Interaction

Preview Edition for Clients and Partners

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The ink is in the water.

groupm

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GroupM
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INTRODUCTION

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Welcome to **Interaction 2017**. Each year GroupM publishes its overview and speculations on the state of digital marketing and its implications for advertisers. In 2017 it's challenging to discriminate digital marketing from all marketing. Consumers barely separate their digital and analog lives; little media is published in only analog form and enterprises infuse digital processes into every aspect of their organizations. A few years ago we noted that "the digital ink is in the water," it's proved permanent. It's probably true to say that marketing strategy and marketing services remain more siloed than consumer behavior and equally true that marketing and sales organizations remain more separated than they should be given the collapse of the purchase funnel.

This is the Preview edition written mostly from a Western perspective; the full report including our global roundup of key data relating to online marketing will be published in April. Few topics covered last year are repeated this time unless material new developments have taken place. **Interaction 2016** can be sent on request.

Our Worldwide Media and Marketing Forecast predicts that in 2017 digital's share of ad investment in the faster-growth world will at last have caught up with the developed world, to around 33%. The new and old worlds have contributed equally to new digital ad dollars since 2013. If we disregard print, which is negative, then in 2016 we think digital captured 72 cents of every new ad dollar, and TV 21 cents. In 2017 this becomes 77 to 17. We do not consider digital as big as traditional TV yet, with TV's ad share largely stable at 42% in 2016 and 41% in 2017. It rode a five-year 44% peak 2010-2014, and some of the share it appears to have shed since then is an artifact of poor measurement. 10 countries have already witnessed digital overtake TV, with a further five expected in 2017; France, Germany, Ireland, Hong Kong and Taiwan. Digital fuels its growth by recruiting long-tail advertisers and winning share from other media. To this it now adds a serious attempt to win TV's big-brand advertising, an endeavor which will turn as much on digital's quality as on its undoubted quantity.

Last year we were cautious in our estimation of the rate of change and summarized progress as "the same but more so." This year we are less cautious and believe that we are seeing changes in underlying technologies in both hardware and software that are advancing us from the Information Age to the Intelligence Age. 2017 is the 10th anniversary of the iPhone and the beginning of a sequence of changes that will have equally profound implications for society and thus for marketers. We hope that this year's Interaction explains some of these changes and is relevant to advertisers, our partners in media and technology and to our own people.

Specifically we look at: the rising influence of artificial intelligence, developments in augmented and virtual reality, the competition for video advertising between television and other video providers, the

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impact of “relevance” on the trading of media, developments in the application of data to television along with Over the Top solutions, the impact of streaming and on-demand audio, the Google / Facebook duopoly, live video, e-commerce, market place integrity and fake news.

We would like to thank executives from a number of companies for helping us this year in the form of a series of interviews. These include IBM, Amazon, Google, Facebook, NBCU, Turner, ESPN, The New York Times, Twitter, Snapchat, and eMarketer, comScore, the IAB, Pandora, Pinterest, LinkedIn, AppNexus, YouTube, Vox Media, Hulu and DoubleClick.

WHAT'S NEXT FOR MARKETERS?

WHAT'S NEXT

What is becoming clear, despite some new entrants, is that economic value is coalescing around a very small number of companies with respect to digital advertisers. Perhaps 6 companies are global or nearly so, three are Chinese and a further handful exist in each of the major markets. Today's challenge is to win with the winners and to find ways of aggregating value from what's left particularly when the "minor" participants are still valued by their audiences for their context or authority.

Today's challenge is to win with the winners and to find ways of aggregating value from what's left particularly when the "minor" participants are still valued by their audiences.

The only threat to this new status quo is regulatory and 2017 may be a hugely significant one in terms of privacy regulation. Organically developed challengers will be exceptional and rare. It would be a mistake, however, to ignore the enduring value of television, audiences remain immense and its communication potential enormous. Descriptions of monopolies and duopolies in either advertising or ecommerce have to be tempered. It's true that Google, Facebook and Amazon are the biggest and most powerful players in their categories but opportunity still abounds for brand builders, direct to consumer and multi-channel retailers in partnership with a broad swathe of digital and analog inventory suppliers. This applies in all parts of the marketing funnel.

It would equally be an error to forget that in all media there has always been a dividend for creativity – more people remember – and relevance – more people act.

The goal for marketers has always been to outperform their competitors at every touchpoint of communication and distribution. Nothing has changed except the exponential complexity of the platforms and enterprises and their multi-functional nature. You can sell goods from a magazine app, you can execute customer service on a social network, you can buy advertising inventory from a retailer. On a single platform you can advertise, sell, fulfill the order, and deliver customer service. A single piece of content, or more accurately, intellectual property, can be watched in linear form or on demand, as a show, a still, a clip, a multi-hour binge and multiply reconfigured for multiple platforms. The complexity is compounded by abundant, even excessive, data, complex measurement and attribution challenges and new creative challenges.

Around a decade ago the industry was swept along by the apparently new idea of media that was paid, owned or earned. At a time of high visitation to brand /corporate websites and then, brand Facebook pages the construct was legitimate. Two simple formulations prevailed:

- Build a website or a YouTube channel (owned media) and drive traffic to it via banner advertising and paid / organic search with the expectation that deeper engagement would follow.
- Build a social media presence and buy "likes" or "followers" in the expectation that the same would happen with the added benefit that your posts would reach those that liked you, and that

their interactions with you would be shared with their own social connections. The earned media ambition.

Now, of course, brand websites are largely becalmed and the organic dividend of the Facebook "like" has been diminished.

Only the exceptional survive in any useful form and it's certainly true to say that any exposure you earn is largely a function of the media you own. This means that advertisers have to deliver an exceptionally high degree of usefulness to their audience and in owned media that means telling them something they did not know (how to apply a great make-up look or paint a window frame). It means building apps and digital destinations that allow the user to choose, find, buy or book. It means creating content with a clear understanding of the value it creates and the likelihood of it leading to a share or a recommendation.

High quality data is data that helps you acquire the customer you don't know and to better understand the customer you do know.

All of these are a function of some combination of expertise, well integrated systems, outstanding service and creativity. The objective of these efforts has changed also. Of course sales and lifetime value sit at the top of the hierarchy of marketing but close behind is the gathering of high quality data. High quality data is data that helps you acquire the customer you don't know and to better understand the customer you do know.

To succeed advertisers need to understand and deploy a marketing tech stack, which holds the data on the known customer, with the ad tech stack that enables the activation of that data to the greatest effect. As usual this creates a divide, the more direct the customer relationships, the more easily acquirable and applicable the data. Increased efficiency is relative and even the most "data poor" advertisers have embraced programmatic delivery at scale to good effect. When used to target the right cohorts in the appropriate context the advertiser succeeds in reducing wastage while retaining the value of context. It's not only about the pursuit of the known effect of every impression but also about knowing that every impression has the potential to contribute to a positive business outcome.

The creative challenge persists at four levels:

1. Getting the attention of the consumer in a low attention world. As the buyer pushes the seller towards viewability, the consumer is pushing the brand to greater "watchability."

2. Meeting the costs and measurement implications of the constant iterations of formats and functionality.

3. Finding the balance of enough variation to meet the needs of ever finer segments without undermining the overall brand proposition. (The Marriott Hotel Bogota has 57 images on Expedia.com. Marriott / Starwood operates over 7,000 properties. That's a lot of images.)

4. The creation of new classes of content for e-commerce environments.

If owned media now requires a higher threshold of usefulness so should advertising itself. The value exchange between the user and the advertiser has become increasingly explicit. Attention is a reward not a right. Useful advertising is a function of relevance which in turn is a function of time, place, context, cognitive targeting and creation, and actionability. The creative brief as well as the media brief now need to reflect this as well as an understanding of the efficient frontier of variety: the point at which the cost of granularity exceeds its value.

We have noted before that every brand needs a data story:

- First an absence of a data story leads to a reduction in discoverability, a reduction of relevance and a loss of advantage in algorithmically mediated platforms.
- Second, as augmented reality teaches consumers to expect a data overlay on the real world, brands might wish to participate in this.
- Third, brands need an actual voice or at least the ability to respond to the human voice. Voice search, voice commands to IoT devices from Echo to the autonomous vehicle will, in some cases at least, require a spoken response.
- Finally, as artificial intelligence becomes part of the taxonomy of everything the structured and unstructured story around the brand, its purpose, origin and the conversation it creates will become part of the consumer experience. It had better be a good one.

Imagine this: "Alexa, what's the most recommended anti-dandruff shampoo?" Or this: "You ordered Brand A, Brand B has a higher average recommendation, which one would you like?"

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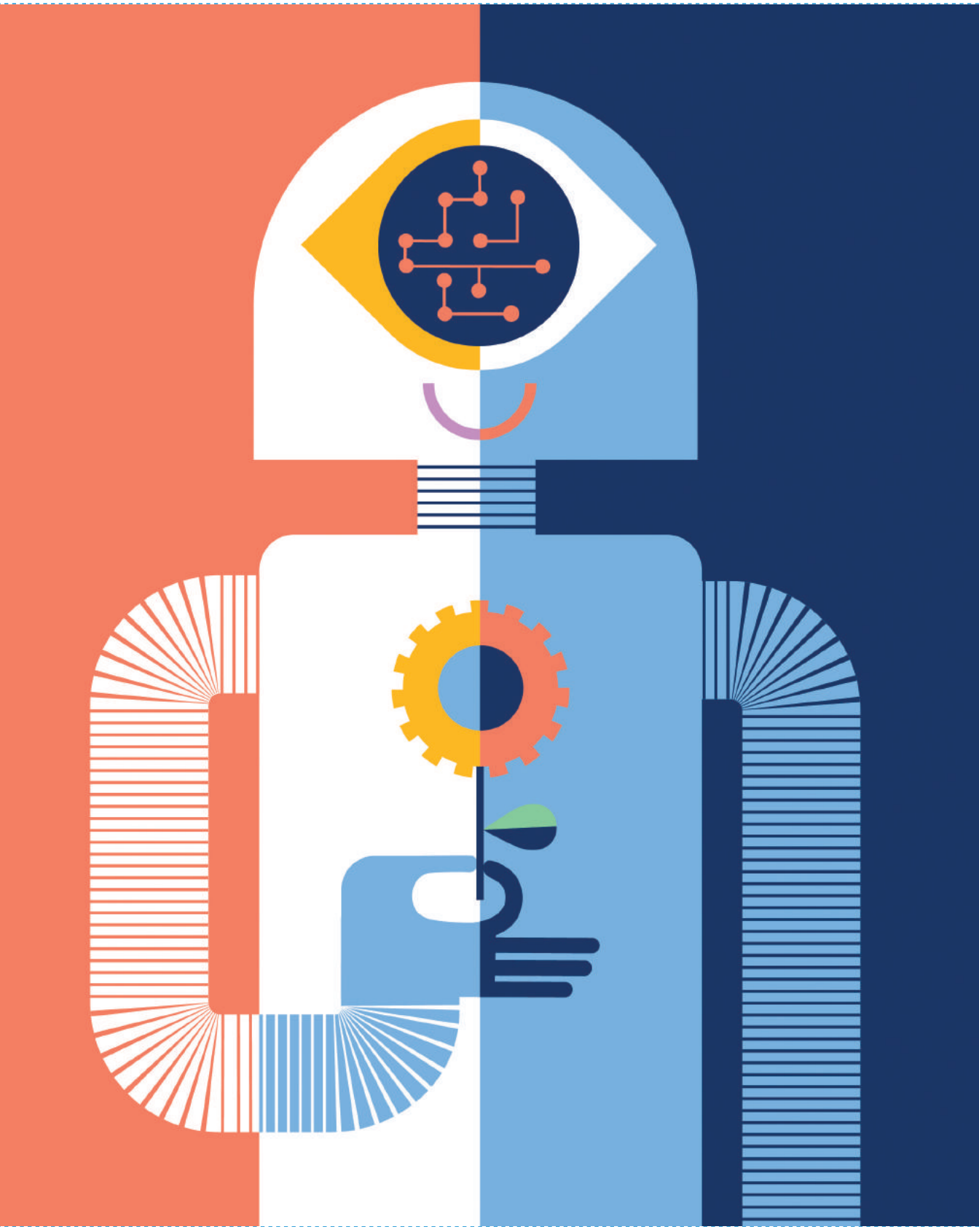
More broadly it's impossible to ignore the political events of 2016. The US Presidential election, the Brexit vote in Europe, the Italian referendum, the failed coup in Turkey and the tragic events in Syria touch lives and by extension economies, markets and marketing. 2017 promises to be as tumultuous. Elections in France and Germany and other events may affect the European Union at its core.

