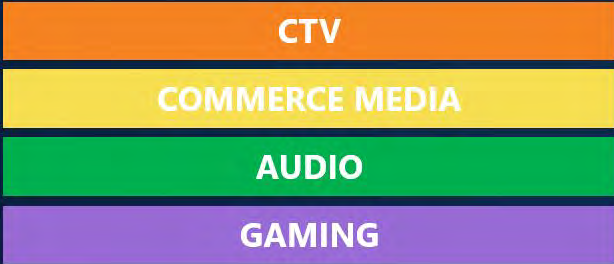
Walled Gardens



Hedged Gardens



Open Web



We're going from a bifurcation to a trifurcation where you've got essentially hedged gardens. Now these hedged gardens, which I believe can be also referred to as content fortresses per Eric Seufert, are basically companies with large pools of 1P consumer data that run their O&O business, but it's not big enough on their own.

Hedges are not as tall as walls, and they're more permeable. So often they have to go off network and you tend to find these in CTV, Commerce Media, Audio and Gaming.

Increased Focus on Horizontal and Vertical Strategies

Horizontal:
Full-stack offering,
connecting demand to
supply



Vertical:
Third Party Platform +
O&O Assets



And what's fascinating is to see in some of the strategies that they're deploying are horizontal strategies, where they're trying to combine, supply with demand to create a whole, stack / ecosystem. This is either through M&A, or, through their own internal efforts. Some are also pursuing vertical integration where you're seeing companies, going in one direction or the other combining O&O and platform capabilities.





CTV

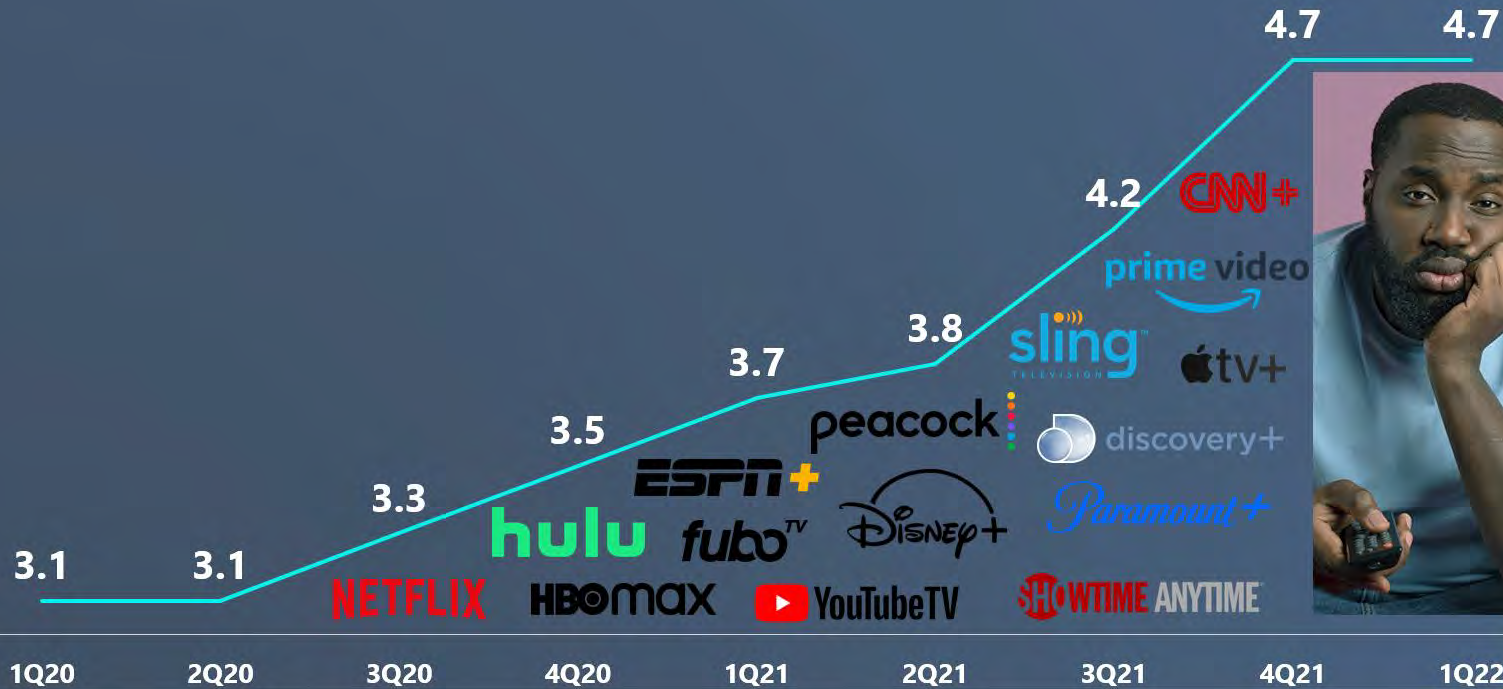


So, let's talk about CTV in particular.



Subscription Wars Maturing

Streaming Services Accessed Per US Household



We seem to be maturing surprisingly suddenly in the subscription space at just over 4.5 subscriptions. This was predictable and we had been talking about the eventual sort of end of the road of growth for SVOD. Just in April, we saw, CNN+ shutter, just after two Scaramuccis. And then Disney+, and HBO announced ad supported platforms, as variants to their original subscription model.



Even Streaming Royalty Exploring Advertising

NETFLIX

January 2020

Netflix CEO Reiterates Zero Interest in Advertising Business: 'There's Not Easy Money There'

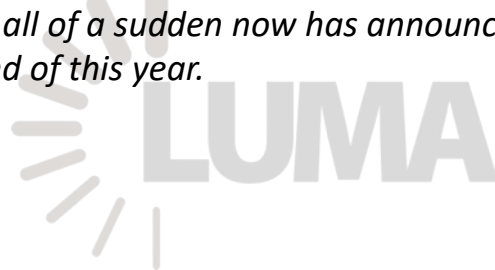
By Todd Spangler

April 2022

NETFLIX
Netflix is exploring lower-priced, ad-supported plans after years of resisting

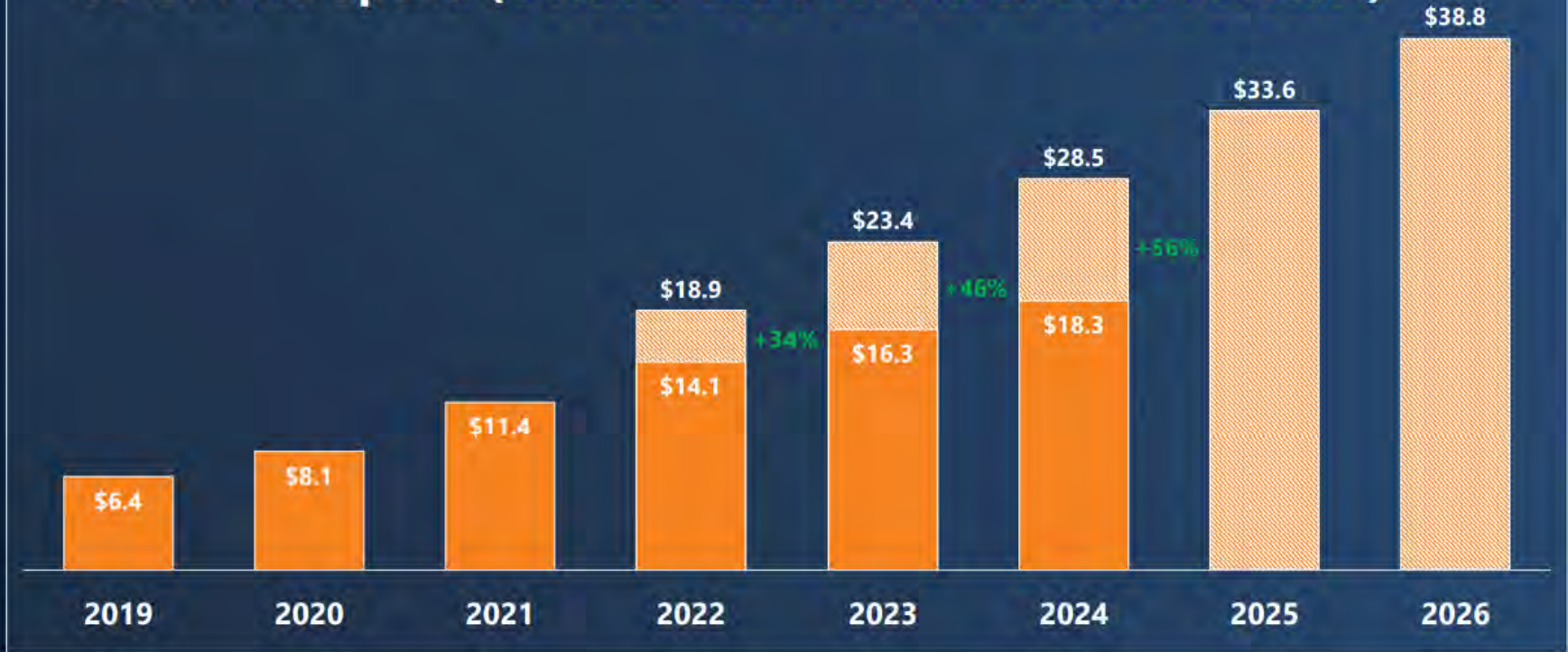


Even the king of subscriptions, Netflix, which just two years ago said they would never get into the advertising business, all of a sudden now has announced that they are launching an ad supported tier as early as the end of this year.



CTV Ad Spend Expectations Continue to Grow

US CTV Ad Spend (October 2020 vs. March 2022 Forecast)



Source: eMarketer 2020, eMarketer 2022

And, of course this has led to a significant growth in the ad for the CTV sector, that's had to be adjusted upward. In the last two years, eMarketer had to increase projections for CTV ad spend. If Netflix gets into the ad business as they have signaled, expect further upward revisions to that number - this year to over \$20bn....



