State of Digital Media 2016

SCAPE of CARDS

LUMA

LUMA presents our annual State of Digital Media which covers our views on the market, the industry trends and the future of the ecosystem with a specific focus on digital media and marketing. We hope you enjoy it.

DIGITAL
MEDIA
SUMMIT

Meet the Senior LUMA Team

Terry Kawaja	Brian Andersen	Mark Greenbaum	Dick Filippini	Gayle Meyers
Founder and CEO	Partner	Partner	Partner	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 and big 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.*	Gayle runs LUMA's marketing, events, and partnerships. *She may be new, but she's already formidable.*

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Agenda

1. Ecosystem Considerations

2. Market Update

3. Significant Industry Trends

Agenda

1. **Ecosystem Considerations**

2. Market Update

3. Significant Industry Trends

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Digital Advertising's Scape of Cards Issues

1. Transparency
2. Measurement
3. Latency
4. Header Bidding
5. Privacy / Tracking
6. Viewability
7. Fraud
8. Ad Blocking
9. Walled Gardens
10. Fragmentation

Digital advertising is doing great. Revenue grew 20% in 2015 and is set to surpass TV advertising next year as the largest category of ad spend. But you wouldn't know it from the press. Everywhere you look, all you hear about are the problems with digital advertising. It's no secret that the sector suffers from a fragmented ecosystem (as depicted by our eponymous LUMAscapes) and such a convoluted supply chain has been blamed for a series of issues that plague the sector. These issues have implications for all the key constituents from marketers to agencies, tech intermediaries, publishers and consumers.

Digital Advertising's Scape of Cards Issues

1. Transparency
2. Measurement
3. Latency
4. Header Bidding
5. Privacy / Tracking

SERIOUS

6. Viewability
7. Fraud
8. Ad Blocking

CRITICAL

9. Walled Gardens
10. Fragmentation

EXISTENTIAL

We force ranked the issues from the standpoint of their impact on the ecosystem as a whole with increasing importance from serious to critical to existential. The first four issues are either between constituents (Transparency, Header Bidding) or are universal problems that will eventually get solved via technology or consolidation (Measurement, Latency). The Privacy / Tracking issue is a big one with consumer groups, especially in Europe. It is critical to treat consumers' data fairly and so far the industry has not exactly delivered on its promise of a better user experience from increased ad relevancy. Mostly, we see retargeted ads of the product we already purchased!

Digital Advertising's Scape of Cards Issues

1. Transparency
2. Measurement
3. Latency
4. Header Bidding
5. Privacy / Tracking
6. Viewability
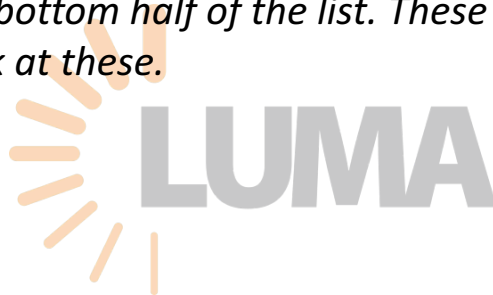7. Fraud
8. Ad Blocking
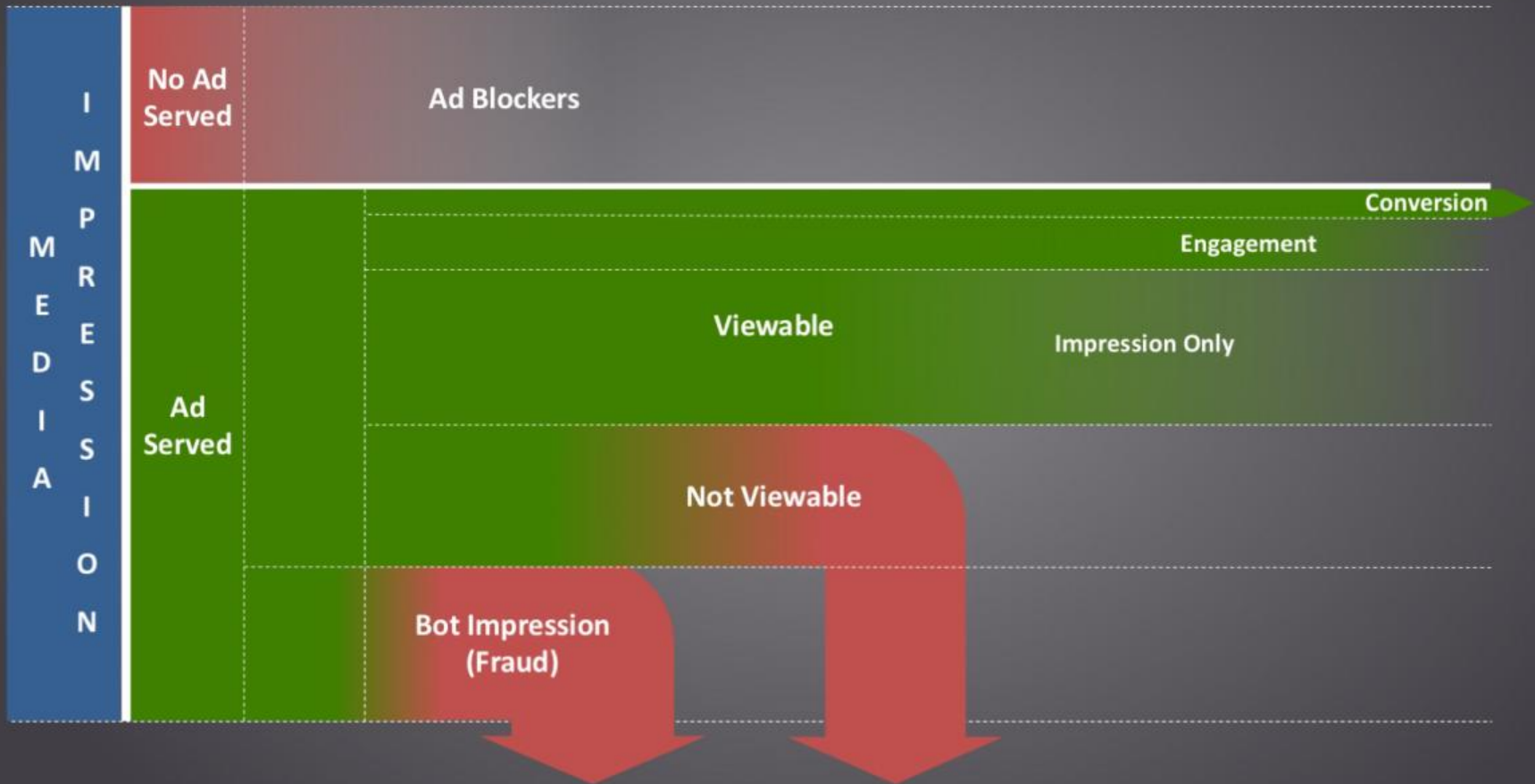9. Walled Gardens
10. Fragmentation

CRITICAL

EXISTENTIAL

Then there's the bottom half of the list. These issues are critical if not existential. Let's take a closer look at these.

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Lifecycle of a Media Impression

To assess the impact of Viewability, Fraud and Ad Blocking, consider the lifecycle of a media impression. Every load of a web page or video creates an ad opportunity (denoted in blue). However, ad blocking (now estimated at 22% in North America) prevents ads from being served to a person (a "consumer" in our nomenclature). Of the ads served, some are seen by bots (machines that record fraudulent impressions) and another portion is delivered to humans but not seen.
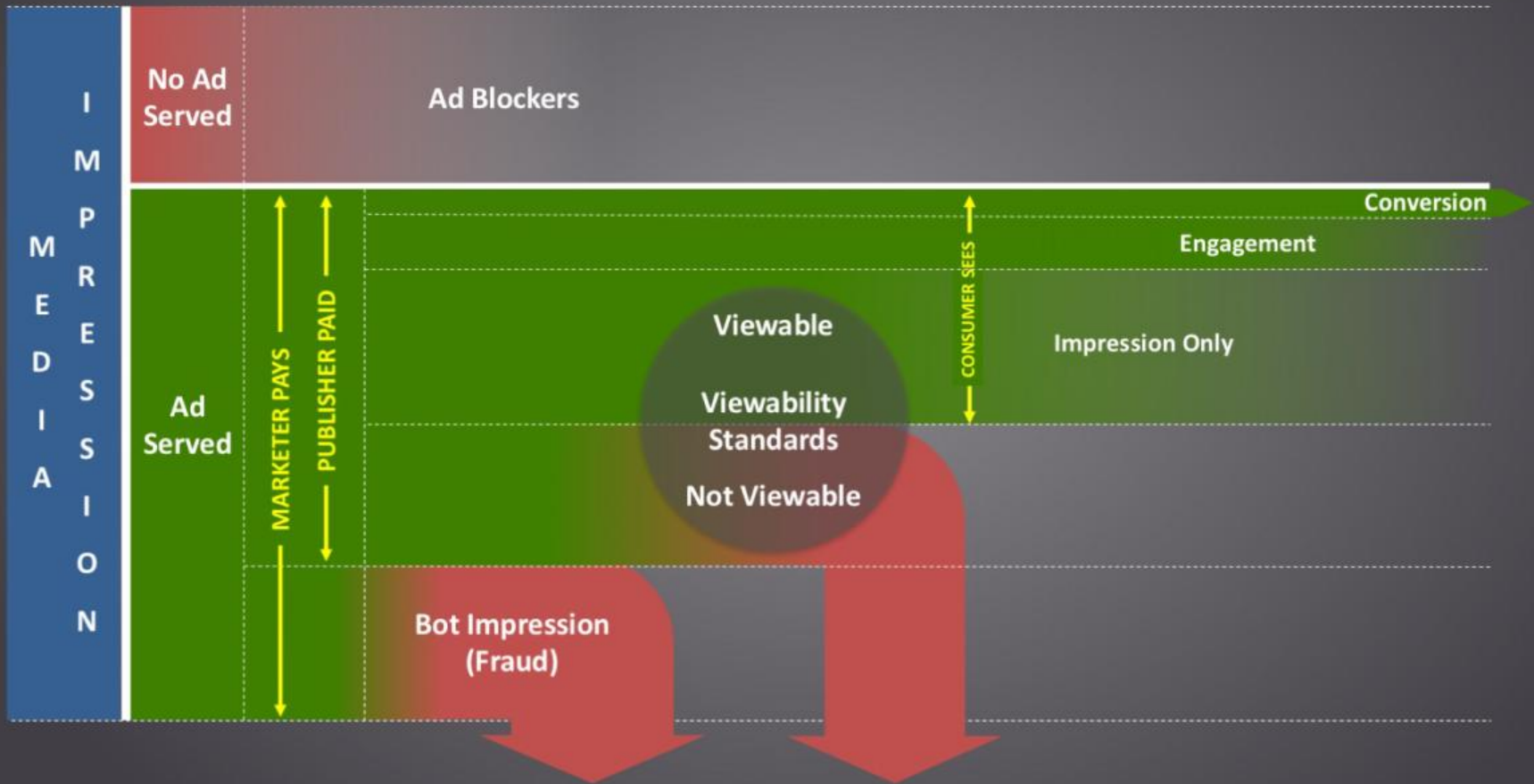
Lifecycle of a Media Impression
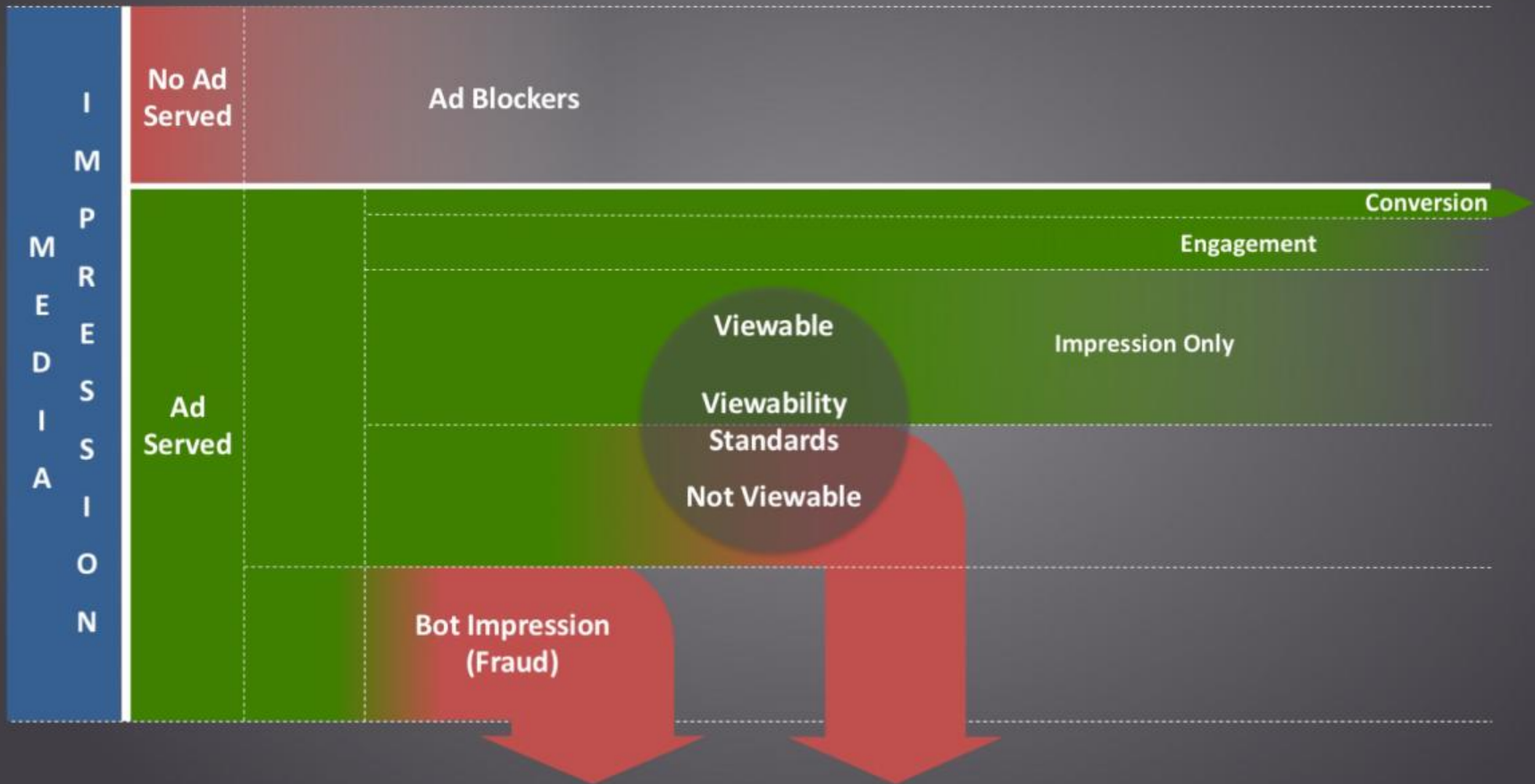
Whether an ad is "viewable" or not depends on the viewability standards that vary by platform. For example, in video, YouTube counts 30 seconds as a view whereas Facebook is 3 seconds and Snapchat one second.
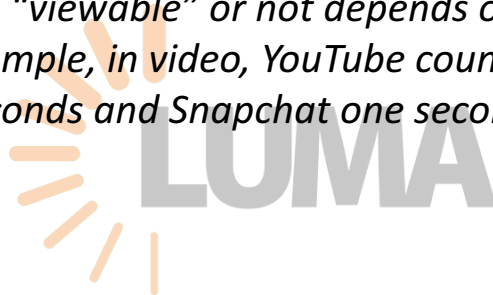
Lifecycle of a Media Impression

Of the ads actually viewed, a small portion of these instigates engagement by consumers and an even smaller portion results in a conversion. These last two elements are primarily relevant for direct response advertising whereas brand advertising's objective is to help build demand generation or preference over time and may benefit from an impression alone.

Lifecycle of a Media Impression
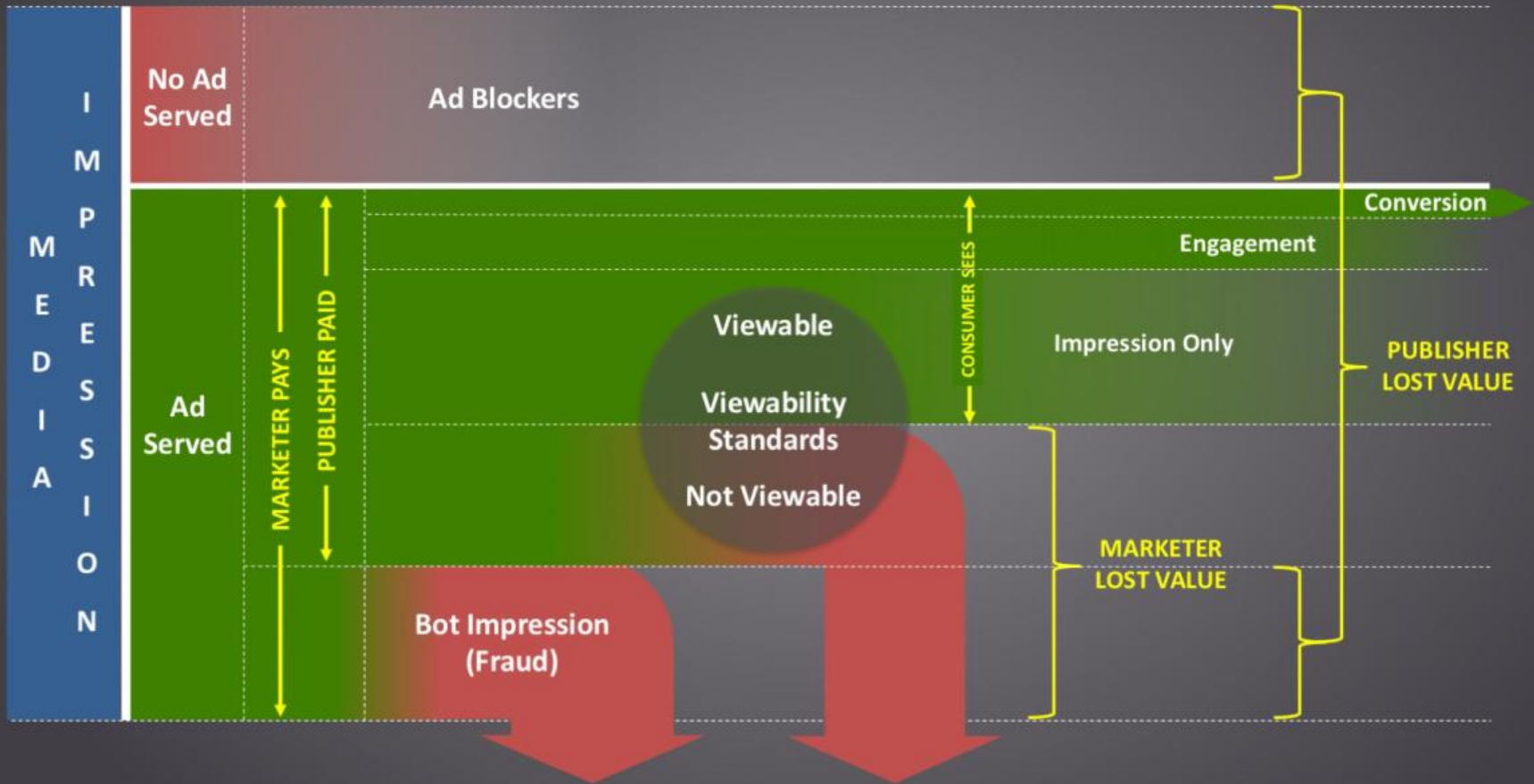
If you analyzed these issues from an economic perspective, there is significant value leakage. Marketers' "lost value" is the sum of fraud and non-viewable impressions. In both instances they paid for an ad that was never seen by a potential consumer. Publishers on the other hand lose value from both fraud and ad blocking.