Explicitly, a signal seems to have been sent by the electorate that the uneven distribution of wealth is simply unfair and that for many opportunity is fantasy. Some 70% of the world's population live on less than $10 per day. 38% of all Americans eligible to vote live on less than $55 per day. This report is dominated by tales of innovation and the ascent to power of a few mighty enterprises. More innovation should produce different innovation. Innovation for the less advantaged in terms of function and value of products and services is every bit as important as VR headsets and the world of wonders.

WHAT ABOUT TOMORROW? ARTIFICIAL INTELLIGENCE, THE ROAD TO COGNITION



ARTIFICIAL INTELLIGENCE

When we first published Interaction in 2007, the search query, "what about tomorrow?" would have returned hundreds of thousands of results with no particular commonality other than the words themselves. Today, ask Amazon Echo or Google Home "what's the weather like today?" and it will respond with the forecast. Ask again "what about tomorrow?" and the answer will be another weather forecast.

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A decade ago our calendar would have reminded us of an upcoming event, if we had instructed it to do so. Today it will tell us the weather at the destination, the drive time and route to the airport, book the car and tell us the gate number of the departing flight and ...

We have come a long way from a world characterized by the organization of the world's information and making it readily available, to a world where machines get smarter and learn the context of the query. Such is one "simple" manifestation of machine learning.

Artificial intelligence is manifesting itself in our daily lives, predicting our behaviors, needs and responses and translating that intelligence into everything from serving us an Instagram post that we are most likely to like, to fulfilling our, as yet unspoken or un-typed need for detergent. This is not reversible. J. Walker Smith, Chairman of Kantar Futures, speaks of "the trajectory of convenience," in the end convenience wins. Even greater convenience comes when Alexa and Google Assistant are deployed in Smart TV, automobiles and other devices.

At the heart of these advances are a series of step changes in natural language and image recognition processing, a task that requires more than brute force computing but neural technologies that mimic the function of the human brain.

2017 will mark the 20th anniversary of the defeat of world chess champion Gary Kasparov by IBM's Deep Blue although it's less than a year since Google's Deep Mind AlphaGo beat Lee Sodel, the greatest living Go player. In between these events, in 2011, IBM's Watson beat the best humanity had to offer at Jeopardy.

The 20-year gap between the Deep Blue and AlphaGo victories is partly explained by the greater permutations of Go, but more important was DeepMind's ability to learn by playing against increasingly experienced versions of itself, cultivating its ability to predict and evaluate. This allows it to avoid playing out every permutation before every move and thus economize on processing. In Deep Blue we saw the power of processing and in DeepMind the ability of the machine to learn. DeepMind founder Demis Hassabis calls the former "narrow intelligence" (good at one thing) and the latter "artificial general intelligence" (flexible and adaptable).

IBM's success with Watson represents a different instance. Computers have long been on a trajectory to process structured data at speed; unstructured data presents the different challenge of natural language, syntax and context. Watson has advanced into what might be described as "augmented intelligence" leading to an extraordinary acceleration in processing structured and complex unstructured data ranging from social conversation to Magnetic Resonance Imaging in pursuit of speeding medical diagnoses. "Google Brain," a small group of AI engineers at Google, has meanwhile made breakthroughs in image recognition and translation that promise to revolutionize the functional range of technology.

Alongside Google, IBM, Amazon and Microsoft, AI and machine learning also underpins developments at Facebook, from the deployment of sophisticated chat bots substituting human customer service interactions, to the execution of many trillions of daily transactions placing the most relevant ads into almost two billion feeds around the world. Facebook might describe every "ad/consumer pair" as a test with relatively little prior knowledge of the outcome. The difference between Facebook and everything that predates it is that every impression DOES have a measurable person based outcome, from time of exposure to action.

There is abundant value in understanding underlying principles, context and the creative (in every sense) process.

The Facebook case is specific to advertising, but in all these cases, intelligence – machine, augmented or artificial – advances the frontier of productivity. To capture these efficiencies and ensure a reasonable distribution of their benefits, government, societies and individuals will need to adapt. Learning to play chess or Go has enduring value, but there's diminishing value in knowing what can be stored, processed and interpreted by machines. In contrast there is abundant value in understanding underlying principles, context and the creative (in every sense) process by which the human condition can be advanced. The alternative is unpalatable; AI is highly unlikely to create a trove of mundane well paid jobs. Fortunately all the companies that drive the underlying technologies have done so with the intent of creating parallel development platforms that will allow the ambitious the opportunity to build new applications, new businesses and new sources of employment. Open source, as a concept, separates today's giants from the powers of the industrial age.

In an era where only the machines can improve themselves only they can validate experiments. At the same time humans can't be equaled in the design of those experiments. Long live the imagination economy, and take comfort that while no human will ever beat Deep Blue a team of humans working with Deep Blue will still beat Deep Blue on its own.

To quote Gideon Lewis-Kraus in The New York Times Magazine (Dec. 14, 2016) "The most important thing happening in Silicon Valley right now is not disruption. Rather, it's institution-building — and the

consolidation of power — on a scale and at a pace that are both probably unprecedented in human history."

This is clearly true of Google, Facebook, Amazon, Microsoft and Apple which by market capitalization are among the six most valuable companies in the world. It's true also of Alibaba, Baidu and Tencent. Eight businesses with data at their core that are mapping human behavior and in so doing becoming the wireframe of human experience.

Placing your chips

With advances in nanotechnology, quantum computing and the speeding of computer-to-computer data exchanges the reverse seems to be true and we are entering an era of infinite computing power.

For many the expression "software ate the world" coined by venture capitalist Marc Andreessen in 2011, is some kind of inalienable truth. Even so it's worth noting that software is only as powerful as the hardware available to run it. We don't talk about hardware much outside of finished devices, but what lies beneath – the processors – is where the magic is enabled.

A central processing unit or CPU is used interchangeably with the word microprocessor. It's the hardware device in a computer that executes the instructions of the software that is being run on that machine. A graphics processing unit is also a microprocessor. They are very efficient at manipulating computer graphics and image processing.

Nvidia's website explains the difference: "A simple way to understand the difference between a GPU and a CPU is to compare how they process tasks. A CPU consists of a few cores optimized for sequential serial processing while a GPU has a massively parallel architecture consisting of thousands of smaller, more efficient cores designed for handling multiple tasks simultaneously."

As a consequence GPU's are much more efficient than even the most advanced general CPUs and are so by orders of magnitude for executing algorithms where the processing of large blocks of data simply can't be done sequentially in a useful time frame. This is enormously important in areas such as autonomous vehicle development.

Processor development has largely obeyed Moore's Law for the last half century as more and more, smaller transistors have been crammed onto pieces of silicon. Until recently there was broad agreement that this process was slowing. Now with advances in nanotechnology, quantum computing and the speeding of computer-to-computer data exchanges the reverse seems to be true and we are entering an era of infinite computing power. This prospect is further enhanced by the ability to reprogram microprocessers. In MIT's words, "these are sometimes referred to as FPGAs, field-programmable gate arrays, chips that can be reconfigured to implement any design and that can be very power-efficient."

This will accommodate almost all foreseeable deep learning applications including vehicles that are not only autonomous but connected to each other and the environment in which they operate.

So Marc Andreessen was right; software will eat the world but only because the power of the underlying computing hardware is advancing at such a prodigious rate.

AR AND VR: THE NEW REALITY

AR AND VR

In March 2014 Facebook announced its intention to acquire Oculus VR. The greatest accelerator of consumer behavioral change had acquired the most advanced developer of virtual reality technology. At around the same time that it became clear that 3-DTV was dead on arrival. At the time of the acquisition it was clear that Facebook saw Oculus in three ways. First as a heavy horsepower assault on the gaming market; secondly as a long bet on the post-mouse, post-swipe, post-voice, man-machine interface; and thirdly and probably most importantly, as a mechanism to bring "life" to two dimensional and physically distant social interactions. From a consumer point of view the main manifestation of Oculus (other than the PC dependent Oculus Rift itself) has been its integration with Samsung VR Gear headsets.

As always storytelling is at the heart of creative evolution.

Statista estimates global sales of VR Gear at five million in 2016, sales of the high powered Oculus Rift at 3.6m, HTC Vive at 2.1 million and Sony Morpheus at 1.4m. It is early days. VR is not always a high tech experience from a device standpoint. Given that Google shipped five million cardboard devices by January 2016 it's likely that there are more Cardboards in use than all other devices in aggregate; at a starting price of "free with The New York Times" it's not surprising. The Times of India pursued a similar strategy although not with Google. Google's Daydream View designed to complement its outstanding Pixel handset was shipped free by Verizon with pre-orders of the device.

For most people the VR experience to date has been a hybrid of 3-D and 360 degree video. It creates a different aperture on content and closes the gap between being here and being there. Truly immersive experiences are still foreign to people in general and seem unlikely to become a significant part of the media consumption experience for some time. It's possible that the eighth iteration of the iPhone may better integrate VR capabilities and a light weight wearable will popularize these experiences sufficiently to encourage advertisers to participate in content creation. There are few technical barriers today but advertisers rarely sink cost into developing technology until the distribution platform is proven.

As always storytelling is at the heart of creative evolution. The book was linear, the movie of the book was linear also. The VR experience requires a creative perspective that it is neither linear nor dependent on a single "lens" on the story. The magic comes when value to the viewer can be curated by adding to the value of the experience in multiple dimensions.

Augmented reality is a different story. AR is a lightweight technology that allows the digital world to be used as an overlay on the physical or built environment. AR came to life at scale in 2016 with the launch of Pokemon Go, created in collaboration between the Pokemon Company (part owned by Nintendo) and Niantic Labs' cloud based Real World Gaming Platform. The Pokemon Go app has been downloaded over 500 million times and for a brief period became a headline-news

AR is a lightweight technology that allows the digital world to be used as an overlay on the physical or built environment.

cultural phenomenon. Its significance lies in its encouragement of mass trial of AR, and it is in some ways the Angry Birds of its day, which acted as a catapult to the adoption of mobile casual gaming. Like Angry Birds it also induced a frenzy among marketers and agencies which resembled a soccer match between two teams of six-year-olds; all the players clustered around the ball losing sight of the ultimate objective of the game.

AR creates mass-audience opportunities right now. Marketers should ask four questions:

1. What place, thing or object do I want to augment?
2. What data or assets do I have to augment it with?
3. How will I distribute the experience?
4. What value will I create for the consumer and for my brand, and at what cost?

It's likely that the biggest AR deals in the near term will be collaborations between brands and retailers and between sponsors and events. Further applications can be expected in travel, tourism and real estate. In all cases the momentum needs to exist for the necessary app installs and for sufficient value to be created for all stakeholders.

PEAK STUFF?: DATA, BANDWIDTH, SEGMENTATION AND ADVERTISING

PEAK STUFF

In January 2016 at a Guardian Sustainable Business debate, the head of Ikea's sustainability unit, declared: "In the West, we have probably hit peak stuff. We talk about peak oil. I'd say we've hit peak red meat, peak sugar, peak stuff … peak home furnishings."