With a Growing Portion from "FAST"

FAST : FREE AD-SUPPORTED STREAMING TV SERVICES

freevee



pluto tv

ROKU

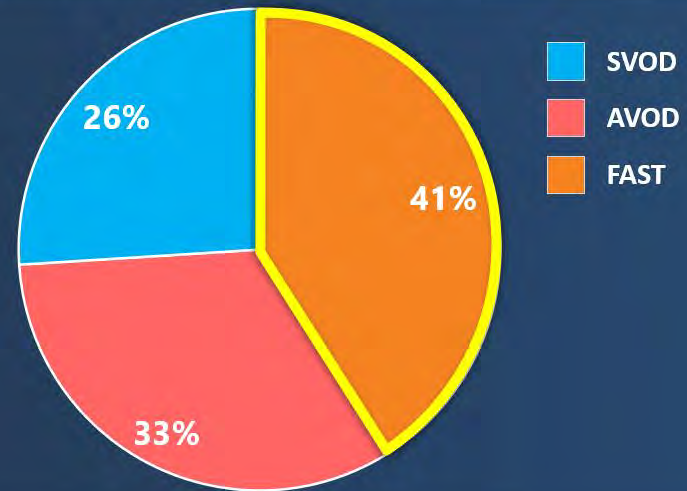


tubi

VIZIO

FAST is set to take a large piece of the streaming pie

Ad Model Preference of US TV Viewers



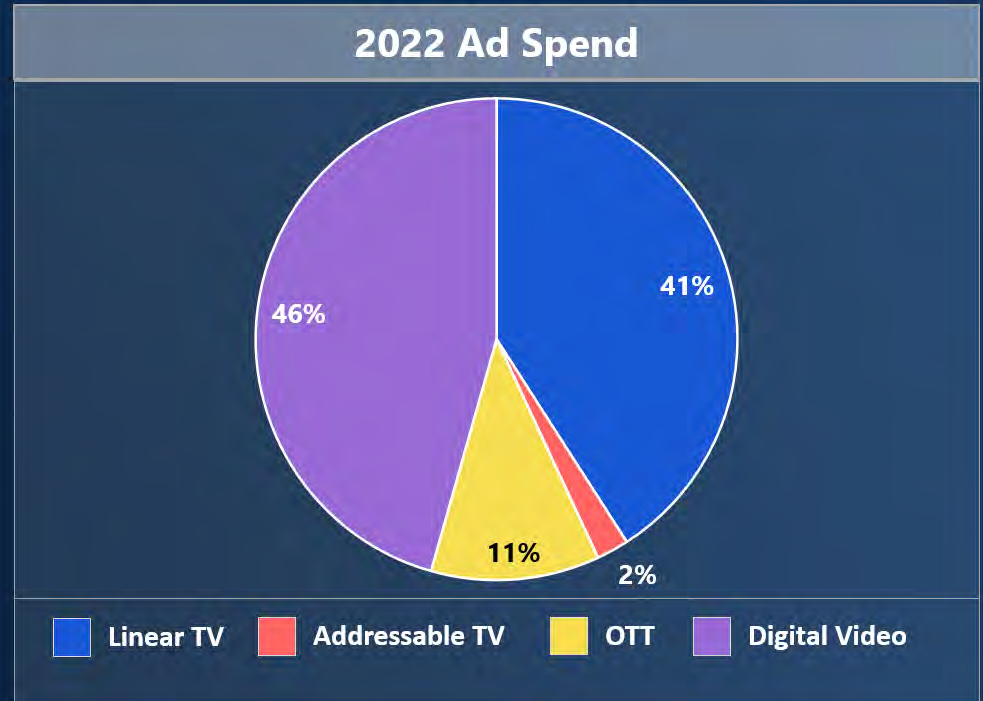
Source: eMarketer 2021

...with a large growing portion coming from FAST, or free advertising supported television. These are Amazon's Freevee, Pluto, Tubi, and all the OEM TV manufacturers that are basically running linear-like networks over addressable CTV. In fact, FAST shines in a survey of the ad model as most preferred to US TV viewers. I think you're going to continue to see ad supported in both FAST, as well as AVOD.



CTV Really References "Convergent TV"

	2021 Ad Spend	Growth	2022 Ad Spend
Linear TV	\$65.7	4%	\$68.4
Addressable	\$2.9	27%	\$3.6
OTT	\$14.2	33%	\$18.9
Digital Video	\$60.3	26%	\$76.2
Total	\$143.0	17%	\$167.1



Source: eMarketer 2021

All of that is leading to a substantially growing Convergent TV ecosystem of \$167bn this year. While OTT and digital video are the fastest growing sub-segments of Convergent TV, let's recognize that linear is a massive portion and it's not shrinking. We have long said that linear TV will be the key to scale audiences in a Convergent TV ecosystem for quite some time.



But Sports Rights Could Change Linear Forever



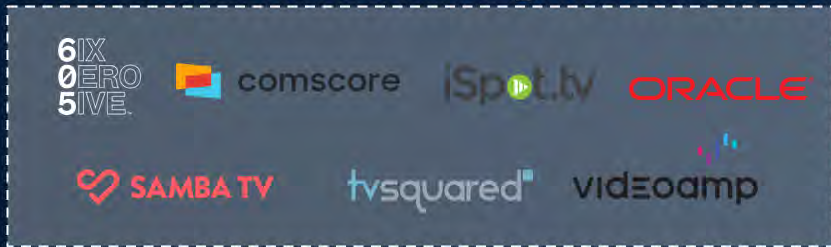
Linear is really driven by live TV, and live is driven by sports, and sports is dominated by football. So, all you have to do to understand where linear TV is going is to look at the sports rights contracts of the NFL. Amazon has now bought the rights to Thursday night football exclusively other than local broadcast. We are all watching the big Sunday programming contracts up next year to see whether a company like Amazon or Apple or Google or someone else might buy those packages that would change linear forever.



Competitive TV Measurement is in Vogue



Proliferation of Challenger Currencies



TV Currency Deals

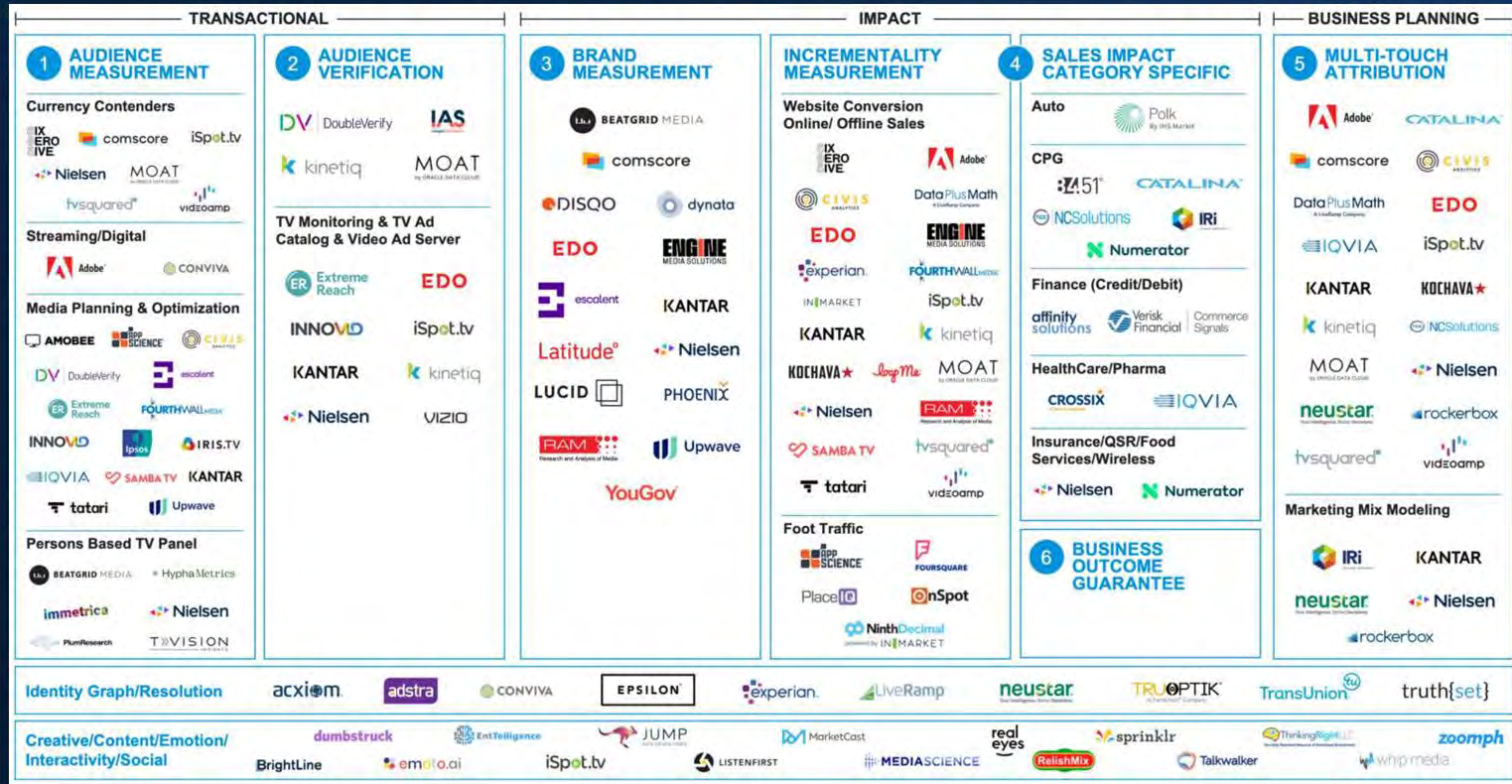


Meanwhile, TV measurement is going through substantial changes. Nielsen ruled the roost here for a long period of time but now a variety of competitors have emerged. This focus was largely catalyzed by the VAB last summer, and then accelerated by NBC's RFP process. Many of these challengers have either done major financings or M&A transactions to take advantage of the zeitgeist of new competition in TV measurement. Now that addressability is paramount, we need real time census measurement.



Leading to LUMAscape-Like Fragmentation

NBCUniversal Measurement Framework



Source: NBCUniversal 2021




NBCUniversal even put out a graphic of players in the TV measurement space. Imagine that? - graphic that categorizes logos on a map. Where would they have gotten that idea? It does highlight the tremendous fragmentation and opportunity. But don't count out Nielsen. They're in the midst of a go-private transaction that will let them develop their Nielsen One platform away from investor scrutiny.



Digital Performance Challenges are CTV's Gain




DIGIDAY
MARKETING / FEBRUARY 16, 2022
Why more DTC brands are testing linear TV ads
By Gabriela Barkho

allbirds **BOMBAS**
Glossier. **k'encko**

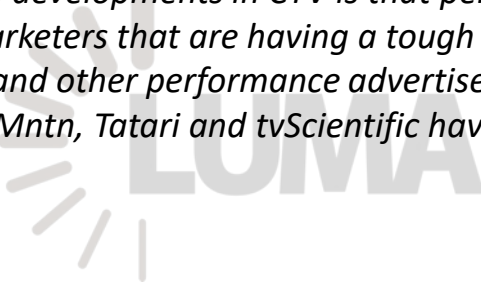
 ROTHY'S **WARBY PARKER**

 **mntn**  **tatari**

 **tvScientific**



A couple of interesting developments in CTV is that performance advertisers have found the TV channel. These are marketers that are having a tough time managing customer acquisition on Facebook. These DTC and other performance advertisers are looking to television. A number of companies, including Mntn, Tatari and tvScientific have launched platforms to take advantage of this development.



CTV's Next Frontier May Be Gaming

NETFLIX

Recent Gaming Acquisitions

night school
STUDIO

Next Games

BOSSFIGHT

Mobile App and Interactive
Game Developers

anzu

\$20mm

NBCUniversal
HTC WPP SONY

In-game Ad Platform

SIMULMEDIA®

Launched
player-won

tvScientific

Unveils CTV ad solution
for game developers

APPLOVIN

wurl



Also interesting is the intersection of Gaming and Television. We've noticed that Netflix has invested in gaming studios, and other companies have basically entered into transactions or launched products that effectively treat in-game advertising as CTV inventory. This will be a fascinating space to watch.

Next up: Conor McKenna to talk Commerce Media and Audio.