Fragmented Supply Chain Between Principals
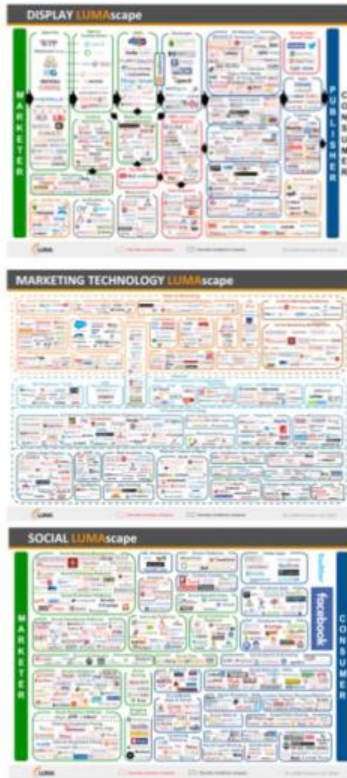

While we don't purport to have solutions to all of these issues, we would suggest that whatever solutions applied be done so with consideration of the principals of the marketing equation: the marketer and the consumer. On ad blocking in particular, we believe that the best way to prevent further proliferation of such software downloads is to create a better consumer experience. While we sympathize with the publishers' predicament and value the economic construct that supports journalism, forcing the consumers' hand with draconian measures is not the way to go. Consumer choice is here to stay!

Performance Advertising Mitigates Issues
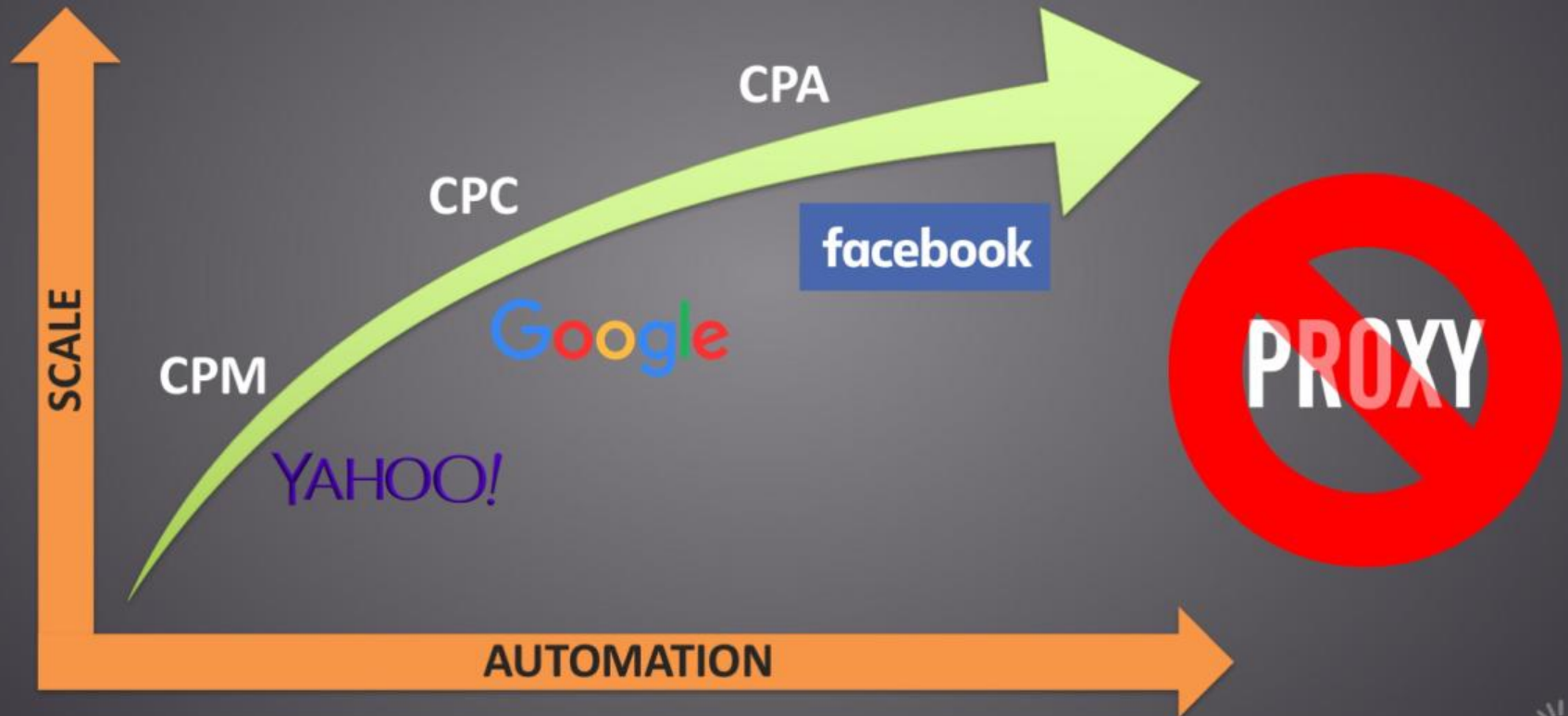
The trend towards performance metrics in advertising serves to mitigate some of these issues. When marketers are paying for business outcomes and not proxies like impressions, it alleviates many ills from measurement to fraud. If the marketer is not paying based on impressions, it's irrelevant that impressions are not seen. This is a natural and healthy trend for both marketers and consumers. It's no wonder the companies that deploy these models have seen higher rates of growth.

Digital Advertising's Scape of Cards Issues

1. Transparency
2. Measurement
3. Latency
4. Header Bidding
5. Privacy / Tracking
6. **Viewability**
7. **Fraud**
8. **Ad Blocking**
9. **Walled Gardens** ⎤
10. **Fragmentation** ⎦ **EXISTENTIAL**

The Walled Garden issue relates to the growing digital duopoly enjoyed by Google and Facebook.

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"Walled Gardens" of First Party Data...

Similar to the walled gardens of content from the 90's, Facebook and Google have put up walled gardens of data. The walled gardens are no surprise, given Facebook and Google's tremendous first party data assets and reach, which enable them to more effectively target consumers and deliver higher ROI to advertisers...
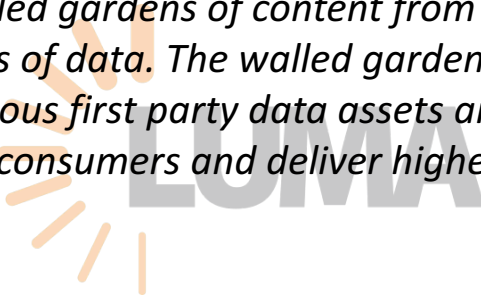
Propagating Through 3rd Party Platforms

...and they are extending this advantage across third party apps and sites to further their dominance with the additional benefit of not degrading their O&O properties with more ads.
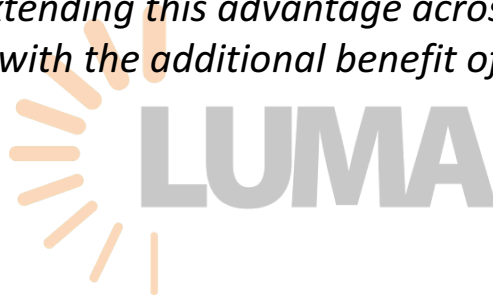
Is Verizon Going to Be the 3rd Walled Garden?

This begs the question, will other companies with significant first party data join Facebook and Google as the third walled garden? With a sizable subscriber base and the recent acquisitions of AOL and Millennial Media, Verizon seems to be the most likely candidate.

The Digital Duopoly is Challenging for the Rest

85% OF INCREMENTAL DIGITAL AD SPEND GOES TO GOOGLE OR FACEBOOK

15%

85%
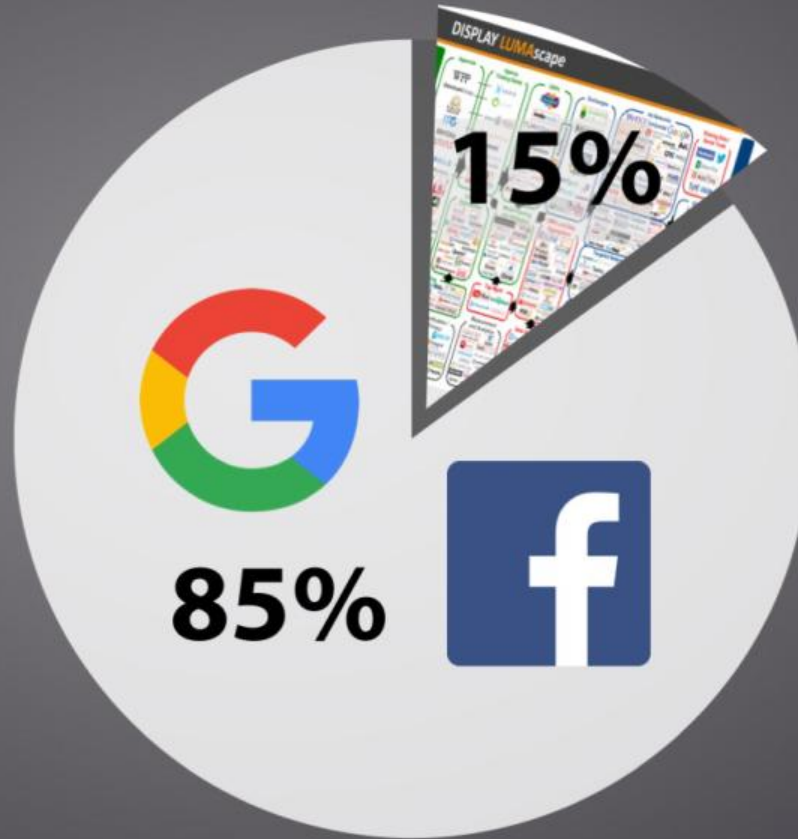
Source: Morgan Stanley

To date, this strategy has been extremely effective for Facebook and Google, each of which has garnered massive scale in digital advertising. A recent analyst study suggests that their combined share of all incremental ad spend has exceeded 85%, a frightening figure for the thousands of companies vying for the remainder. We would call this issue existential!

Finally there's the paramount issue of fragmentation, a condition that is unsustainable for both the principals and intermediaries. Marketers and publishers struggle with the complexity caused by the myriad of point solutions on the LUMAscapes. For the intermediaries, it's a constant challenge to differentiate and grow with so much competition, which has led to a pull back in venture funding. To vary into another analogy, Winter is here! The obvious solution is industry consolidation, and LUMA is doing all it can to help out in this regard!
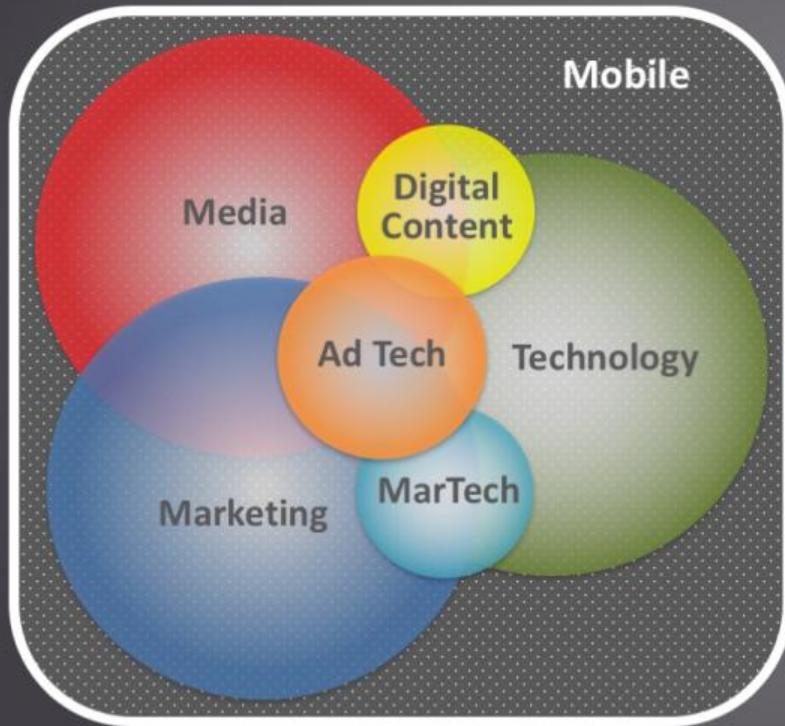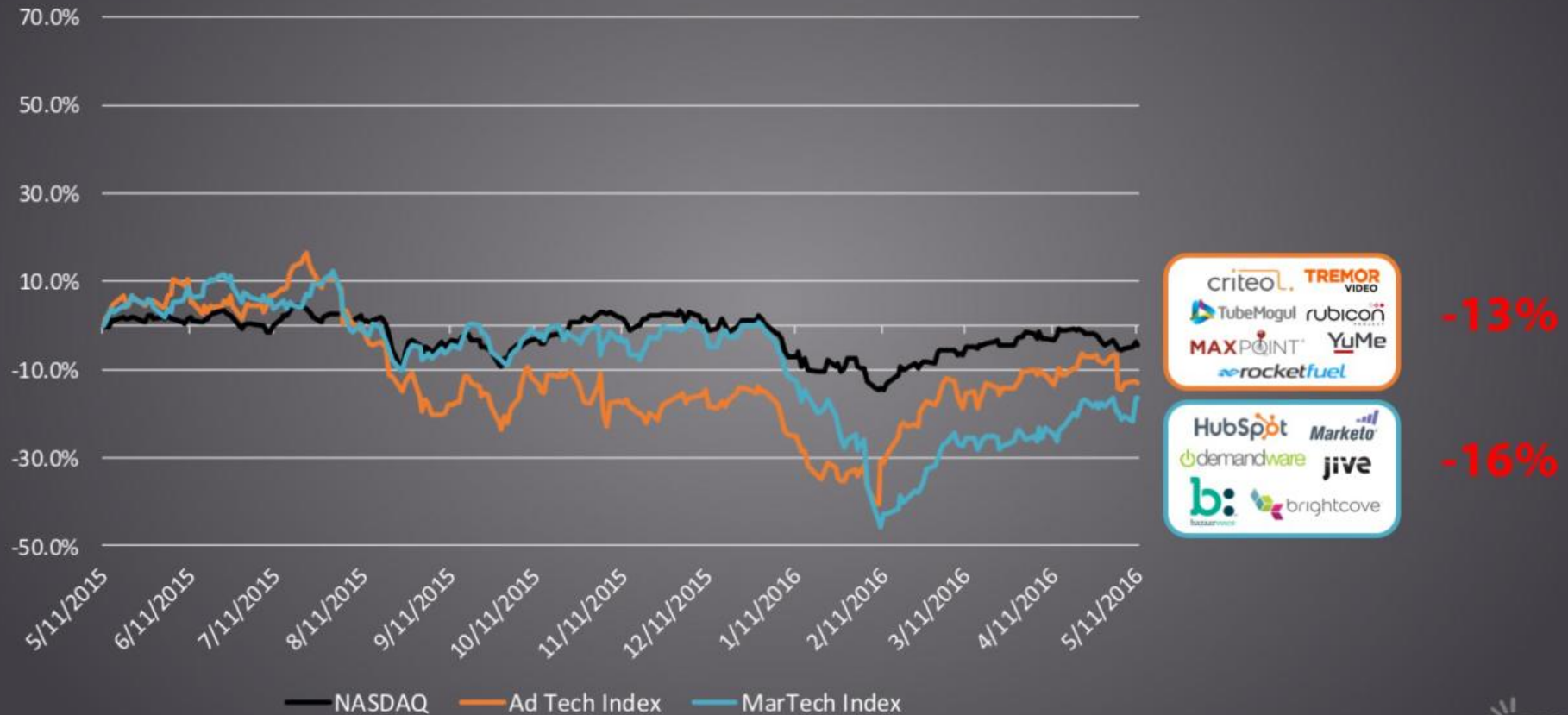
LUMA's Singular Focus on Digital Media

- ➤ LUMA's expertise is at the intersection of Media, Marketing and Technology

- ➤ At this intersection exists:
  - **Digital Content:** content sites, MCNs, game publishers, aggregators
  - **Ad Tech:** display, search, video, mobile, social, content marketing/native, connected TV
  - **MarTech:** data, analytics, sales and marketing automation, email, predictive tools, commerce technology, shopper marketing, payments

- ➤ **Mobile** proliferation has a major impact on these markets and LUMA is deeply knowledgeable on mobile

Let me take this opportunity to highlight LUMA's singular focus on the intersection of Media, Marketing and Technology; the sectors of Digital Content, Ad Tech and MarTech all seen through the lens of mobile.
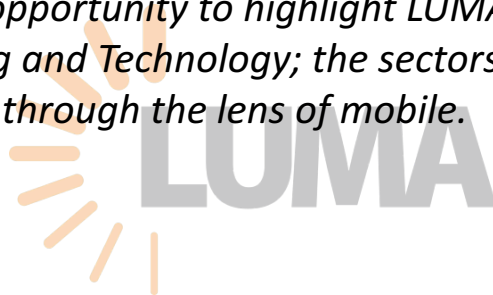
Ad Tech & MarTech Stocks Have Struggled

Ad Tech and MarTech stocks have struggled, down 13% and 16% respectively on average since this time last year.

Multiples Have Fallen Amid Rising Revenues

Δ Revenue (LTM): +26%

HubSpot Marketo
demandware jive
b: brightcove

-40%

criteo TREMOR VIDEO
TubeMogul rubicon
MAXPOINT YuMe
rocketfuel

-56%

Δ Revenue (LTM): +25%

— Ad Tech Index — MarTech Index

Source: CapitalIQ; Market data as of 5/11/2016

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Trading multiples have fallen far more than stock prices, despite industry-wide revenue growth of approximately 25%.

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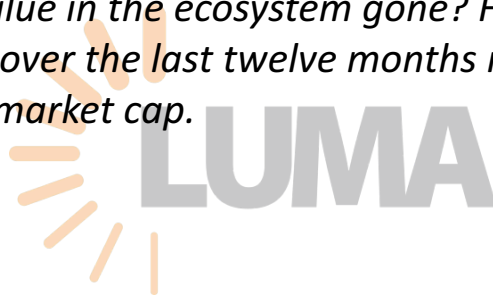# Where Has Value Gone in the Ecosystem?

Where has the value in the ecosystem gone? Facebook and Google are up 56% and 34% respectively over the last twelve months reflecting a combined $250 billion increase to their market cap.

Where Has Value Gone in the Ecosystem?

To put this number in perspective, the combined single year increase of Facebook and Google is the equivalent to the market cap of P&G, the largest advertiser in the world, as well as WPP, the largest agency holding company in the world...

...with enough left over to pay a $5 billion fee to LUMA ;)

Total Digital IPOs This Year

We have yet to see a digital IPO this year.

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There is No IPO Market

Back in 2014, we reviewed a robust IPO pipeline in both Ad Tech and MarTech.