We are only in the foothills of peak bandwidth, the ubiquitous capability to stream the highest resolution content untethered from physical cable and Wi-Fi.

This may be true in some areas but it's clear that many peaks have yet to be scaled. We are nowhere near peak data but have clear line of sight into its processing, we are nowhere near peak interpretation of moving images but again the solution is visible. We are only in the foothills of peak bandwidth, the ubiquitous capability to stream the highest resolution content untethered from physical cable and Wi-Fi. The next stage on that journey is the agreement of the global 5G standard in 2018 and its deployment in 2020 and beyond. Even then the data divide between the richest billion people on the planet and the rest will be vast, of India's 200 million mobile subscribers 85% use less than half a gigabyte of data per month. It is worth noting, however, that there are now (Q3 2016) 1.5 billion global 4G LTE connections and while that hugely exceeds the number of 4G connected individuals, it is a three-fold increase since 2015 and will double by 2020. Even in India 4G pricing is falling and Jio, a new entrant, is offering 4G free through the first quarter of 2017 with the hope of attracting 100 million subscribers.

Ericsson's November 2016 mobility report estimates global smartphone data consumption per device (gigabytes per month) as follows; it's worth noting that HD video streams at approximately 3 GB per hour:

Region	2016	2022
Western Europe	2.7	22
Central and Eastern Europe	1.9	15
Middle East and Africa	1.3	7.6
Asia Pacific	1.7	9.5
North America	5.1	25
Latin America	1.6	9.6

By 2020 it's probable that more than half the world's population will be connected; this is not the same as "everything, anywhere connectivity." Google and Facebook, likely in partnership with existing telcos will make rural and low income connectivity a reality but a high fiber data diet for all remains distant. That said, it might be argued that access to remote diagnosis, marketplaces for local goods and money transfer are rather more socially important than 4K streaming video.

PEAK STUFF

This sets up a challenge for all brands; the more you know about the behavior, location and mood of your customer the better equipped you are to leverage data-rich platforms and the prospects that use them.

There are peaks that sophisticated markets may be close to scaling. *It's possible for example to consider the idea of peak advertising. The compound effect of multitasking, ad blocking and fragmented attention and viewer / user intolerance may lead to a life of reduced commercial interruption*. It's also possible that we have reached peak audience segmentation for all but those enterprises richest in customer data.

Peak segmentation describes the point at which the value of user data known by sellers just can't be translated into value to the advertiser in the absence of sufficient data about the customer. It may be that the inexorable rush to one-to-one marketing may, on arrival, transpire to be a destination of inefficient allocations and outcomes where the gain in precision is offset by the loss of broader resonance for brands and the costs of manufacture of dynamically deliverable creative assets. This sets up a challenge for all brands; the more you know about the behavior, location and mood of your customer the better equipped you are to leverage data-rich platforms and the prospects that use them.

The conjoined issue of *peak advertising* and *peak segmentation* is one articulation of the opposing positions of the television industry and native digital enterprises like Facebook and YouTube (more about Snap later).

VIDEO: THE BATTLE FOR THE BILLIONS

Television's proponents would argue that broad reach delivered simultaneously to large audiences is of unmatched value.

Television's proponents would argue that broad reach delivered simultaneously to large audiences is of unmatched value. It is the only opportunity for advertisers to participate in "watercooler" moments. They would argue also that the linear delivery of advertising in program breaks is the best guarantee to the advertiser that commercials will actually be viewed on big screens with full sound and motion. Alongside this is the belief that long form entertainment in all its forms (sports, drama, etc.) is the peak of consumer engagement and at its best a perfect context for brand marketers. Television is a key driver of social conversation and interaction and has been innovating at scale and speed to find ways of extending the reach and engagement of their intellectual property using the same platforms with which it competes.

The television industry's biggest concerns remain inadequate measurement of its total audience across platforms, the nonsensical definitions of a video "view," and audience intolerance of long commercial breaks. NBC Universal, Turner and ESPN have been leaders in addressing these issues. NBC uses YouTube to build audience and reach for its marquee programs on YouTube and controls ad sales across all platforms. In addition it is expanding its digital reach through investments in, and partnerships with, Vox and Buzzfeed. With the former it has launched an ad network (Concert) that combines the digital properties of both companies and it would be no surprise if Comcast NBCU acquired one or both companies. ESPN was an early mover with both Twitter and Snap and, notably, with fantasy sports. Turner has experimented with reduced commercial inventory, with ad management that seeks to increase the synergy between ad and program, and with native digital content like the Bleacher Report and a significant investment in esports.

In many markets channels are experimenting with limited commercial interruption on the channel as a whole, or within individual programs. The thesis is this: As user experience improves audiences will stabilize or grow, and at the same time reduced clutter increases recall and value for the advertiser who will then be prepared to pay the premium that offsets the reduction in inventory. The "enhanced" version of the thesis is that better advertising – more native to its environment – will retain audiences better and improve recall further. The desire is for television advertisers to develop more content that reflects the programming context in which it is consumed. In certain categories like sport this is already the case, but elsewhere it is limited. An even grander design is to persuade advertisers to think of programs or series in the same way they might think of a sports event. That would be characterized by dedicated creative assets, further creative development for social and digital extensions and even "off air" activation. A marvelous ambition, but a long road to proof awaits. At the heart of the television model the "forced view" remains.

YouTube's argument is different. Fundamentally Google believes that the 'forced view' video advertising paradigm may not be sustainable and that the user experience is undermined by forced completion. For

As a complement to television YouTube has great value but it is rarely a replacement.

TrueView the charging event takes place after the ad is clicked on or after completed viewing or viewing of the first 30 seconds. YouTube argues reasonably that TrueView's unique quality is that the advertiser only pays for ads that consumers choose to watch. When combined with the trove of data in the Google ecosystem, the cocktail of an "opted-in" viewer about whom you know a great deal is irresistible. They are right, but despite YouTube's breathtaking scale, and massively viewed individual videos or memes like the Harlem Shake and the Mannequin Challenge, it never delivers the watercooler moment of significant simultaneous reach. As a complement to television YouTube has great value but it is rarely a replacement. Furthermore, for many advertisers, YouTube still lacks sufficient inventory that the advertiser (or the television industry) would describe as "quality". Even Google Preferred, an aggregation of its highest quality content, deteriorates as campaigns scale and results in a huge percentage of impressions being delivered adjacent to gaming and "social humor" content. Rightly or wrongly, what the viewer wants and what the advertiser deems as "quality" are often not the same thing.

Facebook's video product remains uncertain ground for many advertisers. Advertisers have issues with autoplay (as opposed to user initiated), with "sound off" and with data (based on the aggregate of MOAT scores across the GroupM client base), which suggests that for every 20 video ads served in the news feed, three are watched for three seconds or more and just one is watched for ten seconds or more. This is problematic to every stakeholder. The consumer's news feed is populated by content in which they have little interest; Facebook may partially corrupt its user experience as a result. Advertisers have to modify their valuation of the platform to reflect the reality of actual video ad consumption. Facebook's counter argument is that its targeting is peerless, that even minimal exposure has value and that the problem is really the advertiser's – make better ads that reflect the news feed use case and do that to optimize measurable business outcomes. 2016 has been a huge year for Facebook in video product development and the introduction of the video tab at the top of the app screen has created a new opportunity for brands. The roll-out of a similar video opportunity in Instagram and to Instagram Stories scales the available inventory enormously and almost certainly creates an environment in which longer advertising formats may prosper.

The advertising opportunities in Facebook's Live video inventory will be more familiar to the advertiser simply because the ad will have a frame that is content rather than just the user interface. These ads will be initiated by the producer of the content and Facebook is betting that this is a distinction which will be favored by the user. Facebook will of course determine which ad is seen.

The challenge of measurement is huge. *The end game is obvious: who watched what, where, for how long and on what device.* This is an apples-to-apples comparison, a basic building block to assess

relative value. The requirement seems to be a universal "glass-level" methodology involving automatic content recognition. The volume of connected devices already deployed seems sufficient to make this a reality. Not for the first time one of the key industry issues requires common will every bit as much as a technical solution.

For every 20 video ads served in the news feed, three are watched for three seconds or more and just one is watched for ten seconds or more.

In July 2016 we published a taxonomy of video that is reproduced below, it is a hierarchy, in descending order, from television as we have known it, extending to those video advertising experiences that most resemble television's ability to carry video advertising, and then on to those that represent a new video paradigm.

A taxonomy for video

Group 1. TV or "as TV"

- TV: a linear viewing stream with interruptive commercials, default sound on
- On demand and time-shifted TV: a linear viewing stream with interruptive commercials, default sound on
- Digital TV: a linear Over The Top viewing stream of TV program content, full length, sound on; with interruptive commercials – the so-called full episode player, default sound on (Hulu, Fox Now, Watch ESPN)
- Web video **destinations**: shorter (but getting longer) form video; desktop or mobile; mix of sound on or off, with commercials that are often skippable (YouTube Preferred)

Group 2. "As TV" assuming a view duration standard

- In app video; mobile, user initiated, with a content container, sound on when initiated (YouTube mobile, The New York Times)
- Web video: In stream user initiated, desktop dominated, mix of sound on and off. AOL, Yahoo etc.
- Outstream video: mostly desktop, some mobile, autoplay, mix of sound on or off (Teads)

Group 3. Requiring a new class of creative assets

- Vertical video: short form with or without a content container, default (mostly) sound on (Snapchat Discover and Live Stories, Twitter Moments)
- Feed based video: mobile, autoplay, without a content "container," default sound off (Facebook, Twitter Timeline)

Group 4. Advertising not welcome here (yet)

- SVOD: streaming video on demand, often subscriber paid and often commercial free (Netflix, HBO Go, Amazon Instant Video), default sound on

For the advertiser this is a relevant taxonomy and one that might guide both them and their agency partners in the development of creative assets and media plans. It presents a clear case (as they might say in some of Cannes' more traditional restaurants) of horses for courses. Running "conventional" 30-second TV ads in feed shows a similar lack of foresight as would running radio ads on TV. It won't work and tests will only prove that the best possible outcome is some level of brand recall and minimal understanding of the intended communication. *Communication objectives and nothing else should dictate both channel choice and the assets deployed.*

In the medium term three dominant scenarios may play out

1. TV and "as TV" experiences: in which commercials as we know them will persist and in which the money will follow the audience. It will evolve; much will be skippable and creativity will either shorten or seek an earlier "hook."
2. A middle ground of mostly short form commercial content which will be traded with guarantees on view duration and "sound on" consumption and, with those guarantees, will be "as TV." **GroupM's current standard applies here; a verified human exposure to 100% of the video window with audio on and 50% of the ad viewed.**
3. An entirely new creative class that recognizes both the constraints (time and attention) and the opportunity (scale and sharing) of the feed. Perhaps those use cases will be focused on the animation of the static images we associate with print rather than a compression of "traditional" video. Perhaps they will be the home of truly immersive experiences. Extreme one way or the other.

The advertisers that account for 90% of television advertising revenue account for between 30% and 40% of the revenue of the digital behemoths.

Comparisons between Facebook and Google and television will always be imperfect as they are very different businesses from television companies.

The advertisers that account for 90% of television advertising revenue account for between 30% and 40% of the revenue of the digital behemoths. The remaining 70% represents a combination of small and local businesses, businesses that trade exclusively in digital goods and services, direct to consumer e-commerce companies and a vast array of enterprises with the installation of apps as their core marketing objective. These advertisers are often enormously successful on Google and Facebook and their mutual value borders on the existential. Perhaps more importantly the combination of Google and Facebook, independently and in partnership with marketplaces as diverse as Amazon, E Bay, and Etsy, have enabled new enterprises with minimal infrastructure to compete with major brands and retailers. They

have done so by connecting commerce at any scale with a massively distributed source of demand with minimum friction. The identical paradigm operates in China through the auspices of Baidu, Alibaba and Tencent (BAT), and compares with other capital-lite disruptors notably Uber and Airbnb.