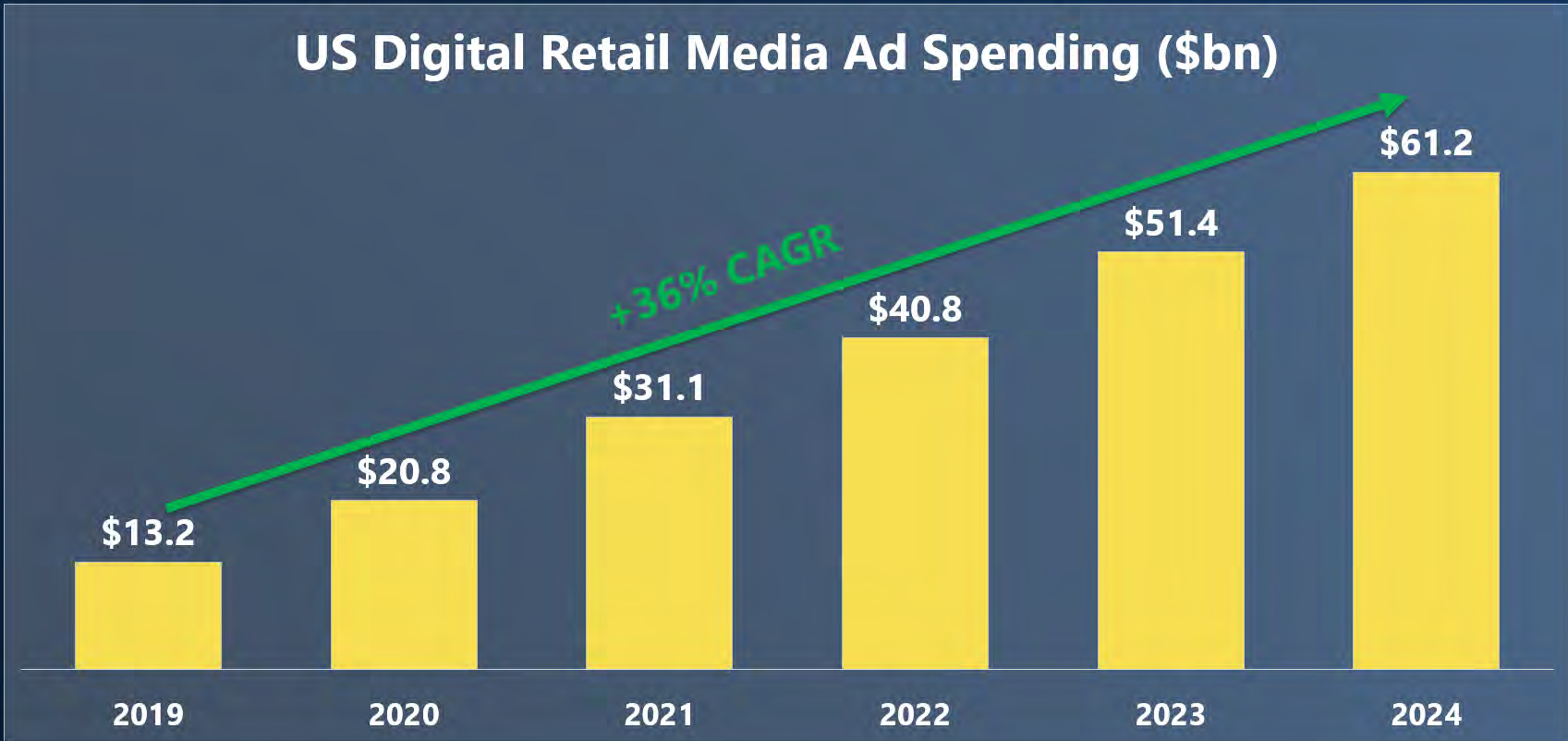




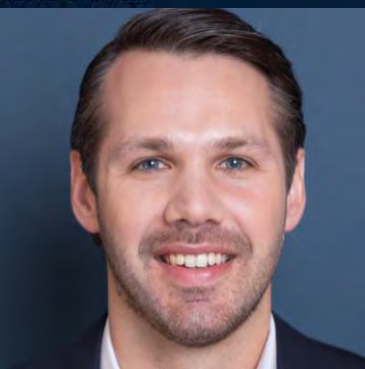
COMMERCE MEDIA



Retail Media Has Exploded Onto the Scene



Source: eMarketer



Over the last few years, Retail Media has begun to receive significant attention, with many new retailers jumping in. It's no surprise when we look at the sheer size of this ecosystem. Recently, eMarketer published updated forecasts, and this year alone, the retail media sector is expected to be \$40bn in ad spend, going to \$60bn by 2024. To put that in context, this makes the Retail Media ecosystem about 2x the streaming TV advertising ecosystem this year.

With Amazon As It's Poster Child

amazon

\$31BN

- Closed loop data
- Media efficacy and efficiency
- Rapid growth



REUTERS®

Amazon trots out YouTube-sized advertising business

By Danielle Kaye

TECHNOLOGY

BARRON'S

Amazon Earnings Included a Shocker: It Has a Bigger Advertising Business than YouTube

By Jack Denton Feb. 4, 2022 11:28 am ET



Amazon is very clearly the poster child for this sector. They've been growing their ads business for years, but it wasn't until the end of 2021 that they officially disclosed their advertising revenue, which came in at a whopping \$31 billion. That means they are larger than YouTube, and very clearly the third leg of the digital Triopoly with Google and Facebook.

Amazon Prompting Other Retailers to Jump In

GREED



Scaled, high-margin revenue



Leverages existing assets
(1st party data, personalization)



Improve consumer experience

FEAR



Source: Marketplace Pulse, McKinsey, Amazon company filings.

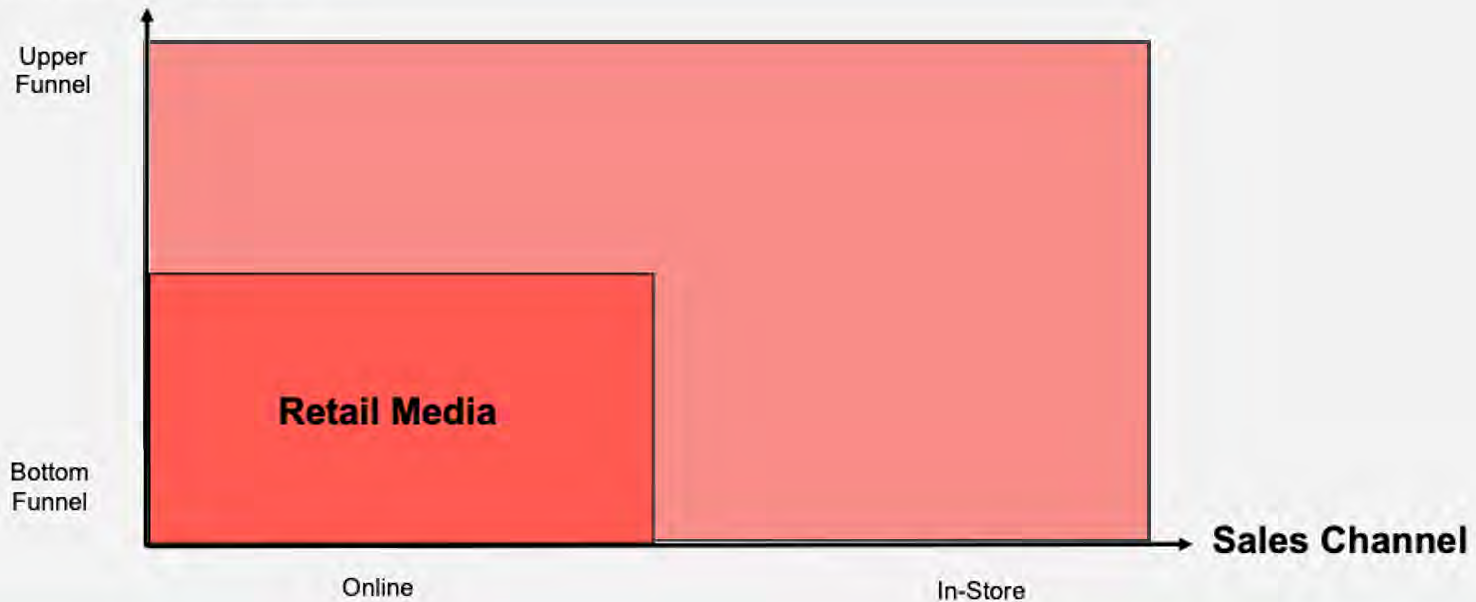


What's been interesting to watch is how Amazon's success is driving others to the sector from both ends of the Greed vs. Fear spectrum. On the greed side it's easy to see, as large digital retail platforms can create scaled, high margin revenue while utilizing mostly existing assets, something that is near impossible in retail. Then there's the fear. This is an analysis that tracks Amazon's retail profitability with and without their advertising business. Over the last few years, that gap has spread as Amazon advertising scaled and began propping up their overall retail profitability. That means any other retailer who is competing against them in the digital landscape has to say, "If I'm going to compete with Amazon and they can't make it profitable without ads, how am I going to?"