There is No IPO Market

MediaPost
AppNexus Weighs Options Given IPO Climate
Tuesday, January 19, 2016 8:04 AM

The Boston Globe
DataXu sees revenue surge above $100 million but in no rush for IPO

TechCrunch
Digital Ad Company Turn Raises $80M, Stays Vague On Possible IPO Plans
Posted Jan 13, 2014 by Anthony Ha (@anthonyha)

Market Volatility Raises Questions For Pre-IPO Ad Tech Firms
Liz Rowley // Monday, August 31st, 2015 – 4:17 pm

MediaMath Raises Huge $73.5 Million Series C Round
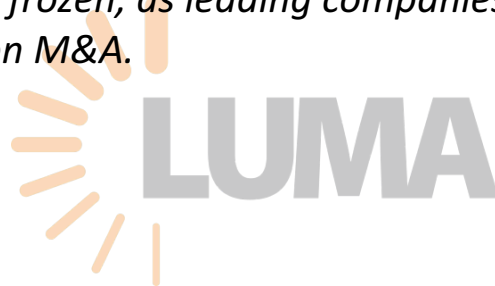A Massive Funding Round As Ad-Tech Stocks Wobble
By Alex Kantrowitz, Published on June 03, 2014
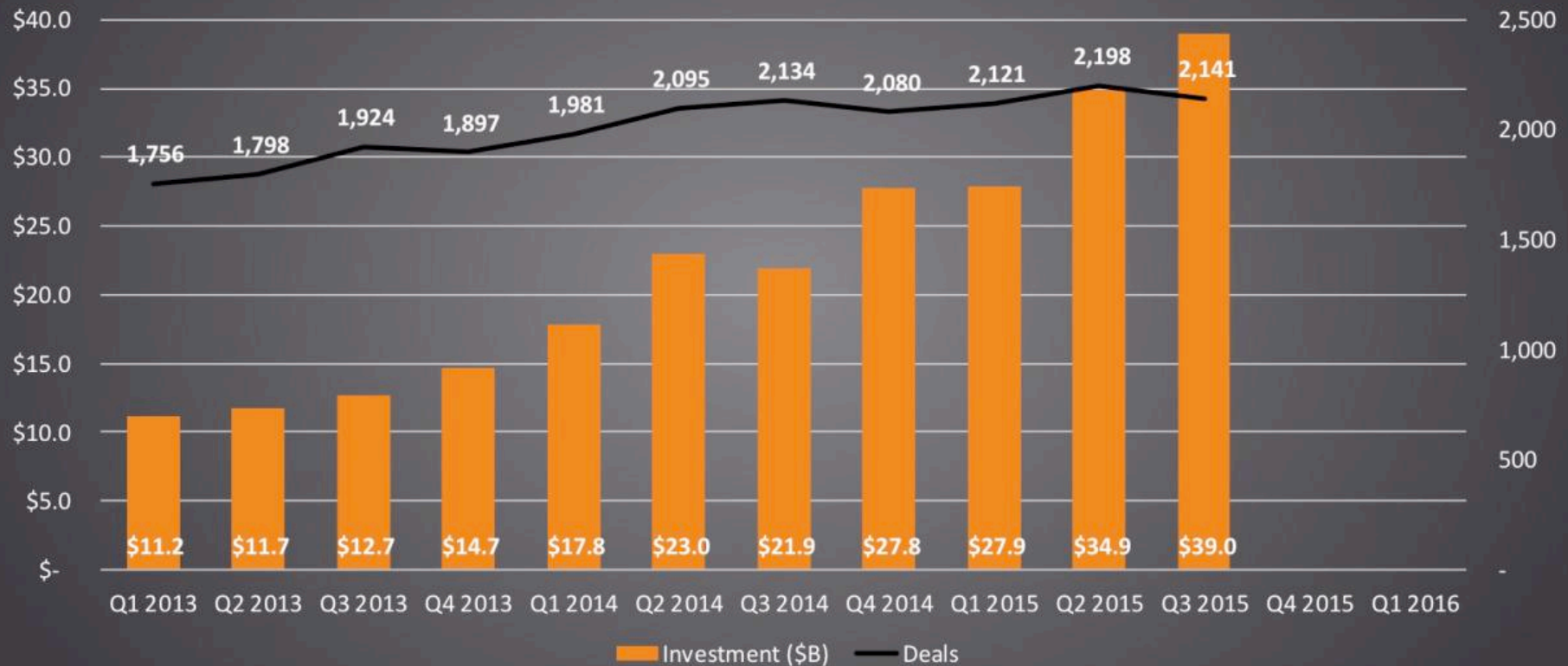
Bloomberg
Canadian tech IPOs set for a slow 2016, with Hootsuite, D2L likely delaying plans: OMERS Ventures
SCOTT DEVEAU, BLOOMBERG NEWS | December 8, 2015 4:10 PM ET
More from Bloomberg News

That pipeline has frozen, as leading companies push off IPO plans, raise large private rounds or focus on M&A.

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State of Venture Capital Funding

Venture capital investment had seen steady increases from 2013, peaking the third quarter of 2015.

State of Venture Capital Funding

Source: CB Insights, Dow Jones VentureSource

VC funding fell 29% during Q3 2015 to Q4 2015 and has continued to fall into 2016.

Even more shocking, the median value of U.S. startups has plunged from a peak of $61.5 million in Q3 2015 to $18.5 million in Q1 2016.

Significant Private Financings in 2016

App Annie · theTradeDesk · bloomreach

blippAR · Medium · MOAT · looker

[PERSADO] · drawbridge · insightly · blis
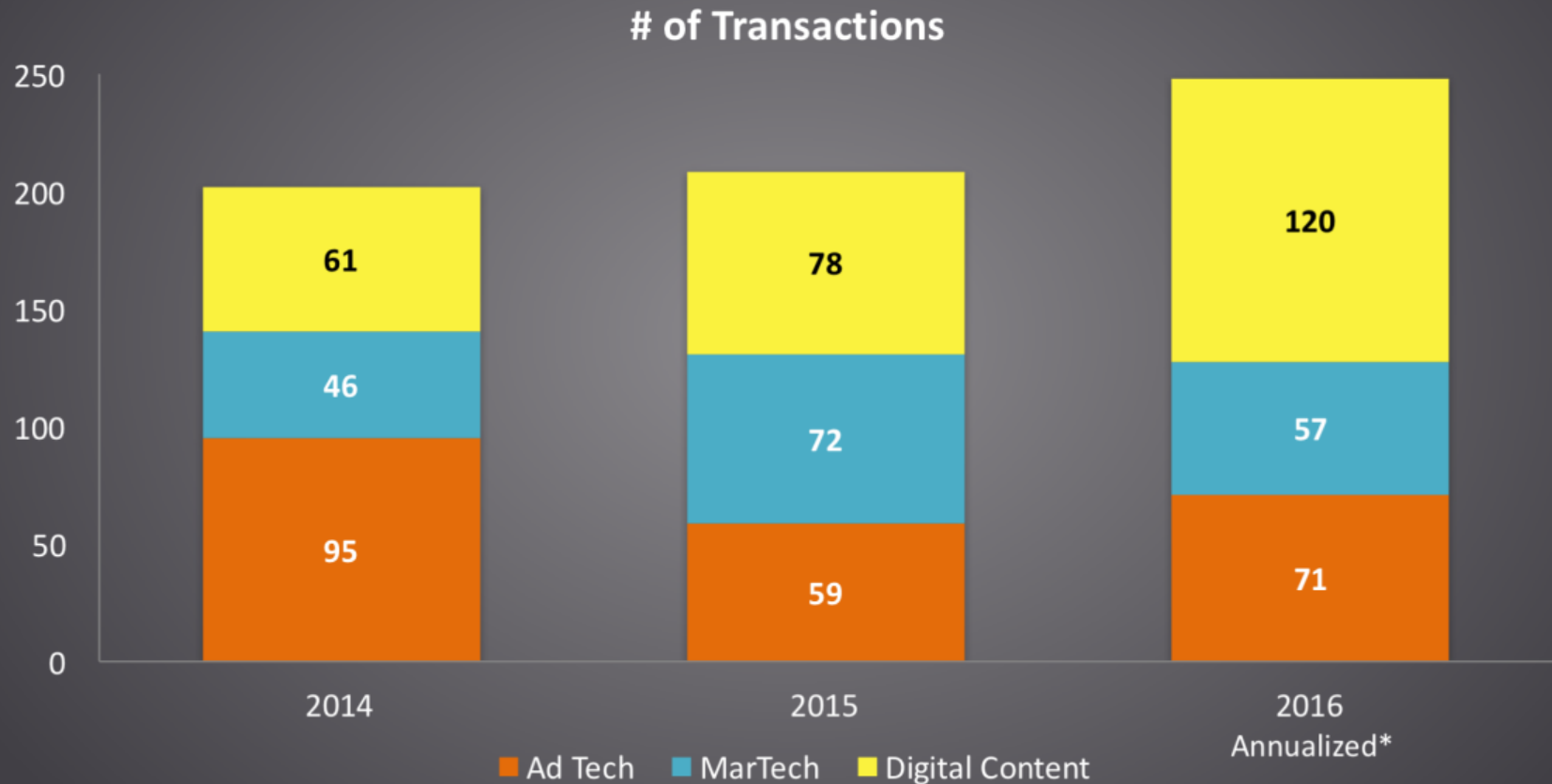
MINTIGO · appboy · mparticle · SIGNAL

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Despite the negative overall environment, a significant number of differentiated digital companies have successfully raised sizable new private financing this year.

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U.S. Digital Media M&A Activity by Sector

of Transactions

(Bar chart values)

2014: Ad Tech 95, MarTech 46, Digital Content 61

2015: Ad Tech 59, MarTech 72, Digital Content 78

2016 Annualized*: Ad Tech 71, MarTech 57, Digital Content 120
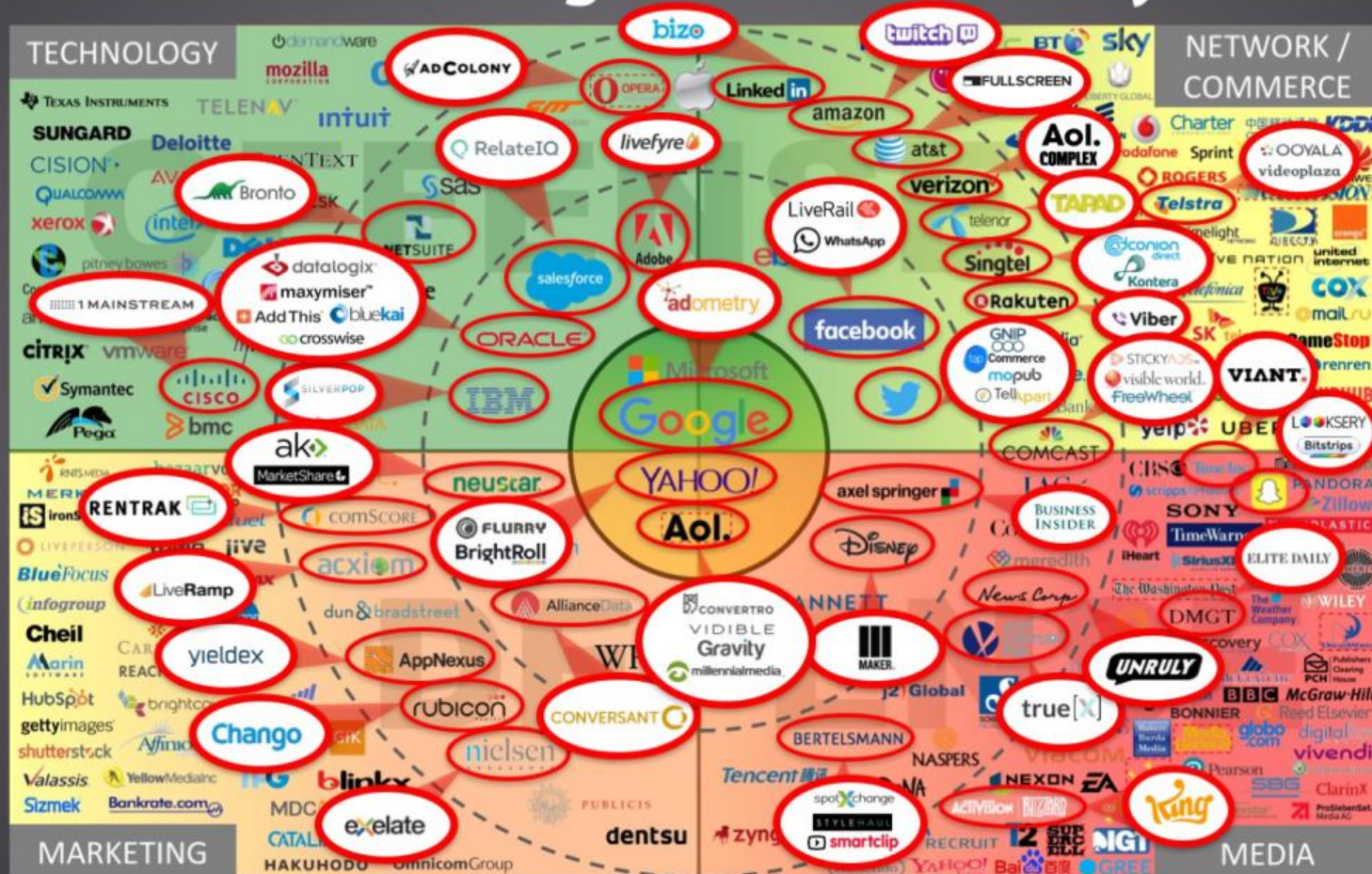
Legend: Ad Tech | MarTech | Digital Content

*Annualized as of 5/11/16.

While both the public and private markets struggle, M&A has been the one bright spot for digital media. On an annualized basis, 2016 continues the trend of up and to the right across most subsectors.
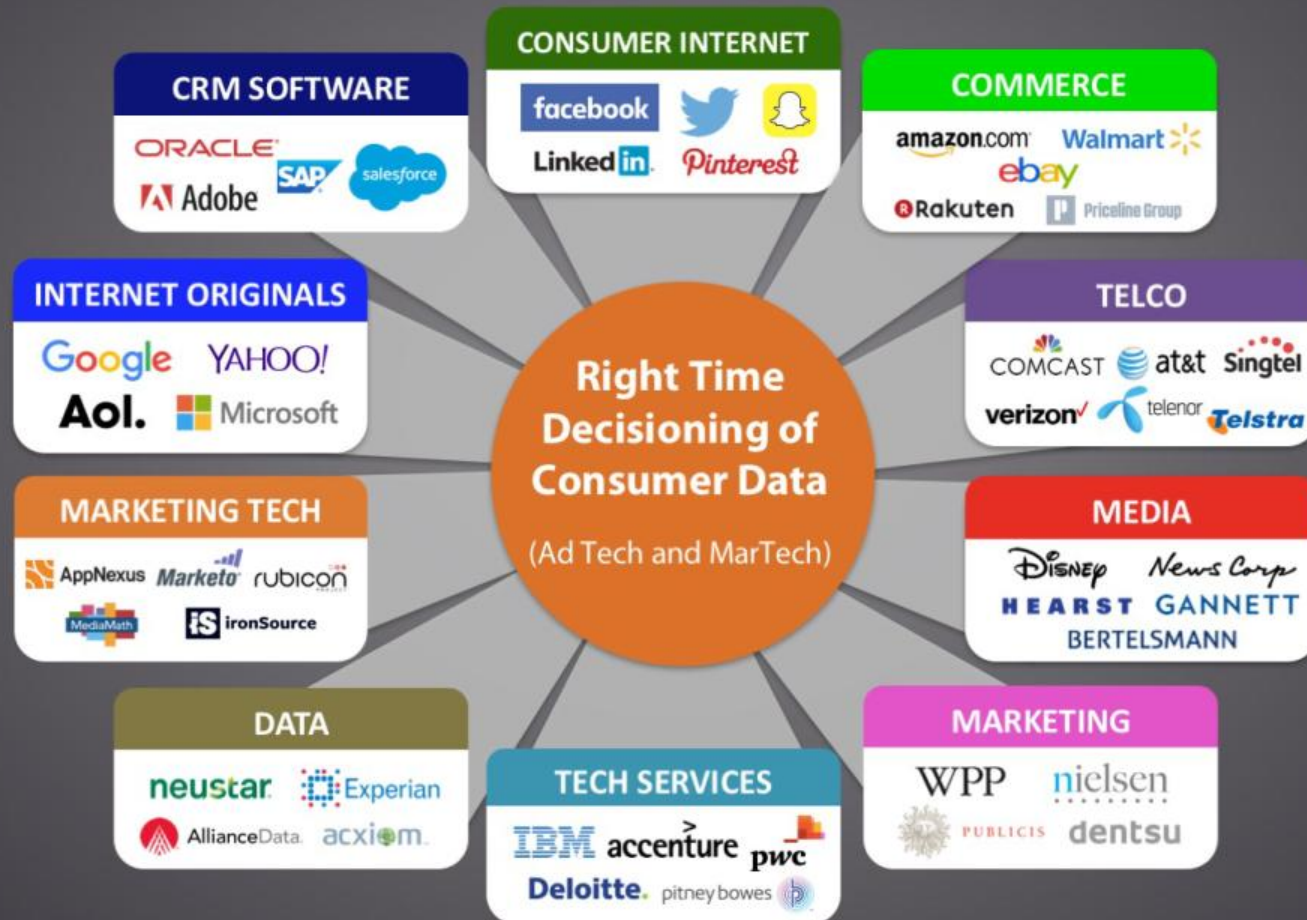
LUMA
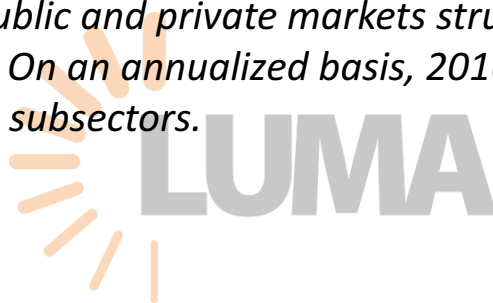
Significant Recent Digital M&A Activity

We have seen M&A activity from all sectors, Media, Marketing, Technology, and Network / Commerce.