For Wish.com and Booking.com, the availability of microsegments is of terrific value.

For many of these advertisers, like Wish.com and Booking.com, the availability of microsegments is of terrific value. They don't need to be famous to be successful in either the "everyone knows who you are sense" or the "can I get listed in WalMart?" sense. Of course this creates a three pronged threat for the "30%." Barriers to entry in many markets (category and geography) are lower, creating more direct competition; there is greater competition for attention on the key platforms and finally pressure on price in the auction for inventory.

We may also have reached peak anxiety in many corners of the media world. Despite their efforts many publishers are failing to accelerate their digital revenues fast enough to offset the cost of legacy operations and falling advertiser demand for their legacy properties. The business model of publishers has always been based on two or three constituents. The "universal two" are revenue from circulation / subscription and revenue from advertising offset by the costs of editorial, printing and distribution. The third leg of the model is a wealthy proprietor. It's been said before, but it has never been truer to say that the best way to make a small fortune in the newspaper business is to start with a big one.

The publishing industry is further challenged by five factors:

1. Direct digital competitors that combine demanded content with lower operating costs like Vox, Buzzfeed, Vice and Refinery 29 (WPP is an investor in the last two).

2. By the inefficient monetization of original content as much is consumed on major social platforms; publishers do not make enough from their owned and operated digital properties. The New York Times is now paid for by more people than ever before, but the aggregate of the subscriber contribution does not fully offset the evisceration of revenue from classified and retail advertising that were for generations the bedrock of commercial success.

3. Newspapers, in particular are also challenged by their content "bundle." There are different advertising and subscriber models for news, sport, travel, finance, technology, arts and automotive content. Hard news has always been the hardest to sell and the most expensive to produce. Many native players have successfully picked apart this bundle both editorially and commercially to the detriment of newspaper publishers.

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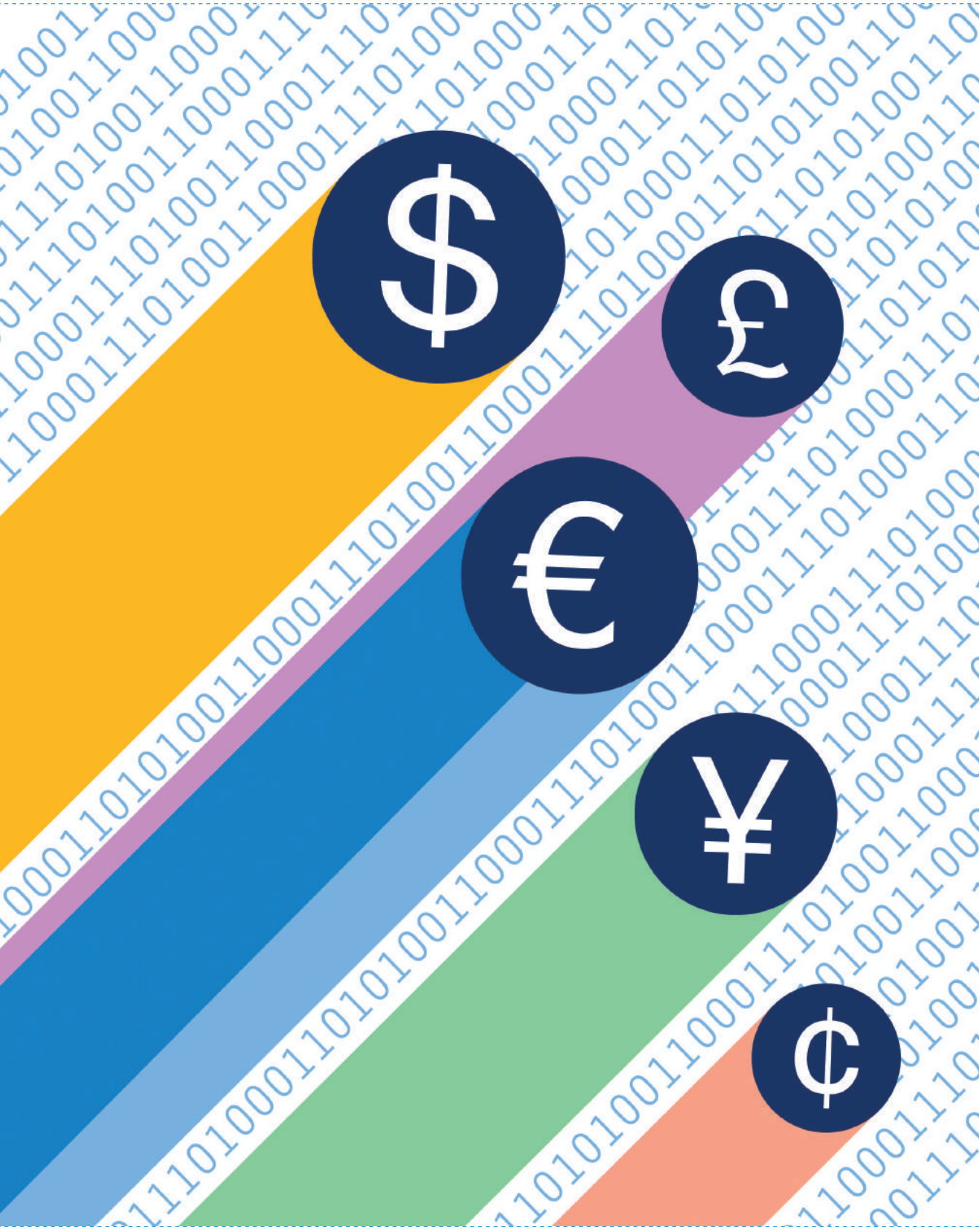
4. Ageing demography. There are few new readers of magazines or newspapers in the traditional sense. Dominance of the newsstand or the doorstep is only of value if there is demand to dominate.

5. Immediate attribution. Without the super scale of television and the biggest digital platforms, publishers are challenged in their inability to attribute outcomes of scale and at speed. This almost certainly undervalues the value of their properties and discounts the worth of committed, influential and affluent audiences.

MEDIA PRICING: THE VALUE OF RELEVANCE



MEDIA PRICING

Pricing in media was never simple to understand. Of course it reflected the equilibrium of supply and demand in any given medium but that apparent simplicity belied the fact that different advertisers paid different amounts for the exact same commodity. This differential was based on the category, the advertiser's volume and share of investment and, to a degree, their trading history with the media company in question. This rewarded high-volume early movers, with the ability to fund upfront commitments, with persistent allocation strategies and a high tolerance for flexibility to gain a market advantage over time.

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Google disrupted this process. No one paid Google until an action occurred. The original AdWords auction was straightforward: a generalized second price auction. Bid a cent more than the other guy and the top position was yours. That did not last long. In 2005 Google introduced the quality score. The premise was that it should take more than money to win a bid and provide a pricing incentive to the bidder with the most relevant response to the query. The dominant factor in the quality score was click-thru rate. Google got paid when the click was made. Clicks were a decent proxy for relevance. Since then relevance has becoming an increasingly important part of the advertising ecosystem. Never more so than in the Facebook family of apps.

If Facebook makes in excess of 25 trillion ad placement decisions per day it must make 200 trillion or more decisions to determine what content populates each individual feed. Optimizing user experience and commercial outcomes is a fine balance. It's logical that the "news" we see from the friends with whom we interact most frequently should be most prominent in our feeds. It's a social network. By extension messages (paid or otherwise) from brands we have "liked" or that have been liked by our friends should be the most prominent. But, as with Google, relevance is about economic outcomes for the company as much as it is about quality of user experience. Those economic actions result from people viewing and responding to advertising. The winning advertisers, measured by the price they pay for the results they get, are those with the ability to create extremely high volumes of messaging that allow a broad range of nuanced communication and thus the greatest probability of a response.

It's not remotely surprising that the most successful advertisers in this context are part of the 70% that are not pillars of the television market. Relevance-driven market pricing rewards short term advertising effect; advertisers that drive performance for themselves and the platform tend to force up pricing for advertisers who are either less effective or are pursuing longer-term marketing goals that don't precipitate immediate actions.

Achieving relevance in this sense is an extremely difficult thing to do for individual brands that don't luxuriate in the pool of data available to retailers and multi-location businesses at one end, and hyper-local ones at the other. Perhaps the idea contains a bigger message for both

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Today those media don't give pricing advantage to brand advertisers on the basis of relevance. Perhaps they should. The creation of some kind of engagement ranking for advertisers that combined positive viewer feedback and impact on short and long term business outcomes would create a more efficient and ultimately profitable outcome for everyone. A more data-informed market will help.

Ultimately of course pricing is most important as part of an allocation decision between channels and between sellers within channels. 2017 will be a big year in the practice of both allocation and attribution. A combination of zero-based budgeting and a need for growth means that every channel will need proven measures and proven value to a greater degree than ever.

In late 2016 GroupM announced a reorganization. We created m(Platform) to bring together all our data collection, analytics, attribution and audience trading practices. We did so because only through aggregation can we move towards an anonymized unified user identity that can be applied across every source of media inventory and put the power of data firmly on the side of the advertiser.

TELEVISION: DATA POWERED AND OVER THE TOP

TELEVISION

Programmatic television at scale remains a distant promise. The automation and dynamic / real-time ad delivery that defines the term is simply not part of the television infrastructure. It would be wrong, however, to assume that television planning and trading has not been radically changed by the application of data.

Addressable TV can be defined as the application of third- or first-party data to pay TV subscriber files in order to match a brand's target audience to a household that matches that profile. The science is leading-edge, but the concept is simple: It inserts ads into linear and time-shifted TV ad breaks which are seen in homes selected by criteria of location, income, demography, purchasing behaviors and potentially myriad other characteristics. By contrast, traditional linear television advertising relies on broad program audience profiles to stand proxy for the brand's designated consumer target. TV still serves advertisers well. Addressability just makes it serve them better.

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Scale and distribution remain challenging; addressable TV is presently available in only the US via pay TV providers including Comcast, Time Warner Cable, Cablevision, AT&T/DirecTV and Dish; and in the UK via Sky AdSmart.

In economic terms, eMarketer estimates addressable TV ad spending amounted to $400 million in 2015. Growth will depend on more TV distributors in more countries deploying the technology to enable household addressability, but addressable TV could be a US $2 billion medium by the end of 2017, or 1% of total TV investment.

GroupM's Modi Media billed about $100 million in 2015 in the US alone; there is however no shortage of advertiser demand and it could have billed twice this amount had sufficient inventory been available. UK addressable is unmeasured, but would have been in the order of $50m in 2015.

Connected TV / Over-the-Top (OTT) refers to "television" content delivered via streaming over the internet to a smart TV, streaming Player (such as Apple TV, Roku, Chromecast, Amazon Fire TV) or gaming console. It is an ever-expanding part of how viewers consume television content.

OTT services promise new choice to consumers, new distribution for program and channel owners and in some cases (Netflix, Amazon Prime, HBO Go and Apple's new service excepted) new opportunity for advertisers.

The OTT market represents a relatively new class of inventory that is currently limited in reach but growing rapidly and becoming increasingly targetable and measurable. When executed properly, this presents advertisers with a premium platform for reaching audiences in

broadcast-quality content across a brand-safe, on-demand environment. Proper execution requires looking at the creative opportunity through a lens of "Television," while taking advantage of the digital backbone for ad serving and real-time campaign optimization.

The key to targeting on television is connected device distribution. As OTT devices proliferate and (in the US in particular) set top boxes are modernized, our expectation is of a targetable future which has the potential of creating significant value for advertisers and program distributors. The most powerful viewer experience of the best content combined with rich data and the dynamic delivery of advertising to households and individuals at scale can't come soon enough.