Retail Media is Evolving into COMMERCE Media

eMarketer The Evolution of Retail Media

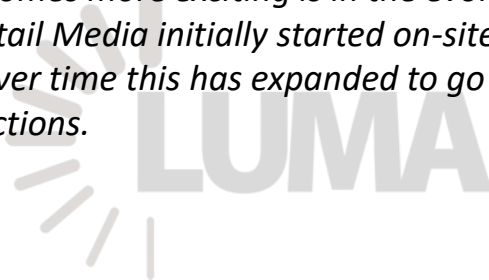
Media/Ad Format



Source: eMarketer

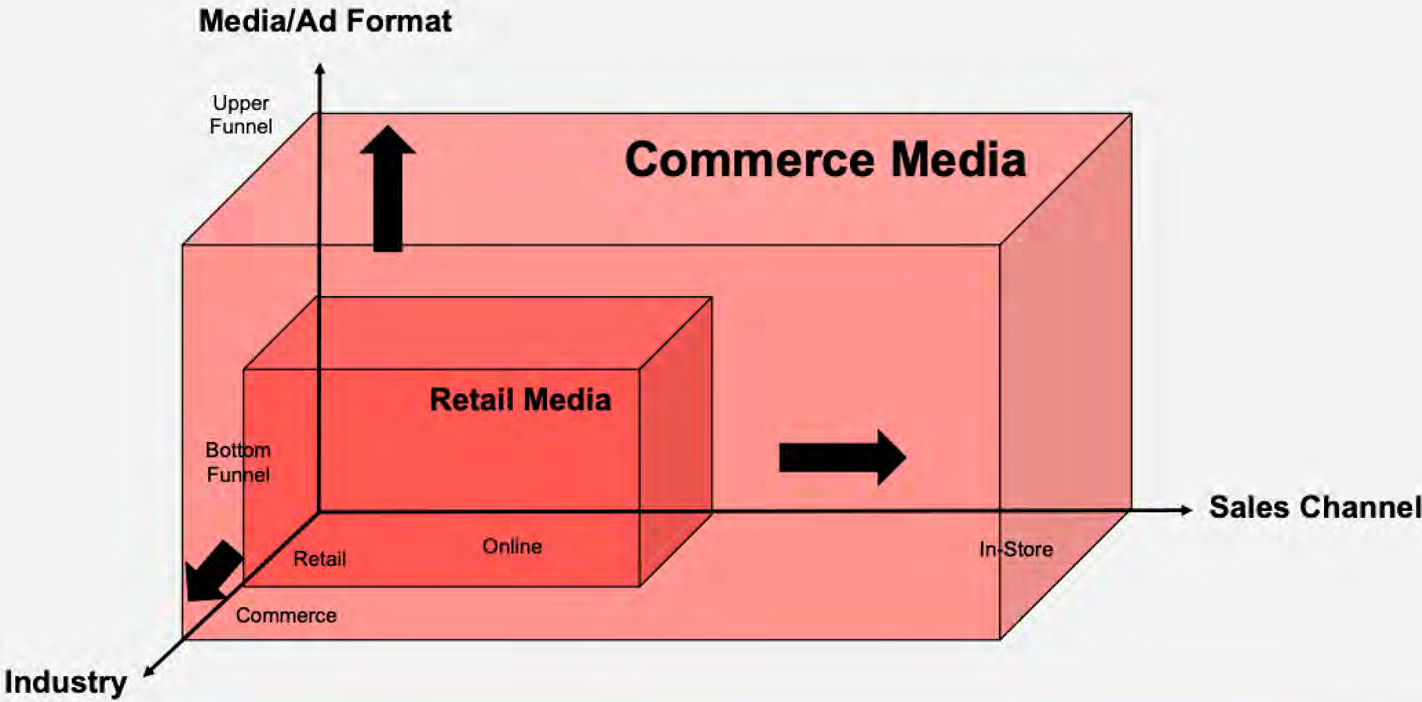


Where this sector becomes more exciting is in the evolution that's occurring from Retail Media to Commerce Media. Retail Media initially started on-site with bottom-of-the-funnel search / intent-based product ads. Over time this has expanded to go upper funnel (display & video ads), and even added in-store connections.



Retail Media Evolving into COMMERCE Media

eMarketer The Evolution of Retail Media



Source: eMarketer



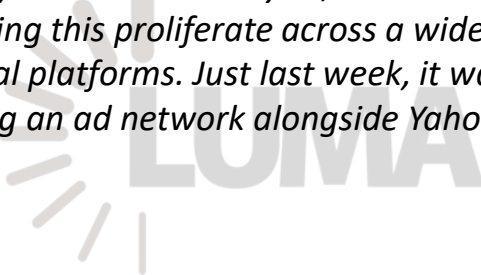
The evolution to Commerce Media comes in as the use-cases expand beyond retail to all forms of commerce and all consumer touchpoints. It's no longer just retailers, but delivery, travel, payments, etc. It's also not limited to platforms owned and operated inventory but moving off-prem to the open-web, social, influencers, live-streaming commerce, on and on. There are more and more touch points where consumers use of commerce and media are intersecting, all of which is being empowered by data.

Everyone's An Ad Network

Digital Commerce Marketplaces	amazon	ebay	Etsy			
Mass Merchandise Retail	macy's	Walmart	target			
Category-Focused Retail	Albertsons	BEST BUY	CVS	THE HOME DEPOT	Kroger	Walgreens
Commerce Intermediaries / Delivery	DOORDASH	Expedia	instacart	Uber		
Consumer / Entertainment Platforms	Apple	NETFLIX	ROKU	XBOX	zynga	
Finance / Payment Platforms	Bolt	Klarna.	mastercard	shopify		



This expansion is why you will hear analysts, like Eric Seufert, state that that “everyone's an ad network.” We are seeing this proliferate across a wide variety of categories from digital first players to traditionally physical platforms. Just last week, it was announced that Marriott is the latest to join this trend, creating an ad network alongside Yahoo that will leverage their vast loyalty data.



Commerce Media at the Center of Key Sector Trends

Data & Identity



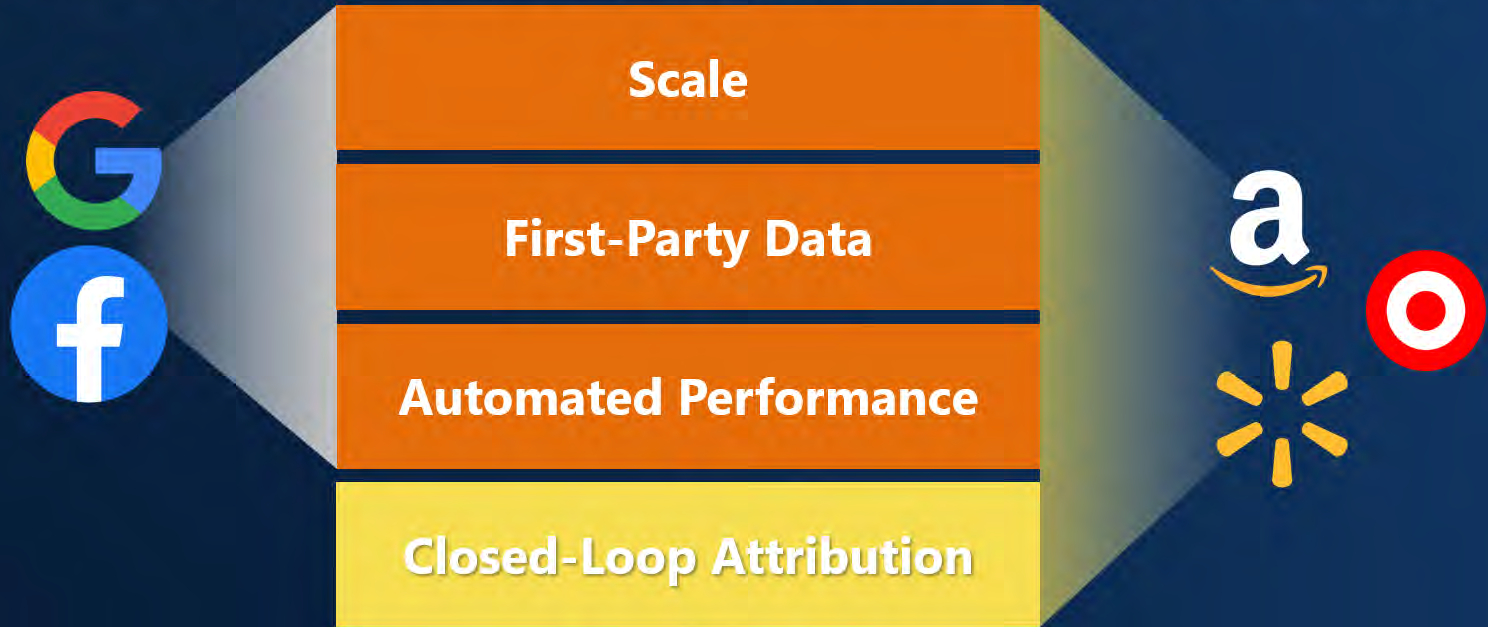
Performance

Growth



Given the huge business opportunity, it's clear why retailers and platforms are moving towards this trend, but what why are marketers directing so much spend to this channel? Well, it's because commerce media is at the center of fundamental ad tech trends. We just talked about the need for data and identity in this ecosystem. Well, the players in Commerce Media have a lot of it and can bring it to bear for advertising. They also bring performance since their data is often tied to actual transactions, filling a massive void as platforms such as Facebook begin having challenges proving performance. This become especially important for categories like direct-to-consumer brands that leverage performance advertising as key drivers of their growth.

Commerce Media Echoes Strengths of Search & Social



MILLIONS
of Advertisers

+

Spending to
efficient
frontier



One thing we've noticed as we've dug into this sector is how much what's happening in Commerce Media echoes the strengths we saw in search and social. What makes Google and Facebook such powerful advertising channels is that they have scale consumer bases, robust first-party data and automated performance, which means they can both have a simple onramp for customers to utilize to their platform and they're able to tie ad spend back to KPIs. What this meant for them is they have millions of advertisers who are all able to spend to the efficient frontier. This means they're not reliant on specific large budgets, but rather millions of small budgets, and when they turn advertising into a cost of goods sold, those advertisers can continue spending as long as they see results. This is incredibly powerful at a point in time when recession concerns are rampant.

Commerce Media has all these traits PLUS closed-loop attribution from their own first party data.

Many Platforms Will Require “Hedged Garden” Strategies



- Scaled global audience
- Scaled & varied merchant base
- Tech-centric core business



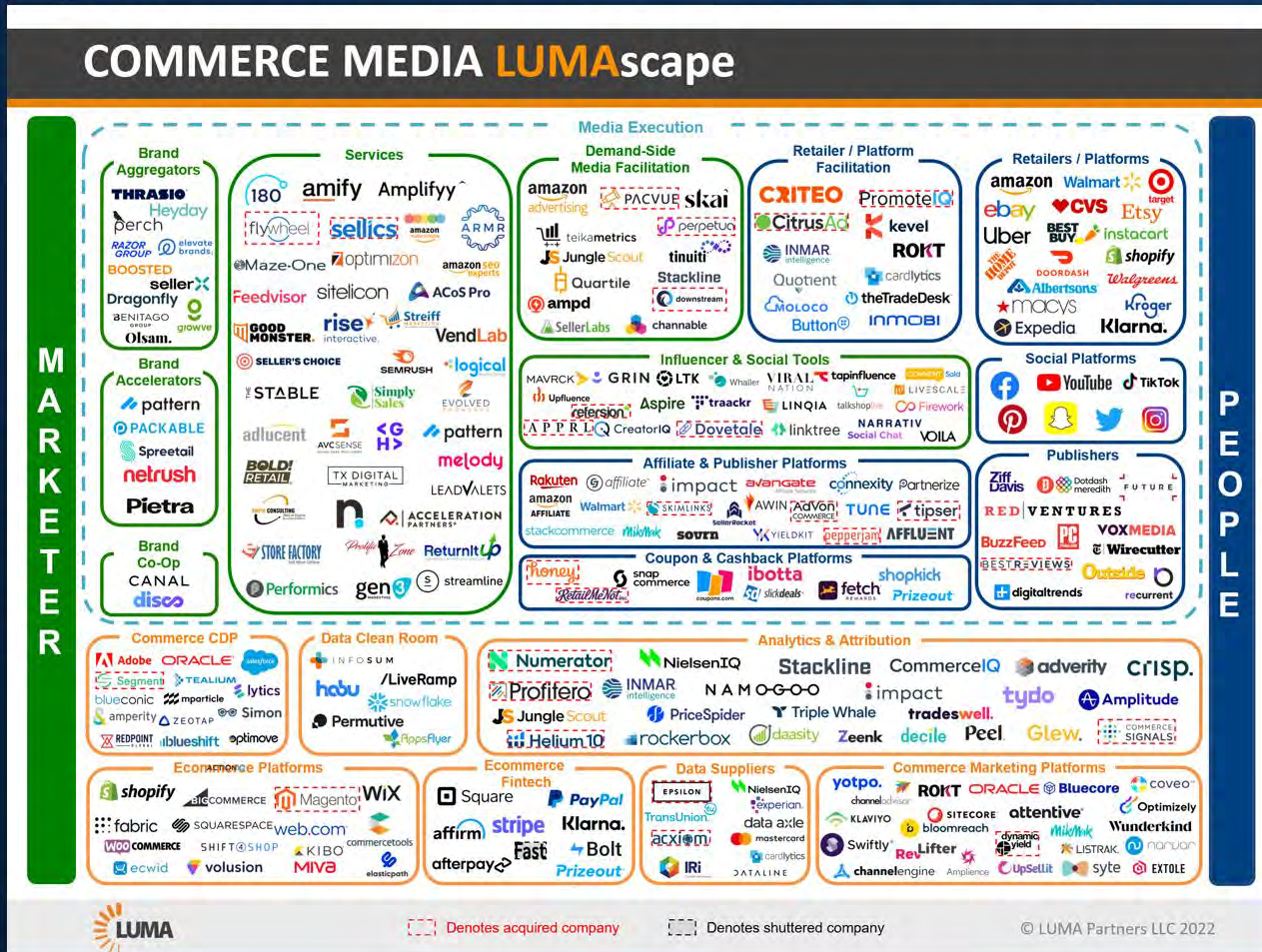
Utilize partners to:

- Extend reach (consumers & brands)
- Onboard / connect data
- Measure / attribute



While Amazon has clearly followed the Google and Facebook approach of “walled garden”, we’re seeing others in the Commerce Media sector take a more “hedged garden” approach. Amazon is uniquely suited to operate as a walled garden with a scaled global audience, millions of 1P and 3P merchants, and a tech-centric core business. Other platforms don’t have this; they may be traditional retailers moving into this space. While they have robust technology, they’re still looking for ways to move quickly and bring in capabilities that are not part of their core (i.e., moving off-prem). This means they must be more open to utilizing 3rd party technology. Given advancements in ad and data tech, their networks will still be unique and data secure, but 3rd parties will allow them to extend their opportunities and move more efficiently. This will be important, as Amazon and others aren’t sitting still. In fact, Amazon just launched “Buy with Prime”, expanding their commerce visibility well beyond their existing walls.

Introducing the Commerce Media LUMAscape



The growth of this sector has begun to create a robust third-party tech ecosystem, and at LUMA, when we see this take shape, there's only one thing to do - create a LUMAscape for it! We are very pleased to announce our Commerce Media LUMAscape!

The goal of the Commerce Media LUMAscape is to look at the broader intersection between Commerce and Media, including retailers, social, influencers, publishers, live streaming, etc., focusing on the technologies that allow this media to be transacted, as well as the infrastructure components that make it possible.

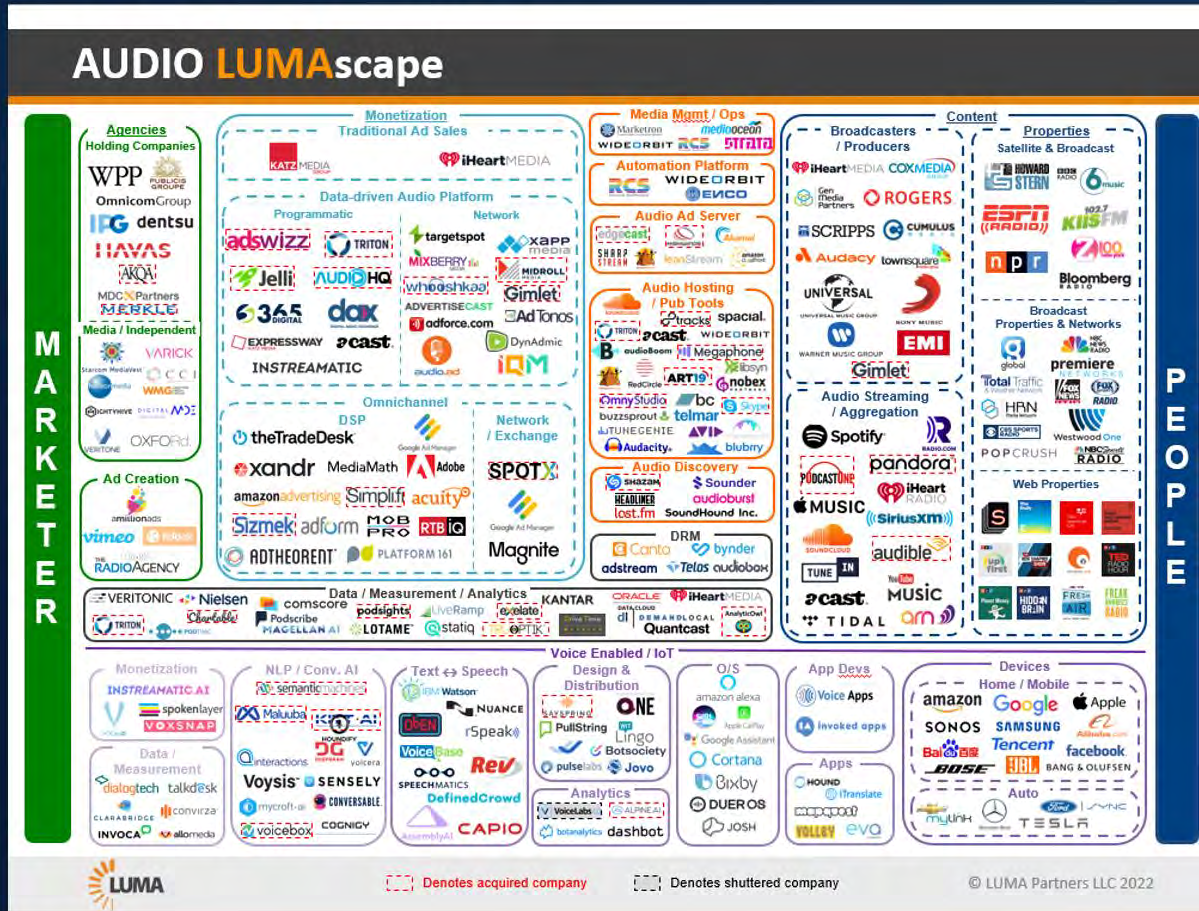
As always with our LUMAscape, this will continue to evolve, and we welcome any and all feedback.



AUDIO



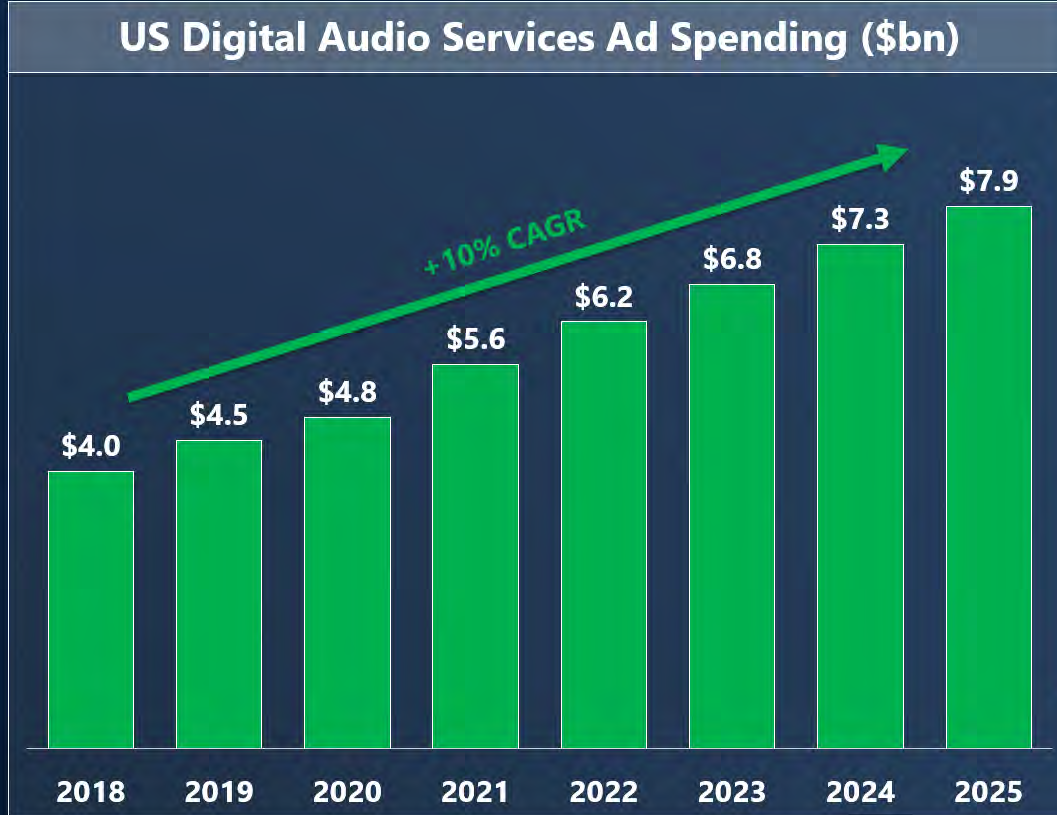
The Digital Audio Universe



Digital audio is another sector that is seeing high advertising growth and launched a robust third-party technology ecosystem. This led us to create the Audio LUMAscape a few years ago, which has only continued to grow since.