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A Growing Pool of Strategic Players

Perhaps the most encouraging trend we see is buyers across an increasingly broad set of industry verticals have focused on Ad Tech and MarTech targets. These buyers bring differentiated customer and data assets driving strategic value and adding dynamic competitive tension for differentiated tech and data driven companies.
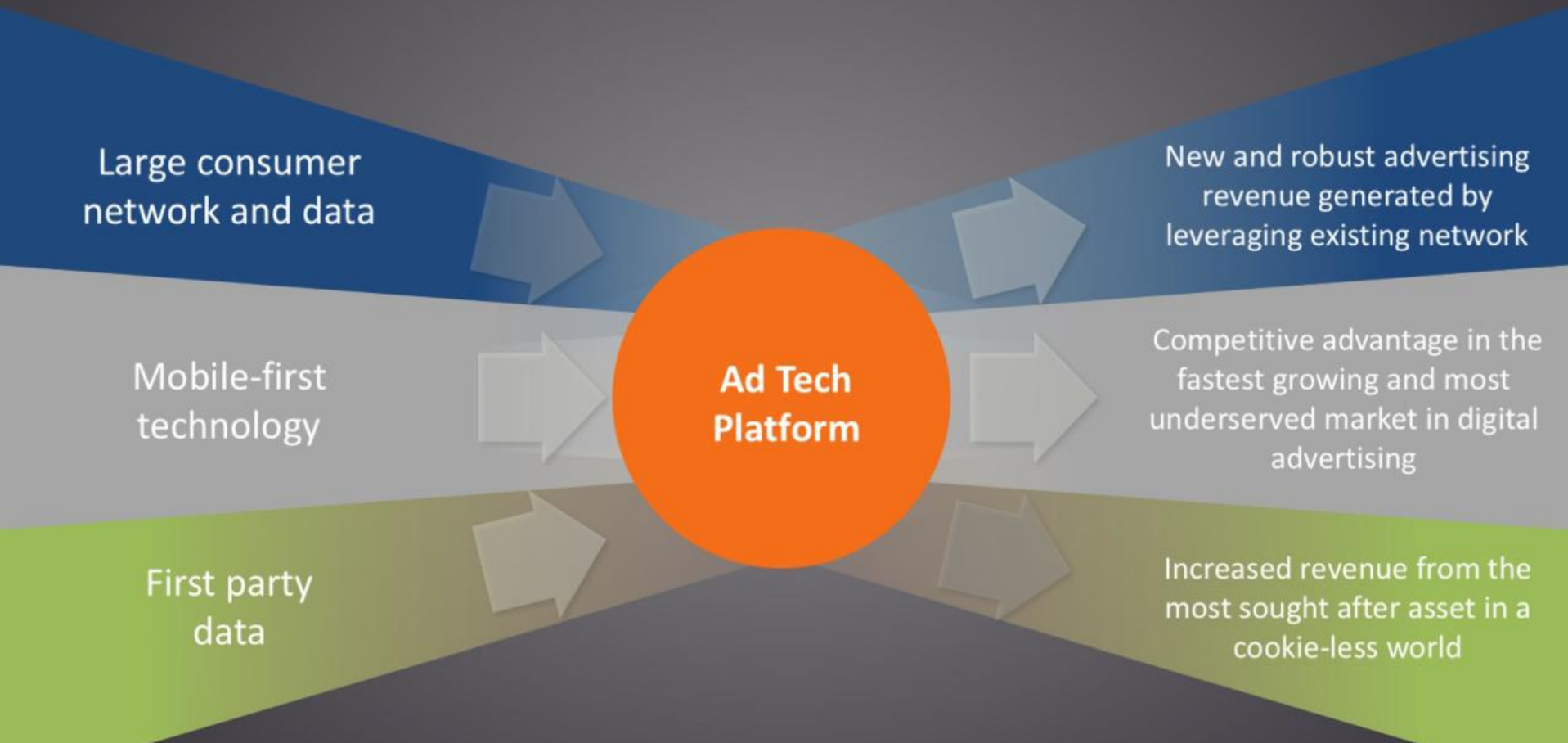
A Growing Pool of Strategic Players

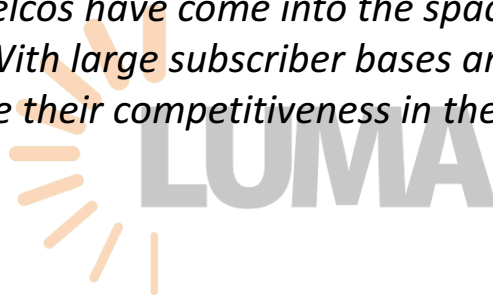**USUAL SUSPECTS**
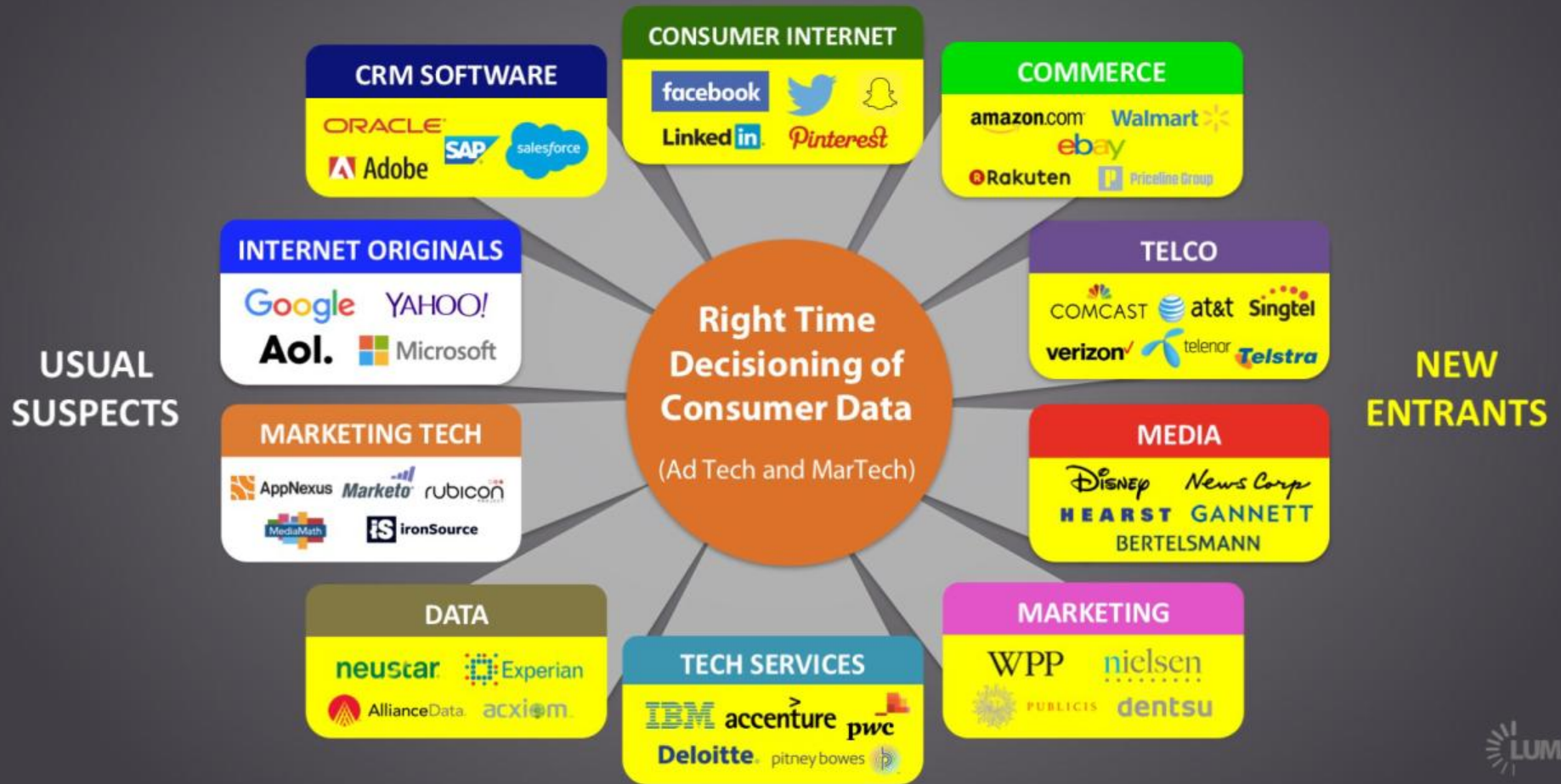
NEW ENTRANTS

Beyond the usual suspects, we are continuing to see deeper interest from new entrants, including CRM, Consumer Internet, Commerce, Telco, Media, Marketing, Tech Services and Data.

Case in Point: Why are Telecoms Eyeing Ad Tech?

Large consumer network and data

Mobile-first technology

First party data

Ad Tech Platform

New and robust advertising revenue generated by leveraging existing network

Competitive advantage in the fastest growing and most underserved market in digital advertising

Increased revenue from the most sought after asset in a cookie-less world

As an example, Telcos have come into the space in a meaningful way over the past twelve months. With large subscriber bases and valuable first-party data, Telcos have looked to improve their competitiveness in the digital world while driving meaningful revenue.

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M&A Activity Has Validated this Premise...

Recent M&A validates this Telco interest, with Singtel, Telenor, AT&T, Verizon, Comcast and Telstra all making significant acquisitions. We see this trend continuing as other major players actively evaluate the space.

Top Digital Media Trends

Top Trends
1. Programmatic
2. Mobile
3. Content 2.0
4. Convergent Video
5. Ad Tech / MarTech Convergence

Sincerely,

Francis J. Underwood
President of the United States of America

Top Digital Media Trends

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Programmatic Growth Inflected in 2014

2016 Forecast

Chart legend: 2012 Forecast, 2014 Forecast, Actual, 2016 Forecast

Year	2012 Forecast	2014 Forecast	Actual	2016 Forecast
2010	$0.4			
2011	$1.0			
2012	$1.9		$1.9	
2013	$3.4		$4.2	
2014	$4.6	$9.3	$10.3	
2015	$5.8	$11.0	$15.8	
2016	$7.1	$11.8		$22.1

Source: eMarketer

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Over past few years, the programmatic market has exploded, with the initial inflection point coming in 2014. Growth has increased dramatically, prompting eMarketer to continually increase estimates in order to catch up with actual results. With estimates over $20 billion for 2016 — programmatic is now a market with the scale to attract the interest of the large software companies.

As Did Programmatic M&A
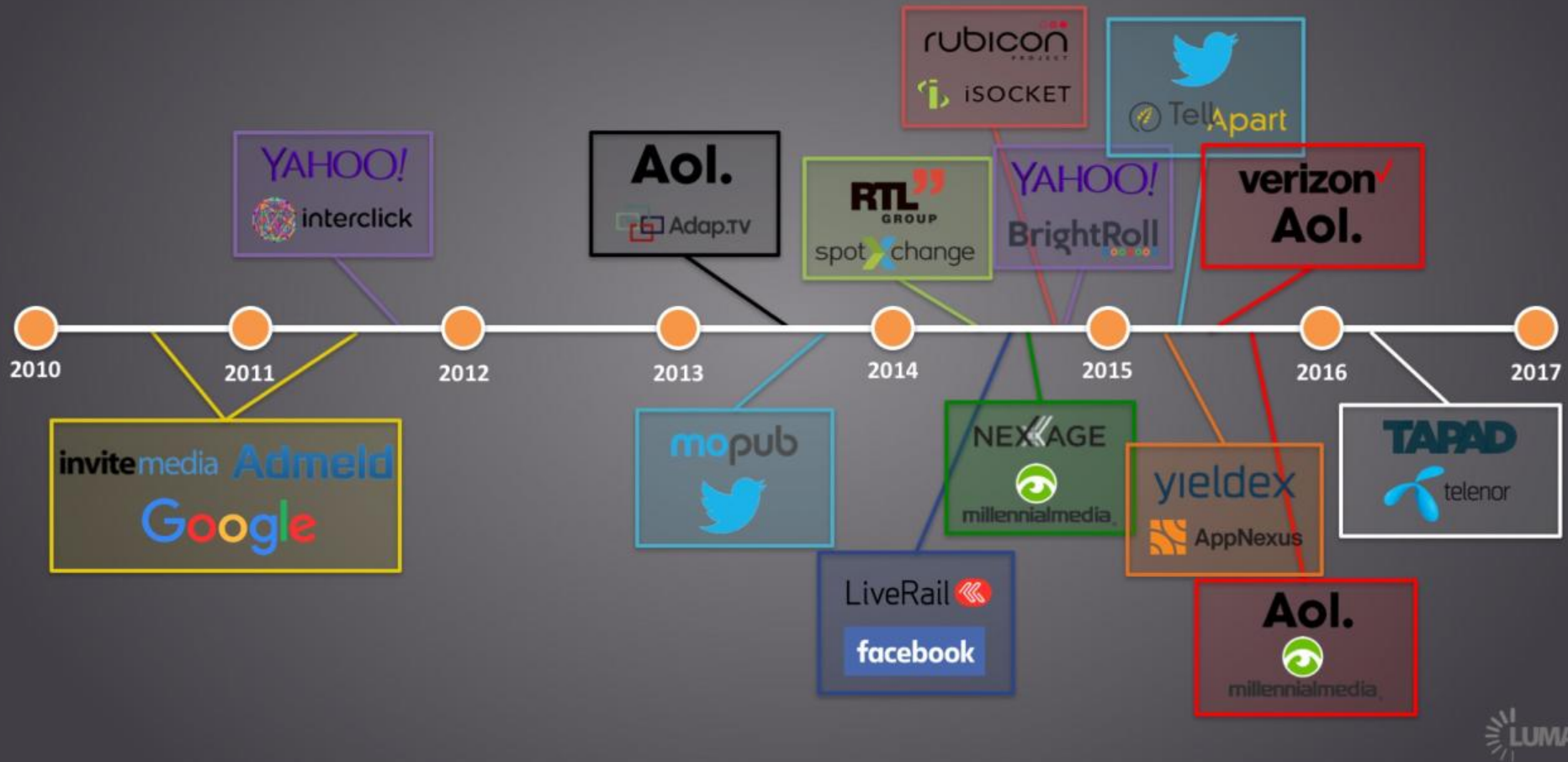
While some are building in-house, programmatic capabilities are largely being acquired through M&A, with a significant increase in transactions over the last year.

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Programmatic as a Business Model

Media	BUSINESS MODEL DRIVERS	SaaS Software
Low	GROWTH	High
40-50% Gross Margin	OPERATING LEVERAGE	70-80% Gross Margin
I/O Based Spend	PREDICTABILITY	Contractual Spend
0.5 – 2 x	REVENUE MULTIPLE	5 – 10 x
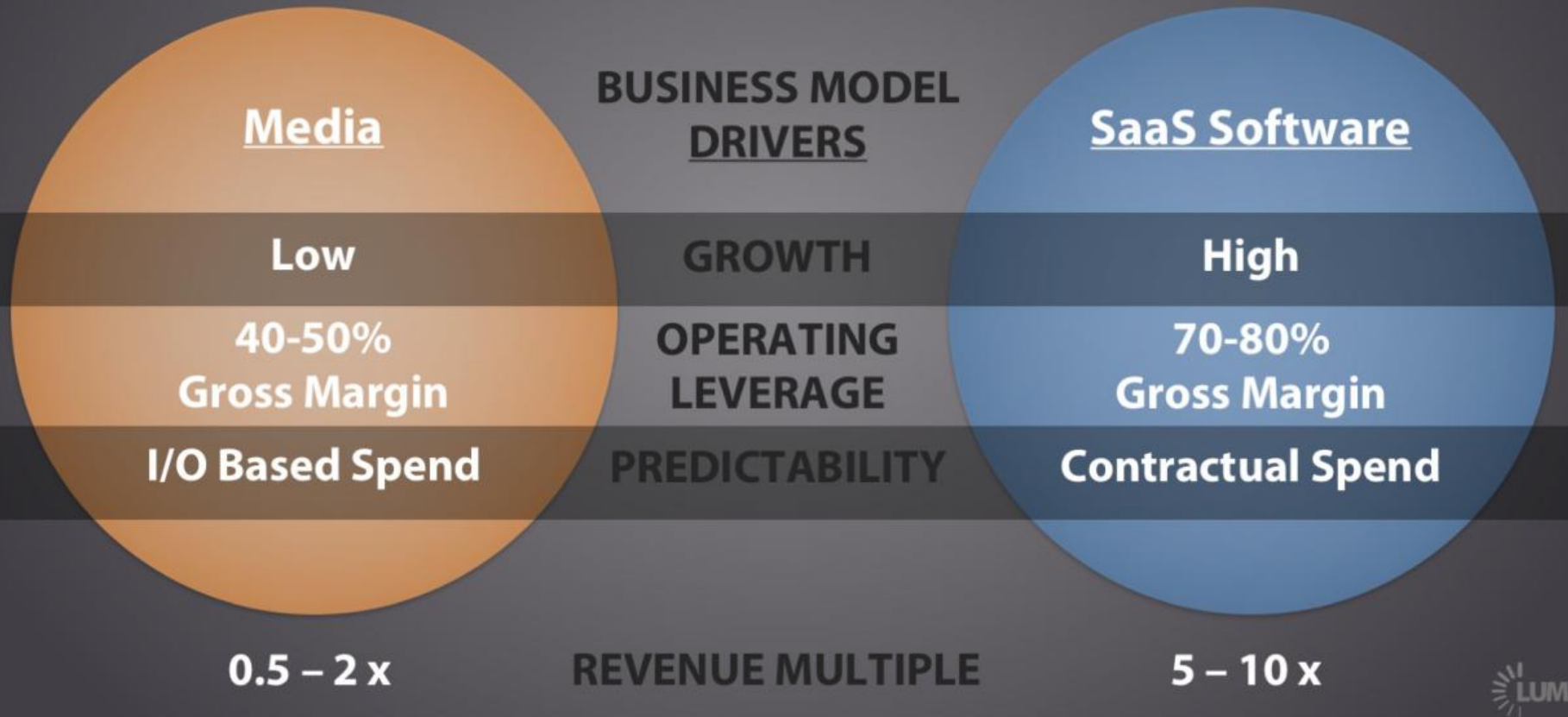
Investors value companies based on growth, operating leverage and predictability of revenues. SaaS software companies in general have these attributes. Contrast that with traditional media models, which are showing slower growth, low gross margins and I/O-based contracts. These differences are reflected by a wide disparity in valuation multiples.

Programmatic as a Business Model: Like SaaS

Programmatic

High Growth

70-80%
Gross Margin

Predictable Spend

4 – 8 x

Programmatic businesses are also showing high growth and software gross margins. While these businesses may not have contractual recurring revenues, they have de-facto predictable revenues since they have evergreen budgets.
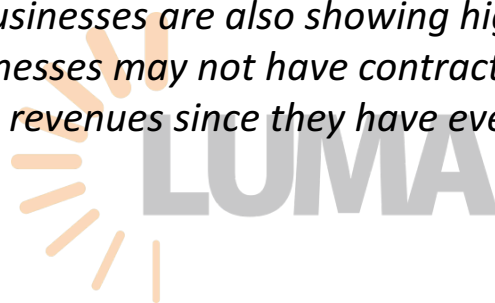
Predictability: Reclassifying Advertising Expense

INCOME STATEMENT

Revenue	$1,000
COGS	$550
Gross Margin	$450
Expenses	$250
Pre Tax Profit	$200

- Automated performance advertising at scale ceases to be a *discretionary expense*

- Like search!

As the connection between spend and results tightens, advertising becomes more predictable. Predictability is not something typically associated with advertising given that ads traditionally have been bought on an insertion order ("I/O") basis. But programmatic enables performance advertising to be an "always on" expense, therefore reclassifying it from a discretionary operating expense to a cost of goods sold.

Top Digital Media Trends

Top Trends

1. Programmatic
2. Mobile
3. Content 2.0
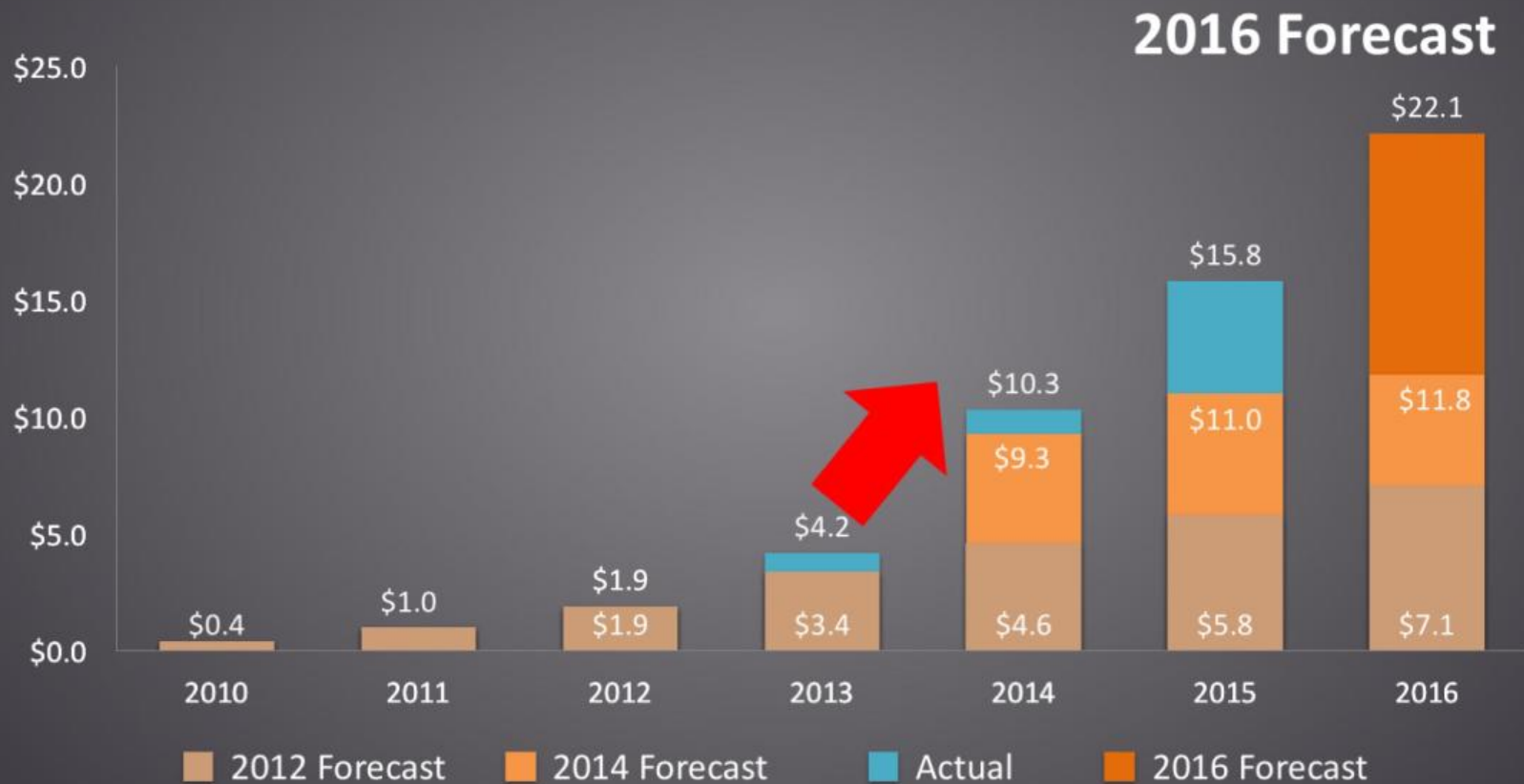4. Convergent Video
5. Ad Tech / MarTech Convergence

Sincerely,

Francis J. Underwood

Francis J. Underwood
President of the United States of America

The Banner Experiment

To appreciate how much progress has been made in the mobile advertising market, we think it's helpful to take a step back and revisit the experience of a few years ago. Early attempts in the space involved porting banner ads that were commonplace in desktop. Users hated these ads since they were disruptive to the app experience and usually not even relevant / targeted. Ultimately, they drove a poor user experience and held the market back, which was why we kept waiting for the year of mobile ads.