With the OTT revolution comes a new game of musical chairs.

With the OTT revolution comes a new game of musical chairs. Players as diverse as AT&T, Turner, Google, Verizon, Hulu, CBS, Sony, Sling (Dish Network) and others in the US alone are launching what have become known as skinny bundles combining on-demand and live linear television. The general thesis is that a market opportunity exists for a reduced channel lineup that requires a broadband connection (fixed or wireless), and a smart device but NOT a conventional cable or satellite box. This is based on long-term received wisdom that the packages provided by cable companies were bloated by channels you might not want and that some channels, notably ESPN, took too big a share of the pie. The general strategy of the skinny bundles is to aggregate as many broadcast networks as possible, plus ESPN, to ensure that sports fans are accommodated, and a selection of more or less premium cable channels as an anchor for drama.

The monetization of these bundles is straightforward. Subscription sales plus highly targeted advertising less the cost of re-transmission fees. From the advertiser's point of view few will be big enough to represent meaningful sources of advertising inventory and it will be up to the agencies to aggregate the pool and harmonize both delivery and measurement.

Distribution has always been central to the success of channel owners. Without widespread distribution carriage fees are reduced as is the potential audience for advertising. In theory the new bundles would satisfy consumer needs in terms of value and simplicity, and give wide distribution and the lion's share of the money to the leading content companies. This may not be the case especially when two "mega-bundles" already exist in the form of Amazon Prime (a bundle that goes far beyond video and includes streaming music and unlimited free home delivery) and Netflix. What these newcomers are missing are three things:

- Live sports
- Live news
- First-run drama, comedy and unscripted shows excluding their own output

At 70% of the price of HBO, Amazon Prime and Netflix are absurdly good value for money and it won't be a surprise if they come to form the anchor of the new entertainment landscape. If they do the strategies of all the other players look suspect. Each of NBC, Fox, CBS, Time Warner and Disney have bundles of their own. Within those bundles there is also the potential to distribute close to 100% of US sports rights. If you are a sports fan and impatient it's complex and expensive. If you are neither, it is easy and cheap.

Failure to create something that people are prepared to pay for or perceive as an indispensable utility is itself a prescription for failure. And so, the prescription to make TV ubiquitous is simple even if complex to activate.

A key factor in the development of OTT and related bundles in the US is that of net neutrality. Current regulation means that carriers must treat all content equally; that is to say, you cannot speed the delivery of the content you own or prefer at the expense of content you don't. As administrations change so do regulations. It's a possibility that neutrality may be neutered. This is good news for the mobile and fixed wire infrastructure owners and bad news for almost everyone else.

One potentially decisive factor is the as yet unproven demand for "TV anywhere:" delivery to any device any place. Television makers and distributors would like to believe that "TV is the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people." Karl Marx said as much of religion in 1844, but as knowledge undermines faith so multitasking undermines the passive attention to television. Failure to create something that people are prepared to pay for or perceive as an indispensable utility is itself a prescription for failure. And so, the prescription to make TV ubiquitous is simple even if complex to activate.

AT&T launched DirecTV Now late in 2016. It allows subscribers to consume video over wireless networks without incremental data charges. This is a genuine realization of TV everywhere and others are betting on a similar strategy, Verizon with the NFL and Go90 and soon Comcast NBCU in partnership with Verizon.

This creates a whole new technical challenge. TV Everywhere is largely a matter of authentication — the ability to watch on any device as long as you can prove that you are paying for the pleasure TV *Anywhere* is different. With relatively low adoption rates the LTE wireless networks will cope with video traffic. With mass adoption, they won't. The issue is contention. Contention, in the simplest terms, is the issue of traffic overload at a single network node. Anyone with home Wi-Fi attempting to stream a movie while three kids are playing different online streaming games over the same network will be familiar with the problem, as will people who try and post social media updates in a 50,000 capacity stadium. For this to be resolved in the home one gigabit broadband (currently in narrow deployment) can't come soon enough. For the issue to be resolved over wireless networks the arrival of 5G is required. 5G won't make devices work faster but will allow all of them to fulfill their potential simultaneously.

TELEVISION

Television has always had three masters: advertising, distribution and user experience.

Television has always had three masters: advertising, distribution and user experience. Prioritizing the co-dependencies has never been more complicated especially when a player like Amazon has an asymmetrical model in which video use is funded both by subscriptions and by services that have nothing to do with video at all.

For the consumer it's every bit as complicated. Perhaps someone needs to create an eHarmony for personal entertainment and communications that allows people to optimize their personal price value equation.

THE AUDIO REVOLUTION

AUDIO

Ask any brand to describe its strategy for mobile, social, search, video or commerce and you will get a more or less robust response. Ask the same about their audio strategy and most likely it will be less clear. “The soundtrack of a brand” is an elusive concept.

This is somewhat surprising. Radio and music in particular are massive consumer behaviors and ones that have been revolutionized by streaming media. Spotify, Pandora, Apple Music, iHeart Radio and Amazon Prime dominate the US market.

For brands and marketers, these on-demand, on-the-go streaming services have the potential to provide unprecedented levels of consumer understanding. Beyond a basic demographic snapshot, listening behavior can help determine activity, emotion and a degree of intent. This level of contextual data could take segmentation in a new direction, letting advertisers reach a specific qualified audience at key points throughout their day.

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Spotify is generally recognized as the market leader with 100 million users (globally, June 2016) and 40 million subscribers (August 2016), more than double that of Apple Music. Pandora is far behind in paying users and far ahead in advertising revenue. Spotify’s revenue is approximately $2 billion from subscribers and $300 million from advertisers. Subscribers are worth 15 times as much as listeners per head. Pandora’s revenue is $1 billion from advertisers and $300 million from subscribers. iHeartMedia generates around $5 billion in total revenue but that is dominated by its huge network of FM radio stations and live events. iHeartMedia makes an operating profit but that is wiped out by its immense $20 billion debt burden. Neither Pandora nor Spotify are profitable, as some 80% of their revenue is returned in royalties to artists and labels.

Pandora and Spotify, to date, are entirely different businesses. Spotify is an online on-demand music collection enhanced by the ability to find playlists from others and to customize your own and download music for offline listening. This combines the record collection with music discovery. The “download” factor may be the single biggest contributor to Spotify’s lead in subscriptions and be the defining incentive to pay – we call this “The Spotify Test.” Pandora is a discovery oriented radio service. Pandora has been sequencing the music “genome” for more than 15 years. Experts have been decoding music on hundreds of vectors (a task still beyond the capability of AI) and used it to create departure points for custom “stations.” Pandora has now launched an on demand service (including offline downloads) bringing it closer in product offering to the Spotify model. Challenging Spotify and the inertia of its installed base won’t be easy but the genius of the genome may preserve long term differentiation and, combined with product parity in the library / download space, may be enough to achieve escape velocity.

From an advertising perspective Pandora has unique attributes. It has 80 million active users, 70% of them using the advertising funded service. This represents a substantial audience targetable by everything from location to mood. Pandora suffers from a multi-generational drought of creative output for audio by advertisers and agencies, which reduces its adoption by major brands. It lacks the perfectly trackable action signals of the rest of the digital advertising ecosystem for advertisers driven by direct response. It's not hard, however, to imagine, both Pandora and iHeartMedia becoming major players in branded content. Audio is cheaper and quicker to execute at scale than video.

2017 will be a big year for both Pandora and Spotify. Rumors of Pandora's sale began to swirl in late 2016 and Spotify is expected to go public, and along with Snapchat, create the next two major publicly traded native digital media companies. In the meantime, against a backdrop of rising interest rates iHeartMedia's immense mortgage obligations may be a barrier to progress.

THE DUOPOLY: GOOGLE AND FACEBOOK AND THEIR CHALLENGERS

We estimate that in 2016 Google accounted for 13% of all advertising globally and 42% of digital advertising. Facebook accounted for 5% and 15% respectively. Neither Facebook nor Google operate in China so the number is marginally understated. The magnitude of their influence is greater still, especially in the case of Google as many publishers are dependent on the Google Display Network and YouTube for part of their revenues. This position may be impregnable but nothing is certain and neither can afford complacency. For comparison the BAT oligopoly in China will account for close to 70% of digital advertising investment in 2017.

Google

Google operates seven platforms with more than a billion users globally: Google itself, Google Play, Gmail, Chrome, Android, YouTube, Google Maps.

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Google operates seven platforms with more than a billion users globally: Google itself, Google Play, Gmail, Chrome, Android, YouTube, Google Maps. It operates five of the top 10 apps. That creates a data set of human behavior that is hard to match. Google monetizes its data through paid search, through the Google Display Network (GDN) and through YouTube.

Google has had an 80%+ share of search revenues for a decade. Much of that revenue comes from "monetizable brand queries." The conjoined development of Amazon, Pinterest, verticals such as travel and health and retailer-operated e-commerce means that large numbers of people are starting and finishing their transaction journey without touching Google. They have built trust in a given platform and believe that the relevant choice and value requires minimal inquiry. It has been suggested that the growth of voice search may present a second challenge both for advertisers and Google; this is likely an inaccurate assessment as voice commands simply surface clickable results. While total searches grow and headroom for ad load increases Google will be untroubled but over time the proportion of those queries from which money will flow to Google may fall.

The Google Display Network seems extraordinarily robust, just so long as the creators of original content stay in business. Google's DoubleClick persists as extraordinarily effective connective tissue between publishers, advertisers and agencies. It allows publishers to manage inventory and yield, agencies to deliver and track campaigns and Google to have an "Oz like" view of a large swathe of the market. DoubleClick has many barriers to exit, not least for its efforts in protecting the ecosystem from fraud. The rise of "header bidding," a technique that allows publishers to permit multiple sources of demand to bid on impressions prior to the "call" to the DoubleClick ad server, may however weaken the golden thread between DoubleClick and the Google Display Network.

THE DUOPOLY

More users, more watch time, more money. YouTube is already a very successful business but Google's attempt to create a massive "quality" TV-like inventory pool has been less successful and thus less differentiated from other sources of online video. Google will launch an OTT service in 2017 and already has a subscription service called YouTube Red. In video quality you get what you pay for.

The large scale transfer of television advertising budgets to YouTube has not taken place at the speed that some market commentators might have thought. Nonetheless YouTube does remain dominant in all but the shortest formats of online video, with the most views and the longest viewing session times. In this sense it has a particular value to advertisers as ads are almost always more acceptable to consumers in extended viewing sessions. This would seem to create an unexplored opportunity for both YouTube and its advertisers. Currently ads are not sold on a "session" basis and it seems attractive to give advertisers the opportunity to deliver a sequence of messaging in a session. Sequenced storytelling works well.

Amazon's revenue is far more diversified than Google's with only 1% coming from advertising as opposed to 80% plus for Google.

Of course YouTube's revenue is not confined to video and is a large source of inventory for GDN and, by extension, the enormous pool of long tail advertisers that are core to the business.

A significant challenger to Google may be Amazon itself. Amazon has always been a product search platform and is now successfully monetizing search with the addition of promoted listings. The Google Display Network may also be challenged as Amazon unlocks its trove of transaction data to enable the Amazon Media Group as a mechanism for advertisers to target communication based on actual purchase histories. If Google's house is built on intent, Amazon's is built on actions. Amazon Web Services is also a leader (the leader?) in cloud computing and it's not impossible to imagine how, together with Amazon Marketing Services, it could create an alternative to Doubleclick in the provision of inventory monetization for publishers. Amazon, through Twitch, also competes with the gaming assets of YouTube and is beginning to expand into broader content categories, they compete in music, in IoT (ask Google if it is concerned with Alexa), in cloud computing and elsewhere.