Podcasting a Key Driver of Growth



72% Growth
in 2021

4.5x
Digital Audio Growth



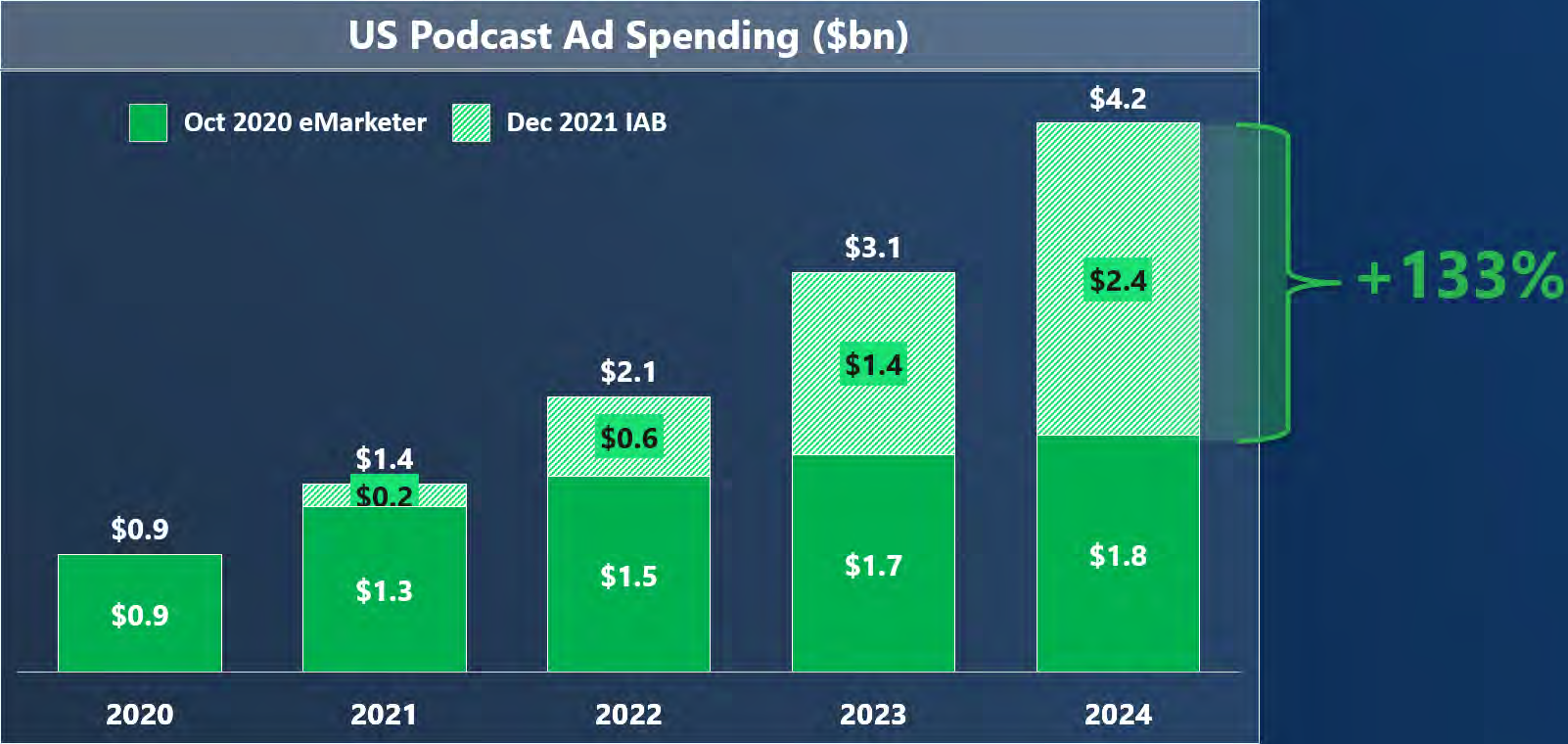
Source: eMarketer



Overall, the digital audio ecosystem is growing at a decent pace and will represent about \$6 billion in ad spend in 2022. But it's the podcasting ecosystem that is garnering most of the attention and growth in this sector.

In 2021 podcasting grew 72%, about four and a half times the rest of the digital audio ecosystem.

Podcasting Advertising Expectations Inflecting Upward



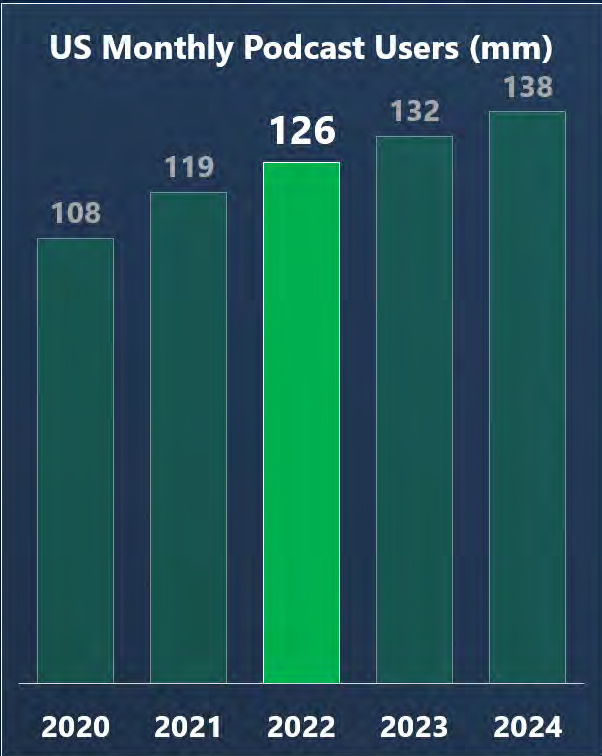
Source: eMarketer, IAB



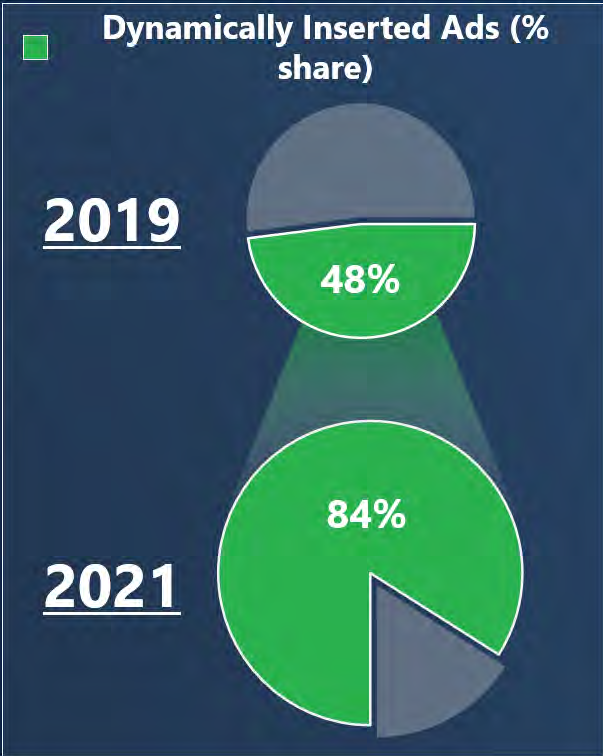
While the historical growth in podcasting ad spend is great, the thing that has us most excited is the recent inflection in future expectations for the industry. The solid green bars above were the forecasts from a couple years ago – with expectations ~\$1.5bn this year and just under \$2bn by 2024. However, the other week the IAB put out new numbers that have more than doubled the forecast. They're now expecting podcast ad spend to be over \$2bn 2022 and above \$4bn by 2024, which means podcasting is becoming a truly scaled advertising channel.

Podcast Advertising Drivers

Consumer Growth



Ad Delivery



Expanding Advertiser Universe

- Shopping cart (e-commerce)
- Stack of money (finance)
- Laptop with globe (technology/global)
- Classical building (education/institution)
- Handshake (partnership)
- Scales of justice (law)
- Wi-Fi monitor (digital media)
- Storefront (retail)
- Recycling symbol (sustainability)
- Fork and knife (food/dining)
- Medical cross (healthcare)
- Radio tower (broadcasting)

Source: eMarketer, IAB



There are several drivers fueling this growth. First is consumer growth, with over 125mm monthly US listeners as of 2022. The second is ad delivery. In the last two years, we've completely flipped from the majority of ads being baked into the creation of an episode, to nearly 85% being dynamically inserted. This leads to more addressability and efficiency for advertisers, the latter of which leads to the third driver of the expanding the advertiser universe. In a recent IAB report the largest category of podcast advertisers was one called "other", which is a collection of smaller industry verticals representing a wide variety of advertisers. Just as we noted in commerce media, it's this dynamic of attracting a wider pool advertisers that helps propel the growth of new digital ad channels.

Audio Platform Wars

Audio-First



- Fully focused on audio ecosystem
- Significant investments in creator ecosystem and content rights
- Significant investments into audio-specific monetization tech

Digital Giants



- Control the operating systems and devices key to the audio ecosystem
- Existing, scaled media platforms (excl. Apple)
- Control the major voice platforms
- Audio is one of many strategies



This has created is a bit of an audio platforms war, with audio-first players on one side and digital giants on the other. The audio-first players are fully focused on the sector and have put significant energy into creators, content, and monetization. Meanwhile, the digital giants view audio as another spoke in their media flywheels, though do so from a unique vantage point. These digital giants are in control of both the operating systems and devices where the majority of digital audio takes place (i.e., they own the most important data). They also own some of the largest voice platforms, which, if audio ads ever move closer towards interactivity - is a crucial component.

Driving Significant Vertical and Horizontal M&A



Similar to what we've seen in other sectors, the access to consumers and data have spurred significant horizontal and vertical M&A in the podcasting ecosystem. Much of the activity has been focused on attaining content capabilities and hosting / monetization capabilities to complement existing consumer distribution channels. This has been a similar playbook across the spectrum of audio platforms, from traditional audio (e.g., SiriusXM) to digital-audio (e.g., Spotify) and even digital giants (e.g., Amazon). Earlier this year, we saw Spotify take this one step further, acquiring measurement capabilities and truly going full stack. Time will only tell if other platforms seek to take a similar approach.

Next up: Dick Filippini to talk Mobile App.



MOBILE APP

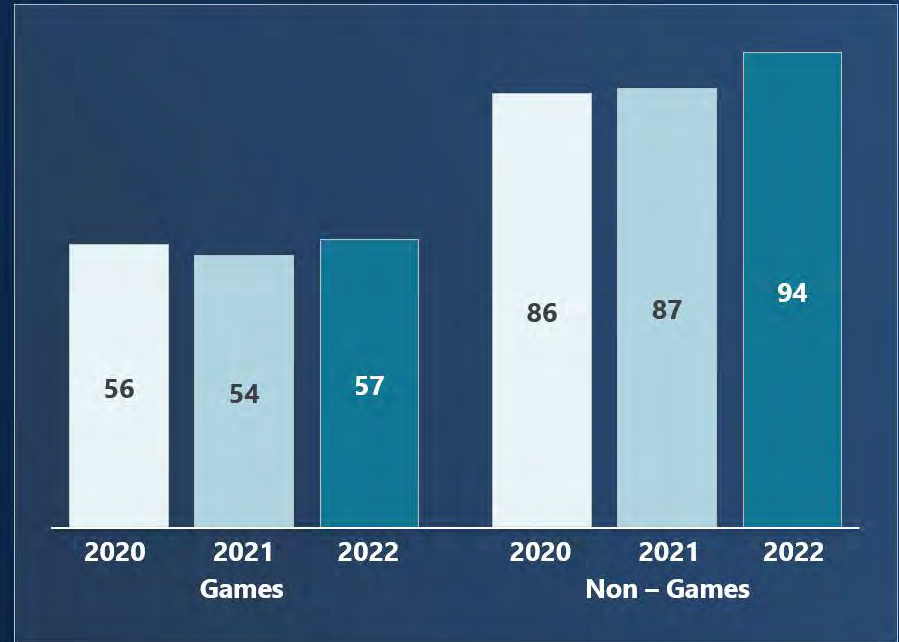


Consumers To Spend \$160bn in Mobile Apps

Mobile Consumer Spending (\$bn)



Mobile Downloads (bn)



Non-Game Revenue Growing >2X Gaming

Source: Sensor Tower Mobile App Market Outlook 2022



The mobile app space remains a great place in the world, with a healthy TAM and continued growth. One interesting thing to call out that's a little different since our last DMS is the growth of the non-game segment. Gaming still dominates the app economy with >60% of consumer spend, but a number of the traditionally game-focused ad players are increasingly talking about the non-game opportunity, given growth rates are nearly 3x higher there.

Mobile Phones: The Ultimate 1:1 Marketing Medium



Data-Driven Marketing

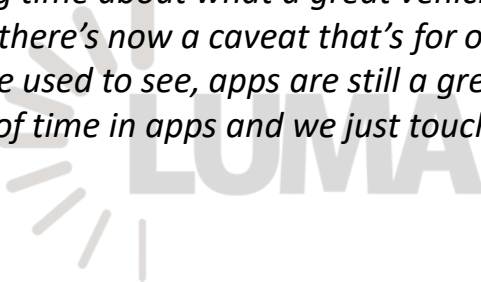
For Opt-in Users

Optimize the Customer Experience by sending the ...