Better Experience = Better Results

VERTICAL
98%
Use mobile phones in portrait mode

SHORT
:08s
The average human attention span

MUTE
90%
of video in display ads are viewed in mute mode

Source: Chartboost (Left); Celtra (Right)

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Fortunately, we've seen an evolution to better formats as smart companies have focused on improving the mobile ad experience. Chartboost was one of these innovators when they introduced interstitials that had a native look and feel - note the wrapper around the ad creative that matches the publisher's art. Companies like Celtra, Facebook and Snapchat have focused on how consumers use their phones for specific use cases and have developed best practices for presenting video ads in feeds.

Value Exchange Working
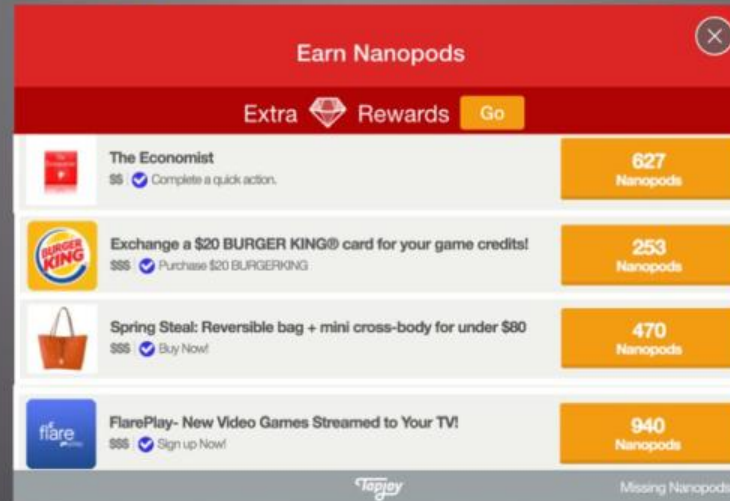
Rewarded video has been particularly compelling – most apps that utilize the freemium model see very low percentages of users convert to payers. They have a great opportunity to monetize the 95%+ that don't spend on in-app purchases, as users actually like the value exchange of earning their desired content without having to pay for it. This approach can scale for hardcore gamers that are willing to engage with brands at a deeper level for more significant rewards.

Value Exchange Working
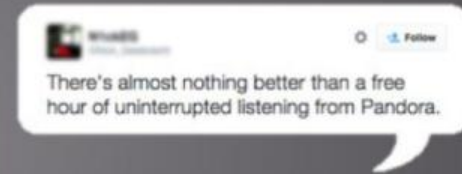
We've started to see non-game publishers turn to rewarded video to realize these benefits as well, such as Pandora with their Sponsored Listening program. Users can watch a short video ad and get an hour of uninterrupted listening. Pandora can enforce viewability and only charges the sponsor when users have engaged with the video for at least 15 seconds. The early results have been promising, as beta partners saw >10% increase in brand awareness and a 30% lift in purchase intent.

App Consumption Trends

Time Spent in Mobile Apps

in minutes

Messaging & Social: Q2 2014 = 45, Q2 2015 = 68
Entertainment: Q2 2014 = 13, Q2 2015 = 44
Gaming: Q2 2014 = 52, Q2 2015 = 33

■ Q2 2014 ■ Q2 2015

Source: Flurry

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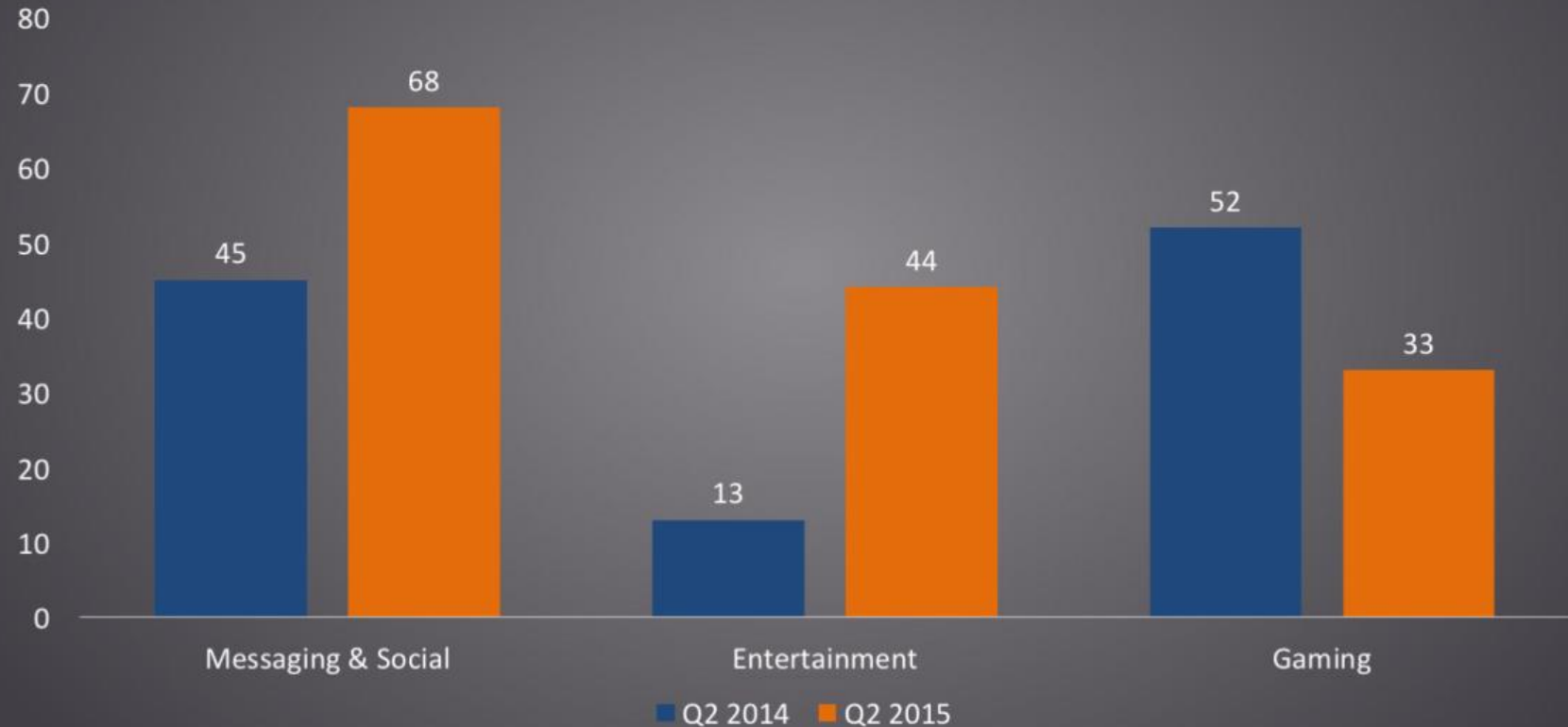
Up until now, gaming companies have (1) dominated the app ecosystem from both a revenue and time spent perspective and (2) been some of the most sophisticated marketers in mobile. App consumption patterns have now changed, with messaging & social surpassing gaming for most time spent in mobile apps according to Flurry's most recent report on usage trends.

This is the Year of Messaging

The New York Times
As Messaging Apps Boom, Brands Tiptoe In
APRIL 4, 2016

The Economist
Bots, the next frontier
Apr 9th 2016

2016

the guardian
Will messaging apps challenge the web's monopolisation?
Friday 18 March 2016 05.54 EDT

THE WALL STREET JOURNAL.
The Future of Mobile Chatting: Commerce
Jan. 4, 2016 6:44 p.m. ET

Mobile messaging has become the hottest topic in the space with tons of press coverage on chatbots, AI and the conversational commerce opportunity. There are a number of players in the sector with scaled user bases, with many focused on specific geographies / demographics at least initially.

Marketers Join the Conversation

Advertisers are experimenting with messaging platforms to connect with consumers in new, engaging ways. This can be as simple as Swyft Media offering a Minions-themed keyboard, a powerful branding opportunity. Inmoji is making emojis interactive, so users can share brand experiences with a clickable Starbucks emoji that leads to an offer or gift. Snapchat Lenses like the Gatorade sponsored Lens during the Super Bowl saw 160 million views that day, with average engagement time north of 30 seconds.

Mobile Devices: The Remote Control for Our Lives

We've talked about your phone being the remote control for your life with the ability to push a button and access a range of services. Messaging apps are seizing upon the opportunity to integrate a number of these services into their experience and become more platform-like.

Messaging as a Platform
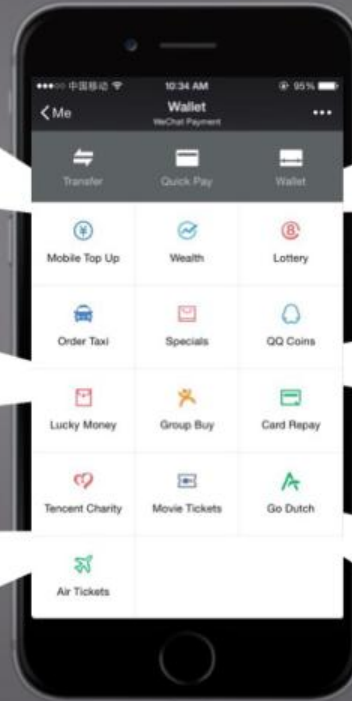
Tencent's WeChat has evolved from a basic communications app into a cultural phenomenon changing people's daily behavior. WeChat's massive, mobile-only user base is using the platform and its integrated payment capability for a range of use cases beyond social networking and messaging, from booking a car to donating to charity.

Bots = Natural Customer Service Channel
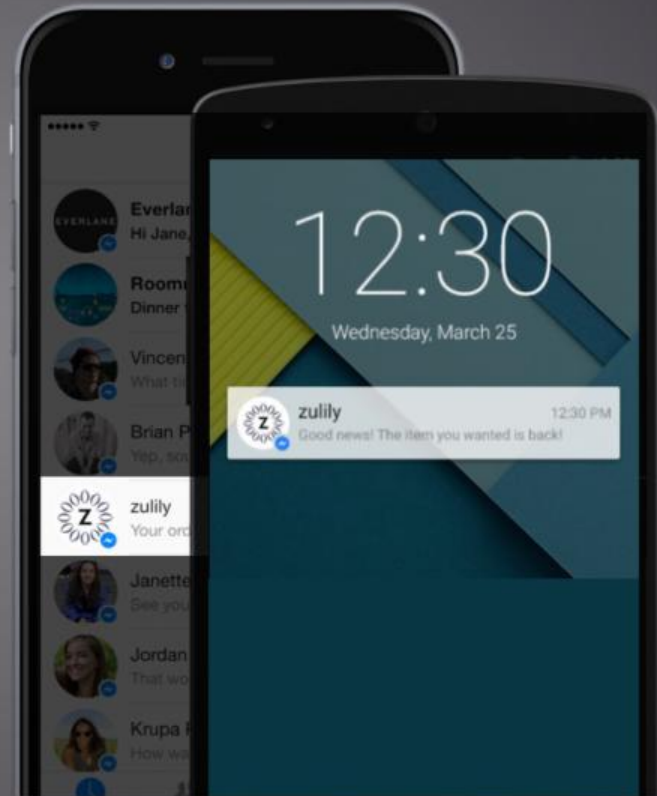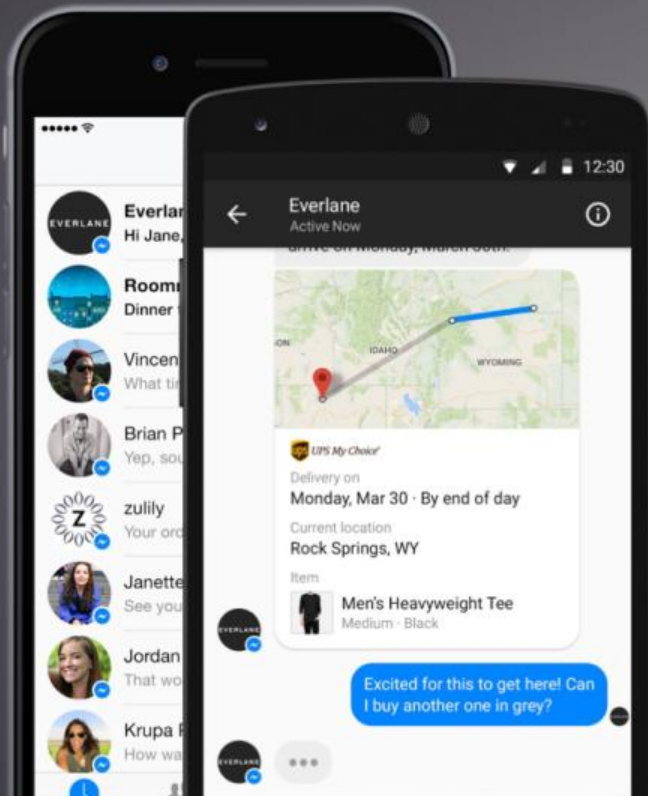
Given younger generations prefer messaging apps to email, these platforms represent a natural channel for customer service. The example shown here is from Facebook's F8 showcase of how they're working to bring brands into Messenger. Kik is innovating in this area, focusing on building brand relationships higher up the funnel. It will be interesting to see if consumers are willing to interact with brands in the same way as they do with their friends.

The Impending Bot Race is Really About Data
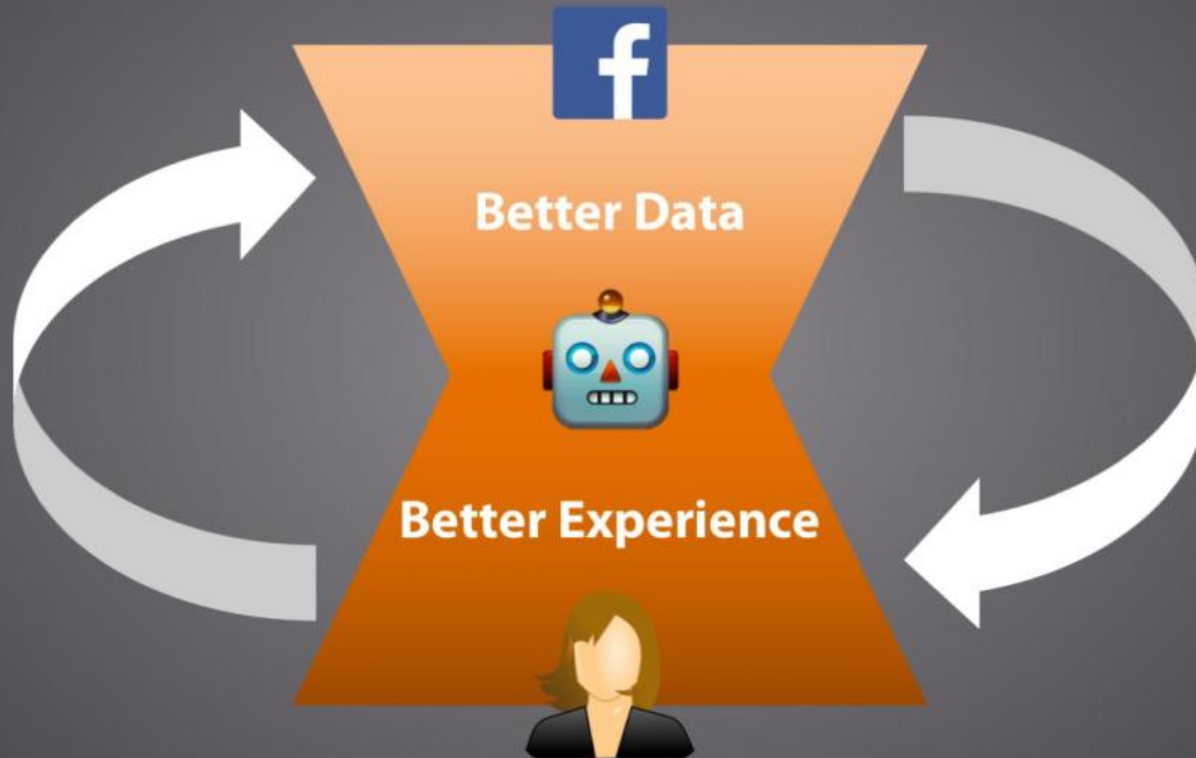
Conversational commerce clearly has tremendous potential, but brands need to strike the right balance with consumers to pull this off successfully. Messaging apps are personal spaces, so it is critical to get the experience right / establish an authentic relationship. Brands can't be too talkative or users will turn them off. It is paramount to deliver the right message at the right time and the mobile marketing automation / CRM innovators will be valuable to delivering the appropriate user experience.

It's obviously early days for the bot market, but if messaging platforms can integrate these types of services in a great experience, they have the potential to realize similar success to what we've seen in the app ecosystem and change a number of brands' thinking with respect to their mobile app strategies.

What the Opportunity Might Look Like (Cont'd)

bot
"There's an ~~app~~ for that"

$40 Billion
in Revenue to Developers since 2008

Source: Apple

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We are seeing app fatigue, as most people only use a few apps regularly and Americans are now downloading an average of zero new apps per month, so messaging platforms represent an existential threat to apps. Some brands will have big enough audiences and high enough engagement that a standalone app makes sense, but many others may turn to messaging platforms as their go-to mobile solution.