Amazon and Google's combined market capitalization is around $1 trillion and their revenues total approximately $200 billion. This represents significant competitive firepower. Amazon's revenue is far more diversified than Google's with only 1% coming from advertising as opposed to 80% plus for Google. The key indicators over the next year or two will be Amazon's ability to expand its margins and Google's ability to diversify its revenue streams. Famous for its "moonshots," Google may find the cloud more profitable than the moon.

A further challenge to Google and perhaps also to Facebook (in itself a challenger to Google), albeit at a smaller scale, is emerging from

Pinterest. Founded in 2011, just a year before Snapchat, Pinterest is not an "everyone" platform. It has approximately 150 million monthly users of whom around half are in the US. Pinterest is unusual among the larger platforms in that its focus is anything but ephemeral. People use the platform to collect and share images that inspire them. This is sometimes hobbyist but is often of high commercial potential especially in highly monetizable areas like food, design, home renovation and fashion.

Pinners are both self-actualizing and expressive and the platform could be described as network of intent, inspiration, aspiration and validation. This makes it unique.

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Pinterest started at the tipping point of the desktop-to-app transition and it's likely that its commercial progress was slowed by its immaturity and a need to build for the desktop platform for which it was conceived and for the mobile one which would come to dominate its use.

Inevitably this affected monetization strategy, but having resolved this with a combination of promoted pins and search, we believe Pinterest may be a serious challenger as a natural link between interest (not quite the same as intent) and commerce and in particular a venue for multi-product display advertisers who are challenged by the economics of video production at scale.

An aspect of Pinterest that we find interesting is the duality of a user population that knows what it likes (the proof is in the Pin) and knows what it does not know (getting inspiration from other pinners). This suggests that Pinterest may be capable of attracting advertising that will take a share of the intent market (bottom of the funnel), the consideration market (mid-funnel) and the awareness market (top of the funnel). This implies the opportunity for advertisers to generate new demand rather than focusing on capturing demand that already exists.

If Pinterest does succeed in search then a combination of it, Amazon and a newly energized Bing (subject to the AOL / Yahoo merger) may increase advertiser choice to a significant degree.

Facebook

More than 1 billion people use Facebook every day, 600 million use Instagram, and the 1 billion user mark has been reached for both Messenger and WhatsApp. Messenger now features close to 50,000 chat bots. Three or four of the 10 most used apps are operated by Facebook. It's staggering.

Facebook decided in 2016 to exit the ad tech business – Live Rail and the Atlas ad server platform – and concentrate on its own platforms and the Facebook Audience Network that competes with GDN among mobile

publishers. The company is becoming increasingly video centric and not for the first time seems at something of an inflection point. Last time it was the shift from desktop to mobile, the same service but delivered on a different class of device. The move to video is different and relies on significant content contributions from outside of the personal social network of users.

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One way of describing any media company's scale and opportunity is to multiply daily users by daily average minutes, and modify that by income per user or personal GDP. Growing the first increases reach, and growing the second increases the number of ads that can be safely delivered to the user. The third can't be grown but can be easily diluted and the lower the GDP per user the lower the value of that user to advertisers. Facebook has planted this thought with investors already, yet it keeps growing users of the core platform and Instagram is growing faster still. In aggregate, across all its platforms Facebook occupies almost one hour per day of its daily users.

The challenge to Facebook will come when it faces competition for attention amongst its wealthiest users or at least those most valued by advertisers. Facebook also needs to be alert to "the moment of adoption;" they must maintain their share of 13-year-old "first-timers" as the competitive landscape at that stage is intense. This competition comes from multiple sources. Most notable is the rise of Snapchat.

Snapchat has grown quickly. It has over 100 million users and it won't be a surprise if their monthly number is over 200 million and the daily number over 100 million by the time of their Initial Public Offering. They report 60 million daily users in the USA and 10 million in the UK now. Among their daily users they have almost certainly reached at least 50% of the daily average minutes spent on Facebook.

Snapchat is a revolutionary as Facebook and possibly the first of the internet titans with no legacy desktop history. The conception of the "camera company" could only have been realized on mobile devices and the notion of the camera as the key device input is clearly resonating with an audience that is comfortable with multimedia person-to-person communication. The camera has also enabled ad products. The Snapchat Lens is the most innovative digital ad product since the keyword and the news feed post. All three are uniquely native to their platforms. In Snapchat's view this makes the company the most widely distributed augmented reality interface in the world. Lenses enable users to take brand assets and incorporate them into their own communication. The entry price is high but their sharing potential makes Lenses perhaps the most significant opportunity for earned media today. It's difficult to predict the durability and scalability of such sharing.

"Snap to unlock" allows advertisers to integrate Snapcodes into any off line communication. The user snaps a code to unlock other digital content. This is an update on QR codes which have similar functionality

but which had only minor success perhaps as a consequence of not being native to an app.

Snapchat also believes that their geo-filters product will grant them access to the long tail of local businesses that have supported the business models of their established competitors. This is critical if revenue is to scale rapidly and continuously.

Advertisers have embraced Snapchat. They like the audience, they like the innovative ad products and they like the vertical video product that fills the screen with tolerable but arresting interruption as well as the opportunity to "swipe up" to see more. Snapchat appears to have a long runway in user penetration, in publisher partnerships via Discover and in the creation of shared experience through Stories, a process likely to be accelerated if Spectacles becomes a feature of fan attire.

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Facebook has responded. Not for the first time. As photos became a major medium for social sharing it purchased Instagram, when messaging became a threat to its communication platform it bought WhatsApp and developed Messenger. This time Facebook has responded organically rather than through acquisition, using new features on Instagram (Stories) and Messenger's new native camera that features 3-D masks, style transfers, frames, stickers and more. All this to ape the Snapchat experience and stall user defection. Imitation is the most commercial form of flattery. It's easy to dismiss imitation as a substitute for innovation but the speed of reaction, like its relentless ad product innovation, is testament to Facebook's extraordinary engineering architecture that allows execution of product development and global deployment at breathtaking speed.

In many ways the success or failure of Snapchat is directly related to the development of Instagram. The latter now matches or exceeds Facebook itself in terms of brand engagement per user. If its metrics in that area are superior to Snapchat's then the latter's debut on the public market could be significantly compromised.

IF Instagram effectively duplicates the Snapchat experience for both users and advertisers the latter may view the opportunity to deliver at Instagram's scale with its data richness and embedded commerce features as irresistible. This would not be great news for Snap. We have been wrong before.

Twitter's move into live video in partnerships with sports leagues and other events may not lead to a stratospheric increase in its user base but users have grown for three consecutive quarters for the first time in the recent past. Twitter is seen as a legitimate environment for brand video advertising and for brands to achieve proximity to cultural immediacy.

Twitter is the eternal paradox. Despite its revenue challenges (relatively) its social significance is unquestioned, after all it now promises to replace

Twitter is seen as a legitimate video environment for brand video advertising and for brands to achieve proximity to cultural immediacy.

all other communications channels of the US Government. Twitter's revenue is likely to be a tenth of Facebook's in 2017 and it struggles to turn that revenue into profit. Twitter's threat to Google and Facebook is minor but it matters. Its subsidiary MoPub is the world's largest real time bidding mobile ad exchange and generates approximately $100m or 5% of Twitter's revenue. If Twitter is to prosper as an independent enterprise and become sustainably profitable, the leading indicators from 2017 will be the success of both MoPub and its aggressive push into live video which will include (at last) the integration of Periscope into the core Twitter app.

Twitter summarizes its value to user as being the place to answer the question "what's happening." If its interface and ad products could make it easier for consumers to ask and advertisers to respond to "what's happening … now, here, when, then, where?" its potential might be more easily realized.

All of YouTube, Instagram and Snapchat are at the center of Influencer Marketing – the pursuit of relatable voices and faces and "authenticity" (the great non sequitur of marketing). The challenge for many advertisers is how to pull off the magic trick of simultaneously ceding creative control AND maintaining the purpose and effectiveness of messaging. There's a new contract between consumers and brands — the details of which have yet to be written but the creators, at least, will tell you — that brand messaging expressed in the authentic voice of the creator which the fan chooses to follow is NOT automatically rejected. The implication is that there is a difference between a home for advertisers and a home for advertising.

AOL / Verizon – the third force? For the first decade of digital marketing AOL and Yahoo were synonymous with the internet. It's easy to forget that the two brands still have immense audiences from the Huffington Post, Yahoo Finance and Sports, and advertising revenues that, in combination, exceed any player in the market other than Google and Facebook. Additionally there is no question that, while not as potent as it was a decade ago, the Yahoo brand has enduring value.

AOL no longer reports its revenue numbers, as it is now wholly owned by Verizon. Based on the last reported data and a recent Verizon statement that AOL's revenues had grown by 10%, we would estimate the annual total at around $3 billion. That's under half of Facebook's most recently reported *quarterly* revenue. In the event of the Yahoo acquisition being finalized the revenue of the combined entity would be $8 billion.

The promise of the combined entity is as the world's third largest aggregation of ad impressions with scaled "channels" in news, sports and finance, enriched by significant ad tech assets and first party data from Yahoo Mail. To this (in the US at least) add Verizon's mobile

subscriber data, fixed wire broadband and TV and go90 a new video asset, the Verizon mobile and OTT TV service. There is undoubted potential in that combination.

Can Verizon make the whole greater than the sum of the parts?

The question is simple. Can Verizon make the whole greater than the sum of the parts and activate enough content, context and data to grow an audience of sufficient value to erode the share of its competitors?

Our view is that the new entity, if realized, will be of enduring value to advertisers but that, while the combination is certain to set the company on a new trajectory, it may not challenge the duopoly. To do so will require flawless execution of the integration, delivery on the data promise and significant evidence of user growth in terms of time spent on the new platform. Its cause would be greatly enhanced by any strategy that also makes the company a valuable trading and technology partner to other content creators and by a massive increase in its TV and / or digital footprint.

It's interesting to observe where Verizon sits in share of paid TV homes. At 4.8 million homes it lags AT&T at 25.3 million, Comcast at 22.4 million, Charter at 17.3 million and Dish at 12.5 million. The market capitalization of Dish is roughly one-tenth Verizon's (albeit at double the price / earnings ratio). Under the new administration in the US it's likely that regulation will be less of an impediment should Verizon wish to acquire either Dish or Charter and take third place as a consequence. A further possibility lies in following AT&T's strategy of combining wireless infrastructure and service with both distribution and content. For example, the value of CBS is similar to that of Dish with a P/E ratio closer to that of Verizon. These scenarios would significantly embolden Verizon in its home market.

Most radically, the company could determine that Snap offers the greatest opportunity for global expansion and access to growth. It's rare for an imminently or newly public company to be acquired but if valued as expected, at $25 billion plus a takeover premium, Snap would be affordable and potentially the most disruptive acquisition available.

LinkedIn became a unit of Microsoft in December 2016. It will join Microsoft's Productivity and Business Processes Group alongside Office, its CRM products and Skype. Via Azure, Microsoft is already a leader in cloud services and the integration of LinkedIn would appear to set up the company to compete with Salesforce and Oracle in the B2B marketing cloud segment. It is intriguing to contemplate the theoretical fusion of Outlook's immense user basis with 300 million monthly active Skype users and 500 million LinkedIn users. LinkedIn has long believed that its future from a marketing point of view has been in lead development or "nurturing," and if the data sets can be integrated and permissioned, the potential seems considerable.

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Integration of that kind, however, has always been a challenge for Microsoft. Facebook, Google and Amazon benefit from a single login that gives the user access to everything and the companies a single source deterministic view of their users. Microsoft never achieved this across Outlook, MSN and Xbox. Doing it now would create a unique position in the market and create real opportunities for businesses to target business users and enterprises.