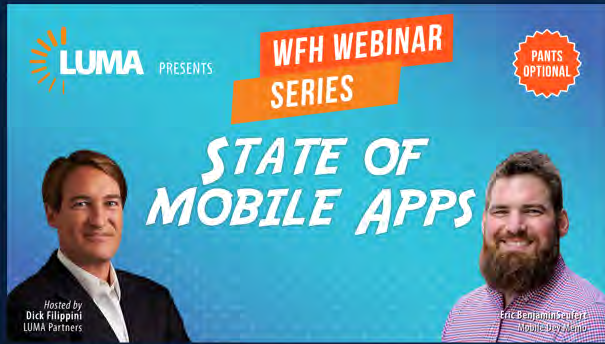
- Right MESSAGE 
- Right TIME 
- Right PERSON 



We've talked for a long time about what a great vehicle phones are for advertisers to reach their desired audience, but there's now a caveat that's for opted-in users. Yet, even with diminished signal for more users than we used to see, apps are still a great place to be, given everyone has a phone, spends a fair amount of time in apps and we just touched on the spend figures.



April 2020: Is The Balance of Power About to Change?

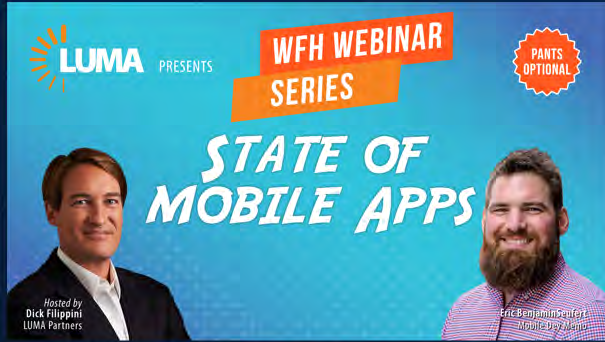


April 2020

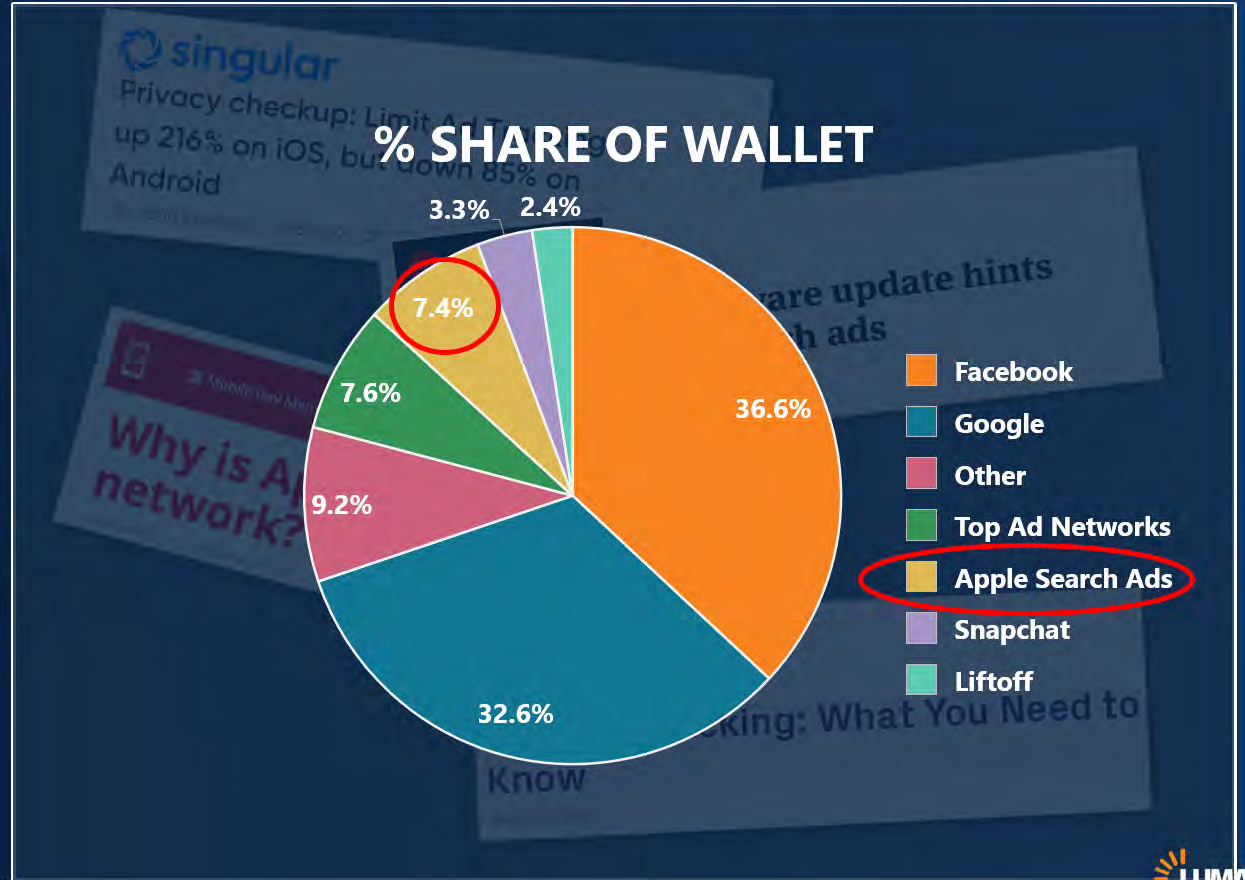


Interestingly, we haven't spent much time during our historical Digital Media Summits on signal loss in the mobile app world. It was actually a selling point for apps that they didn't rely on cookies and weren't subject to cookie deprecation. Two years ago at this time, we were starting to speculate on the potential implications if Apple were to change the privacy paradigm to extend zeroed-out device IDs beyond the limited population that turned on Limit Ad Tracking.

April 2020: Is The Balance of Power About to Change?



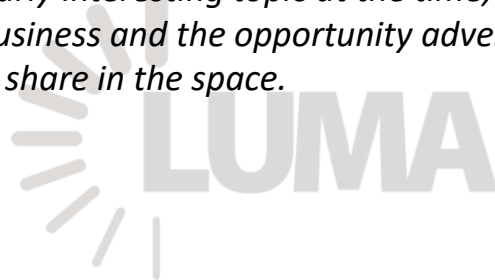
April 2020



Source: Appsumer Mobile App Advertising Benchmark Report, Q1 2020



Which was a particularly interesting topic at the time, given Apple was starting to pay more attention to its ads business and the opportunity advertising represents for Apple, given their relatively low market share in the space.



ATT's Impact Reverberating Across the Ecosystem

Creative paralysis: ad creative production and testing in iOS 14

Dear App Developers: fingerprinting is not a viable workaround to ATT

Facebook has abandoned the IDFA and may kill FAN for iOS. What's next for mobile measurement?

Google's approach to privacy is ATT-lite

Content Fortresses and the new privacy landscape

Facebook Meets Apple in Clash of the Tech Titans—'We Need to Inflict Pain'

CEOs Mark Zuckerberg and Tim Cook are at odds over privacy, power and dueling visions of the internet. Their rivalry is increasingly personal—and public.

By Deepa Seetharaman, Emily Glazer and Tim Higgins February 13, 2021 12:00 am ET

Apple's Moves to Tighten Flow of User Data Leave Advertisers Anxious

Brands and ad-tech firms say the tech giant's growing push to limit how users are tracked will hurt business, with some questioning the privacy rationale.

By Patience Haggin and Suzanne Vranica June 9, 2021 03:33 pm ET

How Apple's Privacy Move Could Affect Your Wallet

In April, Apple began requiring apps to request user tracking permissions. Now, tech giants and small businesses alike say they're losing money due to the new privacy policy. WSJ's Shelby Holliday explains why those costs could be passed to consumers. Illustration: Rafael Garcia

Snap's Stock Drops as It Blames Apple for Hurting Its Ad Business

The social-media company posted revenue and user growth in the latest quarter but expects growth to slow.

By Sarah E. Needleman October 21, 2021 04:16 pm ET

Big Tech Privacy Moves Spur Companies to Amass Customer Data

Marketers are staging sweepstakes, quizzes and events to gather people's personal information and build detailed profiles—a response to Apple's "opt in" policy for apps and Google's plan to restrict user tracking in its browser.

By Suzanne Vranica December 2, 2021 09:49 am ET

Facebook Owner Meta's Stock Price Plunges, Jolting Tech Investors

The technology giant was on course for its worst daily performance on record after it startled investors with a sharper-than-expected decline in profit and a gloomy outlook.

By Caitlin Ostruff and Caitlin February 3, 2022 05:25 pm ET

AppLovin Announces Record Financial Results for the Fourth Quarter and Full-Year 2021

Raises Software Platform outlook for 2022 to \$1.35 - \$1.50 billion

Apple's Move to Block User Tracking Spawns New Digital Ad Strategies

Apps and advertisers are looking for other ways to connect with consumers and target ads, as the iPhone maker prepares to roll out an update allowing users to limit ad-tracking.

By Patience Haggin and Tim Higgins March 26, 2021 05:30 am ET

Facebook and Its Advertisers Feel Pinch of Apple's Privacy Drive

Recent changes in Apple's iOS operating system have diminished Facebook's ad targeting abilities.

By Laura Forman June 12, 2021 09:03 am ET

Zynga Will Need to Beat Apple at Its Own Game

The mobile-game maker's damaged stock is unlikely to recover until it shows it can adapt to iOS changes.

By Dan Gallagher August 10, 2021 07:03 am ET

Apple's Privacy Change Is Hitting Tech and E-Commerce Companies

Apps in which many users have opted out of being tracked are getting less data on consumers' habits and interests and can't target ads at users as effectively.

By Patience Haggin and Suzanne Vranica October 22, 2021 07:15 am ET

Take-Two Can Thank Apple for Zynga

App Store changes have battered the mobile game maker's stock, creating an opening for a deal.

By Dan Gallagher January 10, 2022 11:53 am ET

Meta's Investors Get a Reality Check

Meta's fourth quarter results show Facebook as we knew it may really be over. But what if that isn't such a bad thing?

By Laura Forman February 3, 2022 12:01 am ET

Digital Turbine Reports Fiscal 2022 Third Quarter Financial Results

Third Quarter Revenue Totaled \$375.5 Million, Representing Year-over-Year Growth of 324% on an As-Reported Basis and Year-over-Year Growth of 38% on a Pro Forma Basis

P&G Worked With China Trade Group on Tech to Dodge Apple Privacy Rules

Procter & Gamble helped develop an advertising technique being tested in China to gather iPhone data for targeted ads, seeking to find a way around Apple's new privacy tools, according to people familiar with the matter.

By Sharon Terlep, Tim Higgins and Patience Haggin April 6, 2021 05:28 am ET

Apple's Tracking Rules Prompt Advertisers to Turn to Android

Advertisers have begun shifting their spending patterns in the months since Apple began requiring apps to gain iPhone and iPad users' permission to track them.