Top Digital Media Trends

The Media Business Has Changed

Old Model

New Model

Production

Distribution

Monetization

Distribution

Data

Data

Production
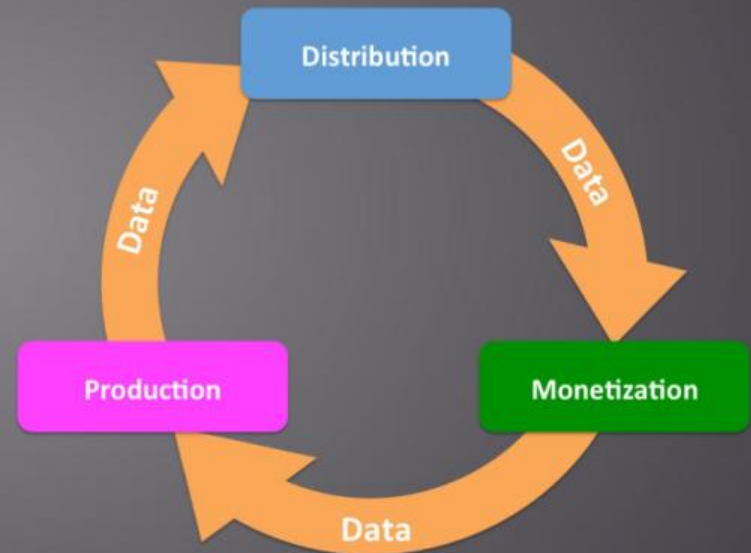
Monetization

Data

The old media business model was disjointed and siloed. Separate teams were involved with each process with no way for each step to learn from each other. The new model uses technology and data to connect production, distribution and monetization to create a feedback loop that optimizes the overall business.

Tech is the New Editor

Publishing no longer is based on gut feeling or emotion. Instead of publishing content blindly, publishers have insight into how it will perform before it goes live with objective data.

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Publishers Gather Data and Analyze Signals

Why is this content more popular now than before?

What keywords and topics generate the most shares?

How does this type of content spread on social media?

When is the best time to publish this piece of content?

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How do publishers do it? Publishers constantly gather data and analyze signals to optimize content for trending stories, timing and unique headlines. This ability has become table stakes for any scaled publisher with the number of distribution channels and devices continuing to grow.
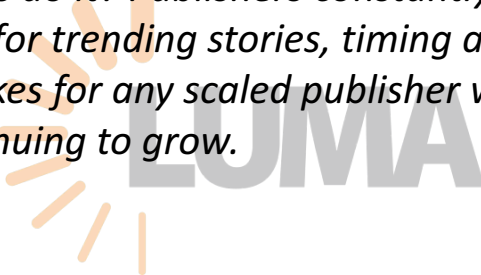
Content Studios are Forming to Make Native Ads

As publishers have mastered the ability to reach large audiences at scale, marketers have turned to them to create branded content and native advertising. To fulfill this demand, a large majority of the top publishers have formed dedicated studios to create content for these clients.

Publishers Are the New Agencies

Marketer → Create → Publisher → Distribute → Audience

Agency (crossed out)

Publishers have effectively become the new agency, by bringing capabilities to marketers that the traditional agency lacks: distribution. Publishers are no longer simply a destination to sell media inventory. They can now play a leading role in the planning, creation and distribution of marketing campaigns. This trend is indicative of the evolving skillset and ambitions of the modern publisher.

The Path to Scale Comes with Platform Risk

ADWEEK
Google's Mobile Update Has Websites Worried About Search Rankings on Phones

DIGIDAY
Facebook's traffic to top publishers fell 32 percent since January
Lucia Moses @lmoses | November 9, 2015

Search Engine Land
Google Forecloses On Content Farms With "Panda" Algorithm Update
Danny Sullivan on February 24, 2011 at 9:50 pm

Forbes
Facebook Changes News Feed Algorithm To Prioritize Content From Friends Over Pages

Among the challenges publishers face during the "distributed" age of media, the greatest is platform risk. Publishers are being forced to adapt quickly or lose significant traffic with every algorithmic change from the leading distribution platforms.

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While Dependence on Platforms Grow

Top Traffic Referral Sources (Aug. – Oct. 2015)

Source: Parse.ly
*Google sites is the aggregate of all Google owned sites
*News sites is the aggregate of the top 100 news sites as ranked by Comscore

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As traffic to publishers' home pages plummets, their dependency on referral traffic grows. Search and increasingly social have become the primary referral channels from where most visitors come from. Therefore, it is no surprise that Facebook and Google lead referral traffic by an overwhelming margin for web traffic as a whole. Although this may look different for premium publishers.

Now It is Imperative to Acquire Audiences & Scale

Notable Acquisitions

The media landscape continues to change rapidly, with new trends and challenges emerging every year. As the landscape shifts, it becomes essential to acquire other publishers with either niche, yet highly engaged audiences or with tremendous scale and distribution proficiency.
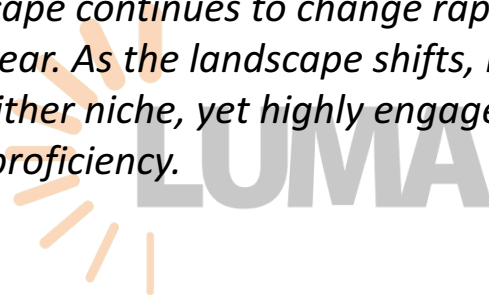
Top Digital Media Trends

Top Trends
1. Programmatic
2. Mobile
3. Content 2.0
4. Convergent Video
5. Ad Tech / MarTech Convergence

Sincerely,

Francis J. Underwood
President of the United States of America

YouTube Has Dominated the Rise of Digital Video

Average Time Spent per Day with Digital Video by Device in U.S.

Hours

0.8
0.6
0.4
0.2
0

2011 2012 2013 2014 2015

■ Tablet ■ Smartphone ■ Desktop ■ Other

Source: eMarketer, comScore Video Metrix December 2015
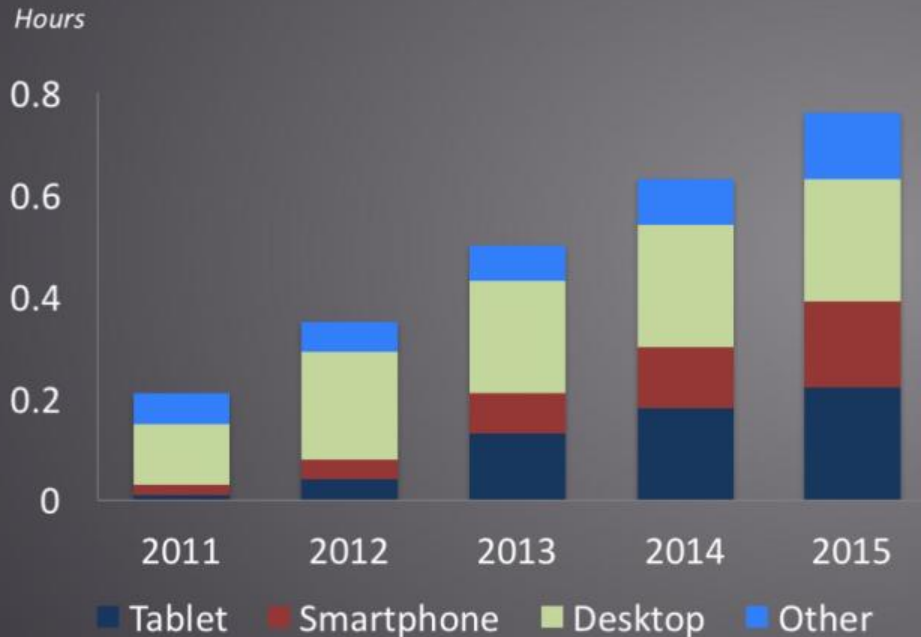
U.S. Digital Video Properties Ranked by Unique Video Viewers

You Tube 28%

NBCUniversal
Microsoft
WARNER MUSIC
MAKER.
vevo
MODE MEDIA
vimeo
Y!
f

LUMA
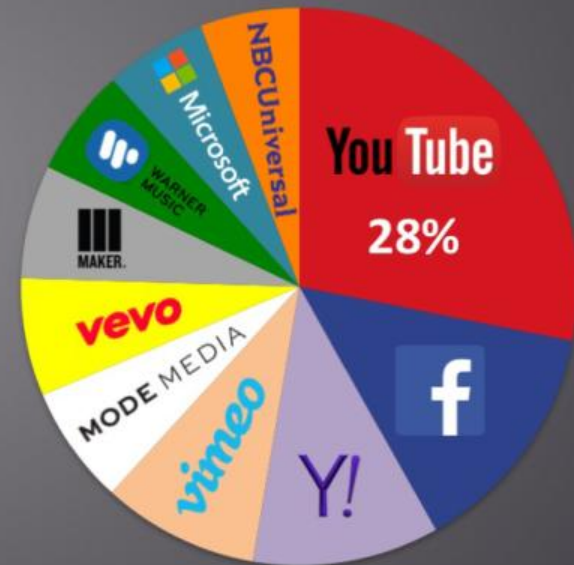
During the early days of digital video, YouTube led the way and quickly became the de-facto web destination for video. YouTube has sustained its success by building an ecosystem of creators and advertisers that pushes great content and viewers back to the platform.

But Now It's Not the Only Game in Town

But now the industry has hit an inflection point. Dozens of competitors have emerged as mobile and OTT video have exploded in recent years. Each has its own unique value to consumers, showing how video continues to evolve beyond desktop video and how technology is creating different viewing and capture behaviors.

Facebook Auto-Play Videos are Ubiquitous

facebook

8 Billion Daily Views

85%
From Mobile

When Facebook introduced auto-play videos in the News Feed, it was a watershed moment for mobile video. Consumption for this format took off and quickly showed the potential for video in the mobile context.

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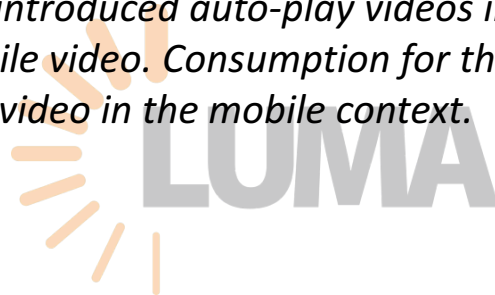
Mobile Apps Bring Live Content to Your Fingertips

Through apps like Periscope and Facebook Live, users are broadcasting their lives and sharing content wherever they are. "Live" video is no longer reserved to TV. In fact, audiences watching live video through mobile now match, if not surpass, audiences watching TV.

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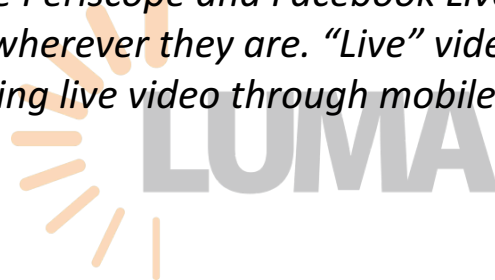
Snapchat Has Built Mobile-First Advertising

Snapchat has created true mobile-first video advertising by not only reformatting ads vertically, but by also introducing interactive experiences native to mobile, such as swiping and shareability.
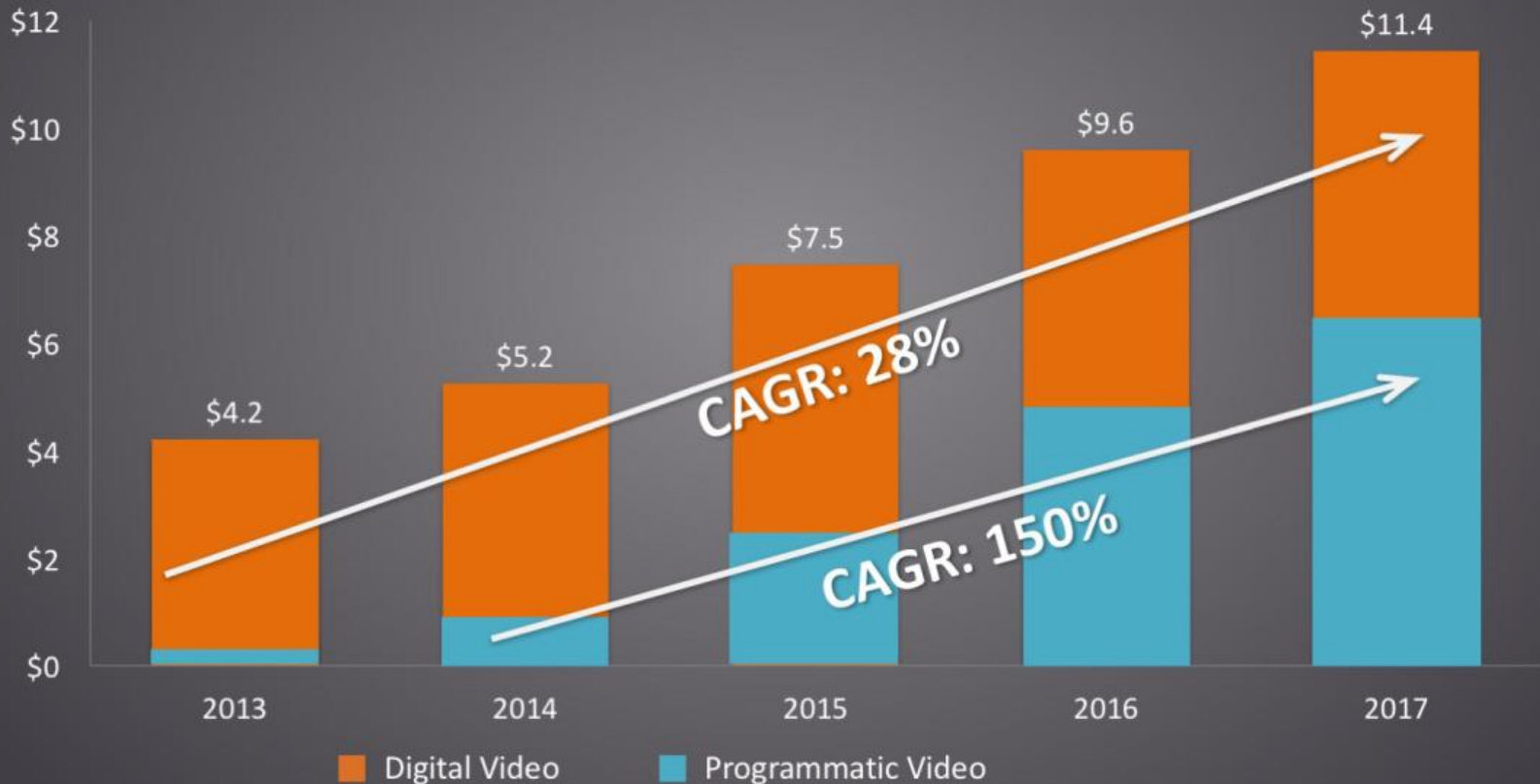
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Digital Video Spend Continues to Rise

$ billions

Chart showing Digital Video and Programmatic Video spend:
- 2013: $4.2
- 2014: $5.2
- 2015: $7.5
- 2016: $9.6
- 2017: $11.4

CAGR: 28%

CAGR: 150%

Legend: ■ Digital Video ■ Programmatic Video

Source: eMarketer

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Digital video is enjoying a surge in marketing spend as marketers allocate more money into premium content, which is very limited in supply but high in demand. Digital video is also increasingly being bought and sold programmatically. The programmatic video market is expected to grow at a compounded annual growth rate of 172% from 2013-2016.

But is Still Only a Fraction of the TV Market

$ billions
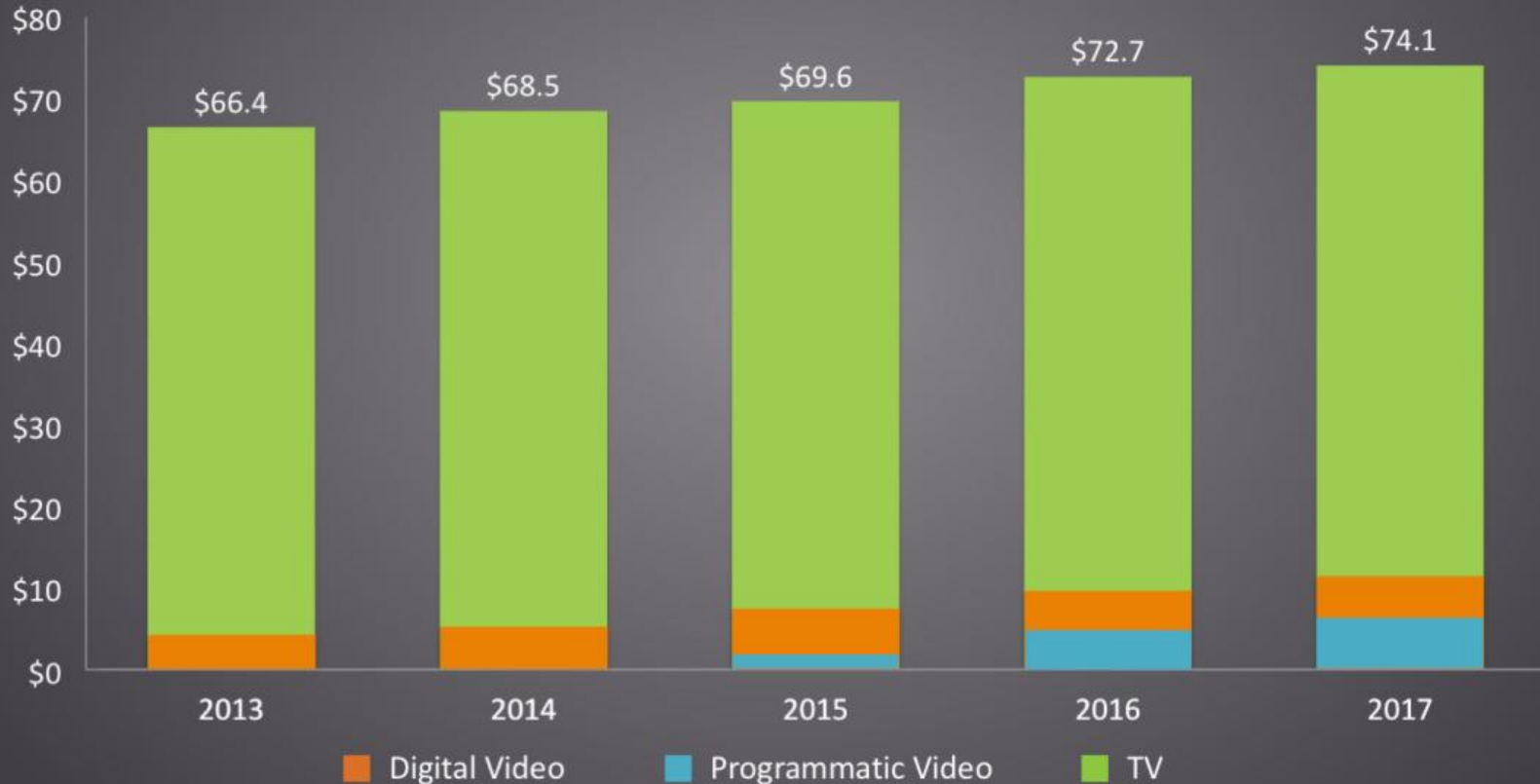
Although the digital video market is growing at a staggering rate, it pales in comparison to the TV market, which is expected to surpass $70 billion this year. The world's major marketers reserve most of their advertising budgets to TV, which is the largest and most preferred channel for brand advertising.

Upfronts Were Down in 2015

B&C THE BUSINESS OF TELEVISION BROADCASTING & CABLE — Multiplatform TV: Starcom Exec Sees 'Weaker' Upfront But Other Bright Spots

VARIETY MAY 6, 2015 | 11:39AM PT — Upfront 2015: Major TV Networks Face Severe Pressure on Ad Prices

THE WALL STREET JOURNAL. June 13, 2014, 4:10 PM ET — The TV Upfront Market Is Turning Out As Anemic As Some Forecast

Los Angeles Times JULY 24, 2014, 5:00 AM — TV ad sales fall short of target

AdAge. — TV Upfront Trudges Along, but Some Advertisers Hold on to Dollars ... Negotiations C... ...e as Advertisers Push Ba...