LinkedIn is unlikely to have the B2B space to itself. Mark Zuckerberg now seems to be relenting on the idea of the single persona, by allowing an additional work persona to exist on the new Facebook Workplace platform. Designed to be a challenger to Slack, "Workplace by Facebook" is Facebook's attempt to bring an enterprise social networking platform to market. It will offer organizations functionality such as Groups, chat, live video, calling, translation and collaborative working spaces. Starting at $3 per user per month, this is a paid-for platform that is already being used by 1000 organizations – including the whole Singaporean civil service.

And of course new challengers appear in the blink of an eye. In July 2016, **musical.ly** reached 90 million downloads, with over 12 million new videos posted every day and in June 2016, Coca-Cola launched its #ShareACoke campaign on musical.ly, which introduced musical.ly's "User-Generated Ads" model. These platforms may die away as quickly as they appear or they may become the new Snapchat, but high levels of innovation – particularly targeted at younger audiences – force the major platforms to keep evolving. Live.ly, a live streaming spin-off from Musical.ly, has 4.6m Monthly Active Users in the US – overtaking Periscope in just 2 months.

New models and interfaces might also disrupt (or cement) the duopoly. In January 2017 Tencent, the owner of WeChat, launched Mini Program. Mini Program allows WeChat users to user a QR code reader built into the app to access content and services as needed rather than by downloading a further specific app. For advertisers in China this presents a challenge: how to balance WeChat's enormous reach (in excess of 750 million users) with the desire to create a persistent presence on user devices.

IS THERE LIFE IN LIVE VIDEO?

LIVE VIDEO

Facebook launched Live Video across its whole user base on April 6th 2016. YouTube streamed the Coachella Music Festival ten days later. Twitter launched its first live sports stream at Wimbledon in June and amplified its effort with its National Football League partnership for Thursday night games in September. Yahoo had streamed a single live game in October 2015. A year earlier, albeit to a smaller user base Snapchat launched Live Stories. All had the same ultimate purpose; the more time people spend on a platform the greater the range of opportunities for monetization.

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Of course, Live has been a mainstay of the video industry forever. Sports, news, events like the Academy Awards and the rest have seen the highest monetization per minute of any media in history so it was no surprise to see the video strategies of the digital players unfold. Of all of them Google seems less convinced by the potential of Live. They perceive YouTube as an on demand environment. They observe that only 20% of TV is live and believe that live video online will be a fraction of that. Further its costs are unlikely to be offset as live content outside of content with significant associated rights fees is hard to monetize. This may well be true but may also be reflective of the one area in which Google has not succeeded: as a social network.

The approaches to Live are very different. Snapchat's approach is simple. Individuals attending major events have a personal and unique perspective that is different from the television broadcast. That's a set of views that can be aggregated and curated for the enjoyment of others who enjoy the "being there" view of their peers. Twitter has two approaches. Periscope is most similar to Facebook Live but its big bet is on delivering a live TV experience to the mobile device enhanced by user tweets and commentary. It's a bold initiative but its success could be constrained by the simple notion that people watch the most important events on the best available screen and, only some of the time will that be a mobile device.

Facebook has spent millions on training its audience to "go live" anticipating the engagement possibilities of those experiences being greater than pictures and text. Users have responded in delightful and terrifying ways. Unfiltered live streams are entertaining, sometimes valuable but also extraordinarily risky and an invitation to the basest human behavior. In addition Facebook is partnering with major media outlets to produce segments of live video exclusive to the platform which will, we assume, become the home of a pre- and mid-roll advertising product. This strategy resembles Snapchat Discover and may be a resolution to the challenges described earlier in respect of completed views in stream-based environments. It's notable that Twitter, Facebook and Snapchat are paying legacy media owners directly for content.

The economics of Live beyond sports are uncertain. Fandom, narcissism and voyeurism are inexpensive. Snapchat has low acquisition costs with relatively obvious monetization. Facebook has low acquisition

costs at the consumer generated level and less direct monetization potential beyond its existing ad product portfolio. Professional content has greater potential for monetization but at a price as the creators demand big rewards. As ever, Twitter is the mystery. It is probably the most value enhancing to creators and potentially represents the easiest transition for advertisers, but can it execute at scale?

E-COMMERCE: AMAZON, ALIBABA – THE OTHER DUOPOLY?

Less than 10% of goods in the US are purchased online and the number is far lower elsewhere. Of the native e-commerce enterprises Amazon and Alibaba are the biggest by far. It's worth comparing them at two levels:

Gross merchandise volume (GMV) is the amount of sales recorded by each. In Amazon's case this was $225 billion in 2015, in Alibaba's $466 billion. (For comparison, and to illustrate the dominance of the big two, eBay's GMV was $82 billion, around 20% of the size of Alibaba.) This disparity is explained by the business models of the companies. Alibaba is a marketplace that owns almost no inventory while Amazon, also a marketplace, is predominantly a retailer in the "conventional" sense in that it takes inventory risk and commensurately higher margins.

Outside China, if media companies are asked to identify the companies by whom they feel most challenged almost all answer Google and Facebook. If the same question is asked of retailers and many brand owners, the answer is Amazon.

This is reflected in the revenue of the two companies. For 2015 Amazon booked revenue of $107 billion opposed to $14 billion by Alibaba. The scale of Alibaba can be summarized in three data points. Half a billion monthly customers, nine million active merchants and 85% of China's mobile e-commerce market. The dominance of Alibaba and Tencent's JD.com is largely a function of China's mediocre physical retail infrastructure and provincial regulation that has hampered the development of national retail brands.

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Amazon has a unique and interlocking business model. It is a retailer, a marketplace, a device manufacturer, a logistics business, a content producer and distributor and a provider of cloud services. In each it is either the world leader or may have the potential to be. The operations of the business act as a flywheel for each other, the commonality between is scale, speed and choice. Amazon has a vast array of businesses that it competes with and an even vaster array of businesses that are dependent on it. The 22-year history of Amazon can be split into two 11 year periods. The first 11 years saw the world's biggest bookstore become the "everything store;" the second 11 years starting with the launch of Amazon Prime has seen the transition we see in progress today. Prime launched in 2005, Unbox (the forerunner of Prime Video) in 2006, Kindle and Amazon Fresh in 2007, Amazon Studios in 2010, Subscribe and Save in 2012, and Fire TV, Prime Now, and Echo in 2014. Amazon's media sales network and its Dash Button instant ordering device launched in 2015. Its first planes flew and its first drone delivered in 2016. "Manchester by the Sea" may be its first Academy Award Winner in 2017 and if you buy your popcorn on the way to the theater from an Amazon Go store you will need no interaction with the staff, a cash register or even your wallet. Amazon Studios has already won Golden Globes for both "Mozart in the Jungle" and "Transparent."

E-COMMERCE

In the narrower field of e-commerce Amazon has massively expanded its range of categories and critically has removed the last barrier to e-commerce purchase, being the wait between desire or need and satisfaction. A story is told of an iPhone charger ordered by a hotel guest in Seattle via Amazon Now. It took 22 minutes to arrive (plus the time it took the guest to get from his room to the front desk).

There seem few barriers to Amazon's growth. Five years ago you may not have not considered buying a tomato from Amazon much less a car. The former is a reality and the latter is around the corner. Amazon has built the world's most comprehensive database of vehicles, specifications and parts in history and will likely be the biggest parts seller in the US in 2017. It knows, from purchase history, what vehicle people own and what age and condition it is in. It's a baby step from there to a massive used vehicle marketplace and another to becoming a challenger to existing new vehicle retailing models.

Five years ago you may not have not considered buying a tomato from Amazon much less a car. The former is a reality and the latter is around the corner.

Amazon and Alibaba together most likely represent much more than half of all native e-commerce excluding the travel category. Almost all other e-commerce outside of omni-channel retail is massively fragmented. The one exception may be Wish. Peter Szulczewski, founder and CEO is not as well-known as Jeff Bezos, Jack Ma and others. Wish has however has raised over $1 billion dollars in capital and has taken a contrarian approach to e-commerce. While Amazon has pursued assortment, value and exceptional service, Wish has pursued value and utility, eschewing brand names and speed of delivery. Wish is a marketplace; it is the intermediary between Western consumers and manufacturers of unbranded goods in China and other Far Eastern markets, it delivers by mail direct from manufacturer to consumer in 10 to 13 days and takes a 15% share of the transaction. Wish competes with Walmart and discount retailers around the Western world. Wish is built on discovery and serendipity and will probably reach a gross merchandise value run rate of $10 billion in 2017. Wish is also believed to rank in Facebook's top three advertisers globally. Anecdotally Wish is believed to have in excess of 60,000 different ads in the Facebook system at any time.

If there is a threat to the current structure of e-commerce it seems likely to come from one or more of three sources:

- Brand owners will support an "Alibaba-like" model in more markets.
- Multiple participants from retailers to brand owners will embrace massively distributed e-commerce, most likely to be driven by Facebook, Pinterest and Google together with attendant chat bots and "buy now" buttons on all digital communications.
- Manufacturers and retailers will form hybrid partnerships in which transactions occur on manufacturer platforms while retailers will provide fulfillment and customer service.

The second scenario is more likely; right now the platforms take their share of e-commerce revenues indirectly through burgeoning retargeting ad products and that will grow as more retailers organize their product listings in a way that allows huge catalogs of goods to be automatically surfaced at the point of need and relevance.

There may be as few as one billion debit and credit card holders in the world; the WeChat model may work best for everyone else.

Further developments will most likely come as small e-commerce platforms and direct to consumer brands are slowly absorbed by established retailers and brand owners as access to “new” money and public market exits become challenging for cash-negative businesses. The sale of Jet.com to Walmart and of Dollar Shave Club to Unilever are symptomatic of the needs of the sellers to exit and the need of the buyers to disrupt and accelerate their own business processes often in pursuit of first party customer data. Perhaps Alibaba will acquire Wish.

Counter-intuitively, one barrier to massively distributed e-commerce in the West may be the sophistication of the banking system and ubiquity of debit and credit cards. Their availability means that the consumer can buy anything from anyone, anywhere. In China and many other markets from India to Africa this is not the case. In China in particular Tencent’s WeChat messenger platform is becoming a significant e-commerce player because its integrated wallet, like AliPay, creates a seamless transaction for the huge percentage of the population that operates outside of the traditional banking system. There may be as few as one billion debit and credit card holders in the world; the WeChat model may work best for everyone else.

MARKETPLACE INTEGRITY A YEAR ON

MARKETPLACE INTEGRITY

In **Interaction 2016** we wrote at length about the integrity of the digital supply chain. This is a complex issue that includes, if not conjoins, fraud, viewability, measurement and ad avoidance.

A year on, at a headline level the report card reads "The industry has responded aggressively to the threat with some success but cannot be complacent."

We believe that enough is understood and quantified about the issues for advertisers to make informed decisions about the real value of inventory.

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Fraud

Instances of ad fraud have not gone away, but we believe that it is significantly contained.

Some will be shocked at that assertion; headlines often emanating from the east of Europe rightly create discomfort for advertisers and publishers and it's likely that 2% of the impressions purchased by the biggest advertisers in Western markets remain non-human. Bad as this is (0% is a good number for fraud), the speed of detection and countermeasures seem to have caught and outpaced the development of new fraud strategies. It's only three years since The Wall Street Journal estimated that over 30% of ad impressions were not legitimate. The fightback has been three-pronged: new and better detection tools, a coalition of advertisers, publishers and buyers (The Trustworthy Accountability Group TAG) to deploy those tools; and a reduction in the demand for bad supply. A highly publicized incident at the end of 2016 acts as a useful illustration of the issue and the response.

White Ops, a specialist in ad fraud detection announced that it had uncovered a massive fraud called Methbot:

> *Controlled by a single group based in Russia and operating out of data centers in the US and Netherlands, this "bot farm" generates $3 to $5 million in fraudulent revenue per day by targeting the premium video advertising ecosystem.*

This is shocking but it's likely that the initial reports exaggerated the problem as our own work with partners including The Trade Desk and AppNexus suggest that only 0.5% to 1% of video inventory was affected. TAG and its industry partners have set about blocking the 571,000 fraudulent IP addresses that form the core of the botnet. From report to action the process took less than a week.