By Patience Haggin July 5, 2021 05:30 am ET

Facebook Says Apple's Privacy Changes Hurt Digital Ad Measurement

The social-media giant seeks to assure advertisers and suggests its tools may undercount the effectiveness of campaigns.

By Bowdleya Twfif September 22, 2021 04:13 pm ET

Facebook Posts Slower Sales Growth With Apple Privacy Policy

The social-media giant's primary revenue source saw slower growth in the first full quarter since Apple required apps to ask users whether they want to be tracked.

By Sarah E. Needleman October 25, 2021 06:35 pm ET

Facebook Feels \$10 Billion Sting From Apple's Privacy Push

Parent company Meta Platforms served up the starkest sign yet of how Apple's new ad-privacy policy is rolling the digital-advertising world.

By Meghan Bobrowsky February 3, 2022 05:22 pm ET

Snap Posts First Profit

The developer of the Snapchat app signaled it is adjusting to disruptions in the digital-advertising market caused by Apple's privacy changes, and its shares rallied after hours.

By Meghan Bobrowsky February 3, 2022 04:55 pm ET

Q1 2022 Report

ironSource Announces Record First Quarter 2022 Results

Record Revenue of \$190 million, 58% year-over-year growth
Record Adjusted EBITDA of \$59 million, 31% Adjusted EBITDA margin
Dollar-based net expansion rate of 153%



A couple months after this webinar, Apple launched their App Tracking Transparency framework and it has dominated headlines in my industry feed since they broke the news. We're still digesting the impact, but it has clearly been significant with Facebook reducing their revenue forecast by \$10 billion this year and attributing it to Apple's update. A number of other publishers and advertisers have suffered from headwinds stemming from diminished targeting and measurement capabilities that arose from the Apple policy changes. It's not all bad, though. Some of the mobile specific ad companies have benefitted from Facebook's inability to run their lookalike models as efficaciously as before ATT arrived. We've seen some very healthy growth from these companies, who had already built attractive businesses with scaled profitability.

Unsurprisingly to Apple's Benefit

TECH

Apple's Privacy Changes Set to Boost Its Ad Products

Under the new privacy restrictions, advertisers targeting iPhone users will get more data about ad performance if they buy Apple's ad space than if they buy through third parties, according to ad-industry executives.

By *Patience Haggin* April 27, 2021 06:32 pm ET

TechCrunch

Apple expands its ad business with a new App Store ad slot

These new ad placements, which Apple calls "Search tab campaigns," are being made available as part of Apple's Search Ads Advanced service,...

May 5, 2021

Apple robbed the mob's bank

Posted on May 10, 2021 by Eric Benjamin Seufert

It's Apple's internet now

Posted on June 14, 2021 by Eric Benjamin Seufert

9to5Mac

Apple's ad business sees windfall; is accused of breaking its own privacy rules

"It's like Apple Search Ads has gone from playing in the minor leagues to winning the World Series in the span of half a year," said Alex...

Oct 18, 2021

Forbes

Apple's Ad Network Is The Biggest Beneficiary Of Apple's New Marketing Rules: Report

"Apple Search Ads (ASA) ranked first in both the Retention Index's global power and volume rankings," AppsFlyer, a mobile marketing measurement...

Oct 19, 2021

eMarketer

Apple ad revenues skyrocket amid its privacy changes

Apple search ads skyrocketed from driving 17% of all iPhone app downloads attributed to advertising to 58% in just one year, according to...

2 weeks ago

VentureBeat

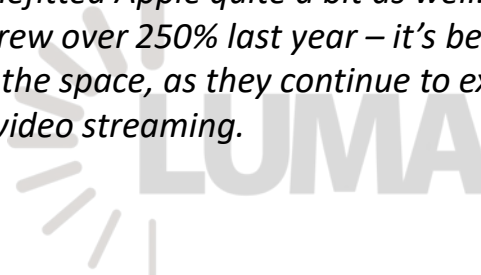
Singular: Apple's privacy changes drove consolidation in mobile adtech

Apple Search Ads became the highest-quality ad network for iOS mobile user acquisition, providing the best return on investment for mobile...

4 days ago


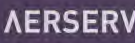









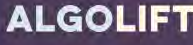

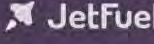



ATT has obviously benefitted Apple quite a bit as well. Business Insider just reported estimates that Apple's ad business grew over 250% last year – it's becoming a big business. And they have a lot of headroom to grow in the space, as they continue to expand beyond Search Ads to other O&O and also invest further in video streaming.



Well Capitalized Industry Leaders Investing in the Future

Public	
 APPLOVIN Market Cap: \$15,641mm	 adjust  MAX  mopub  SafeDK  wurl
 digital turbine. Market Cap: \$2,805mm	 ADCOLONY APPRECIATE®  Fyber  Mobile Posse
 ironSource Market Cap: \$2,954mm	 bidalgo  luna  500MLA  Tapjoy
 Unity® Market Cap: \$12,789mm	 applifier  arionatix  CHILL CONNECT  GOLDEN MANE  ENVATIVE  PIPER FOOD  MORNING STAR  multiplay  OBVIOUS  OTG  PARSEC  plxzy  plastic.com  playnomics  speedtree  syncsketch  VIVOX  weta digital  ZIVA

Private	
 inMOBI™ Funding: \$500mm	 AERSERV  appsumer  NOTRAGAMUS™  roposo 
 branch Funding: \$667mm	 TUNE
 MOLOCO Funding: \$370mm	<p>None Yet</p>
 LIFTOFF  Vungle Funding: N/A	 ALGOLIFT  GameRefinery  JetFuel 



Source: FactSet (market data as of 5/13/2022), Company Filings, PitchBook.



The introduction of ATT also benefited the M&A markets, as we saw a flurry of activity ahead of the pending rollout, despite the uncertainty around the implementation. We saw a number of smart moves to help prepare industry leaders for the future, though would note that Unity's deals here have been outside of ad tech and we'll see if that changes, given the recent hiccup they announced on their earning call on the ads side.

Who's got next?

amazon   Microsoft

NETFLIX

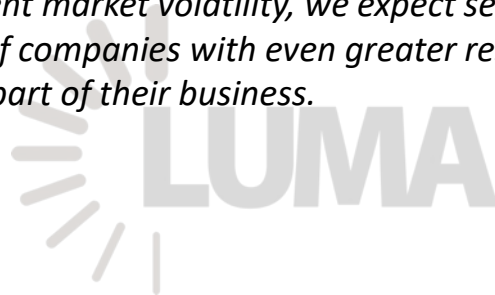
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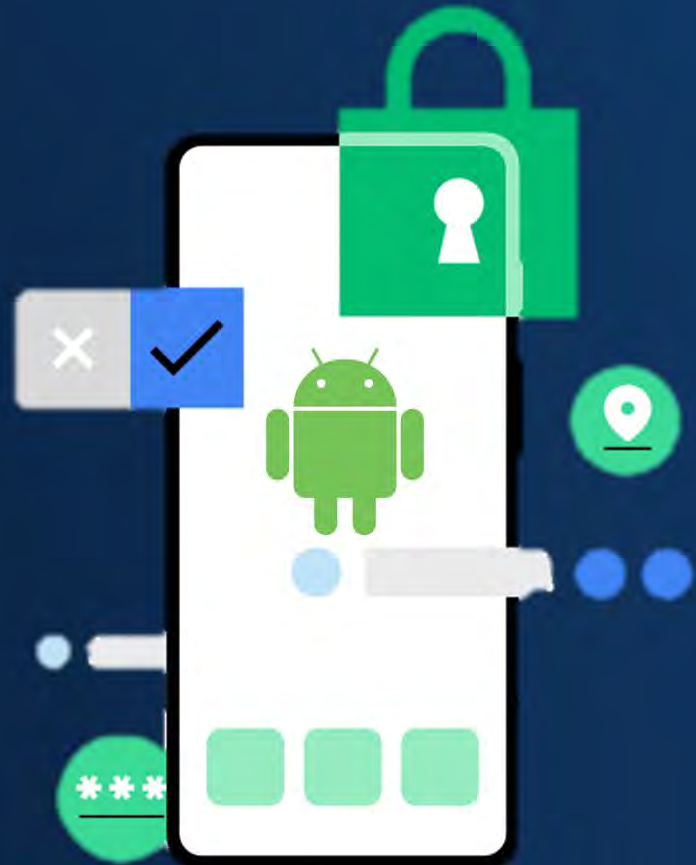
yahoo!



And despite the current market volatility, we expect sector consolidation to continue and note that there are a number of companies with even greater resources that could benefit from having an app marketing leader as part of their business.



And What's Next?



That said, we need to bear in mind this is a fluid market and there will continue to be changes to navigate. Apple has their next WWDC in a few weeks and may implement additional privacy changes that could further hinder measurement of campaigns. And Google has announced their Privacy Sandbox is coming to Android, though that should be less disruptive, given they're working on this implementation in consultation with the industry and will roll it out in a more measured fashion. The good news is there are a ton of smart people in the industry that are investing further in contextual targeting, creative optimization and modeling for measurement. We're confident they will continue to adapt to these platform changes to help drive the future growth and success of the industry.

Next up: Terry Kawaja to talk "Shiny New Things".

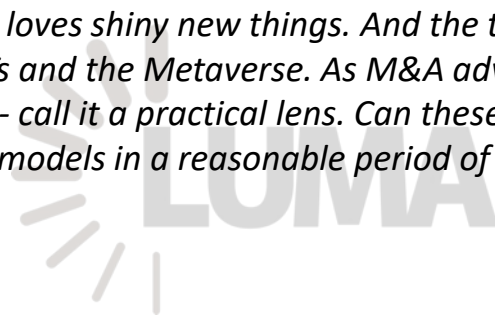


SHINY NEW THINGS

METAVVERSE | WEB3 | NFTs



The marketing sector loves shiny new things. And the technology sector is enamored with are the notions of web3, NFTs and the Metaverse. As M&A advisors, we have to take a little bit more of a skeptical lens on this - call it a practical lens. Can these initiatives and opportunities create meaningful business models in a reasonable period of time?



Mind The Short-Term Hype; Be Realistic



Web 3.0



NFT's



Metaverse



With Web3 we think there's tremendous opportunities for distributed networks and tokenization. There's a lot of use cases for that. We are concerned that the decentralized doesn't become just recentralized with new companies. And we're mindful of web3's applications to media and marketing in particular. NFTs make a ton of sense as a media property - trying to recreate physical scarcity in a digital world. Though time will tell how much demand is going to follow the initial flurry of interest around their introduction. And we note that volume is off materially - 90% in NFTs since the peak last fall.



Mind The Short-Term Hype; Be Realistic



Web 3.0



NFT's



Metaverse



We're more skeptical of the metaverse, at least beyond what we would call the native applications of gaming and entertainment. We're quite certain that 3D technology will improve and that'll be an immersive experience. But we're skeptical that we're all going to be spending a significant amount of time in meetings in the metaverse. Meta themselves may be scaling back their metaverse initiatives after a quarterly loss of \$3bn in Q1 2022.



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See you all at DMS 2023!



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