AdAge. — Programmatic Ad Tech Dominates Omnicom Earnings Call ...ing How Omnicom and Clients Go to Market

AdAge. — Cable TV's Upfront Haul Declines for First Time in Four Years. Networks Secure $9.6 Billion, a 6% Decline in Ad Dollars. By Jeanine Poggi. Published on October 23, 2014. 2

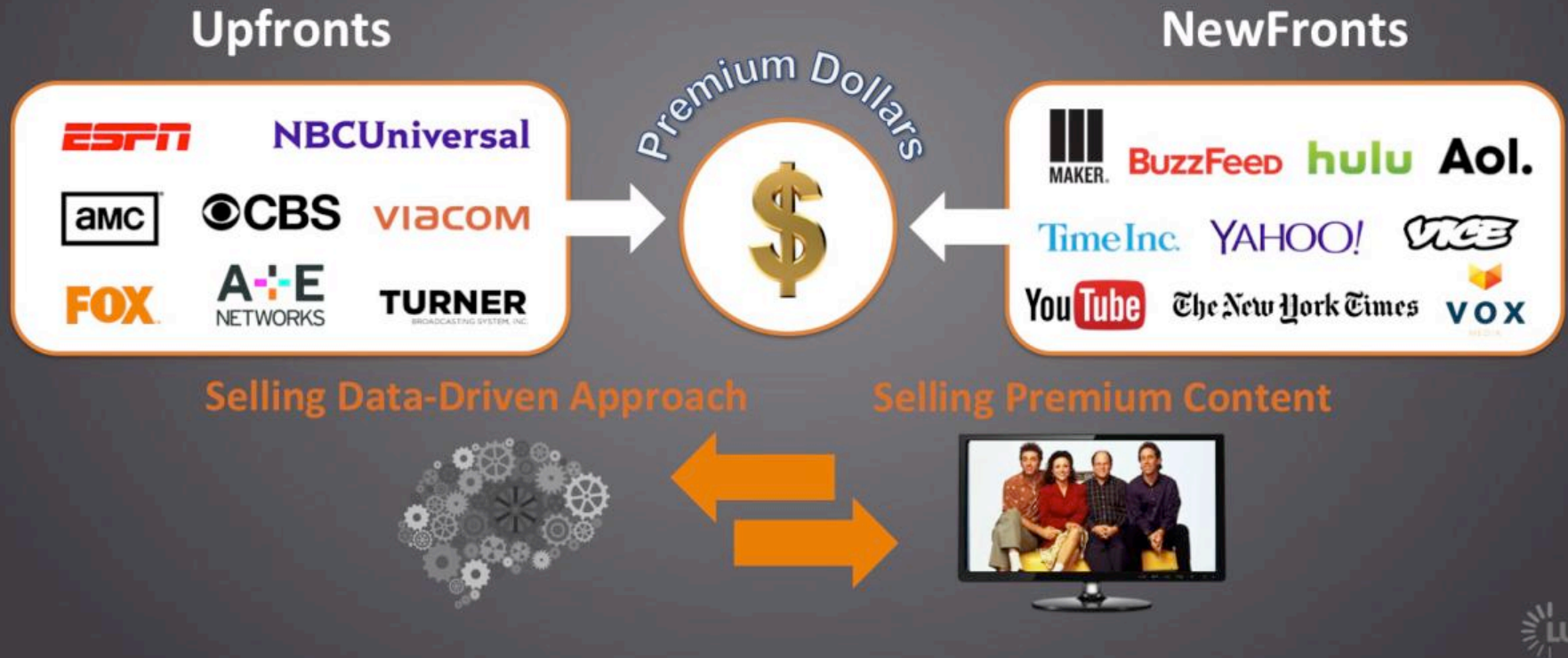**AdAge.** — Brutal TV Upfront Ahead As Buyers, Sellers Toughen Bargaining Positions. By Jack Neff. Published on April 20, 2015.

However, the outlook for the TV market seems challenging. Upfronts, which are often used to gauge the health of the market, have shown weak interest from TV's major advertisers over the past few years. While the Upfronts are expected to increase marginally in 2016, TV companies are still on their heels as consumers continue watching content on multiple screens and marketers adjust their advertising spend accordingly.

Selling Points Remain Reversed in 2016

Upfronts

ESPN NBCUniversal
aMC ⊙CBS VIACOM
FOX A+E NETWORKS TURNER

Premium Dollars

$

NewFronts

MAKER BuzzFeed hulu Aol.
Time Inc. YAHOO! VICE
YouTube The New York Times VOX

Selling Data-Driven Approach   **Selling Premium Content**

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In addition to the Upfronts decline, in 2015, we saw the selling points of TV and digital players reverse. TV networks were introducing new data products after feeling pressure from marketers to provide more granular targeting, while Digital companies were selling marketers high quality content that they felt deserved premium dollars because of their coveted audiences and engaging content. We've seen this trend continue into 2016 as the two sides continue to converge their offerings.

Ad Spend is Following Original Content

Average Annual Ad Spend on Original Digital Video

($ in billions)

CAGR: 46%

$5
$4
$3
$2
$1
$0

$2.1 — 2014
$3.0 — 2015
$4.5 — 2016
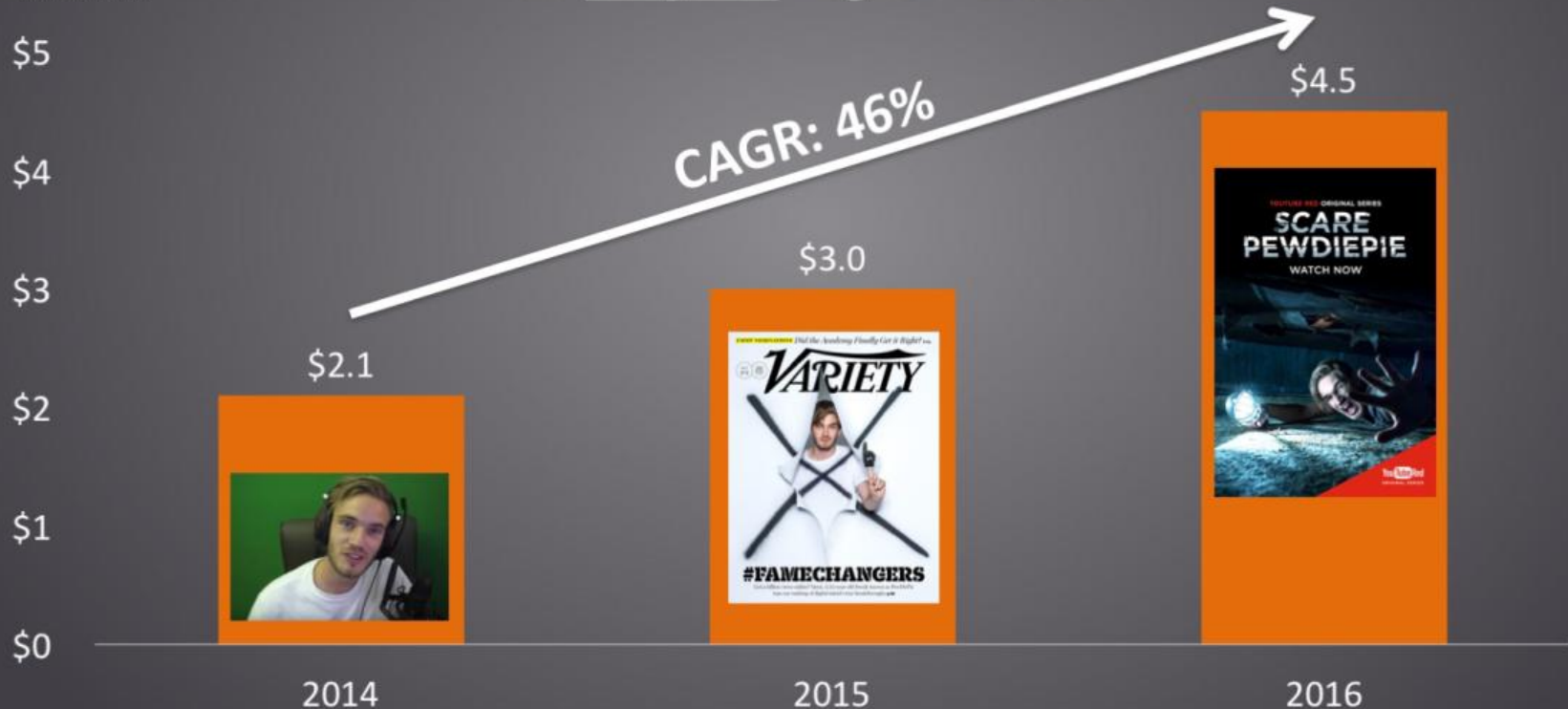
Source: IAB

For the digital players, this has been a successful strategy, as the ad spend for original digital video has continued to increase with advertisers beginning to view it as premium content. Since 2014, the average annual ad spend on original digital video has increased 114%, from $2.1 billion in 2014 to $4.5 billion in 2016.

"Programmatic TV" Becoming a Reality

While we would hesitate to say that "Programmatic TV" is actually here, companies are certainly making steps in the right direction. NBCUniversal, for example, announced NBCUx for Linear TV in February, allowing advertisers to use data and automation to build media plans for linear TV inventory. Similarly, AT&T recently partnered with Videology to create a private marketplace for advertisers to buy linear TV inventory programmatically.

# "Programmatic TV" Won't Follow Digital

TV

Digital

What is clear, is that monetization of "Programmatic TV" won't follow programmatic monetization on digital. Where digital programmatic has focused primarily on real-time bidding ("RTB") and open auctions, TV will be more cautious with its inventory in order to protect its premium distinction and keep prices up. Instead, Programmatic TV will focus more on targeting and workflow automation.
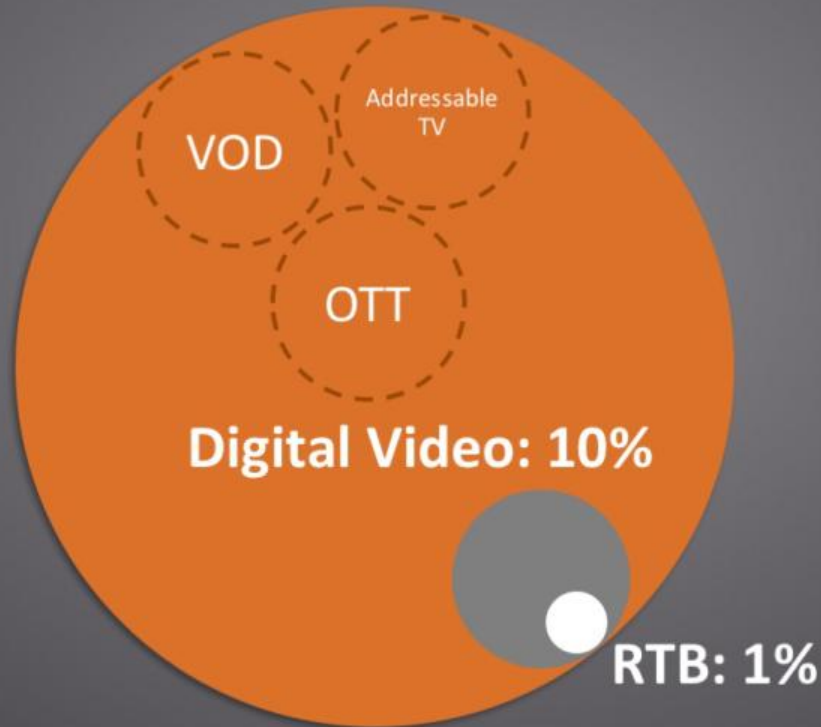
When you consider the size of the opportunities, it becomes clear that the real winners will be those companies that are focused on solving problems for the 100% opportunity. Programmatic video is a fast growing market, but the most lucrative opportunity is the entire TV and video market.
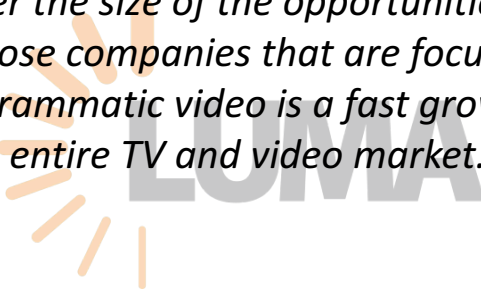
Marketers Are Still Figuring Out the Right Mix

TV Spend

Video Spend

Max ROI

While the buying capabilities continue to expand for both TV and Digital Video, marketers are still blind to what the optimal mix is. This provides a massive opportunity for companies focused on the 100% opportunity, which are at the forefront of assisting marketers in solving this issue.
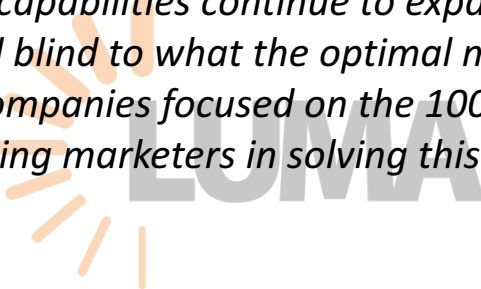
TV and Digital Video Game Changers

Regulation   **Technology**   **Content**

As TV and digital video convergence takes place, we've identified three major game changers that could have a material impact on the ecosystem. First, and rarely mentioned, is government regulation. For some constituents, impending changes from the FCC pose a significant threat to their businesses. For others, they present huge opportunities. Second, we note that a breakthrough technology could materially change things, for example, Apple TV. Finally, alternative distribution could exclusively license must see content.

"The lack of choice that consumers have today for set-top boxes would appear to be the opposite of the **choice** inherent in an 'app TV' future and contrary to the statutory mandate."

Tom Wheeler
FCC

The FCC has proposed rule changes to allow consumers to use any kind of set-top box regardless of their cable providers. This initiative stems from the issue of rising set-top box prices, which the Consumer Federation of America believes is causing consumers to overpay $6-$14 billion annually. However, the FCC's proposed changes have major implications beyond the box.

Breaking the Set-Top Box Will Allow for Innovation

Sweeping changes to the industry will enable technology leaders, such as Apple and Google to disrupt the traditional TV model. Under one interface, the TV experience of the future will bring cable, video-on-demand (VOD), OTT and apps together. Content, distribution and monetization will be upended as they will no longer be confined to restrictions and limitations of legacy business arrangements among the broadcast and cable networks.
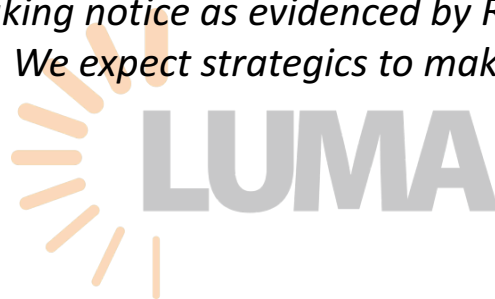
Companies Are Positioning for Changes

rovi → $1.1 Billion → TiVo

How Will Other Strategics React?

at&t   COMCAST   verizon✓

The industry is taking notice as evidenced by Rovi's recent acquisition of Tivo and it won't stop there. We expect strategics to make major moves before the dust settles.

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Major Strategics Now Focused on Convergent TV

The convergence of TV and digital video is being watched closely by the largest strategics from telecom to media. These major players are aiming to capitalize on the opportunity to monetize their large customer / user bases in the largest advertising market.
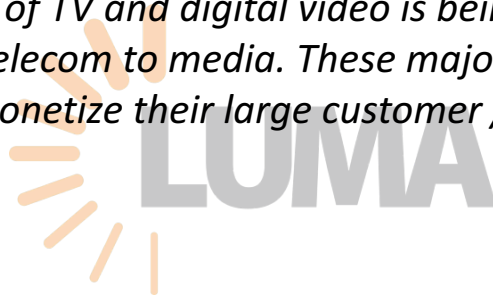
Top Digital Media Trends

Top Digital Marketing Trends

There are several major trends in Digital Marketing that are driving the ecosystem, such as Mass Personalization, Content Marketing, Mobile Marketing and B2B Marketing. While we are only focusing on the Ad Tech / MarTech convergence in this presentation, we went through the other trends in depth in our State of Digital Marketing, which can be found on Slideshare here[link].
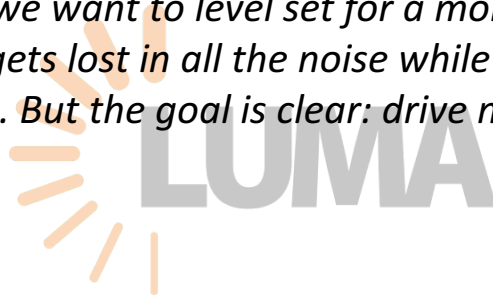
Every Marketer's Goal:

DRIVE MORE REVENUES!

(at lowest cost)

revenue

Before we start, we want to level set for a moment, as often times the actual marketer's goal gets lost in all the noise while discussing marketing trends, companies and technologies. But the goal is clear: drive more revenues... at the lowest cost.

LUMA

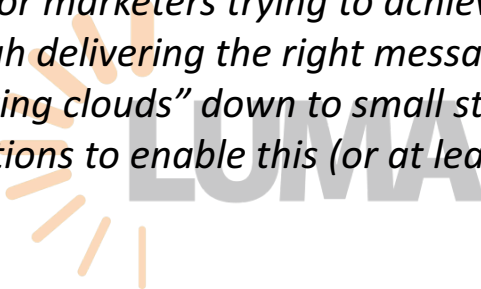# Optimize the Customer Experience

The Right Message

The Right Time

The Right Person

A key focus area for marketers trying to achieve this goal is to optimize the customer experience through delivering the right message, at the right time, to the right person. From the "marketing clouds" down to small start-ups, technology vendors are focused on providing solutions to enable this (or at least an element of this) for their clients.

Optimize the Customer Experience

The Right Message   The Right Time   The Right Person

B2C

Ad Tech + MarTech

B2B
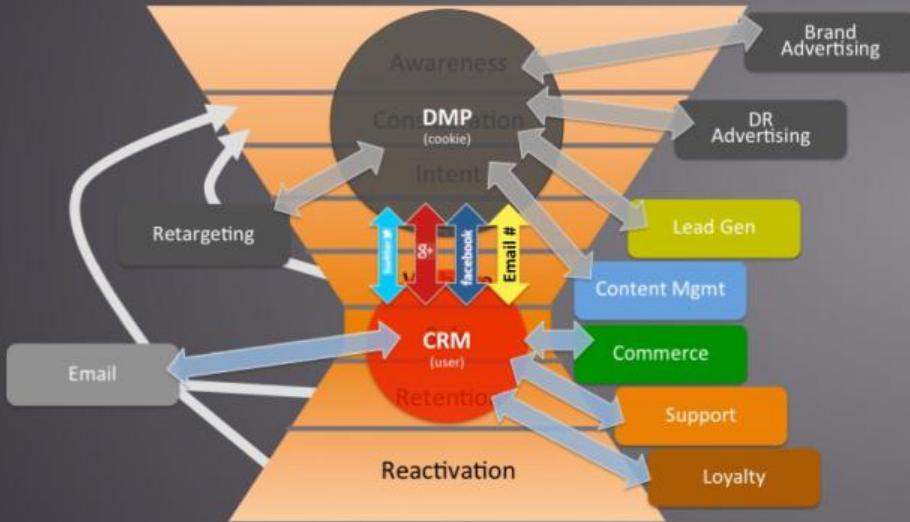
MarTech + Sales Tech

PERSONALIZATION

What's interesting to note, is that while both B2C and B2B marketers are seeking to optimize the customer experience through personalization, they are doing it through different tools. B2C marketers are working at the convergence of Ad Tech and MarTech to reach consumers on a personalized level through earned, owned and paid media. Meanwhile, B2B marketers are working at the convergence of MarTech and Sales Tech to identify and personalize messages to the highest quality leads.