Google and Facebook (and Twitter via MoPub) are as ever key actors in fraud protection. If you capture a massive share of the market by acting

as a technology intermediary and as a marketplace for others' inventory, you place yourself at the front line of fraud detection and elimination.

Viewability

With respect to viewability progress has been made. Advertisers who choose to use the tools made available by Moat, Integral Ad Science and DoubleVerify are now extraordinarily well equipped to assess if the impression they purchased was "human viewable" for a given duration. For some this has created a new currency for the purchase of media inventory; for others the data acts as a modifier to the trading currency of the publisher. If only a fifth of my ads are fully viewable with a vendor my basis for comparison is 5x the price when compared with a vendor where all my ads are viewed. As long as the comparison is calculable the market, and, crucially, budget allocation can operate successfully. It's worth noting that such comparisons have never truly been available in other media where at best they were based on small samples and generalities. No one ever really knew who saw the ad on page 383 of Vogue. GroupM has been at the forefront of the viewability issue in the US and is now collecting data across the world with which to create modifiers and standards that are specific to use cases and vendors.

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In the macro, measurement remains challenging and troubling. Nowhere in the world does a single data set exist that reliably calculates total video viewing on an apples-to-apples basis across all platforms. It would help if the notion of a view could be defined at all. Currently, such definitions range from the first pixel rendered to 50% of the pixels in view to all the pixels in view and then modified by sound on or off and duration. GroupM's view of this is simple: view duration and sound both matter and are huge determinants of the recall and depth of recall of brand advertising. As a consequence we believe that some channels are significantly over-valued.

The issues are compounded if the measurement methodology is controlled by the seller. In competitive markets this rarely happens but when a few sellers acquire a hegemonic position the situation changes. In the first phase of the digital advertising boom advertisers and agencies paid media sellers based on the seller's count of impressions. The demand side of the market pushed hard for third party ad serving and measurement and in so doing revealed significant discrepancies in the seller's favor. Today there is simply no justification for publishers to expect advertisers to pay on counts that are unaudited using methodologies that are equally unaudited. To date advertisers have been remarkably tolerant but recent self-reported (to their credit) errors by Facebook and Twitter make the case for third party validation irresistible.

A further and less-discussed issue persists. Advertisers have always enjoyed the knowledge that they could deliver their communication

to any or all users of a particular medium. Those sellers who are able, will optimize the delivery of advertising, in the particular case of video, to those users with the highest propensity to consume a lot of video advertising. The reasoning is straightforward: why try and show ads to people unlikely to consume them? This is the "user experience" argument. The commercial argument is that yields are reduced if ads are skipped before any given payment threshold is reached. This represents a pair of entirely logical arguments but it does not serve the advertiser if an important consumer cohort is persistently out of reach.

Adblocking

Adblocking remains an issue. Driven by opportunity (why not block ads?), the irresponsible use of invasive ad units and careless use of data, adblocking threatened the digital advertising ecosystem at its core. Perhaps surprisingly the practice appears to have peaked. This stabilization is probably the function of two things; first the increased percentage of ads that are delivered in app environments that are closed to adblocking technology and second, because of better advertising. The latter will be accelerated by the Coalition for Better Ads, a cross industry initiative set up in the US in September 2016. Its purpose is summarized in its charter:

- **Create consumer-based, data-driven standards** that participants in the advertising and media ecosystem can utilize that improve the consumer advertising experience. The standards will be developed with participation and input from across the multitude of geographies, stakeholders and participants in the advertising ecosystem, including publishers, advertisers, agencies, and buy-side and sell-side technology providers. It is expected that the standards will continue to evolve with the online ecosystem and consumers' evolving preferences.
- In conjunction with the IAB Tech Lab, **develop and deploy technology to implement these standards.**
- **Encourage awareness of those standards and tools among consumers and businesses** in order to ensure wide uptake and elicit feedback.

What is the immediate and longer term economic value of the ad blockers that do persist, and how does that translate into lost opportunity for the advertiser?

Encouraging as this is, a piece of analysis remains undone. What is the immediate and longer term economic value of the ad blockers that do persist, and how does that translate into lost opportunity for the advertiser?

PRIVACY: UNINTENDED CONSEQUENCES?

PRIVACY

2016 may have been a quiet time for data privacy related to targeting and data collection, but it was an alarming year for the theft of personal information through data breaches.

In aggregate, the number of records stolen adds up to no less than half of all of the internet users in the world. The one theft alone, announced by Yahoo in December, equaled more than a billion records. As much as this data does not account for duplication (the same person's data may have been stolen twice) these are staggering numbers.

In addition, it's entirely feasible for us to suspect that the bad news generated by lax data security in companies storing first party data, has made the call for the regulation of data collected for marketing purposes more urgent.

While on the face of it, these hacks have nothing to do with advertising data (there is little incentive to steal pseudonymous log files) they do try the patience of a weary public, who associate all types of data collection with something that could imperil their internet security.

Next time we ask internet users to share some of their data with us, as we may have to in the near future, we could hardly blame them for turning us down.

In addition, it's entirely feasible for us to suspect that the bad news generated by lax data security in companies storing first party data, has made the call for the regulation of data collected for marketing purposes more urgent.

In December, there was a leaked document from the European Commission's ePrivacy directive, which alarmed companies collecting and using third party data. The concern was justified when the formal release was published in January with few significant changes.

In simple terms, the draft regulation prevents companies from using an individual's data unless they have direct consent from the consumer. This includes most types of data (including cookies) used for targeting. Almost everything that invisibly follows a user across the web will have to make itself known to individuals and ask for express permission to collect data.

The proposal takes a very restrictive approach towards third party data-driven business services providers. In our data fuelled economy, the ability to collect and process data responsibly and legally represents a key competitive advantage. By essentially changing the current data practice from an opt-out to an opt-in model, the ePrivacy draft risks discriminating against third party data collectors like marketers, agencies and data brokers (where risks of data breaches are extremely low) while all but ignoring the data collection practices of the first party data collectors who are exempt because users have to agree to their data terms as part of accessing the service.

If the proposal is to be translated into law as it stands, "walled data gardens" would be further emboldened and competition could be even

more distorted. Marketers, their agencies and other third party data-driven business-to-business providers would be disadvantaged and obliged to work with a limited number of dominant companies capable of circumventing limitations imposed by the law.

The ePrivacy directive threatens to move the whole digital dynamic away from third parties and force advertising and technology companies to leverage media owners' direct relationships with their readers and viewers or form relationships of their own through acquisitions or other means.

If promulgated, this could be effective from May 2018. Violators risk massive fines, up to 4% of their global annual turnover.

While this is only a European proposal, it will probably inform marketers' global data collection practices as the common denominator will likely be set by the most restrictive regulation.

The industry will need to work hard to help the EC to understand the unintended consequences of this draft regulation; otherwise, it risks being a disruptive force in audience selection and targeting.

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FAKE NEWS

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In 1807 Thomas Jefferson, then President of the United States wrote "Nothing can now be believed which is seen in a newspaper. Truth itself becomes suspicious by being put into that polluted vehicle." In late 2016, Mark Thompson, the CEO of The New York Times said "Whatever its other cultural and social merits, our digital ecosystem seems to have evolved into a near-perfect environment for fake news to thrive." How times change. Two of the more noted political events of 2016: the UK's vote to leave the European Union and the US's presidential election have given new prominence to the idea of fake news. As the first quote illustrates it's hardly a new phenomenon and far from restricted to these two events. Governments, commercial entities and individuals have long created and disseminated news and opinion that Winston Churchill may have described as "economical with the truth." Today we can add the concept of "alternative facts." So what's new?

Fake news is not a matter of opinion. Something either happened or it did not.

As is often the case in advertising two issues become conflated. Last year it was ad fraud, a criminal issue and viewability, a commercial issue. In 2016, a year of political surprise, the issues of fake news and extremism in the media also became conjoined. The latter is clearly a matter of opinion. A number of advertisers have very publicly withdrawn from Breitbart News Network on the grounds that it supported what has been termed an "alt-right" agenda and that some of its content promoted activity with which they did not want their brands associated. More surprisingly one famous advertiser took similar action with respect to the UK's Daily Mail. The Mail's editorial stance was clearly not aligned with the values of the advertiser.

Fake news is not a matter of opinion. Something either happened or it did not.

Three aspects of the new bout of fake news seem to have excited attention. The first is the role of social and search media and its unintended but inevitable ability to allow fake news to be published, promoted to specific groups and then shared widely. The second is the reporting of fake news by real news outlets. The thesis goes that once an item is reported even as fake a simple screen shot or edit shared through social platforms can use the authentic source as an apparent validation of the fake one. The third and of greatest concern as marketing professionals rather than as citizens is the incentive to create and disseminate fake news. The calculus is simple. Fake news drives traffic, traffic equates to consumer attention, and attention creates advertising revenue. It's a bad thing for sure and compounded by the (political) extremity of the fake.

The response to the fake news crisis has been loud. Google and Facebook do not want to be tarnished with the suggestion that their businesses benefit. Consequently both are rapidly examining the source domains of fake news and attempting to block them from their platforms. In addition they are creating mechanisms for their

respective communities to flag what they believe to be fake in order to suppress them algorithmically. To suppress is not to eliminate. This is an important nuance as truth in news has always been elusive. Neither platform has suggested an approach to the dissemination of fake, questionable or exaggerated news from established sources. Extreme bias creates ratings and sells newspapers and is rewarded by advertising sales. Disappointing as it is, one can only question the potential for the elimination of fake news in a world that seems distressingly comfortable with post-truth politics.

A way of decreasing the incentives to the bad guys is to increase the incentives to the good guys. A simple adjustment in the revenue sharing model would go a long way.

Despite this the economic crisis facing real news is challenging. The world is inevitably diminished if real reporters cannot be on the ground reporting real events with the support of editors and the discipline of fact checking behind them. This speaks to the societal role of advertisers and of the digital platforms that are inexorably increasing their share of the advertising pie. For the former, news needs to be reevaluated as a communication environment; perhaps we should call this “purpose driven media selection?” For the latter it may be appropriate to provide resources in the form of hardware and software to ensure that some costs of news collection are defrayed. The most shared and most monetized stories come from authentic news sources. A way of decreasing the incentives to the bad guys is to increase the incentives to the good guys. A simple adjustment in the revenue sharing model would go a long way. Amidst all this it’s an ill wind that blows nobody any good. The week after the US election saw The New York Times, biggest net subscriber increase ever.

AND FINALLY

A note of thanks to our many collaborators: to the interviewees, to GroupM Futures Director Adam Smith, John Montgomery, J. Walker Smith, Bryan Gildenberg, Mike Bologna, Samantha Kops, Lisa Taormina, Elaine Stroumboulos and David Grabert and to colleagues around the world of GroupM for their contributions great and small. For the reader who got this far, thank you. As ever, we would be delighted to answer your questions and hear your thoughts.

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GroupM is the leading global media investment management group serving as the parent to WPP media agencies including Mindshare, MEC, MediaCom, Maxus, Essence and m/SIX, as well as the programmatic digital media platform, Xaxis, each global operations in their own right with leading market positions. GroupM's primary purpose is to maximize the performance of WPP's media agencies by operating as leader and collaborator in trading, content creation, sports, digital, finance, and proprietary tool development. GroupM's focus is to deliver unrivaled marketplace advantage to its clients, stakeholders and people, and is increasingly working closely for the benefit of clients with WPP's data investment management group, Kantar. Together GroupM and Kantar account for over 50% of WPP's group revenues of more than $20 billion. Discover more about GroupM at www.groupm.com.

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