Mass Personalization: Enabling Technologies
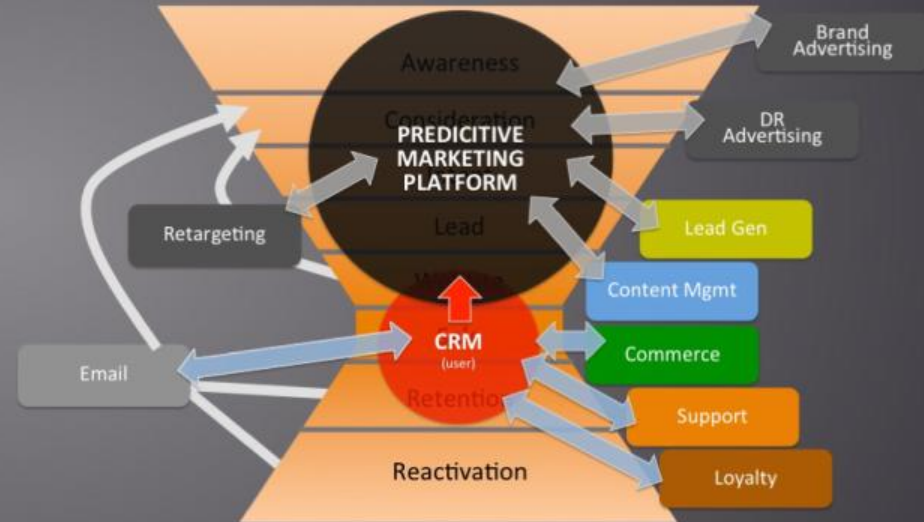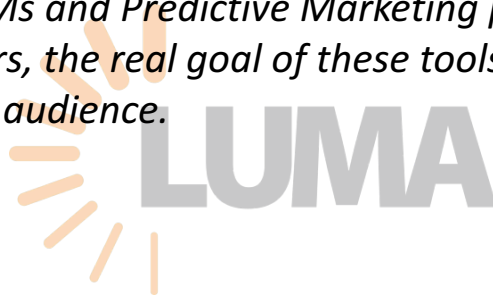
At LUMA, we started using the chart on the left years ago to discuss the role of the data management platform (DMP), which was to manage cookies (and now mobile IDs and other identifiers) to unite the upper portions of the funnel. In the past couple years, "predicitive marketing platforms" have emerged for 1:1 marketing (particularly for retail), with DMPs being used more for segment-based marketing.
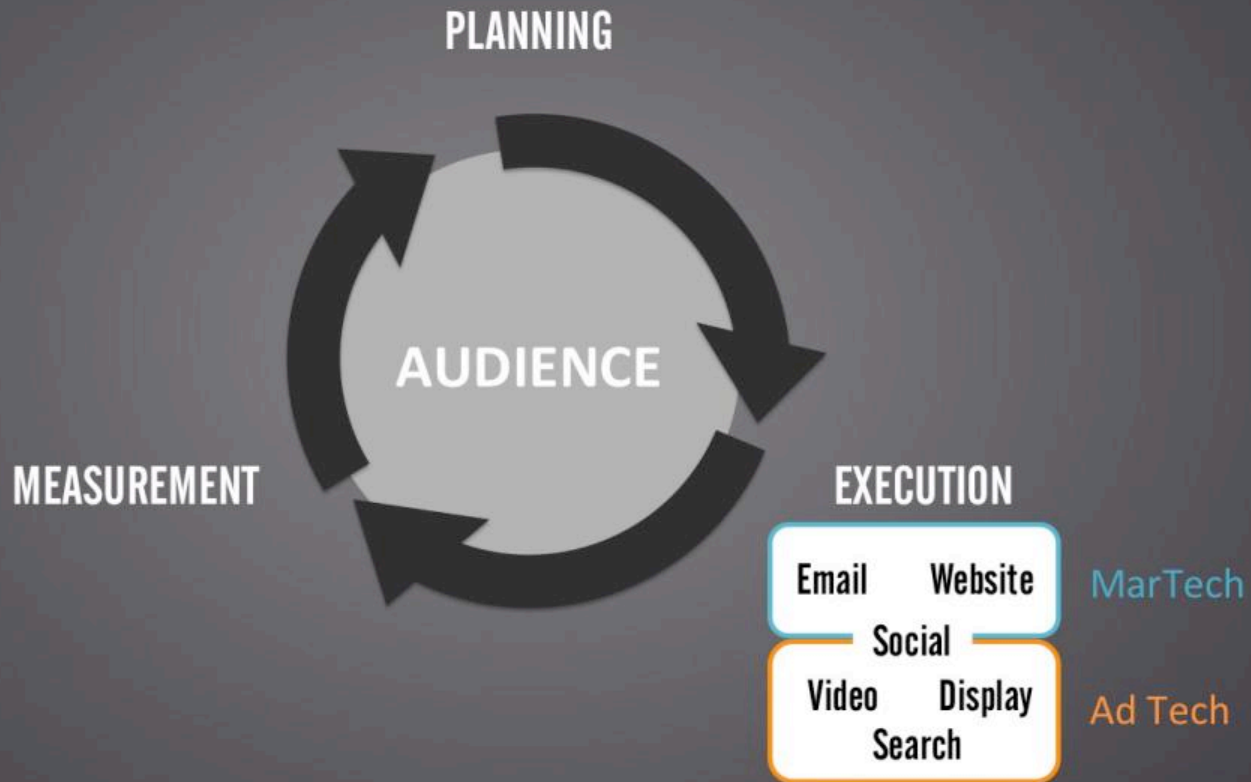
Audience Powers Mass Personalization
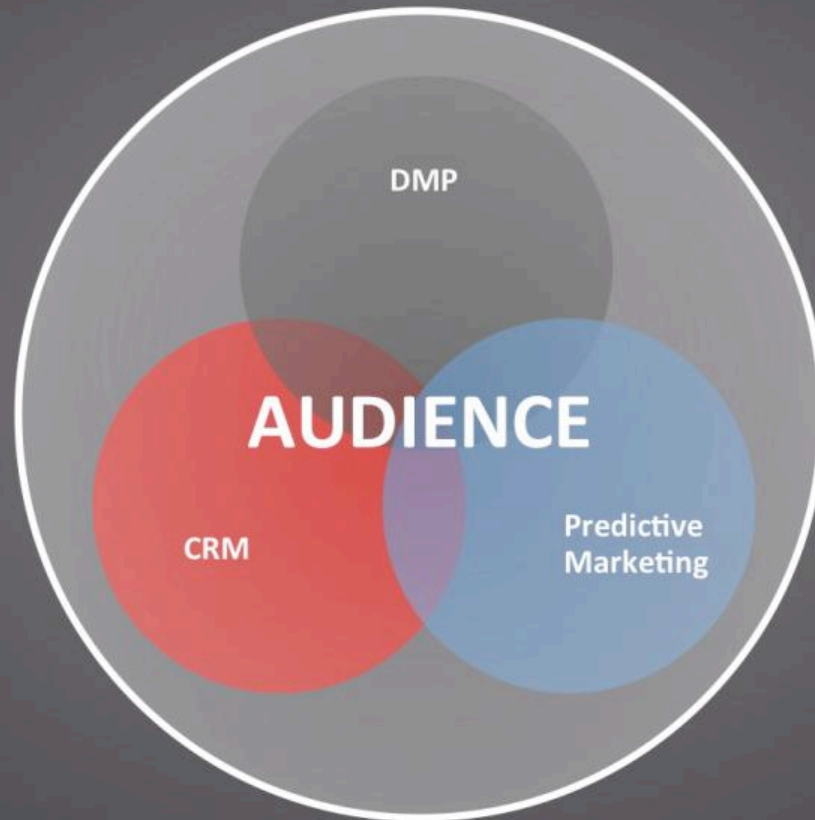
While DMPs, CRMs and Predictive Marketing platforms are the individual tools being used by Marketers, the real goal of these tools is for Marketers to identify and understand their audience.

Audience Powers Mass Personalization

PLANNING

AUDIENCE

MEASUREMENT

EXECUTION

Email	Website	MarTech
Social	
Video	Display	Ad Tech
Search	

The reason, is that audience is the driver behind mass personalization and the 360 degree marketing cycle. By truly identifying and following your audience through the marketing cycle, marketers are able to effectively plan, message and measure consumers on a personalized level, at mass.

Audience is the key because it brings together both a consumers user profile and identifies them across channels. By truly understanding audience, Marketers can not only determine who you are and what you're interested in, but also identify you in different settings and across channels.

"Identity" Developments
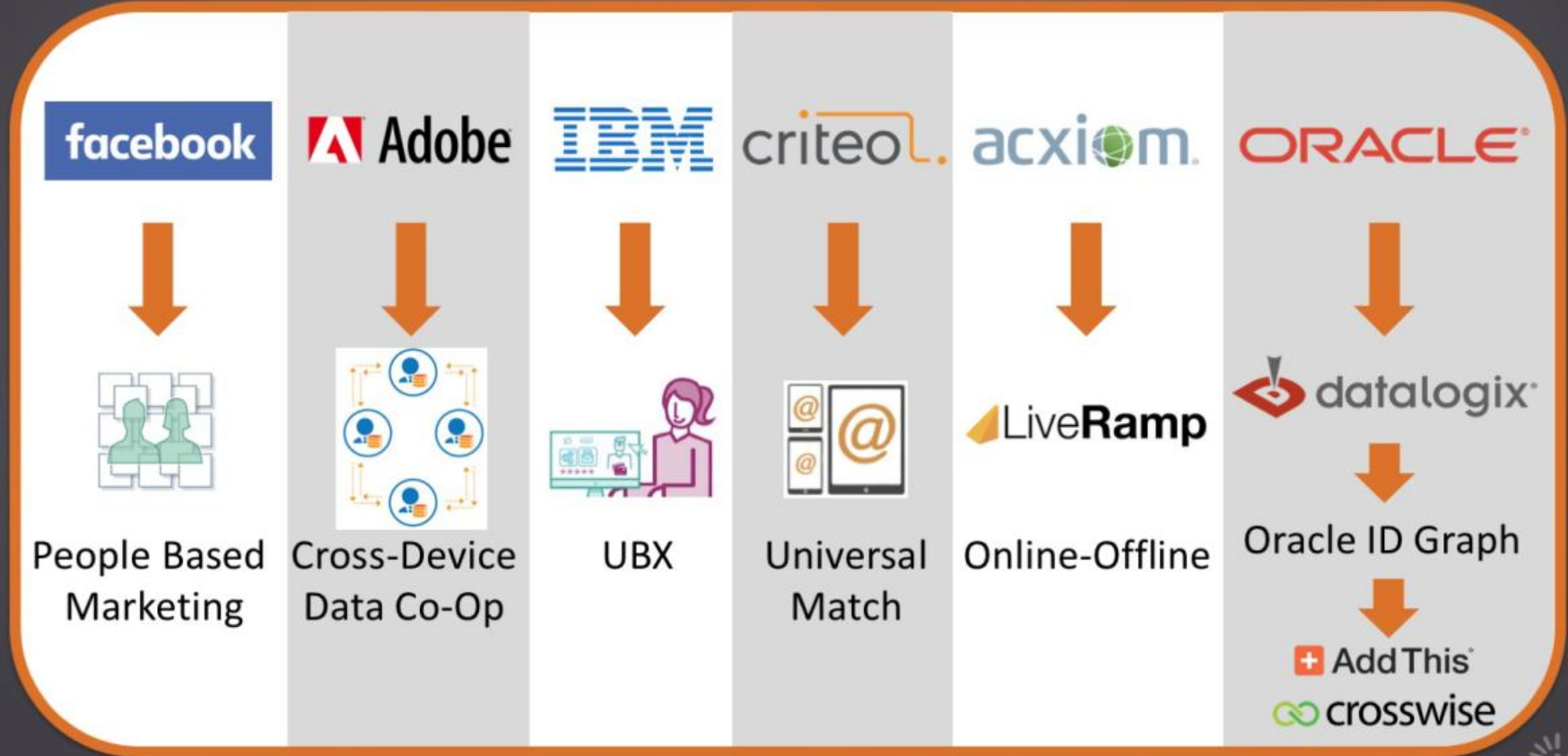
As a result, Identity is critical to providing a consistent customer experience. Facebook has long focused on, and had significant success with, its "people-based marketing" solutions. Other large software vendors have responded with acquisitions (such as LiveRamp and Datalogix), or organic development / partner programs.

Convergence through M&A
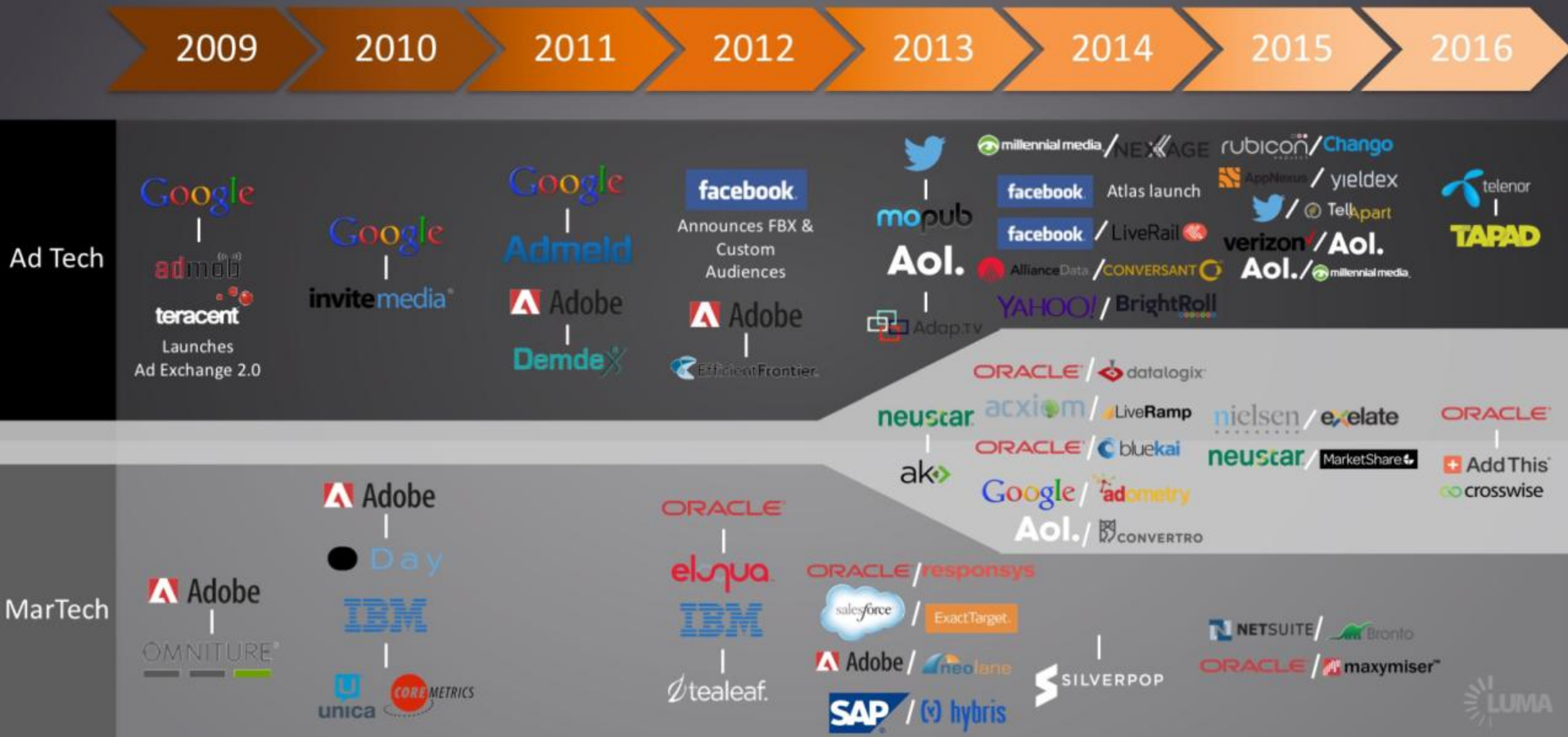
The unifying element between Ad Tech and MarTech is data-driven marketing. While there have been many acquisitions in Ad Tech and MarTech independently, a key strategic area is the convergence of these markets (the light grey area). Identity has been the main theme for strategic M&A so far in 2016, with Telenor acquiring Tapad and Oracle acquiring AddThis and Crosswise. We expect this activity to continue as Ad Tech and MarTech converge around data.
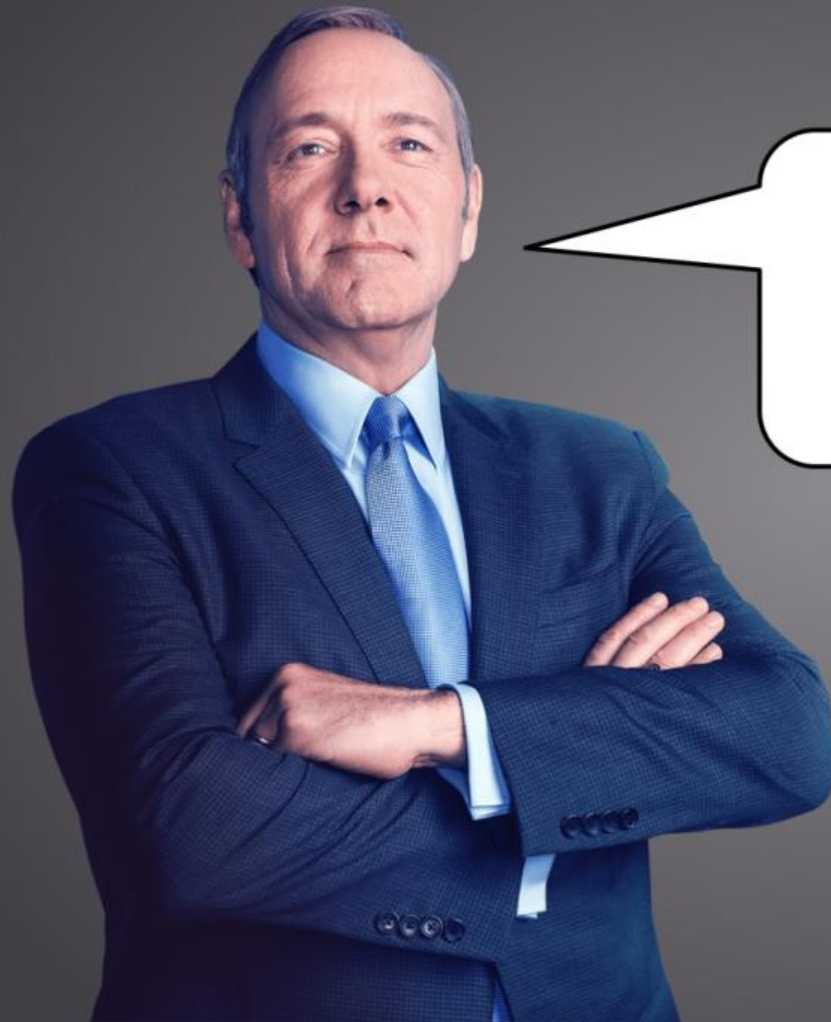
That will be all, America!

LUMA has recently launched the LUMA Institute, the division that incorporates our research, content and events initiatives. The mission of the LUMA Institute is to provide education, insights and support to all constituents of the digital ecosystem. We partner with media, marketing and technology companies to provide advice and education at leadership off-sites and customer events on a customized basis. If LUMA can help your organization sort through this complicated and dynamic sector, contact Gayle Meyers at gayle@lumapartners.com.